APPENDIX C
AGENCY COORDINATION CORRESPONDENCE

Years 2004 - 2006

Section 5 - Appendix C - Agency Coordination Correspondence

Note: See Section 5 FEIS Appendix N for Section 106 correspondence

Red text indicates files which may be removed or redacted due to sensitive information

Date	In/Out	Doc. Type	Section	Prepared by		Agencies Participating	Subject	File Name
2004								
4/28/2004	Outgoing	Email	All Sections	Tom Cervone	BLA	USFWS	Pres. on Biological Surveys & Mistnetting in Tier 2	USFWS biol. survey presentation
4/29/2004	General	Meeting Summary	All Sections	Linda Weintraut	Weintraut & Assoc	IDNR	Meeting minutes	IDNR_DHPA Meeting Minutes
5/27/2004	General	Meeting Summary	All Sections		BLA	IDNR	Meeting Minutes for May 27 Meeting w/IDNR Staff	Tier 2 PMC_INDOT_IDNR Meeting_Minutes
7/23/2004	Outgoing	Letter	All Sections	Robert Tally	FHWA	USEPA, USFWS & USACE	Request for becoming a Cooperating Agency	I-69 Cooperating Agencies
7/23/2004	Outgoing	Letter	All Sections	Kent Ahrenholtz	BLA	All Agencies	Tier 2 Agency Kickoff Meeting July 23 Invitation Letter	Agency Kickoff Mtg Invite
7/29/2004	Outgoing	Email	All Sections	Anthony DeSimone	FHWA	USEPA	I-69 Agency Coord. Kickoff Meeting	EPA Invite to Resource Agency mtg
7/30/2004	Incoming	Letter	All Sections	Roger Wiebusch	US Coast Guard	US Coast Guard	Response to Invitation	US Coast Guard comment to invite
8/9/2004	General	Meeting Summary	All Sections	Alice Roberts	Gray & Pape	IDNR	Aug. 8, 2004 Archaeology meeting minutes	Archaeology SOW minutes
8/12/2004	General	Powerpoint	All Sections		BLA	All Agencies	Biological Surveys & Mist Netting for the IN Bat PPT	Tier 2 Biological Surveys & mist netting
8/12/2004	General	Meeting Agenda	All Sections	Kent Ahrenholtz	BLA	All Agencies	Environmental Resource Agency Meeting Agenda	Tier 2_Agency Kickoff Meeting_Agenda
8/12/2004	General	Meeting Summary	All Sections		BLA	All Agencies	Agency Kickoff Meeting Minutes	Resource Agency meeting minutes
8/23/2004	Incoming	Email	All Sections	Wendy Melgin	USEPA	USEPA	Wildlife crossings	EPA on wildlife crossing
8/27/2004	Incoming	Letter	All Sections	Scott Pruitt	USFWS	USFWS	Fall bat surveys	USFWS ltr_IN Bat fall surveys
9/1/2004	Outgoing	Transmittal	All Sections	Daniel Townsend	BLA	IDNR	Transmittal of USGS quadmaps	Trans of quadmaps to IDNR
9/7/2004	General	Meeting Summary	All Sections	Kent Ahrenholtz	BLA	All Agencies	Meeting Minutes for the Environmental Resource Agency Meeting/CD Mtg. info.	Trans of AC Kickoff Meeting Minutes
9/22/2004	General	Letter	All Sections	Kenneth Day	USDA	Hoosier National Forest	Tier 2 EISs	DoAg HNF comments
9/23/2004	Incoming	Letter	All Sections	Kenneth Westlake	USEPA	USEPA	EPA comments on Agency Kickoff Meeting Minutes	USEPA Comments on Agency Kickoff Meeting
10/13/2004	Incoming	Letter	All Sections	Robert Tally	FHWA	USEPA	FHWA response to EPA comments on Kickoff Mtg	FHWA Response to EPA comment to kickoff
11/4/2004	Incoming	Email	All Sections	Andrew Pelloso	IDEM	IDEM	IDEM Response to Initial Water Resources Coord. Email	IDEM Response to water resources coord.
11/8/2004	Incoming	Email	All Sections	Amy Babey	USACE	USACE	USACE Reply to Water Resources Coord. Invitation	USACE response to water resources coord.
11/18/2004	Incoming	Letter	All Sections	John Davis	IDNR	IDNR	IDNR Comments to Kickoff Meeting	IDNR invite response
11/29/2004	Incoming	Email	All Sections	Andy King	USFWS	USFWS	I-69 Communications and Correspondence	USFWS comment on I-69 Communication
12/6/2004	Incoming	Email	All Sections	Jason Randolph	IDEM	IDEM	IDEM Reply to Water Resources Coord. Email	IDEM reply to water resources coord. email
12/10/2004	Outgoing	Email	All Sections	Kent Ahrenholtz	BLA	IDEM, USFWS, EPA, USACE and IDNR	Interagency Water Resource meeting invite	Interagency Water Res. Meeting Invite
12/10/2004	Incoming	Letter	Sections 4 & 5	Scott Pruitt	USFWS	IDNR, USFWS	Winter cave surveys	USFWS on S4&5 winter cave surveys
12/13/2004	Incoming	Letter	All Sections	M. S. Welsh	Crane: U.S.Navy	Crane: U.S.Navy	Thank you for I-69 Presentation & Update	Crane Naval Center
12/14/2004	General	Meeting Agenda	All Sections		BLA	IDEM, USFWS, EPA, USACE and IDNR	Water Resources Meeting Agenda	Interagency Water Res. Meeting Agenda
12/14/2004	General	Meeting Presentation	All Sections		BLA	IDEM, USFWS, EPA, USACE and IDNR	Water Resources Meeting Presentation	Interagency Water Res. Meeting Presentation
12/14/2004	General	Meeting Summary	All Sections		BLA	IDEM, USFWS, EPA, USACE and IDNR	Water Resources Meeting Minutes	Interagency Water Resource Meeting Minutes
8/12/2004	General	Q&A	All Sections		BLA	IDEM, USFWS, EPA, USACE and IDNR	Water Resources Q&A	Interagency Water Resource Q&A
12/22/2004	Incoming	Letter	All Sections	Catherine Garra	USEPA	USEPA, USFWS, USACE, IDNR, IDEM	USEPA input to Water Resources Coord. Team Mtg.	USEPA comments on Water Res. Meeting
12/23/2004	Incoming	Email	All Sections	Jon Eggen	IDNR	IDNR, INDOT, FHWA	Comment on MOU	DNR comment on MOU
12/30/2004	Incoming	Email	All Sections	Andrew King	USFWS	USFWS, INDOT, FHWA	Comments on Wetland/Stream protocols	USFWS Comm on Wetland-Stream Protocols
2005								
1/3/2005	Incoming	Letter	All Sections	Rick Neilson	NRCS	NRCS	FPPA Coordination	NRCS_FPPA Coordination
1/7/2005	Incoming	Email	All Sections	Andy King	USFWS	USFWS	Request for a Meeting	USFWS meeting request
1/10/2005	Incoming	Letter	All Sections	Kenneth Day	USDA/HNF	USDA/HNF	Comments to Formal Agency Coord & Sch. Approach	DoAg HNF comments
1/14/2005	Incoming	Email	All Sections	David Parry	IDEM	IDEM	IDEM Contact For I-69 Wellhead Protection	IDEM wellhead protection contact
1/17/2005	Outgoing	Letter	All Sections	Rusty Yeager	BLA	NRCS	Ltr to NRCS_water resource coord	Ltr to NRCS_water resource coord
1/18/2005	Incoming	Email	Sections 4 & 5	David Parry	IDEM	IDEM	New contact person	IDEM Contact for I-69 Karst Issues
1/18/2005	Outgoing	Email	All Sections	Kia Gillette	BLA	IDEM, USFWS, EPA, USDA, USACE and IDNR	I-69 Interagency Water Resources Team	All Agencies on water resources coord.
1/20/2005	Incoming	Letter	All Sections	John Davis	IDNR	IDNR	IDNR ltr. on review approach	IDNR ltr. on review approach
1/25/2005	Outgoing	Email	All Sections	Carol Hood	BLA	All Agencies	Overall I-69 Agency Coordination Meeting	Resource Agencies Invite to Overall mtg
1/25/2005	Outgoing	Letter	All Sections	Kent Ahrenholtz	BLA	All Agencies	Overall Agency Coord. Meeting Invitation Package	Overall Agency meeting invite pkg
1/27/2005	General	Meeting Summary	All Sections		BLA	USFWS	Meeting Summary	USFWS Meeting Summary
2/15/2005	Outgoing	Meeting Summary	Sections 1, 4, & 5	Linda Weintraut	Weintraut & Assoc	IDNR DHPA	Meeting Summary	IDNR DHPA Meeting Minutes
2/16/2005	Incoming	Letter	All Sections	Martha Clark-Mettler	IDEM	IDEM	IDEM Water Resources Comment Letter	IDEM water resources comment ltr
2/17/2005	Incoming	Email	All Sections	Virginia Laszewski	USEPA	USEPA	Feb. 23-24 - 2nd QUANTUM Training Session	USEPA Overall meeting questions
2/18/2005	General	Meeting Summary	All Sections		BLA	IDEM	Tier 2 IDEM Ofc. Of Land Quality Meeting	IDEM_Ofc. of LandQuality_Meeting
2/21/2005	Outgoing	Agency Update	All Sections		BLA	All Agencies	Agency Update for October '04 to January '05	Oct2004-Jan2005 Monthly AgencyUpdate
2/23/2005	General	Meeting Agenda	All Sections		BLA	All Agencies	Overall Agency Meeting Agenda	Overall Agency Coord. Mtg. agenda

Section 5 - Appendix C - Agency Coordination Correspondence

Note: See Section 5 FEIS Appendix N for Section 106 correspondence

Red text indicates files which may be removed or redacted due to sensitive information

Date	In/Out	Doc. Type	Section	Prepared by		Agencies Participating	Subject	File Name
2/23/2005	General	Meeting Sign in	All Sections		BLA	All Agencies	Overall Agency Meeting Attendees SignIn List	Overall Agency mtg sign in
2/23/2005	General	Meeting Summary	All Sections		BLA	All Agencies	Meeting Summary	Overall Agency Mtg Minutes
2/23/2005	General	Meeting Presentation	All Sections		BLA	All Agecncies	Meeting Presentation	Overall Agency Presentation
2/23/2005	General	Meeting Presentation	Section 5		BLA	All Agencies	Environmental Resource Agency Meeting Section 5 Presentation	Sec 5 Overall Presentation
2/23/2005	General	Meeting Summary	All Sections		BLA	All Agencies	Interagency Water Res. Breakout Session Minutes	Interagency Water Resources Agency Meeting Minutes
2/23/2005	General	Meeting Presentation	Sections 4 & 5		BLA	All Agencies	Karst introduction presentation	Karst Session Introduction Presentation
2/23/2005	General	Meeting Presentation	Sections 4 & 5		BLA	All Agencies	Karst Breakout Session presentation	Sec. 5 Karst Breakout Session Pres.
2/23/2005	General	Meeting Summary	Sections 4 & 5		BLA	All Agencies	Karst Breakout Session minutes	Karst Breakout Session Minutes
3/3/2005	Incoming	Email	All Sections	Virginia Laszewski	USEPA	USEPA	USEPA Air Contacts for Indiana and I-69	USEPA air contacts
3/10/2005	General	Meeting Summary	All Sections		BLA	IDEM	Minutes for IDEM Groundwater Meeting	IDEM Groundwater meeting minutes
3/21/2005	General	Meeting Summary	All Sections		BLA	IDEM & USEPA	CERCLA Sites	IDEM & USEPA Mtg. on CERCLA Sites
3/22/2005	General	Meeting Summary	All Sections	Jeremy Kieffner	BLA	USACE & IDEM	Stream field review mtg notes	Stream field review mtg notes
3/29/2005	Outgoing	Letter	All Sections		BLA		Agency Update for February-March 2005	Agency Update for February
3/30/2005	Outgoing	Email	All Sections	Tom Cervone	BLA	IDNR	IDNR Correspondence	IDNR correspondence
3/31/2005	Incoming	Email	All Sections	Jason Randolph	IDEM	IDEM	Meeting with IDEM on April 14, 2005	IDEM_Randolph April 14th meeting
4/8/2005	Outgoing	Letter	Sections 4 & 5	Scott Pruitt	USFWS	USFWS	S4&5 USFWS presurvey site auth.	S4&5 USFWS presurvey site auth.
4/11/2005	Incoming	Email	All Sections	Doug Wolf	IDNR	IDNR	I-69 Division of Soil Conservation Recommendations	DNR Comments on Overall Mtg
4/14/2005	General	Meeting Summary	All Sections		BLA	IDEM	IDEM Meeting Minutes_result of Feb. 2005 letter	IDEM Water Resource Meeting Minutes
4/19/2005	Outgoing	Email	All Sections	Tom Cervone	BLA	IDEM, IDNR	QHEI/HHEI Training	Email to IDEM on QHEI & HHEI Training
4/19/2005	Incoming	Email	All Sections	Jason Randolph	IDEM	IDEM	QHEI/HHEI Training	IDEM QHEI Training
4/20/2005	Outgoing	Letter	All Sections	Kent Ahrenholtz	BLA	IDNR	IDNR_water resources coord	IDNR_water resources coord
4/25/2005	Outgoing	Email	All Sections	Carol Hood	BLA	All Agencies	Invite to INWRAP Training	INWRAP Training Invitation
4/29/2005	Outgoing	Email	All Sections	Kia Gillette	BLA	All Agencies	Water Resources Guidance to be provided to Sections	Water Resource Guidance to Agencies
5/3/2005	Incoming	Email	All Sections	Matthew Baller	IDEM	IDEM	I-69 Wells and WHPAs zipfile	IDEM wells & wellhead info
5/4/2005	Outgoing	Email	All Sections	Tom Cervone	BLA	USFWS	Water Resources Coordination and Biological Surveys	Water Resources Coord.
5/4/2005	General	Meeting Summary	All Sections	Henry Nodarse	BLA	IDNR	IDNR Coordination Meeting #1	IDNR Coord. Mtg #1 minutes
5/12/2005	Outgoing	Email	All Sections	Jim Gulick	BLA	IDNR	I-69 Coordination with IDNR - Division of Water	IDNR meeting held May 4th&minutes
5/13/2005	Outgoing	Transmittal	All Sections	Jason DuPont	BLA	IDEM	Confidentiality Agreements/Wellhead Protection Areas	Trans of confidentiality agreements to IDEM
5/25/2005	General	Meeting Summary	All Sections		BLA	IDNR	Meeting Summary	IDNR_DHPA Meeting Minutes_all sections
6/2/2005	Incoming	Email	All Sections	Andy King	USFWS	USFWS	I-69 Overall Agency Coordination Meeting Minutes	FWS comments to Feb.23 mtg. minutes
6/3/2005	Outgoing	Email	All Sections	Tom Cervone	BLA	USFWS	I-69 Overall Agency Coordination Meeting Minutes	USFWS fieldstudy work
6/6/2005	Outgoing	Email	All Sections	Carol Hood	BLA	All Agencies	Invite to QHEI/HHEI Training	Agency & EEAC Invite to QHEI_HHEI Training
6/6/2005	Incoming	Letter	All Sections	Scott Pruitt	USFWS	USFWS	USFWS comments to proposed Water Res. Guidance	USFWS comments to Water Res. Guide
6/8/2005	General	Meeting Summary	All Sections	Henry Nodarse	BLA	IDNR	IDNR Coordination Meeting #2	IDNR Coord. mtg minutes
6/16/2005	Outgoing	Email	All Sections	Nicole Minton	BLA	USFWS	Transmittal of CAC Summaries & Agency updates	CAC Summaries & Agency updates
6/22/2005	General	Meeting Agenda	All Sections		BLA	IDNR	Agenda for Forest Resources Meeting	IDNR Forestry Meeting Agenda
6/22/2005	General	Meeting Summary	All Sections		BLA	IDNR	Forest Resources Meeting Minutes	IDNR Forestry Meeting Minutes
6/24/2005	General	Meeting Agenda	All Sections		BLA	USFWS	Meeting Agenda	USFWS Meeting Agenda
7/1/2005	General	Meeting Agenda	All Sections		BLA	USFWS	Meeting Agenda	USFWS Meeting Agenda
7/1/2005	General	Meeting Summary	All Sections		BLA	USFWS	Meeting Minutes	USFWS Meeting Minutes
7/6/2005	General	Transmittal	All Sections	Neal Schroeder	BLA	USFWS	USFWS trans from BLA on IN Bat survey map&CD	USFWS trans of IN Bat survey map&CD
7/21/2005	Outgoing	Letter	All Sections	Kent Ahrenholtz	BLA	All Agencies	Training	Water Resource Team letter
8/9/2005	Outgoing	Letter	Sections 4 & 5	Jason DuPont	BLA	IDNR		S4&5 IDNR corridor map ltr.
8/12/2005	General	Meeting Summary	All Sections		BLA	USFWS	Meeting Minutes	USFWS meeting summary
8/22/2005	General	Meeting Summary	All Sections		BLA	USFWS	Discuss BA	Summary of Meeting with USFWS
8/26/2005	General	Meeting Summary	All Sections		BLA	USFWS	Meeting Minutes	Summary of Meeting with USFWS
9/7/2005	Incoming	Letter	All Sections	Elana Cass	NRCS	NRCS	FOIA request	NRCS_PMC FOIA request
9/7/2005	Outgoing	Email	Sections 4-6	Jeremy Kieffner	BLA	IDEM, USACE	Wetland Field Reviews	S4-6 IDEM & USACE wetland field reviews
9/12/2005	General	Meeting Summary	All Sections		BLA	USFWS	Meeting minutes	USFWS Meeting Summary
9/23/2005	General	Meeting Summary	All Sections		BLA	USFWS	Meeting minutes	USFWS meeting minutes
9/30/2005	Outgoing	Email	All Sections	Jeremy Kieffner	BLA	IDEM & USACE	I-69 Wetland and Stream Field Reviews	IDEM & USACE Post-Field Reviews
10/3/2005	General	Meeting Summary	All Sections			USFWS	Summary of Meeting with USFWS on 10/3/05	Summary of Meeting w/USFWS

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Date	In/Out	Doc. Type	Section	Prepared by		Agencies Participating	Subject	File Name
10/7/2005	General	Meeting Summary	All Sections			USFWS	Summary of Meeting with USFWS on 10/7/05	Summary of Meeting w/USFWS
10/14/2005	Outgoing	Letter	All Sections	Robert Tally	FHWA	USEPA	Meeting Confirmation with EPA for 10/28/05	USEPA 102805 mtg. confirmation
10/14/2005	General	Meeting Summary	All Sections		BLA	USFWS	Meeting Minutes	Summary of Meeting with USFWS
10/17/2005	Outgoing	Letter	All Sections		BLA	All Agencies	Agency Update for Summer 2005	All Agencies Summer 2005 Agency Update
10/19/2005	Outgoing	Email	All Sections	Jeremy Kieffner	BLA	IDNR	Questions from IDNR - Matt Buffington	IDNR Buffington Questions
10/19/2005	Outgoing	Email	All Sections	Tony DeSimone	FHWA	USEPA	USEPA 102805 mtg. pre-discuss	USEPA 102805 mtg. pre-discuss
10/24/2005	Outgoing	Email	All Sections	Jeremy Kieffner	BLA	IDNR	Wetland and Stream Technical Report Outlines, Site Forms and InWRAP Summary	IDNR Wetland & Stream Tech.
10/24/2005	Outgoing	Email	All Sections	Jeremy Kieffner	BLA	IDNR	Additional DNR comments for InWRAP	IDNR_PMC Answers to questions
10/24/2005	Outgoing	Email	All Sections	Jeremy Kieffner	BLA	IDNR	DNR Q & Responses to Stream and Wetland Guidance	IDNR Q&A_PMC response
10/28/2005	General	Meeting Agenda	All Sections		BLA	USEPA	Meeting Agenda	I-69 Toll Meeting wUSEPA_Agenda
10/28/2005	General	Meeting Summary	All Sections		BLA	USEPA	USEPA Meeting Minutes	I-69 Toll Meeting Minutes
10/28/2005	General	Meeting Presentation	All Sections		BLA	USEPA	Meeting Presentation	I-69 Toll Meeting wEPA_Presentation
10/28/2005	General	Meeting Summary	All Sections		BLA	USACE, IDEM	Meeting minutes	S4 USACE IDEM Wetland Field Review Minutes
10/31/2005	Outgoing	Letter	All Sections	Robert Tally	FHWA	USFWS	Letter to USFWS Regarding Meeting on 11/14/05	USFWS 111405 meeting
11/1/2005	Incoming	Letter	All Sections	Catherine Garra	USEPA	USEPA	EPA Comments on Stream Wetland Technical Report	USEPA comments to Stream & Wetland Tech
11/4/2005	Outgoing	Email	All Sections	Tom Cervone	BLA	IDNR	INDOT's Comments on IDNR Contract	INDOTs comments on IDNR contract
11/7/2005	Outgoing	Email	All Sections	Anthony DeSimone	FHWA	USFWS	Agenda for Meeting with INDOT/FHWA/USFWS	USFWS 111405 mtg. agenda
11/8/2005	General	Meeting Agenda	All Sections	Tom Cervone	BLA	IDNR	Agenda for 11/8/05 Meeting with Katie Smith	Agenda for IDNR Katie Smith
11/10/2005	General	Meeting Agenda	All Sections		BLA	USACE	Meeting Agenda	I-69 Toll Meeting wUSACE_Agenda
11/10/2005	General	Meeting Presentation	All Sections		BLA	USACE	Meeting Presentation	I-69 Toll Meeting wUSACE_Presentation
11/11.05	Incoming	Letter	Section 5	Kent Ahrenholtz	BLA	USFWS	Requesting comments on Purpose & Need and Preliminary Alternatives Package for Section 5	Section 5 P&N Agency Letters
11/14/2005	General	Meeting Agenda	All Sections		BLA	USFWS	Meeting Agenda	I-69 Toll Meeting wUSFWS_Agenda
11/14/2005	General	Meeting Presentation	All Sections		BLA	USFWS	Meeting Presentation	I-69 Toll Meeting wUSFWS_Presentation
11/16/2005	Outgoing	Email	All Sections	Carol Hood	BLA	IDEM	Scheduling an I-69 Meeting with INDOT Commissioner Sharp and IDEM Commissioner Easterly	IDEM scheduling meeting
11/17/2005	Outgoing	Email	All Sections	Carol Hood	BLA	IDNR	Scheduling an I-69 Meeting with INDOT Commissioner Sharp & IDNR Director Hupfer	IDNR potential meeting
11/17/2005	Outgoing	Email	All Sections	Carol Hood	BLA	IDEM	Scheduling an I-69 Meeting with INDOT Commissioner Sharp and IDEM Commissioner Easterly	IDEM potential meeting in Dec. 2005
11/17/2005	Incoming	Email	All Sections	Virginia Laszewski	USEPA	USEPA	EPA Consultation Packages	USEPA email on Consultation Pkgs
11/17/2005	Outgoing	Email	All Sections	Anthony DeSimone	FHWA	USEPA	FHWA response to EPA Consultation Packages request	USEPA_FHWA reply on consultation packages
11/18/2005	Incoming	Letter	Sections 5 and 6	Alysson Oliger	IDNR	IDNR	Comments on Sections 5 and 6 P&N	IDNR comments on Sections 5 and 6 P&N
11/18/2005	Outgoing	Email	All Sections	Carol Hood	BLA	IDNR	Scheduling an I-69 Mtg. with INDOT Commissioner Sharp & IDNR Director Hupfer - Confirmation	IDNR meeting confirmation
11/21/2005	Outgoing	Email	All Sections	Carol Hood	BLA	IDNR	Scheduling an I-69 Meeting with INDOT Commissioner Sharp & IDNR Director Hupfer - Confirmation	IDNR mtg. confirmation
11/21/2005	Incoming	Email	All Sections	Christie Stanifer	IDNR	IDNR	Scheduling an I-69 Meeting with INDOT Commissioner Sharp and IDNR Commissioner Hupfer	INDOT & IDNR Mtg
11/22/2005	Incoming	Email	All Sections	Virginia Laszewski	USEPA	USEPA	Followup to 10/25/05 Meeting	USEPA mtg. followup
11/28/2005	Incoming	Email	All Sections	Carolyn Koontz	IDEM	IDEM	I-69 Meeting with Commissioner Easterly and Commissioner Sharp: Dec. 16	IDEM & INDOT mtg.
11/30/2005	Incoming	Email	All Sections	Andrew Pelloso	IDEM	IDEM	I-69 Agency Update for Summer 2005	IDEM distribution update
11/30/2005	Outgoing	Email	All Sections	Anthony DeSimone	FHWA	USEPA, USFWS & USACE	FHWA's Answers to I-69 Tier 2 - FHWA/INDOT's "Streamlined EIS Procedures" Questions from EPA	FHWA response to EPA EIS procedures question
12/1/2005	Outgoing	Meeting Agenda	All Sections	Alice Roberts	Gray & Pape	IDNR	12/1/05 DHPA Meeting Agenda	DHPA Archaeology meeting agenda
12/1/2005	General	Meeting Summary	All Sections	Alice Roberts	Gray & Pape	IDNR	12/1/05 DHPA Meeting Minutes	DHPA meeting minutes
12/1/2005	Outgoing	Letter	All Sections	Kent Ahrenholtz	BLA	IDNR	Invitation Letter to Director Hupfer for 12/16/05	Mtg. Invitation Letter to IDNR
12/2/2005	Outgoing	Email	All Sections	Carol Hood	BLA	IDNR	Formal Invitation: I-69 Meeting with INDOT Commissioner Sharp & IDNR Director Hupfer	IDNR formal invitation
12/2/2005	Outgoing	Email	All Sections	Carol Hood	BLA	IDEM	Formal Invitation: I-69 Meeting with IDEM Commissioner Easterly and INDOT Commissioner Sharp	IDEM Invitation Letter
12/8/2005	Outgoing	Email	Sections 5 and 6	Carol Hood	BLA	All Agencies	Invite for Webcast and Conference Call for Sections 5 and 6 P&N	All agencies webcast meeting for Sections 5 and 6 P&N
12/9/2005	Incoming	Email	Section 5	Virginia Laszewski	EPA	All Agencies	Section 5 Purpose & Need	S5&6 Agency Coord Webcast RSVP EPA RSVP
12/9/2005	Incoming	Email	Section 5	Andy King	USFWS	All Agencies	Section 5 Purpose & Need	S5&6 Agency Coord Webcast RSVP FWS RSVP
12/14/2005	Outgoing	Meeting Summary	Sections 5 & 6	Carol Hood	BLA	INDOT, FHWA, USEAP, USFWS	Sections 5 & 6 Purpose & Need Meeting	Agency Coordinating Meeting Minutes

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Date	In/Out	Doc. Type	Section	Prepared by		Agencies Participating	Subject	File Name
12/16/2005	General	Meeting Summary	All Sections			IDEM	Agency Meeting Minutes	I-69 Toll Meeting wIDEM Meeting Minutes
12/16/2005	General	Meeting Summary	All Sections			IDNR	Agency Meeting Minutes	I-69 Toll Meeting wIDNR Meeting Minutes
12/16/2005	General	Meeting Agenda	All Sections		BLA	IDNR	Meeting Agenda	I-69 Toll Meeting wIDNR_Agenda
12/16/2005	General	Meeting Presentation	All Sections		BLA	IDNR	Meeting Presentation	I-69 Toll Meeting wIDNR_Presentation
12/16/2005	General	Meeting Agenda	All Sections		BLA	IDEM	Meeting Agenda	I-69 Toll Meeting wIDEM_Agenda
12/16/2005	General	Meeting Presentation	All Sections		BLA	IDEM	Meeting Presentation	I-69 Toll Meeting wIDEM_Presentation
12/22/2005	Incoming	Fax	All Sections	Mitch Marcus	IDNR	IDNR	IDNR County Classified Wildlife Habitat Areas	IDNR Co Classified Wildlife Habitat Areas
2006								
1/6/2006	General	Meeting Summary	All Sections		BLA	USFWS	Meeting Minutes	Summary of Meeting with USFWS
1/10/2006	Incoming	Letter	Section 5	James Lowe	USDA	USDA	Comments on Section 5 Purpose & Need	DoAG comments on Section 5 Purpose & Need
1/31/2006	Outgoing	Letter	Sections 4 & 5	Robert Tally	FHWA	USEPA	Karst info	USEPA requested karst info
2/10/2006	Outgoing	Email	All Sections	Jeremy Kieffner	BLA	USACE	I-69 Permit Process	USACE potential mtg
2/13/2006	Outgoing	Email	All Sections	Tom Cervone	BLA	USFWS	Pre-consultation Agreement, USFWS Position	Section 7 Consult.
2/13/2006	Incoming	Email	All Sections	Andy King	USFWS	USFWS	Patoka River Parcels and I-69 Pre-consult Agreement	USFWS Sec. 7 Consult. update
2/13/2006	Incoming	Letter	All Sections	Kenneth Westlake	USEPA	USEPA	Comments on Section 1 Prelim. Alternatives Analysis	USEPA comments to Sec. 1 Screening
2/17/2006	Incoming	Letter	Section 5	Jon Eggen	IDNR		Comments on Section 5 Purpose & Need	IDNR on Section 5 P&N Statement
2/17/2006	Incoming	Email	All Sections	JSmith/KBrudis/et al	BLA	IDNR/SHPO	IDNR/SHPO Proposal	IDNR_SHPO Proposal
2/23/2006	Incoming	Email	All Sections	Anthony DeSimone	FHWA	USEPA	EPA reponse to John Smith	USEPA reponse to Jon Smith
3/2/2006	Outgoing	Email	All Sections	Anthony DeSimone	FHWA	USEPA	Tolling - Alternatives Reevaluation Documentation	USEPA reevaluation report
3/7/2006	Incoming	Email	All Sections	Andy King	USFWS	USFWS	Tier 1 Biological Assessment Delivery to USFWS	USFWS Tier 1 BA delivery
3/7/2006	Outgoing	Letter	All Sections	Robert Tally	FHWA	USFWS	USFWS Sec. 7 Reinitiation Letter	USFWS Sec. 7 Reinitiation Letter
3/14/2006	Outgoing	Email	All Sections	Jeremy Kieffner	BLA	USACE	Potential I-69 Permit Process Meeting	USACE potential permit mtg
3/17/2006	Outgoing	Email	All Sections	Jeremy Kieffner	BLA	USACE	Tentative Agenda for the USACE Meeting	USACE potential mtg. agenda
3/21/2006	Outgoing	Email	All Sections	Anthony DeSimone	FHWA	USEPA	Status of the I-69 Tier 2 Studies	USEPA_status of T2 studies
3/22/2006	Outgoing	Email	All Sections	Jeremy Kieffner	BLA	USACE	I-69 USACE Section 404 Permit Meeting Confirmation	USACE mtg. date confirmation
4/12/2006	General	Meeting Agenda	All Sections		BLA	USACE	USACE potential Permit Meeting Agenda	USACE Permit Meeting Agenda
4/12/2006	General	Meeting Summary	All Sections		BLA	USACE	Meeting Summary	USACE Permit Meeting Minutes
4/16/2006	General	Meeting Summary	All Sections		BLA	IDNR	Meeting Summary	IDNR Meeting Minutes
4/19/2006	Outgoing	Email	All Sections	Jeremy Kieffner	BLA	USACE	Email sending Draft meeting summary	USACE Permit Meeting Minutes
4/20/2006	Outgoing	Email	All Sections	Jeremy Kieffner	BLA	IDEM	Potential Water Quality Certification Process Meeting	IDEM potential water quality mtg.
4/20/2006	Incoming	Email	All Sections	Jon Eggen	IDNR	IDNR	Potential IDNR Constr in a Floodway Permit Mtg	IDNR potential permit mtg
5/1/2006	Outgoing	Email	All Sections	Jeremy Kieffner	BLA	IDNR	IDNR potential mtg.	IDNR potential mtg date
5/4/2006	Outgoing	Email	All Sections	Jeremy Kieffner	BLA	IDEM	I-69 PMT Meeting Confirmation	IDNR meeting confirmation
5/4/2006	Outgoing	Email	All Sections	Jeremy Kieffner	BLA	IDNR	Meeting Confirmation with IDNR for 5/23/06	IDEM mtg. confirmation
5/9/2006	Outgoing	Email	All Sections	Jeremy Kieffner	BLA	IDNR	PMT Meeting with IDNR to Discuss Floodway Permitting and Wildlife Impacts	IDNR wildlife discuss. @ meeting
5/18/2006	General	Meeting Agenda	All Sections	Jeremy Kieffner	BLA	IDNR	Agenda for PMT Meeting with IDNR Staff	IDNR May 23 mtg. agenda
5/18/2006	General	Meeting Agenda	All Sections	Jeremy Kieffner	BLA	IDEM	Agenda for PMT Meeting with IDEM on 5/23/06	IDEM May 23 mtg. agenda
5/22/2006	Outgoing	Letter	All Sections	Tom Cervone	BLA	IDEM	Formal Request for IDEM Information on Streams Crossed by the I-69 Preferred Alternative 3C Corridor	Request for IDEM Info. on Streams
5/22/2006	Outgoing	Letter	All Sections	Tom Cervone	BLA	IDNR	Formal Request for IDNR Information on Streams Crossed by the I-69 Preferred Alternative 3C Corridor	Request for IDNR info. on Streams
5/23/2006	General	Meeting Agenda	All Sections		BLA	IDEM	Meeting Agenda	IDEM Permit Meeting Agenda
5/23/2006	General	Meeting Summary	All Sections		BLA	IDEM	Permit Meeting Minutes	IDEM Permit Meeting Minutes
5/23/2006	General	Meeting Agenda	All Sections		BLA	IDNR	Meeting Agenda	IDNR Permit Meeting Agenda
5/23/2006	General	Meeting Summary	All Sections		BLA	IDNR	IDNR Permit Meeting Minutes 05_23_06	IDNR Permit Meeting Minutes
5/23/2006	Outgoing	Transmittal	All Sections	Jeremy Kieffner	BLA	USFWS	Transmittal of Biological Surveys	Trans of Tier 2 BiologicalSurveyReports
5/31/2006	Outgoing	Email	All Sections	Anthony DeSimone	FHWA	USEPA	Potential I-69 Meeting with EPA	USEPA potential mtg
6/8/2006	Outgoing	Email	All Sections	Anthony DeSimone	FHWA	USEPA	I-69 Meeting with EPA - July 7th	USEPA July 7th mtg.
6/9/2006	Outgoing	Letter	All Sections	Tom Cervone	BLA	USFWS	Stream crossing list	Letter to USFWS on 3C stream xing list
6/15/2006	Outgoing	Letter	All Sections	Robert Tally	FHWA	USFWS	Status of Formal Consultation	USFWS status of formal consultation
6/27/2006	Outgoing	Email	All Sections	Carol Hood	BLA	All Agencies	I-69 Overall Agency Coord Mtg Pre-Invitations	All Agencies pre-invite to Aug. Overall Mtg
6/28/2006	Outgoing	Email	All Sections	Anthony DeSimone	FHWA	USEPA	EPA Funding Agreement/Potential Agenda	USEPA potential agenda & funding agreement
6/28/2006	Outgoing	Letter	All Sections	Robert Tally	FHWA	USEPA	July 7, 2006 EPA Reevaluation Meeting Confirmation	FHWA ltr to EPA on July 7 T1Reeval mtg

Section 5 - Appendix C - Agency Coordination Correspondence

Note: See Section 5 FEIS Appendix N for Section 106 correspondence

Red text indicates files which may be removed or redacted due to sensitive information

Date	In/Out	Doc. Type	Section	Prepared by		Agencies Participating	Subject	File Name
6/29/2006	Incoming	Email	All Sections	Virginia Laszewski	USEPA	USEPA	EPA Comment on Draft Mtg Agenda for July 7 mtg	USEPA draft mtg. agenda comment
6/29/2006	Outgoing	Email	All Sections	Anthony DeSimone	FHWA	USEPA	FHWA Answers to Agenda Comments	USEPA_FHWA answers to agenda comments
6/29/2006	Incoming	Email	All Sections	Virginia Laszewski	USEPA	USEPA	Potential Attendees for 8/1-2 FHWA Draft Meeting	USEPA poss. 8-1 attendees to Overall Meeting
7/6/2006	Outgoing	Letter	All Sections	Kent Ahrenholtz	BLA	All Agencies	Overall Agency Coord. Meeting invite package	Overall Agency Coord. Mtg Invite Pkg.
7/7/2006	General	Meeting Agenda	All Sections		BLA	USEPA	I-69 Tier 1 Reevaluation Meeting w/USEPA Agenda	Tier 1 Reeval Meeting wUSEPA_Agenda
7/7/2006	General	Meeting Summary	All Sections		BLA	USEPA	T1 Reevaluation Meeting w/USEPA Meeting Minutes	USEPA Agency Mtg_T1 Reeval._Minutes
7/7/2006	General	Meeting Presentation	All Sections		BLA	USEPA	Meeting Presentation	Tier 1 Reeval Meeting Pres wUSEPA
7/13/2006	Outgoing	Email	All Sections	Carol Hood	BLA	USFWS	T1 Reevaluation Meeting with USFWS Tent. Agenda	USFWS T1 Reeval. mtg. tent. agenda
7/17/2006	General	Meeting Summary	All Sections		BLA	USFWS	Meeting Minutes	T1 Reeval. Meeting Minutes wUSFWS
7/19/2006	Outgoing	Transmittal	Sections 4 & 5	Tom Cervone	BLA	FHWA, USEPA, USFWS	Sec. 4 & 5 Draft Karst reports	S4 & S5 karst trans to FHWA for EPA & USFWS
7/19/2006	Outgoing	Transmittal	Sections 4 & 5	Tom Cervone	BLA	INDOT, IDNR, IDEM	Sec. 4 & 5 Draft Karst reports	S4 & S5 karst trans to INDOT for IDNR & IDEM
7/20/2006	Outgoing	Letter	Sections 4 & 5	Robert Tally	FHWA	USEPA	Draft karst reports	USEPA draft karst rpts. Submittal from FHWA
7/21/2006	Incoming	Email	All Sections	Pierce, Welch, Simpson	State Rep/Senator		Comments on Tier 1 Re-evaluation Report	T1 Reeval Comments by State Reps & Senator
7/21/2006	Outgoing	Letter	All Sections	Robert Tally	FHWA	USEPA	USEPA Funding Agreement	FHWA to USEPA on Funding Agreement
7/21/2006	Outgoing	Letter	All Sections	Bharat Mathur	USEPA	USEPA	Comments on Tier 1 Re-evaluation Report	USEPA_T1 Reeval. comment
7/25/2006	Incoming	Letter	All Sections	Willie R. Taylor	DOI	USDOI	Comments on Tier 1 Re-evaluation Report	Interior Dept_T1 Reeval. comment
7/27/2006	Incoming	Letter	All Sections	Jason Randolph	IDEM	IDEM	Comments on Tier 1 Re-evaluation Report	IDEM_T1 Reeval. comment
8/1/2006	Outgoing	Letter	All Sections		INDOT/FHWA	All Agencies	Proposed Cum. Impact Analysis for Studies in T2 EISs	All Agencies cumulative memo
8/1/2006	General	RSVP List	All Sections		BLA	All Agencies	RSVP list	Overall Agency Mtg. RSVP List for Aug.1-2
8/1/2006	General	Meeting Sign in	All Sections		BLA	All Agencies	OverallAgency Coord. meeting Sign-in Sheet_080106	Overall Agency Mtg. Sign-in Sheet
8/1/2006	General	Meeting Agenda	All Sections		BLA	All Agencies	Overall Agency Coord. Meeting Agenda	Overall Agency Mtg. Agenda
8/1/2006	General	Meeting Summary	All Sections		BLA	All Agencies	Overall Agency Coord. Meeting Minutes	Overall Agency Mtg. Minutes
8/1/2006	General	Meeting Presentation	All Sections		BLA	All Agencies	Cumulative Impact Presentation	Overall Agency Mtg. Cumulative Impact Pres.
8/1/2006	General	Meeting Presentation	All Sections		BLA	All Agencies	Morning Presentation	Overall Agency Mtg. Morning Session Pres.
8/1/2006	General	Meeting Presentation	All Sections		BLA	All Agencies	Water Resources Presentation	Overall Agency Mtg. Water Resources Pres.
8/1/2006	General	Meeting Presentation	All Sections		BLA	All Agencies	Sec. 5 Karst Presentation	Overall Agency Mtg. Section 5 Karst Pres.
8/2/2006	General	Sign In	Sections 4-6		BLA	All Agencies	Bus Tour sign in	Aug. 2 Agency Coord. Mtg. Tour sign-in
8/2/2006	General	RSVP List	Sections 4-6		BLA	All Agencies	RSVP list	Overall Agency RSVP List for Bus Tour
8/2/2006	General	Itinerary	Sections 4-6		BLA	All Agencies	Tour itinerary	Overall Agency S4-6 Bus Tour Itinerary
8/2/2006	Incoming	Letter	All Sections	Roger Wiebusch	U.S. Coast Guard	U. S. Coast Guard	Comments on Tier 1 Re-evaluation Report	Coast Guard_T1 Reeval. comment
8/11/2006	Incoming	Email	Section 5	Matt Buffington	IDNR	IDNR	Comments on Section 5 Karst Report	IDNR comments on Section 5 Karst Report
8/24/2006	Incoming	Letter/Report	All Sections	Scott Pruitt	USFWS	USFWS	USFWS Revised Biological Opinion_082406	USFWS Revised Biological Opinion
8/31/2006	Incoming	Letter	All Sections	Kenneth Westlake	USEPA	USEPA	Proposed Cumulative Impact Analysis	USEPA response on cumulative impacts
9/11/2006	General	Meeting Summary	All Sections	Jason DuPont	BLA	IDNR	Forestry meeting minutes	IDNR Forestry Meeting Minutes
9/14/2006	Outgoing	Email	All Sections	Jeremy Kieffner	BLA	EPA, USFWS, IDNR, IDEM & USACE	Identification of Env Sensitive Resources Areas	Env. Sensitive Waters Areas
9/14/2006	General	Email/Mtg. Summary	All Sections	Carol Hood	BLA	All Resource Agencies	Email Attach: Overall Agency Coord. Meeting Minutes	Overall Agency minutes & attach.
9/14/2006	Outgoing	Email	All Sections	Carol Hood	BLA	All Resource Agencies	Email Attachment: FHWA Interagency Survey	Interagency meeting survey_provided by FHWA
9/22/2006	Outgoing	Letter	Sections 4 & 5	Robert Tally	FHWA	USFWS	Delivery of karst reports	FHWA to USFWS on delivery of karst rpts.
9/27/2006	General	Meeting Summary	All Sections	Jason DuPont	BLA	IDNR	Email sending September 11 Meeting Minutes	IDNR Forestry Meeting Minutes email
9/29/2006	Incoming	Email	All Sections	Catherine Garra	USEPA	USEPA	Response to Env. Sensitive Waters Areas	USEPA reply to Water Resource
10/18/2006	Incoming	Letter	Sections 4-6	Jane Hardisty	NRCS	NRCS	Farmland conversion	S4-6 NRCS on farmland conversion
10/19/2006	Incoming	Email	All Sections	Pam Louks	IDNR	IDNR	IDNR comments on Sept. 11, 2006 Meeting minutes	IDNR response to Sept. 11 mtg. minutes
10/31/2006	Outgoing	Letter	Sections 4 & 5	Tom Seeman	INDOT	USEPA	Interagency agreement on karst specialist	Trans of EPA & INDOT Interagency agreement
11/22/2006	Outgoing	Letter	All Sections	Tom Sharp	INDOT	INDOT, FHWA	INDOT Re-evaluation withdrawal	INDOT Re-evaluation Withdrawal
12/1/2006	Outgoing	Letter	All Sections	Robert Tally	FHWA	INDOT, FHWA	FHWA acceptance of withdrawal	FHWA acceptance of Withdrawal
12/7/2006	Incoming	Letter	Sections 4 & 5	Scott Pruitt	USFWS	USFWS	Karst report comments	USFWS comments to Sec. 4 & 5 karst
2007								
1/8/2007	Outgoing	Memo	All Sections	BLA	BLA	USEPA	Cumulative Impacts Guidance Final Memo	Cumulative Impacts Guidance Final Memo
1/10/2007	General	Meeting Summary	All Sections		BLA	USFWS	Meeting Minutes	USFWS_Action Items Conf. Call minutes
1/16/2007	Incoming	Email	Sections 4 & 5	Scott Johanson	IDEM	USEPA, USFWS	Comments on karst reports	IDEM comments on Sec. 4&5 karst report
1/17/2007	Outgoing	Email	All Sections	Jeremy Kieffner	BLA	IDNR	IDNR SR 68 Stream Impact Discussion_011707	IDNR SR 68 Stream Impact Discussion
1/18/2007	Outgoing	Email	All Sections	Jeremy Kieffner	BLA	USFWS, IDNR, IDEM, USACE, USEPA	Invitation of Feb. 9 Mitigation & Permit Mtg.	Agencies_ Feb. 9 Mitigation & Permitting Mtg
1/18/2007	Outgoing	Email	All Sections	Jeremy Kieffner	BLA	USFWS, IDNR, IDEM, USACE, USEPA	Feb. 9 Mitigation & Permitting Meeting confirmation	Agency Mitigation & Permit Meeting Confirm

Section 5 - Appendix C - Agency Coordination Correspondence

Note: See Section 5 FEIS Appendix N for Section 106 correspondence

Red text indicates files which may be removed or redacted due to sensitive information

Date	In/Out	Doc. Type	Section	Prepared by		Agencies Participating	Subject	File Name
1/25/2007	Outgoing	Email	All Sections	Carol Hood	BLA	All Agencies	Pre-Meeting Invitation via email	Pre invite to 3-1 Overall Ag Coord. Meeting
1/26/2007	Outgoing	Letter	All Sections	Karl Browning	INDOT	INDOT, FHWA	INDOT responses to re-evaluation comments	INDOT Responses to Re-evaluation Comments
1/29/2007	Outgoing	Email	All Sections	Jeremy Kieffner	BLA	USFWS, IDNR, IDEM, USACE, USEPA	Feb. 9 Mitigation & Permitting Meeting	Update on Feb. 9 Mitigation & Permitting Mtg.
1/29/2007	Incoming	Email	All Sections	Dan Ernst	IDNR	IDNR	New Reviewer for Div. of Forestry	New Env. Review Contact
1/29/2007	Outgoing	Letter	All Sections	Kent Ahrenholtz	BLA	All Agencies	Mar. 1 Overall Agency Coord Meeting Invitation Pkg	Overall Agency Coord. Meeting Invite Pkg.
1/30/2007	Incoming	Email	All Sections	Jason Randolph	IDEM	IDEM	Reply to Feb. 9 meeting invitation	IDEM reply to 2-9 Mit & Permit mtg email
2/8/2007	Outgoing	Email	All Sections	Jeremy Kieffner	BLA	USFWS, IDNR, IDEM, USACE, USEPA	Agenda & Directions to Feb. 9 meeting	Agenda & directions for 2-9 Mitig. & Permit mtg.
2/8/2007	Incoming	Email	All Sections	Virginia Laszewski	USEPA	USFWS, IDNR, IDEM, USACE, USEPA	Reply to Feb. 9 mtg. agenda	USEPA email reply on Feb. 9 Mtg. Agenda
2/9/2007	General	Meeting Agenda	All Sections		BLA	USFWS, IDNR, IDEM, USACE, USEPA	Meeting Agenda	Mit. & Permit Meeting Agenda
2/9/2007	General	Meeting Presentation	All Sections	Jeremy Kieffner	BLA	USFWS, IDNR, IDEM, USACE, USEPA	Feb. 9 meeting presentation	Agency Mitigation & Permitting Meeting Pres.
2/9/2007	General	Meeting Summary	All Sections		BLA	USFWS, IDNR, IDEM, USACE, USEPA	Minutes for Feb. 9 meeting	Mitigation & Permitting Meeting Minutes
2/12/2007	Outgoing	Letter	All Sections	Robert Tally	FHWA	INDOT, FHWA	FHWA determination of no SEIS	FHWA determination of no SEIS
2/13/2007	Outgoing	Email	All Sections	Carol Hood	BLA	All Agencies	Mar. 1 Overall Agency Coordination Meeting	Email to Agencies on Mar. 1 Overall Agency Mtg.
2/20/2007	Incoming	Letter	All Sections	Kenneth Westlake	USEPA	USEPA	Comments to Section 1 DEIS	USEPA Section 1 DEIS comments
3/1/2007	General	Meeting Agenda	All Sections	Carol Hood	BLA	All Agencies	Mar. 1 Overall Agency Coord. Mtg. Agenda	Overall AgencyCoord_Agenda
3/1/2007	General	Meeting Summary	All Sections	Carol Hood	BLA	All Agencies	Mar. 1 Overall Agency Coord. Mtg. Minutes	Overall_AgencyCoord_Mtg_Minutes
3/1/2007	General	Meeting Summary	All Sections	Dean Munn	BLA	USEPA, IDEM	Interagency Consultation Meeting Summary	Interagency Consultation meeting notes
3/9/2007	Outgoing	Transmittal	All Sections	Carol Hood	BLA	USEPA	Transmittal of Tier 1 CDs for karst reviewer	Tier 1 CDs for karst reviewer
3/15/2007	General	Meeting Agenda	All Sections		BLA	USFWS	Meeting Agenda	USFWS Meeting Agenda
3/15/2007	General	Meeting Summary	All Sections		BLA	USFWS	Meeting Minutes	USFWS Meeting Minutes
3/19/2007	General	Meeting Summary	All Sections		BLA	USFWS	Meeting Summary	USFWS Meeting Summary
3/27/2007	Outgoing	Email	All Sections	Jason DuPont	BLA	IDNR	IDNR Meeting Confirmation/Coordination	IDNR Coord. Mtg. Topics
4/10/2007	Outgoing	Letter	All Sections	Robert Tally	FHWA	USEPA	FHWA & USFWS Notice of Limits on Claims	FHWA & FWS Notice of Limits
4/16/2007	General	Meeting Agenda	All Sections		BLA	IDNR	Meeting Agenda	IDNR Coordination Meeting Agenda
4/16/2007	General	Meeting Summary	All Sections		BLA	IDNR	Meeting Minutes	IDNR Coordination Meeting Minutes
4/30/2007	Outgoing	Report	All Sections		BLA	USFWS	Annual Section 7 Report	2006 Annual Sec. 7 Consultation Report to USFWS
5/18/2007	Outgoing	Letter	All Sections	Scott Pruitt	USFWS	USFWS	Modified Section 7 Coord. Approach	USFWS change ltr to FHWA re Tier 2 BOs
5/25/2007	Outgoing	Letter	Section 5	Kent Ahrenholtz	BLA	USFWS	Preliminary Alternatives Analysis and Screening Package for Section 5	Section 5 Agency Coordination Package
6/7/2007	Outgoing	Email	Section 5	Carol Hood	BLA	All Agencies	Invite for Webcast and Conference Call for Section 5 Screening of Alternatives	Section 5 Alt Screening Meeting Invite
6/14/2007	General	Meeting Agenda	Sections 1-4	Dean Munn	BLA	EPA & IDEM	Agenda for Air Quality Conformity Meeting	Interagency AQ Conf Consult Agenda
6/14/2007	General	Meeting Summary	Sections 1-4	Dean Munn	BLA	EPA & IDEM	Air Quality Conformity Meeting	Interagency AQ Conf Consult mtg notes
6/21/2007	Outgoing	Email	All Sections	Jason DuPont	BLA	IDNR	Permits within 5 miles of corridor	IDNR_PMC email on new permits
6/21/2007	Incoming	Email	All Sections	George Morris	IDNR	IDNR	No permits withing 5 miles of corridor	IDNR update on permits in I-69 corridor
6/25/2007	Incoming	Letter	Section 5	Robert Maydwell	NPS	NPS	Comments on the preliminary alternatives analysis and screening package for Section 5	NPS comments on Section 5 Alts. Screening Package
6/26/2007	General	Meeting Agenda	Sections 4 & 5		BLA	USEPA	Meeting Agenda	S4 & 5 USEPA Karst Review Meeting Agenda
6/26/2007	General	Sign In	Sections 4 & 5		BLA	USEPA	Meeting sign in sheet	S4&5 Karst Mtg Sign-in
6/26/2007	General	Meeting Presentation	Sections 4 & 5		BLA	USEPA	S5 Karst Presentation	S5 Karst Presentation
6/26/2007	General	Meeting Presentation	Sections 4 & 5		BLA	USEPA	Sec. 4 & 5 Karst intro presentation	S4&5 EPA Karst Intro Presentation
6/26/2007	General	Meeting Summary	Sections 4 & 5		BLA	USEPA	Karst meeting summary	Karst Review EPA Meeting Minutes
7/3/2007	General	Meeting Summary	Section 5		BLA	All agencies	Section 5 Alternatives Screening Package	Section 5 Alt Screening Meeting Minutes
7/3/2007	General	Meeting Presentation	Section 5		BLA	All agencies	Section 5 Alternatives Screening Package	Section 5 Alt Screening Meeting Presentation
7/6/2007	Outgoing	Email	All Sections	Jason DuPont	BLA	USFWS	Scheduling conf. call to disc. questions	Conf. call to disc. questions
7/13/2007	Incoming	Memo	All Sections	Kenneth Westlake	USEPA	USEPA	EPA on "Comments & Responses" (CR) Document	Comments to CR Document
7/23/2007	Incoming	Letter	Section 5	Matt Buffington	IDNR	IDNR	IDNR comments on the preliminary alternatives analysis and screening package for Section 5	IDNR comments on Section 5 Alts. Screening Package
7/26/2007	Incoming	Email	Section 5		USFWS	USFWS	USFWS comments on the preliminary alternatives analysis and screening package for Section 5	USFWS comments on Section 5 Alts. Screening Package
8/2/2007	Incoming	Letter	Section 5	Kenneth Westlake	USEPA	USEPA	USEPA comments on the preliminary alternatives analysis and screening package for Section 5	USEPA comments on Section 5 Alts. Screening Package
8/3/2007	Incoming	Letter	Sections 4 & 5	Kenneth Westlake	USEPA	USEPA	Comments on karst reports	USEPA Comments on S4 & 5 Draft Karst Report
9/11/2007	Incoming	Letter	Section 5	Mary Jo Hamman	INDOT	IDNR	Requesting LWCF determination	Section 5 letter to IDNR on LWCF properties
9/14/2007	Incoming	Letter	Section 5	Susan Ostby	IDNR	IDNR	Responding to LWCF determination	IDNR responds to Section 5 LWCF Inquiry

Section 5 - Appendix C - Agency Coordination Correspondence

Note: See Section 5 FEIS Appendix N for Section 106 correspondence

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Date	In/Out	Doc. Type	Section	Prepared by		Agencies Participating	Subject	File Name
9/20/2007	Incoming	Email	All Sections	Amy Babey	USACE	All Agencies	New Corps of Engineers I-69 Project Manager	New USACE I-69 Contact
10/1/2007	Outgoing	Email	Section 5	Carol Hood	BLA	All Agencies	5 Agency Coordination Meeting	Section 5 Agency Coordination Screening Minutes
10/30/2007	Outgoing	Email	All Sections	Matt Riehle	BLA	IDNR	Active Coal Mine Permit Areas	Req to IDNR on Active Coal Mine Permit Areas
12/5/2007	General	Meeting Summary	All Sections		BLA	USFWS	USFWS_Meeting_Minutes	Meeting Minutes
12/21/2007	Outgoing	Transmittal	All Sections	Kia Gillette	BLA	USFWS	Transmittal of cave recon report	Cave Recon. for IN Bat
2008								
2/4/2008	Outgoing	Email	All Sections	Jason DuPont	BLA	Resource Agencies	I-69 Mitigation Tracking	I-69 Mitigation Tracking System
2/15/2008	Incoming	Email/Letter	Section 1-6	Andy King	USFWS	All Agencies	New Tree clearing Guidelines	USFWS New IN Bat tree clear guidelines
3/6/2008	Incoming	Email	Section 1-6	Virginia Laszewski	USEPA	Resource Agencies	Comments on Mitigation Tracking	USEPA comments on Mitigation Tracking
3/6/2008	Incoming	Email	Secton 2-6	Anthony DeSimone	FHWA	USEPA	Update DEIS and FEIS Schedules for Sections 2 - 6	USEPA email on schedule for Sec. 2-6
4/18/2008	Outgoing	Letter	Sections 4 & 5	Robert Tally	INDOT	USEPA	Karst comments	FHWA to USEPA on S4&5 karst comments
6/27/2008	Outgoing	Letter	Sections 4 & 5	Kenneth Westlake	USEPA	USEPA	Karst comments	S4-5 EPA response to draft karst
7/9/2008	General	Meeting Summary	All Sections	Jason DuPont	BLA	USFWS, INDOT, FHWA	Bat Meeting Minutes	USFWS_Bat_Meeting_Minutes
8/7/2008	Outgoing	Email	All Sections	Jason DuPont	BLA	IDNR	IDNR State Forest Information	IDNR Forestry Information
8/19/2008	General	Meeting Agenda	All Sections	Jason DuPont	BLA	USFWS, IDNR, IDEM, USACE, USEPA, NRCS	Interagency Water Resource Team Mtg Agenda	Interagency Meeting Agenda
8/19/2008	General	Meeting Sign in	All Sections		BLA	USFWS, IDNR, IDEM, USACE, USEPA, NRCS	Interagency Water Resource Team Mtg Sign in	Interagency Meeting Sign In
8/19/2008	General	Meeting Summary	All Sections	Jason DuPont	BLA	USFWS, IDNR, IDEM, USACE, USEPA, NRCS	Interagency Water Resource Team Mtg Minutes	Interagency Meeting Minutes
9/4/2008	Outgoing	Email	All Sections	Jason DuPont	BLA	IDNR	State Forest 5-year F&W Operational Guidance	State Forest 5 year F&W Oper. Guide
9/9/2008	Incoming	Email	All Sections	Carl Hauser	IDNR	IDNR	No available tract management guides	IDNR on State Forest 5 yr. F&W Oper. Guides
9/9/2008	Outgoing	Email	All Sections	Jason DuPont	BLA	IDNR	Reply on State Forest 5 yr Guidance	Reply on State Forest 5 yr Guide
2009								
1/12/2009	General	Meeting Agenda	All Sections	Jason DuPont	BLA	USFWS, INDOT, FHWA	Coordination Meeting Agenda	USFWS Meeting Agenda
1/12/2009	General	Meeting Summary	All Sections	Jason DuPont	BLA	USFWS, INDOT, FHWA	Coordination Meeting Minutes	USFWS Meeting Minutes
1/29/2009	Incoming	Letter	All Sections	Jane Hardisty	NRCS	NRCS	Req. to use FOTG to review and plan mitigation	NRCS on mitig. projects
2/12/2009	General	Meeting Summary	All Sections		BLA	IDNR, INDOT	Box turtle meeting minutes - final	S2-4 Box Turtle Mtg Final Minutes
3/5/2009	Outgoing	Email	All Sections	Jason DuPont	BLA	All Agencies	Req. to see copy of cave biology video	EPA on showing video April 30
3/5/2009	Incoming	Letter	Section 5	Scott Pruitt	USFWS	USFWS	Discussing proposed purchased of flood damaged parcels in Section 5	S5 USFWS Proposed Purchase of Flood Damaged Parcels
3/31/2009	Outgoing	Letter	All Sections		BLA	All Agencies	Meeting packet for Overall Agency meeting	Invitation Pkg. to agencies_final
4/20/2009	Incoming	Email	All Sections	Katie Smith	IDNR	IDNR, INDOT	TAC Chairman's response re: box turtles	DNR_I-69 and eastern box turtles
4/30/2009	General	Meeting Sign in	Section 2-6		BLA	All Agencies, INDOT, FHWA	OverallAgency Coord. meeting Sign-in Sheet	Overall Agency Sign In Sheets
4/30/2009	General	Meeting Agenda	Section 2-6		BLA	All Agencies, INDOT, FHWA	Overall Agency Meeting Agenda	Overall Agency Meeting Agenda
4/30/2009	General	Meeting Summary	Section 2-6		BLA	All Agencies, INDOT, FHWA	Overall Agency Meeting Summary	Overall Agency Mtg Minutes
4/30/2009	General	Presentation	Section 2-6		BLA	All Agencies, INDOT, FHWA	Morning Presentation	Overall Agency Morning Presentation
4/30/2009	General	Presentation	Section 2-6		BLA	All Agencies, INDOT, FHWA	Afternoon Presentation	Overall Agency Afternoon Presentation
4/30/2009	General	Meeting Handout	Section 2-6		BLA	All Agencies, INDOT, FHWA	CPP Overall Agency Handout	CPP Overall Agency Handout
4/30/2009	General	Meeting Handout	Section 2-6		BLA	All Agencies, INDOT, FHWA	CPP Overall Agency Handout	CPP Overall Agency Handout2
5/12/2009	Outgoing	Email	All Sections	Jason DuPont	BLA	USACE, INDOT	Draft MBI comments	RE_I-69 Draft MBI Comments
5/12/2009	Outgoing	Email	All Sections	Jason DuPont	BLA	USFWS	Bald eagle permit info	FWS RE_Bald eagle permit
5/19/2009	Incoming	Email	All Sections	Josh Mott	INDOT	IDNR, INDOT	Box turtle discussion info	RE_I-69 Tier 2 Overall Agency Coord Mtg
5/20/2009	General	Meeting Summary	All Sections	Jason DuPont	BLA	IDNR, INDOT	Mitigation & Box turtle meeting minutes	S1-4 Mitigation & Box Turtle Mtg Minutes
6/1/2009	Outgoing	Email	All Sections	Jennie Jackson	BLA	All Agencies, INDOT, FHWA	Email sending Overall Agency mtg minutes	Overall Agency Meeting Minutes email
6/4/2009	Incoming	Letter	All Sections	Andrea Kirk	USFWS	USFWS	Bald eagle Section 7 info	USFWS on Bald Eagle Sec. 7
2010								
1/7/2010	Incoming	Email	All Sections	Jason DuPont	BLA	USFWS	Migratory Bird Treaty Act coordination	I-69 MBTA Coordination with FWS
1/19/2010	General	Conversation Log	All Sections	Matt Riehle	BLA	IDNR	Emerald Ash Borer measures	IDNR Emerald Ash Borer measures
2/23/2010	Outgoing	Meeting Summary	Sections 2-6		BLA	USFWS	Meeting minutes	USFWS Meeting Minutes
2011								
4/12/2011	Incoming	Letter	All Sections	Scott Pruitt	USFWS	USFWS	Sec. 7 Reinitiation	USFWS Sec. 7 Reinitiation Ltr
8/29/2011	Incoming	Letter	Section 5	Scott Pruitt	USFWS	USFWS	Mist Netting	USFWS ltr re: Mist Netting
2012								
2/29/2012	Outgoing	Meeting Summary	Sections 4 & 5		BLA	USFWS	Sections 4 & 5	Sections 4 & 5 USFWS Meeting Minutes
4/20/2012	Outgoing	Meeting Summary	Section 5			All Agencies	Section 5 Webinar to discuss Preliminary Screening and Analysis of Alternatives	Resource Agency Webinar

Section 5 - Appendix C - Agency Coordination Correspondence

Note: See Section 5 FEIS Appendix N for Section 106 correspondence

Red text indicates files which may be removed or redacted due to sensitive information

Date	In/Out	Doc. Type	Section	Prepared by		Agencies Participating	Subject	File Name
5/1/2012	Incoming	Email	Section 5	Ronald Hellmich	IDNR	IDNR Nature Preserves	Provided GIS data for ETR species documented within 0.5 mile of S5	IDNR_Natural Heritage Database Request Email
7/24-25/2012	Outgoing	Meeting Summary	Section 5	Tom Cervone	BLA	All Agencies, INDOT, FHWA	Mitigation Site Field Meeting	DRAFT Agency Minutes for 2 Day Tour Sec 5 Mit Sites
9/13/2012	Incoming	Letter	Section 5	Kenneth Westlake	USEPA	All Agencies	Comments on Section 5 Agency Tour regarding potential mitigation sites	USEPA Comments on S5 Tour
9/13/2012	Incoming	Letter	Section 5	Scott Pruitt	USFWS	USFWS	Comments on Section 5 Mitigation Sites	S5 USFWS Mitigation Tour Comments Letter
11/27/2012	Incoming	Email	Section 5	Scott Johanson	IDEM	IDEM	Comments on Section 5 Karst Report	IDEM S5 Karst Report Comments Email
12/21/2012	Incoming	Email	Section 5	Jim Allen	IDNR	IDNR Division of Forestry	Comments on Section 5 DEIS	IDNR DOF S5 DEIS Comments Website Contact Form Submission
2013								
1/2/2013	Incoming	Letter	Section 5	Lindy Nelson	DOI	DOI, FHWA	Comments on Section 5 DEIS	DOI S5 DEIS Comments Letter
1/2/2013	Incoming	Letter	Section 5	Kenneth Westlake	USEPA	EPA, FHWA, INDOT	Comments on Section 5 DEIS	EPA S5 DEIS Comments Letter
1/2/2013	Incoming	Letter	Section 5	Christie Stanifer	IDNR	IDNR Division of Fish & Wildlife	Comments on Section 5 DEIS	S5 IDNR DFW DEIS Comments Letter
1/2/2013	Incoming	Email	Section 5	Christie Stanifer	IDNR	IDNR Division of Fish & Wildlife	Comments on Section 5 DEIS	S5 IDNR DFW DEIS Comments Website Contact Form Submission
1/2/2013	Incoming	Letter	Section 5	Ron McAhron	IDNR	IDNR Division of Historic Preservation & Archaeology	Comments on Section 5 DEIS	SHPO S5 DEIS Comments Letter
1/3/2013	Incoming	Email	Section 5	Lindy Nelson	DOI	DOI, INDOT	Comments on Section 5 DEIS	DOI S5 DEIS Comments Email
1/11/2013	Incoming	Letter	Section 5	Mary Hollingsworth	IDEM	IDEM, INDOT	Comments on Section 5 DEIS	IDEM S5 DEIS Comments Letter
1/23/2013	Incoming	Email	Section 5	Julie Kemph	IDNR	IDNR Division of Fish & Wildlife	Inquiry about funds used for Morgan-Monroe SF	IDNR_PR or DJ Funds Email
1/29/2013	General	Meeting Summary	Section 5	Jeremy Kieffner	BLA	USACE & IDEM	Juisdictional Status of Water Resources	I-69 Section 5 Jurisdictional Stream Meeting Minutes
2/25/2013	Outgoing	Email	Section 5	Michelle Allen	FHWA	All Agencies	Invite for Section 5 DEIS Comments Conference Call	FHWA S5 DEIS Comments Conference Call Email
2/26/2013	Outgoing	Email	Section 5	Sandra Flum	INDOT	All Agencies	Invite for Section 5 DEIS Comments Conference Call	INDOT S5 DEIS Comments Conference Call Email
3/4/2013	General	Meeting Summary	Section 5	Kia Gillette	BLA	IDEM, USEPA, INDOT	Section 5 Superfund Sites	S5 Superfund Site Meeting Minutes
3/4/2013	Outgoing	Meeting Invitation	Section 5	Sandra Flum	INDOT	All Agencies	Meeting Invitation and Comments/Responses to Section 5 DEIS	Invite to March 12 Agency Coordination Mtg
3/8/2013	Incoming	Letter	Section 5	Chad Slider	IDNR	IDNR, INDOT	Comments on Section 5 DEIS	SHPO S5 DEIS Comments Feedback Letter
3/12/2013	General	Meeting Summary	Section 5			All Agencies	S5 DEIS Resource Agency Meeting	Resource Agency Webinar Meeting Minutes
3/12/2013	General	Meeting Presentation	Section 5			All Agencies	S5 DEIS Resource Agency Meeting	S5 DEIS Comments Agency Meeting Presentation
3/15/2013	Incoming	Email	Section 5	Sandra Flum	INDOT	All Agencies	S5 DEIS Resource Agency Meeting Meeting Minutes and Presentation Submittal	INDOT S5 DEIS Comments Conference Call Email
3/19/2013	Incoming	Letter	Section 5	Kenneth Westlake	USEPA	USEPA, FHWA, INDOT	Comments on Section 5 DEIS Agency Comment Responses	EPA S5 DEIS Response Letter
6/24/2013	Outgoing	Meeting Summary	Section 5	Kia Gillette	BLA	USFWS, FHWA, INDOT	Section 7 Consultation Meeting	I-69 Section 7 Consultation Meeting Minutes_redacted

APPENDIX C
AGENCY COORDINATION CORRESPONDENCE

2004 Agency Coordination
2005 Agency Coordination
2006 Agency Coordination
2007 Agency Coordination
2008 Agency Coordination
2009 Agency Coordination
2010 Agency Coordination
2011 Agency Coordination
2012 Agency Coordination
2013 Agency Coordination

Carol Hood

From: tcervone@blainc.com
Sent: Wednesday, April 28, 2004 7:56 PM
To: Andrew_King@fws.gov; Bill_McCoy@fws.gov
Subject: Fwd: RE: Presentation (DRAFT) on Biological Surveys and MistNetting in Tier 2 Studies

Dear Andy and Bill,

Attached is a Power Point presentation for a discussion on Biological Surveys and Mist Netting for the Indiana bat. I will be meeting with IDNR at 1PM tomorrow and present such information. If you should have any comments, please provide.

Thanks
Tom

April 29, 2004
Meeting re: I-69 Tier 1Mitigation

Attendees:

Frank Hurdis, Division of Historic Preservation & Archaeology
Karie Brudis, Division of Historic Preservation & Archaeology/ State Historic Preservation Office
John Carr, Division of Historic Preservation & Archaeology/ State Historic Preservation Office
Stephen Kennedy, Division of Historic Preservation & Archaeology
Mary Crowe, Indiana Department of Transportation
Thomas Cervone, Bernardin Lochmueller & Associates
Kent Ahrenholtz, Bernardin Lochmueller & Associates
Linda Weintraut, Weintraut & Associates

The purpose of the meeting was to discuss the timing and the execution of one commitment in the Tier 1 Memorandum of Agreement (MOA): interim reports for Gibson, Pike, Daviess, Martin, Monroe, Morgan, Johnson, and Warrick counties and for the portion of Marion County that includes Decatur, Perry and Franklin Townships.

Frank Hurdis began by expressing a desire to have a funded position at the DHPA; this position would oversee the survey and publishing of the interim reports. He would like to see the surveys subcontracted to various historians.

It was discussed that the surveying of these counties needed to proceed forward within the framework of I 69 Tier 2 activities to ensure timeliness and consistency of identification and evaluation efforts for Section 106. Weintraut expressed concern that historians would be spread too thin if surveying occurred simultaneously for Section 106 and for the countywide interim reports. Therefore, from a project management standpoint, Weintraut would like for surveying not to begin until Section 106 is finished in a particular county.

Kent Ahrenholtz provided an overview of the role of the PMC in both mitigation and Tier 2 activities. Some aspects of mitigation still need to be worked out. For example, while the MOA made a commitment to funding the interim reports, the source of that funding needs to be identified and the role of the PMC in oversight of the interim reports needs to be defined in the coming weeks.

Weintraut asked if the DHPA would be interested in integrating the data from the GIS project for southwestern Indiana into the surveying process. It may save money in the long run and make use of existing data. Brudis said that she would think about how the database could be integrated into the report format.

Hurdis asked that the survey form from their office be used in Tier 2 identification and that their office be given a copy of the form.

Cervone expressed appreciation for the relationship established in Tier 1 with the SHPO and hope that that the relationship will continue through Tier 2. It is the job of the PMC to make the SHPO's job of evaluating reports for Tier 2 as easy as possible.

Brudis asked if it would be possible to begin surveying as soon as the Section 106 work for each section has been completed. Abstract timelines were discussed for initiating the surveys.

Issues to be investigated further:

1-Funding
2-Timeline for the survey
3-Execution of the survey

The DHPA staff agreed to think about the information given; the PMC agreed to talk with INDOT about the requests and to investigate the funding aspect. Timelines for the individual sections are presently being developed and will be available in 1-2 weeks.

A second meeting will be held to discuss the issues listed above in order to begin formalizing a plan to execute this commitment of the Tier 1 MOA. No date was set for that meeting.

Meeting Minutes

Bernardin Lochmueller & Assoc., INDOT, IDNR

Thursday, May 27, 2004, 1:30 p.m. – 3:30 p.m. CDT

Attendees:	
Kent Ahrenholtz – BLA, Project Manager	Lyle Sadler – INDOT
Janice Osadczuk - INDOT	Vaneeta Kumar - INDOT
Harry Nikides – DNR, Soil Conservation	Randy Braun – DNR , Soil Conservation
Bill James – DNR, Fish & Widelife	Emily Kress – DNR, Outdoor Recreation
Mike Martin – DNR, Outdoor Recreation/GIS	George Bowman – DNR – Water
Jack McGriffin – DNR, Reclamation	Mary Estrada – DNR, Oil & Gas
Jim AmRhien – DNR, Oil & Gas	John Goss – DNR, Director
Christie Kiefer – DNR, Fish & Wildlife	Laura Minzes – DNR, Museums & Historic Sites
John M. Davis – DNR, Deputy	Cloyce L Hedge – DNR, Nature Preserves
Glen Salmon – DNR, Fish & Wildlife	Katie Smith – DNR, Fish & Wildlife Endangered Species
Jon Smith – DNR, Historic Preservation	Linda Weintraut – Weintraut & Associations, Section 106 Consultant
Tom Cervone – BLA, Environmental	Neal Schroeder – BLA, GIS
Cindy Staples - BLA	Paul Ehret – DNR, Deputy

- Introductions
- DNR requested the meeting to let INDOT and the Project Management Consultant (PMC) know that they can provide input early on in this process so that the best interstate possible will be built.
- DNR wants I-69 to be the best interstate ever built and wants it to be used as the example in other projects such as this.
- DNR would like I-69 to be a "green parkway" versus a commercial interstate highway. They want I-69 to be the model for interstate of the future.
- DNR would like to offer assistance with land acquisition for mitigation purposes. For example, they have knowledge of coal mining land that may become available soon in the southern part of the corridor.
- Tom Cervone, BLA, thanked DNR for their support during Tier 1 and their continued support and knowledge sharing during the Tier 2 process.
- DNR would like to know how road runoff would be handled, especially in the Karst areas.
- DNR would like consideration of extending land acquisition and constraint of access along cross roads at certain interchanges to inhibit development at those locations and subsequently secondary and cumulative impacts of I-69.
- I-69 is anticipated to have 2 pairs of Rest Areas as part of the project.
- Informed DNR that a Context Sensitive Design (CSD) approach for Tier 2 was committed to be utilized in the Tier 1 Record of Decision. Kent Ahrenholtz described how CSD is expected to be undertaken in Tier 2, and some of the specific design features that may be utilized.
- Informed DNR that the use of Quantm, a route optimization system, will be utilized for the sections on new location.
- Informed DNR on the formation of the Technical Coordination teams and how they will be utilized. DNR requested to participate in these teams, as they are formed.
- DNR discussed the possibility of pedestrian and/or bicycle areas along I-69.

These meeting minutes represent my understanding of the events that occurred. Please forward any comments or revisions to my attention, Cindy Staples.

July 23, 2004

«FirstName» «LastName»
«TitleLocation»
«Agency»
«Address»
«Address2»
«City», «State» «Zip_Code»

Re: **I-69 Tier 2 Studies, Evansville to Indianapolis**
Kick-off Meeting for the Environmental Review Agencies

Dear «FirstName» «LastName»:

On behalf of the Indiana Department of Transportation (INDOT) and Indiana Division of the Federal Highway Administration (FHWA), we are respectfully requesting that you and/or a representative from your agency attend the Kickoff Environmental Resource Agency Meeting scheduled for the I-69 Tier 2 Studies from Evansville to Indianapolis on Thursday, August 12th, in the Indiana Government Center South Building in Training Room #5. The meeting time is scheduled for 10:00 a.m. to 4:00 p.m. and lunch will be provided. An agenda for the meeting is attached.

We are requesting your agency's input and comments on the scope and direction of the six Tier 2 Environmental Impact Statements (EISs) for the six Tier 2 Sections as identified in the I-69 Evansville to Indianapolis Tier 1 Record of Decision. We respectfully ask that you provide us with your written comments by September 23, 2004, to ensure that timely progress continues on this important project.

This meeting is the first in what is expected to be a series of environmental resource agency meetings planned for the I-69 Tier 2 studies. The purpose of the meeting is to provide you with an overview of the environmental, planning and engineering information related to the overall I-69 project. INDOT has assembled a team of consultants to perform the six studies. These include a Project Management Consultant (PMC), Bernardin, Lochmueller & Associates, which is responsible for overall coordination, and six Environmental and Engineering Assessment Consultants (EEACs), each of which is responsible for a single Tier 2 Section. The Tier 2 studies are currently in the initial data gathering and public outreach phase. The process of alternative development will be starting soon. We would appreciate your input into this process.

During development of these EISs, comments will be solicited from appropriate federal, state and local agencies, as well as other interested persons and the general public, in accordance with requirements set forth in the National Environmental Policy Act (NEPA) of 1969. The FHWA is partnering with INDOT in these efforts. These studies will include a scoping process for early identification of potential natural and man-made environmental issues, alternatives and impacts related to the I-69 Corridor. We firmly believe that early identification of issues or concerns will assist us in developing project alternatives to avoid or minimize impacts. Therefore, we ask that you identify specific issues or concerns of your agency that could affect the development of the project.

As you can see from the agenda, this meeting will have both morning and afternoon sessions. The meeting will include opportunities for both formal and informal interaction among the participants to learn more about the project. We will also be providing an opportunity for more in-depth discussion of specific issues, using a "trade-fair" format. This opportunity will utilize separate tables with

information on various topics including Section 7 Consultation (Indiana Bat), Water Quality and Karst Surveys, Section 106 (Historic and Archaeological Resources), Wetlands and Streams, Public Information and the Quantm Route Optimization System, as well as tables for each of the six sections along the project.

During the morning session, there will be a short presentation on The Process – The Team – The Environmental Coordination – Purpose & Need/Alternatives – Public Involvement – Proposed Schedule/Timeframes. We will spend a part of the morning soliciting comments, feedback, and suggestions from the agencies on the overall process. A buffet lunch will be provided and opportunities to eat and visit the various staff members in the booths for information and contacts will be offered.

During the afternoon session, each of the six project managers from the EEACs will present information about their particular sections. Again, there will be an interactive session of input and feedback with the agencies. We anticipate approximately 20 minutes per section and an hour for additional questions and comments. The meeting will conclude at approximately 4:00 p.m.

We have enclosed the following project information to assist in your review:

- Environmental Resource Agency Meeting Agenda
- Return Postcard for Meeting and Comments
- Project Brochure for each of the six sections of I-69

We will be forwarding to you additional information, including, a white paper on key tiering issues and maps of the Project Study Area, prior to the August 12th meeting. This information is intended to further assist you in providing comments to us about the project. We request that comments be provided via a letter for the proposed project. In addition, please forward the information provided to you to any local and/or regional offices of your agency that may have comments or data concerning the project.

We appreciate any input that you can provide concerning this project. Please direct any comments, questions or requests for additional information to either Kent Ahrenholtz or Tom Cervone of Bernardin, Lochmueller & Associates at 800/423-7411 or at kahrenholtz@blainc.com or tcervone@blainc.com. Please address all written correspondence to Kent Ahrenholtz, P.E., Project Manager, Bernardin, Lochmueller & Associates, 6200 Vogel Road, Evansville, IN 47715. Thank you and we look forward to your participation in this meeting.

Sincerely,
Bernardin, Lochmueller & Associates, Inc.

Kent Ahrenholtz, P.E.
Project Manager

Enclosures

Cc: T. DeSimone (FHWA)
J. Osadczuk (INDOT)
L. Sadler (INDOT)
W. Malley (Akin Gump)

U.S. Department
of Transportation
**Federal Highway
Administration**

Indiana Division

575 North Pennsylvania Street, Room 254
Indianapolis, Indiana 46204

RECEIVED
JUL 26 2004
BLA

July 23, 2004
HDA-IN

Mr. Kenneth A. Westlake, Chief
Environmental Planning and Evaluation Branch
US Environmental Protection Agency Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

Subject: I-69 Tier 2 EISs, Evansville to Indianapolis
Request for USEPA to become a Cooperating Agency

Dear Mr. Westlake:

In accordance with 40 CFR 1501.6, the Federal Highway Administration (FHWA) hereby requests the U.S. Environmental Protection Agency (USEPA) to consider becoming a cooperating agency on any or all of the six (6) Tier 2 Environmental Impact Statements (EISs) for I-69 between Evansville and Indianapolis. The USEPA possesses special expertise with respect to environmental issues that will be addressed in the EISs for these projects. Please respond in writing to FHWA at your earliest convenience regarding this request.

Please visit the website www.I69indyevn.org for further information on the six sections to help you make your determination. Also, under separate letter, you will soon be receiving an invitation to the initial resource agency scoping meeting for these EISs. This letter will also provide additional information that may assist in your decision.

If you need additional information regarding this request, please contact Tony DeSimone by phone (317) 226-5307 or by e-mail at anthony.desimone@fhwa.dot.gov.

Sincerely yours,

Robert F. Tally, Jr., P.E.
Division Administrator

cc:
Mr. Lyle Sadler, INDOT
Mr. Kent Ahrenholtz, BLA

U.S. Department
of Transportation
**Federal Highway
Administration**

Indiana Division

575 North Pennsylvania Street, Room 254
Indianapolis, Indiana 46204

July 23, 2004
HDA-IN

Mr. Scott E. Pruitt, Supervisor
US Fish and Wildlife Service
Bloomington Field Office
620 South Walker Street
Bloomington, Indiana 47403-2121

Subject: I-69 Tier 2 EISs, Evansville to Indianapolis
Request for USF&W to become a Cooperating Agency

Dear Mr. Pruitt:

In accordance with 40 CFR 1501.6, the Federal Highway Administration (FHWA) hereby requests the U.S. Fish and Wildlife Service (USF&W) to consider becoming a cooperating agency on any or all of the six (6) Tier 2 Environmental Impact Statements (EISs) for I-69 between Evansville and Indianapolis. The USF&W possesses special expertise and/or jurisdiction by law with respect to environmental issues that will be addressed in the EISs for these projects. Please respond in writing to FHWA at your earliest convenience regarding this request.

Please visit the website www.I69indyevn.org for further information on the six sections to help you make your determination. Also, under separate letter, you will soon be receiving an invitation to the initial resource agency scoping meeting for these EISs. This letter will also provide additional information that may assist in your decision.

If you need additional information regarding this request, please contact Tony DeSimone by phone (317) 226-5307 or by e-mail at anthony.desimone@fhwa.dot.gov.

Sincerely yours,

Robert F. Tally, Jr., P.E.
Division Administrator

cc:
Mr. Lyle Sadler, INDOT
Mr. Kent Ahrenholtz, BLA

U.S. Department
of Transportation
**Federal Highway
Administration**

Indiana Division

575 North Pennsylvania Street, Room 254
Indianapolis, Indiana 46204

July 23, 2004
HDA-IN

James Townsend
US Army Engineer District Louisville
Corps of Engineers
P.O. Box 59
Louisville, KY 40201-0059

Subject: I-69 Tier 2 EISs, Evansville to Indianapolis
Request for ACOE to become a Cooperating Agency

Dear Mr. Westlake:

In accordance with 40 CFR 1501.6, the Federal Highway Administration (FHWA) hereby requests the U.S. Army Cops of Engineers (ACOE) to consider becoming a cooperating agency on any or all of the six (6) Tier 2 Environmental Impact Statements (EISs) for I-69 between Evansville and Indianapolis. The ACOE possesses special expertise and/or jurisdiction by law with respect to environmental issues that will be addressed in the EISs for these projects. Please respond in writing to FHWA at your earliest convenience regarding this request.

Please visit the website www.I69indyevn.org for further information on the six sections to help you make your determination. Also, under separate letter, you will soon be receiving an invitation to the initial resource agency scoping meeting for these EISs. This letter will also provide additional information that may assist in your decision.

If you need additional information regarding this request, please contact Tony DeSimone by phone (317) 226-5307 or by e-mail at anthony.desimone@fhwa.dot.gov.

Sincerely yours,
/S/ ANTHONY M. DESIMONE

Robert F. Tally, Jr., P.E.
Division Administrator

cc:
Mr. Lyle Sadler, INDOT
Mr. Kent Ahrenholtz, BLA

Carol Hood

From: "DeSimone, Anthony" <Anthony.DeSimone@fhwa.dot.gov> [Anthony.DeSimone@fhwa.dot.gov]
Sent: Thursday, July 29, 2004 2:34 PM
To: Kent Ahrenholtz; Lyle (E-mail) Sadler
Subject: FW: Invite to I-69 Tier 2 Resource Agency meeting

FYI

Tony DeSimone, P.E.
FHWAIndiana Division
(317) 2265307
Fax (317) 2267341

Original Message
From: Laszewski.Virginia@epamail.epa.gov
[mailto:Laszewski.Virginia@epamail.epa.gov]
Sent: Thursday, July 29, 2004 2:01 PM
To: DeSimone, Anthony
Subject: Re: Invite to I69 Tier 2 Resource Agency meeting

Tony,

Thank You!

I've forwarded your email w/attachments to:

Wendy Melgin/Cathy Garra Watersheds and Wetlands Branch
Patricia Morris Air Division
Tom Kenney Office of Regional Council

I've requested that they let me know if they will attend by COB, August 2nd. I will get back to you once I hear from them. Until then, Ken Westlake, Chief (Environmental Planning and Evaluation Branch) and myself will definitely be attending the "Kickoff meeting."

Virginia Laszewski
Environmental Scientist

US EPA, Region 5
OSEA, EPEB
77 W. Jackson Blvd. (mail code: B19J)
Chicago, IL 606043590
Phone: (312) 8867501
Fax: (312) 3535374

email: laszewski.virginia@epa.gov

"DeSimone,
Anthony"
<Anthony.DeSimo
ne@fhwa.dot.gov
>
07/29/04 01:22
PM

To
Virginia Laszewski/R5/USEPA/US@EPA
cc
"Kent Ahrenholtz (Email)"
<Kahrenholtz@blainc.com>
"Kent Ahrenholtz (Email)"
<Kahrenholtz@blainc.com>
bcc

Fax to

Subject
Invite to I69 Tier 2 Resource
Agency meeting

Virginia, here is an electronic version of the invite and documents if you would like to share them with others in your office. At your earliest convenience, please let us know how many will be attending the meeting.

Thank you.

Tony DeSimone, P.E.
FHWAIndiana Division
(317) 2265307
Fax (317) 2267341

<<Section6.pdf>> <<Section2.pdf>> <<Section3.pdf>> <<Section4.pdf>> <<Section5.pdf>> <<Section1.pdf>> <<Tier 2_Agency Kickoff Meeting _Invitation Letter.doc>> <<Tier 2_Agency Kickoff Meeting_Agenda.doc>>

[attachment "Section6.pdf" deleted by Virginia Laszewski/R5/USEPA/US]
[attachment "Section2.pdf" deleted by Virginia Laszewski/R5/USEPA/US]
[attachment "Section3.pdf" deleted by Virginia Laszewski/R5/USEPA/US]
[attachment "Section4.pdf" deleted by Virginia Laszewski/R5/USEPA/US]
[attachment "Section5.pdf" deleted by Virginia Laszewski/R5/USEPA/US]
[attachment "Section1.pdf" deleted by Virginia Laszewski/R5/USEPA/US]
[attachment "Tier 2_Agency Kickoff Meeting _Invitation Letter.doc" deleted by Virginia Laszewski/R5/USEPA/US] [attachment "Tier 2_Agency Kickoff Meeting_Agenda.doc" deleted by Virginia Laszewski/R5/USEPA/US]

103-0001-OPL

U.S. Department of Homeland Security
United States Coast Guard

Commander
Eighth Coast Guard District

1222 Spruce Street
St. Louis, MO 63103-2832
Staff Symbol: obr
Phone: (314)539-3900, x2378
Fax: (314)539-3755
Email:

16591.1/I-69 Tier 2
July 30, 2004

Kent Tom
Vince Mike G.
Dean Jim G.
Dave I Cindy
Kent

Mr. Kent Ahrenholtz
Bernardin, Lochmueller & Associates, Inc.
6200 Vogel Road
Evansville, IN 47715-4006

Subj: I-69 TIER 2 STUDIES, EVANSVILLE TO INDIANAPOLIS

Dear Mr. Ahrenholtz:

Please refer to your letter dated 23 July 2004 inviting the Coast Guard to attend a "kick-off" meeting for the subject bridge. We do not plan to attend because the project does not appear to cross any navigable waterways that would require a Coast Guard Bridge permit. If plans change or you feel our analysis is wrong, please advise. Thank you for including us in your early project coordination.

Sincerely,

ROGER K. WIEBUSCH
Bridge Administrator
By direction of the District Commander

RECEIVED
AUG - 2 2004
BLA

Kickoff Environmental Agency Review Meeting

I-69 Corridor, Evansville to Indianapolis, IN

Tier 2 Studies with EIS

You are invited to participate in consultation to identify human and natural environmental issues, assess effects, and seek ways to avoid, minimize, or mitigate adverse effects. Please complete and return this post card and check if you "will" or "will not" be at the meeting and plan on lunch, and "will" or "will not" provide written comments on the projects. Thank you.

☐ *We "will" be at the meeting*
*Number for Meeting*_____
*Number for Lunch*_____

☐ *We "will" provide written comments*

☒ *We "will not" be at the meeting*

☐ *We "will not" provide written comments*

Name: Roger Wiebusch

Organization: Coast Guard Bridge Branch

Address: 1222 Spruce St.
St. Louis, MO 63103

Telephone Number: 314 539-3900 x2378 Fax: 314 539-3755

E-mail Address: rwiebusch@cgstl.uscg.mil

MEMORANDUM

DATE: 9 August 2004
FROM: Alice Roberts Gray & Pape, Inc.
TO: BLA, EEACs and archaeology sub-contractors, Curtis Tomak (INDOT), Rick Jones (DHPA)

RE: Minutes from I-69 Tier 2 Archaeology Meeting, 8 August 2004

Welcome: given by Curtis Tomak (INDOT), Rick Jones (DHPA), and Tom Cervone (BLA)

Introductions/General Points of Discussion:

Introductions of Agency Officials, PMC representatives, EEACs and archaeological sub-contractors.

- Teamwork and communication is imperative throughout this project.
- Archaeology consultant participation in Phase Ia work does not mean automatic participation in further archaeological work on the project.

Discussions of Scope-of-Work for Phase Ia Surveys:

General

- Project archaeologists should follow the *Draft Indiana Archaeological Guideline—Phase I (Revised)*

Communication

- A project contact list has been created and will be e-mailed to all participants after corrections have been made.
- Project communication protocol: sub to EEAC to PMC. Conversely, PMC communication to archaeology sub-contractors goes through EEAC.
- All project documentation on behalf of sub-consultants should be submitted through EEAC.
- EXCEPTIONS to communication protocol: qualifications packets, site number requests, and records check (scheduling must take place from EEAC subcontractor to DHPA directly, two weeks ahead of time).
  *note: records checks should be conducted on Tuesdays and Wednesdays and, when possible, scheduling should be done in advance.
- Participation in local consultation meetings is important for all stake holders throughout the project.
- When crews in the field are denied access by landowners, crews must leave the property and report denied access to EEAC point of contact, who will then report information to PMC (BLA/Gray&Pape).
- It was suggested to redistribute project letters to landowner prior to archaeology fieldwork.
- ID badges will be distributed to field crews.

Mapping

- GPS equipment should perform at sub-meter accuracy.
- Subs will submit metric data to prime EEAC and the prime will convert data to English. Site forms should still be submitted with metric data.
  * NOTE: INDOT uses the English system.
- GPS mapping equipment needs to support data dictionary.
- Data dictionary and project table will be developed prior to archaeology fieldwork. This is essential for consistent data collection and reporting efficiently.

Curation and Collection

- Curation facility for collected materials has not been determined, but will most likely be Indiana State Museum (ISM). Contractors are responsible for preparing all materials for curation.
- If analysts are unsure of artifact material type, say so. DO NOT GUESS, if you are not sure.
- Clarification by Curtis on representative FCR samples: the purpose of these collections is to get an idea of what people in the field are considering FCR in addition to what types of materials might be used in various heated contexts. Keep this in mind when collecting samples.

Reporting

- Reporting: All contexts/backgrounds/histories, etc. should be relevant to the project area and region only. Do not prepare a background discussion general to the region of Indiana if it does not have direct relevance to your project area.
- Background information should cover 1-mile to either side of the center line. Archaeological site checks should cover the 2000 foot corridor.
- All project descriptive information should be described in one section in the beginning of the report not scattered throughout. This includes project description, project limits/boundaries, etc.
- Site form notes:
  5. Other names and numbers: refers to site
  21. UTMs in feet, use NAD 83 and/or note what NAD you are using.
  30. Site reported by: 1st reporter/recorder
  33. Form completed by: current recorder
  36. Site investigated by: current recorder
  50. Surface visibility and how estimated: include survey conditions (i.e. plowed surface, but has not been rained on in 6 weeks)

Scoping and APE

- General EEAC consensus: assume 400 feet for project workspace.
- See *REPORTING* for background and sites check work.
- Scope is being revised by INDOT to reflect clarifications, changes, and discussions from this meeting.

Upcoming Meetings

- Scheduling meetings with Section 5 and 6 representatives.
- Possible archaeology meeting to discuss data collection table development.

MEETING MINUTES

Revised December 13, 2004

Environmental Resource Agency Meeting

Indiana Government Center South, Training Room #5
Indianapolis, IN
August 12, 2004, 10:00 a.m. – 16:00 p.m. CDT

Attendees:	
Bill Malley, Akin Gump	Lyle Sadler, INDOT
Chris Baynes, INDOT	Martin Blake, INDOT – Aeronautics
Jim Keefer, INDOT – Aeronautics	Andy King, US Fish & Wildlife Service
Katie Smith, IDNR – DFW	Jason Stone, Section 4 DPM – DLZ Indiana
Bruce Hudson, Section 4 PM – DLZ Indiana	Tom Cervone, PMC DPM – BLA
Pam Fisher, IN Department of Commerce	Cloyee Hedge, IDNR – Nature Preserves
Rose Zigenfus, EUTS	Kurt Weiss, Section 5 DPM – Michael Baker
Noel Krothe, Hydrogeology, Inc	Jason Krothe, Hydrogeology, Inc
Bob Williams, INDOT	Tony DeSimone – FHWA
Robert Talley – FHWA	Denver Harper – Indiana Geological Survey
John Steinmetz – Indiana Geological Survey	Cindy Staples – PMC – BLA
Amy Babey – Corps of Engineers – Louisville	Nancy Hasenmueller, Indiana Geological Survey
Jason Randolph, IDEM – 401 WQC	Daniel Gautier, IDNR – DFW
Mary Crowe, INDOT	Karie Brudis, IDNR – Div Hist Pres & Archaeo
Michelle Barnier, INDOT	Nick Batta, INDOT
Randy Perkinson, Section 2 PM – Jacobs Civil	David Butts, INDOT
Chris Andrews, INDOT	John Kassis, INDOT
Virgil Brack, Environmental Solutions & Innovations	Karl Lee, INDOT
Wendy Vachet, Section 5 PM – Michael Baker	Tim Miller, Section 6 PM – HNTB
Todd Davis, Wilber Smith Assoc.	Franklin Lewis, USDA Forest Service
Frank Nierzwicki, Bloomington MPO	James Ude, INDOT
David Pluckebaum, Section 3 PM – Corradino	Wendy Melgin, US EPA Region 5
Cathy Garra, US EPA Region 5	Virginia Laszewski, US EPA Region 5
Tom Kenney US EPA Region 5, ORC	Kate Quinn, FHWA
Ken Westlake, US EPA Region 5	Nancy Albertson, NSA Crane
Dave Poynter, NSA Crane	Curtis Tomak, INDOT
Hassan Nasralla, INDOT	Robert Dirks, FHWA
Sweson Yang, Indianapolis MPO	Alice Roberts, Gray & Pape
Sara Dyer, Dyer Environmental Services	Kevin Knoke, INDOT
Greg Richards, INDOT	Paul Schmidt, INDOT
Tommy Cervone, PMC – BLA	David Isley, PMC – BLA
Neal Schroeder, PMC – BLA	Jonna Stack, PMC – BLA
Kent Ahrenholtz, PMC – BLA	Leonard Bettess, Quantm
Roger Wade, Section 1 PM – Qk4	Jane Wehner, Section 1 PDM – Qk4
Andrew Pelloso, IDEM – Wetlands	Michael Grovak, PMC – BLA
Linda Weintraut, Weintraut & Assoc.	Brad Steckler, INDOT
Robert Buskirk, INDOT	

Welcome and Opening Remarks **Tony DeSimone**

Introductions

Brief History **Kent Ahrenholtz**

- Tier 1 was a "big picture" look at 26 counties with 170 layer GIS. The result was the approval of Alternative 3C and a Record of Decision (ROD) was issued on March 23, 2004.
- Tier 2 will extensively examine the 2000' corridor and focus more on localized needs.
- All Tier 2 alternatives, by definition, will meet Tier 1 Purpose and Need. We will be building on the Purpose and Need from Tier 1.
- The corridor is separated into 6 Sections of Independent Utility (SIU):
  - Section1
    - Qk4 – Roger Wade, Project Manager
    - I-64 to SR 64 (13) miles
  - Section 2
    - Hannum, Wagle and Cline / Jacobs Civil – Randy Perkinson, Project Manager
    - SR 64 – US 50 (29 Miles)
  - Section 3
    - The Corradino Group – Dave Pluckebaum, Project Manager
    - US 50 – US 231 (25 Miles)
  - Section 4
    - DLZ, Indiana LLC – Bruce Hudson, Project Manager
    - US 231 – SR 37 (27 Miles)
  - Section 5
    - Michael Baker, Jr. – Wendy Vachet, Project Manager
    - SR 37 – SR39 (22 Miles)
  - Section 6
    - HNTB Corporation – Tim Miller, Project Manager
    - SR 37 – I-465 (26 Miles)
- Each Section will complete an EIS and Record of Decision.
- Public Outreach efforts include opening a local office in each section.
- Each office was opened in mid June and open houses held on June 30th or July 1st.

Q: *What is meant by localized focus? (EPA)*
A: In general, we are focusing on the 2000' corridor and the specific needs within the section (e.g., alignments, grade separations, interchanges, frontage roads, etc.). For some issues, such as karst, endangered species, and secondary and cumulative impacts, our analysis will extend beyond the corridor.

Purpose of Meeting / Agency Coordination **Tom Cervone**

- The purpose of the meeting is to familiarize the Environmental Review Agencies on the following:

Section 7 Consultation / Bat Mist Netting

- INDOT and FWHA are completing, with the USFWS and IDNR interaction on the study design/review, mist netting for the Indiana bat in each section. Second stage of the bat survey work is contingent on first stage satisfying USFWS and IDNR.
- All mist netting efforts will be completed this year between May 15 and August 15.

- Mist Netting Sites for Indiana Bat
  - Section 1 – 12 sites
  - Section 2 – 30 sites
  - Section 3 – 23 sites
  - Section 4 – 30 sites
  - Section 5 – 24 sites
  - Section 6 – 29 sites
  - For a total of 148 sites
  - Results:
    - Indiana bats (Federally Endangered) and Evening Bats (State Endangered) were found at a number of sites along the corridor in 2004. Other bats captured were the red, little brown, big brown, pips, hoary and northern myotis.
    - Radiotelemetry studies provided roost site data with emergence counts. One transmission pole showed an emergence count of over 100 bats.
    - Night roosts were investigated by reviewing many bridges in the project. One bridge showed more than 100 bats, including 4 Indiana bats.
    - Anabat was used as often as possible and such recordings are being made available to the USFWS for validation purposed.

Bat Cave Surveys

- The PMC is working with the Indiana Geological Survey and others to screen and evaluate caves as potential habitat for the Indiana bat.
- There are about 400 caves located within five miles of the corridor.
- Screening includes the use of criteria to identify caves for potential habitat followed by field surveys. It also includes local testimonies and suggestions from cave experts.
- Phase I Cave Survey reports are due June 15, 2005.
- Phase II Cave Survey reports are due June 15, 2006.

Project Management Consultant (Kent Ahrenholtz)

- INDOT has selected Bernardin-Lochmueller & Associates to be the Project Management Consultant to oversee the activities of the six Engineering and Environmental Assessment Consultants (EEACs).
- The PMCs primary responsibility will be to:
  - Manage the six sections for INDOT and FHWA
  - Maintain continuity
  - Provide consistency
  - Develop and implement mitigation efforts
  - Coordinate with the environmental review agencies
  - Apply for permits (Non-NEPA Activity) as the project progresses
- Project-wide subconsultants have been hired for: 1) archaeology, 2) historic resources, 3) human environment (e.g., relocations, community impacts, environmental justice) and hazardous materials.

Biological Surveys

- The Tier 1 FEIS document references Biological Surveys in Tier 2 as follows:
  - Section 5.17.3 (Pg 5-180, 2nd Paragraph) - … These species will be sampled for during Tier 2 field surveys as appropriate.

  - Section 7.2 (Pg 7-2, Table 1) – INDOT will cooperate with resource agencies to conduct biological surveys for threatened and endangered species.
  - Section 7.2 (Pg 7-7, 1st Paragraph) – Pursuant to the BO, INDOT will cooperate with the USFWS, IDNR, and agencies and organizations to complete biological surveys for rare and endangered species.
- Investigations completed are:
  - 1993 Baseline Studies for Southwestern Indiana Corridor
  - Fishes, Mussels, Bats, Mammals, Reptiles, Amphibians, Birds, and Plants
- Publications:
  - Fishes of the Patoka River Drainage
  - Fishes of Pigeon Creek (T. Cervone and Students)
- IDNR Studies:
  - Fish and Bird Studies
  - Bat Surveys for AML Sites and Others
  - Botanical Surveys
  - Bobcat Radiotelemetry
- USFWS Studies:
  - Copperbelly Watersnake Surveys
  - Fish and Crayfish Surveys, especially within the Patoka River Area
  - Mussel Surveys
  - Contaminant Studies, including Invertebrates

Differences in Location of Alignment from 1996 DEIS for Southwest Indiana Highway Project (Evansville-to-Bloomington Highway)

- Section 1 – Similar
- Section 2 – Shifted alignment to the east of Prides Creek to avoid wetland impacts
- Section 3 – Similar
- Section 4 – Three shifts in the alignment
  - Moved south of Combs Unit for the Martins State Forest south of Koleen
  - Moved southwest of American Bottoms and Rays cave to be 6 miles or more from cave
  - Moved west of the Virginia Ironworks south of Stanford
- Section 5 – Not included in 1996 DEIS (New)
- Section 6 – Not included in 1996 DEIS (New)

Land Use

- Section 1 (Wabash Lowland Region)
  - Farmland (540 acres or 97%)
  - Forest (10 acres or 2 %)
  - Wetland (5 acres NWI* or 1%)
- Section 2 (Wabash Lowland Region)
  - Farmland (1,180 acres or 91%)
  - Forest (100 acres or 8%)
  - Wetlands (35 acres* NWI or < 1%)

- Section 3 (Wabash Lowland Region)
  - Farmland (1,070 acres or 97%)
  - Forest (30 acres or 3%)
  - Wetlands (5 acres* NWI or < 1%)
- Section 4 (Crawford Upland and Mitchell Plain Regions)
  - Farmland, primarily pasture (670 acres or 43%)
  - Forest (890 acres or 57%)
  - Wetlands (20 acres* NWI or < 1%)
- Section 5 (Mitchell Plain, Norman Upland, and Martinsville Hills)
  - Farmland, primarily pasture (485 acres or 84%)
  - Forest (90 acres or 16%)
  - Wetlands (5 acres NWI or < 1%)
- Section 6
  - Farmland, primarily pasture (465 acres or 93%)
  - Forest (30 acres or 6%)
  - Wetlands (5 acres NWI or 1%)

Q: *Do you have handouts of the presentations? (EPA)*
A: The PowerPoint presentations and handouts will be copied to a CD and sent to everyone in attendance and those invited.

Q: *What water quality aspects are being done? Especially in Section 4. What is the cumulative impact? Where does the water go? Who uses the water? Have you considered drinking water well locations? Will you consider water wells located just outside the corridor? (EPA)*
A: Water quality analysis will be very important in Tier 2. Currently, work is underway to identify the drainage patterns of water especially in Sections 4 and 5. The EEACs will analyze impacts upon water quality for each of their sections and present that information in the DEIS. Dye tracing has begun in Section 5. There may be opportunities to improve drainage in Section 5 by opening up some drainages that were blocked by the construction of SR 37.

Purpose & Need **Mike Grovak**

- The Purpose and Need, No Build and Alternatives Analysis Discussion Paper was distributed to the invitees of the meeting.
- The Tier 1 ROD provides the basic framework for the procedures and analysis to be followed in Tier 2. The discussion paper builds on the Tier 1 decisions and discusses the overall differences.
- Purpose and Need was determined in Tier 1 and will be carried forward in Tier 2. The only potential modifications will be the identification of local goals that are specific to a particular Tier 2 section.
- Meetings with the sections are being scheduled to determine their localized needs.
- No Build for Tier 2 assumes that I-69 is not built between Evansville and Indianapolis, as well as the national I-69 corridor as a whole is not built between Canada and Mexico, with the exception of the section that already exists.

Q: *What is the "basic project purpose" alluded to in the discussion paper on page 6 of 9? (EPA)*
A: The basic project purpose is the purpose defined in the Tier 1 EIS for the Evansville to Indianapolis section of I-69 – i.e., the nine project goals.

Q: *The Discussion Paper already identifies the "overall project purpose" as the Tier 1 EIS nine project goals. What is the "basic project purpose"? Is the "basic project purpose" the statement found within the first bullet in Section D. Role of Purpose and Need in Selecting a Preferred Alternative on page 7 of 9 of the Discussion Paper, i.e., "completion of an Interstate highway system [between Evansville and Indianapolis]?*

A: No answer given at the meeting. The answer is as follows: The "basic project purpose" is stated in the Tier 1 FEIS on page 2-1 as "The purpose of the I-69, Evansville to Indianapolis Project is to provide an improved transportation link between Evansville and Indianapolis which

- Strengthens the transportation network of Southwest Indiana;
- Supports economic development in Southwest Indiana; and
- Completes the portion of the National I-69 project between Evansville and Indianapolis."

Q: *We hope that the Purpose and Need Sections of the 6 EISs will not be as complex and cumbersome as the Tier 1 Purpose and Need. The purpose and need for the proposal should be succinctly summarized, perhaps in a table, and focus on the 3 major core goals for the proposal identified in the Tier 1 EIS. - (EPA)*

A: Agreed. Each Tier 2 EIS will include a summary of the project purpose and need as defined in the Tier 1 EIS. It also will address any local needs that are identified during Tier 2 for that section.

Public Involvement **Jonna Stack**

- Six project offices were opened, one in each section, to "connect" to the public. The feedback has been very positive.
- The website has been enhanced for the Tier 2 Studies.
  - Including: Section office information and location, maps, brochures and eventually newsletters.
- The PMC's PI outreach team guides the EEACs to maintain the consistency of the message relayed to the public, and works closely with the Office of Communications at INDOT.
- The EEACs are continually making outreach efforts by meeting with groups/organizations such as: Rotary Clubs, Kiwanis Clubs, School Boards, Emergency Responders, etc.
- Each SIU will have a Community Advisory Committee.
- Media contact coordinated by INDOT with PMC.

Project Schedule / Time Frames **Tony DeSimone**

- When the Governor announced the approval of Alternative 3C, he stated that Tier 2 would take 18 – 36 months.
- The PMC is still working with each section to nail down its schedule.
- There is a mandate to develop time frames for the Tier 2 NEPA studies with input from the environmental review agencies.

Q: *Mandated by whom? (EPA)*

A: Federal Highway Administration headquarters issued guidance requiring the development of timeframes for all EIS projects.

Q: *Do you envision I-69 to be included in the FHWA list of Priority Projects [under Executive Order 13274]? (EPA)*
A: No.

- The schedule for submitting documents to reviewing agencies will be staggered, to the extent possible, to avoid overloading agency reviewers.
- The project schedules are not final for each section, but will be made available to the agencies when they are. There will be an opportunity for agencies to review and provide comments on the schedules.
- The first DEIS is expected to be released in spring 2005, with other NEPA documents following later in 2005 and 2006.
- The next meetings with the coordinating agencies will be with each individual section and will be determined by each section's project schedule.

Q: *Are you including the agencies during your deliberation? (EPA)*
A: Each EEAC will follow Indiana's Streamlined EIS Procedures, which calls for Interagency Review meetings throughout the process.

Q: *Where will mitigation be memoralized?(EPA)*
A: In each of the six Record of Decisions (RODs).

Q: *There are some cross-cutting issues that affect more than one section – for example, water quality. How will we be able to get into these technical issues? (EPA)*
A: We have created several Technical Coordination Teams and will possibly be asking for members from the agencies to participate.

Q: *There may be times when we are not able to provide comments within the requested time frame. Call us if you need feedback. (EPA)*
A: We will do that.

Q: *In Tier 1, mitigation was handled corridor-wide. How are you going to handle mitigation in Tier 2? (EPA)*
A: Some things will be handled in a section-by-section basis and overlap when necessary. Tier 1 ROD commits project to use context-sensitive design principles to improve performance and reduce impacts.

Q: *Where are you in terms of working with local governments to mitigate land use impacts [the I-69 Community Planning Pilot Program]? (EPA)*
A: We are just starting Phase I of the pilot program. The purpose of the program is to help the local governments plan for impacts. INDOT has identified communities and solicited interest. Planning grants will be used by locals to plan for land use practices after I-69 is built.

Q: *How is Section 404 permitting going to be handled? (EPA)*
A: The Section 404 permitting will be handled separately for each Tier 2 section.

Q: *Will each section have one or multiple Section 404 permits? (Corps)*
A: It may be either case depending on project development.

Q: *Are we taking field data on stream crossings? You will need to work closely with IDEM. Specialized consultants will be needed. Significant mitigation may be required. (IDEM)*

A: Each EEAC will collect information on each stream crossing for the Preferred Alternative. They will coordinate with IDEM. Appropriate experts will be used as needed.

Q: How diverse are the alternatives for each section and will they be identified in the draft EIS (USFWS)?

A: The alternatives generally will be developed within the 2,000-foot wide corridor. The alternatives may differ in terms of their location within the corridor, and in terms of their design elements – for example, the type of access, the incorporation of bicycle lanes, etc. The goal is to identify the preferred alternative in each EIS; however, this may not be possible for all sections. The "Quantm" route optimization system will be used in Sections 1-4 to assist in developing and evaluating alignments. A Quantm representative is here today to answer any questions; see the display in the back of the room.

Q: How will air quality conformity issues be addressed? (Indianapolis MPO)

A: The PMC and EEACs will work with the MPOs for conformity analysis. This work will occur as part of the NEPA process.

Section 1 Presentation **Roger Wade, Project Manger**

- Project Office is located on the campus of Oakland City University.
- Many visitors have noted appreciation for the convenience the project office affords.
- Begins at junction of I64 / I-164 / SR 57 and continues for 13 miles to SR 64.
- 3 state highways are crossed.
- Rural farmland impacts are a local concern.
- The 1st mile of the project is the most difficult and of the most interest to the public.
- Section also crosses Pigeon Creek and Wabash Erie Canal
- DEIS is expected to be issued by Spring 2005, with FEIS by Fall 2005.
- Wetlands created under a USDA program have been identified within corridor; may need to consider avoidance alternatives, possibly including shifts outside the corridor.
- A wildlife corridor should probably be incorporated into the roadway at Pigeon Creek. (T. Cervone) Comment: *Perhaps this is one of those areas where the roadway may need to go outside the corridor? (EPA)*

Q: Are there any prior converted wetlands? Farmed wetlands? (EPA)

A: Yes, they are being identified.

Q: Is wetland delineation being done for the entire width of the 2,000-foot corridor?(EPA)

A: Yes. In Section 1, we are delineating the wetlands for the full width of the corridor .

Q: Are you doing an assessment of the value and quality of the wetlands?

A: This has not yet been done; however, it will be included in the DEIS.

Q: Does the corridor include a non-attainment area for the 8-hour ozone standard? If so, note that any ROD issued after June 15, 2005 will require a conformity determination for that standard. (EPA Non-attainment areas for very fine particulars (PM2.5) will be announced in December 2004, with a compliance date yet to be determined.

A. Warrick County is a non-attainment area for the 8-hour standard, according to the Evansville MPO. It is expected that all Tier 2 RODs will be issued after June 15, 2005; the conformity requirements are recognized.

Section 2 Presentation **Randy Perkinson, Project Manager**

- Project Office is located in Petersburg.
- 130 – 140 people have visited the project office since the open house on June 30th.
- Begins at SR 64 and continues to US 50 in Washington.
- Section crosses SR 57, Wabash Erie Canal, a railroad crossing, Patoka River National Wildlife Refuse, reclaimed strip mining and Prides Creek Wetlands.

Q: *What noise levels at the refuge have been studied? What actions are being considered to minimize noise impacts on the refuge? (USFWS)*
A: Ambient noise readings will be taken at appropriate areas along the 2000' corridor. Noise mitigation measures will be considered.

Q: *How are you going to handle water run-off from the bridge across the Patoka River? (USFWS)*
A: Impacts with regard to water runoff will be identified in the DEIS.

Q: *You should also consider design features on bridges to address accidental spills? (EPA)*
A: This issue will be considered as well.

Section 3 Presentation **Dave Pluckebaum, Project Manager**

- Project Office is located in Washington.
- Begins at US 50 and ends at US 231.
- 175 people have visited the project office since the open house on June 30.
- To date not one negative comment has been received about the project.
- Large Amish community is in Daviess County.
- Special design considerations will be made to accommodate the Amish – key issue is access across the Interstate (overpasses and underpasses).
- This section includes large farmland tracts – some more than a mile long.
- Creeks in this area are mostly channelized.
- Wetland delineation is under way; expect to conclude this month.
- Comment: *Develop design standards special for "horse and buggy" travel. (EPA)*

Section 4 Presentation **Bruce Hudson, Project Manager**

- Project Office is located on the southwest side of Bloomington.
- This is the last section on new location and begins at US 231 and ends at SR 37.
- This section has Karst issues and Virginia Iron Works, crosses SR 54 and SR 45.
- Interchange will be at Doanes Creek.
- Species of concern for this section include Indiana bat, bald eagle, cave fish and invertebrates.
- This section will cross Clear Creek, which is impaired due to PCBs.
- Indian Creek is crossed in more than one location, large floodplain … possible wildlife crossing location.

Q: *Is Virginia Ironworks listed on the register?*
A: The Virginia Ironworks is eligible for the National Register.

Section 5 Presentation **Wendy Vachet, Project Manager**

- Project Office is located in downtown Bloomington.
- Runs along existing SR 37 just north of Victor Pike to SR 39.
- This is an urban area with development right next to the road.
- This section has Karst geology, Maple Grove Historic district, Oliver Winery and Lemon Lane PCBs hazardous waste site.
- The focus is how to upgrade existing SR 37 using Context Sensitive Design
- Noise analysis will start next week.

Q: *Have you identified any EJ or minority groups? (EPA)*
A: The EEACs will identify environmental justice issues as a part of the DEIS.

Q: *Has it been determined if there will be interchanges at SR 45 and SR 46?*
A: INDOT has been in the process of upgrading intersections to interchanges along SR 37 in the Bloomington area. The engineers for this section will work to utilize as much of the new interchanges as possible.

Q: *If you are not using the same karst sub-consultants for Sections 4 & 5, how are making sure you are getting consistent results? (IDNR)*
A: The PMC is responsible for coordinating the Tier 2 section consultants. We have a Karst expert on staff that will be reviewing their efforts.

Section 6 Presentation **Tim Miller, Project Manager**

- Project Office is located in Perry Township in Marion County
- Runs along existing SR 37 from SR 39 to I-465
- INDOT's long-range plan already included a major upgrade to SR 37.
- 500-600 people have visited the Project Office since the open house, July 1st.
- There has been a lot of new development since the 1980's.
- Key issues include crossing the West Fork of the White River; a quarry at I-465; wellhead and aquifer protection issues; access across the Interstate (overpasses and underpasses); environmental justice issues; fish hatchery just north of Martinsville.

Q: *You should make a special effort to get environmental justice communities involved in the study; for example, include representatives of those communities on the CAC. (EPA)*
A: We understand; we are making those efforts.

Q: *Don't make the agencies print all of the documents that they are being asked to review; provide hard copies. (EPA)*
A: We understand your concern and will provide hard copies where practicable.

Q: *Will you ask for the Army Corps of Engineers to make jurisdictional determinations for the wetlands? If so, please coordinate with us so that we can avoid delays. (Corps)*
A: Yes, we will be seeking jurisdictional determinations, and will coordinate with the Corps regarding the schedule for those determinations.

Q: *Will you distinguish between "isolated" and "adjacent" wetlands? (Corps)*
A: Yes.

Q: *Is there any plan to incorporate custom or freight-processing facilities into I-69? (Indianapolis MPO)*

A: Some discussions have occurred in the context of the National I-69 project; and we will look into this issue further to determine the appropriateness of these types of facilities.

Q: Is the US 41/I-70 alternative still under consideration? (Indianapolis MPO)
A: No. The Tier 1 ROD selected Alternative 3C.

Q: Would any other routes outside the corridor be considered? (Indianapolis MPO)
A: The ROD provides flexibility to "consider alternatives outside the selected corridor to avoid significant impacts within the selected corridor."

Q: The ROD says you will "look beyond the termini" to see if there are any factors to be considered in the adjacent section. How far will you look? (Corps)
A: The section consultants have been directed to study one mile beyond the termini.

Q: Has any decision been made on rest area? (USFWS)
A: Two sets of rest areas (four total) will be included in the project; the locations have not yet been determined.

Q: Is there any consideration for a Park and Ride? (For section 6) (Indianapolis MPO)
A: There has not been to date, but can certainly be considered.

Q: What procedures are being used for screening? (EPA)
A: The screening procedures are currently being developed and will be presented to the agencies for their review at the Interagency Review meetings.

Q: Screening will be important when deciding interchange locations. Will more traffic analysis and modeling be done?
A: Yes. The PMC is working on new traffic models for the year 2030 that will be ready this fall.

Q: Will I-69 traffic from Mexico be updated? (EPA)
A: The most current traffic information will be utilized. FHWA's National Freight Analysis Framework data has been utilized in forecasting future truck volumes.

Q: What is FHWA's role in this process? Will FHWA review all documents before they are sent to the agencies for review? (EPA)
A: FHWA, together with INDOT, is responsible for preparing the DEIS, FEIS, and ROD for all 6 sections. FHWA environmental staff in the Indiana Division Office will review all documents before they are sent to the agencies for review.

Q: Can we (the agencies) get monthly updates from each section, similar to the updates that were provided this summer for the bat mist netting? (USFWS)
A: We will continue to provide updates on ongoing activities.

Closing Remarks **Kent Ahrenholtz**

Action Items:	Owner:	Due Date:
Distribute Meeting Minutes and Handouts to Agencies	Cindy Staples	
Forward Formal Comments to PMC	Coordinating Agencies	September 23, 2004
Revised Meeting Minutes to Agencies	Kent Ahrenholtz	December 15, 2004

Details discussed in this meeting are subject to change, but are a reflection of how things stood at the close of the meeting.

Tier 2 Biological Surveys and Mist Netting for the Indiana Bat

August 12, 2004

I-69 Evansville to Indianapolis Tier 2 Studies

Purpose of Presentation

- To familiarize the Environmental Review Agencies on the following:
  - Ongoing Section 7 Consultation
  - General Description of the 6 Env. Impact Statements
  - Introduce Env. Eng. Assessment Consultants (EEAC)
  - Describe Summer Mist Netting Efforts and Results
  - Discuss Biological Surveys (Former and New)
  - Discuss Karst, Wetland, Forest and Farmland
  - Coordination with Env. Review Agencies

Section 7 Consultation

- In addition to the question on Biological Surveys, INDOT and FHWA are completing with the USFWS mist netting for the Indiana bat in each section
- Timing – All mist netting f will be completed this year May 15 and August 15

Mist Netting Sites for Indiana B[redacted]

- Section 1 – 12 sites (Farmland & Pigeon Creek Wetlands to East)
- Section 2 – 30 sites (Patoka River & East Fork of White River)
- Section 3 – 23 sites (Farmland & Thousand Acre Woods)
- Section 4 – 30 sites (Crawford Upland, Mi[redacted]n & Karst)
- Section 5 – 24 sites (On SR 37 near Bl[redacted]ington and North)
- Section 6 – 29 sites (On SR 37 from Mart[redacted] 465 with the West Fork of the White River Paralleling [redacted]

Total Sites = 148 sites

Researchers – Virgil Brack, Hal Bryan, Russ Romme and Bill Hendricks [redacted]

Selection of Mist Netting [redacted]

- Mist netting sites were selected on the following criteria:
  - Safety
  - Good to Excellent Access
  - [redacted]a Bat Habitat (Lowla[redacted]
  - Good Set-up Conditions [redacted]

Results

- Indiana bats (FE) and evening bats (SE) were found at a number of sites along the corridor in 2004. Other bats captured were the red, little brown, big brown, pips, hoary and northern myotis.
- Radiotelemetry studies provided roost site data with emergence counts. One transmission pole showed an emergence count of over a 100 b
- Night roosts were investigated by r b the project. One bridge showed more than 100 bats, including four Indiana bats
- Anabat was employed as often as possible and such recordings are being made available to the USFWS for validation purposes. In addition, hair, water and feces s s were taken from Indiana bats as appropriate.

Bat Cave Surveys

- The PMC is working with the IGS and others to screen and evaluate caves as potential habitat for the Indiana bat.
- These recorded caves are located within five miles of the corridor and number about 400.
- Screening includes the use of many crite followed by field surveys. It also includes local testimonies and sugg m cave experts
- C
  - A chimney air flow effect
  - Multiple cave openings
  - A rge volume that stores cool air
  - Constant winter air temperatures ranging from 3 to 6 degrees C
  - Bats as recorded in the database
  - The size and diversity needed as a hibernacula

Methodology

- Phase 1 (PMC related)
  - Fall, Winter and Spring Sampling (2004-2005)
  - Cave Survey Reports due June 15, 2005
- Karst Studies (EEAC Dependent)
  - Thorough review of karst features by [redacted] sinkholes, and karst drainage within [redacted] depending upon secondary impacts (Ongoing throughout the life of the project)
- Phase II (PMC Related)
  - [redacted] Winter and Spring Sampling (2005-2006)
  - Cave Survey Report due June 15, 2006

Location of Six Sections

- Section 1 – I-64 to SR 64 (13 miles)
- Section 2 – SR 64 to US 50 (29 miles)
- Section 3 – US 50 to US 231 (25 miles)
- Section 4 – US 231 to SR [illegible] miles)
- Section 5 – SR 37 to SR 39 (22 miles)
- Section 6 – SR 37 to I-465 (26 miles)

Total Length = 142 miles

Project Management Consultants

(Bernardin, Lochmueller and Associates)

- PMC Responsibilities
  - Manage the 6 Sections for INDOT and FHWA
  - Maintain Continuity
  - Provide Consistency
  - Develop and Implement Mitigation Efforts
  - Coordination with Env. Review Agencies
  - Apply for Permits (Non-NEPA Activity)

EEAC's per Section

- Section 1 – Qk4
- Section 2 – Hannum, Wagle and Cline / Jacobs
- Section 3 – Corradino Group
- Section 4 – DLZ
- Section 5 – Michael Baker C
- Section 6 – HNTB Corporatio

Note: EEAC's will have an office in their section!

Biological Surveys

- The Tier 1 FEIS document references Biological Surveys in Tier 2 as follows:
  - Section 5.17.3 (Pg 5-180, 2nd Paragraph) - … These species will be sampled for durin[redacted] field surveys as appropriate.
  - Section 7.2 (Pg 7-2, Table 1) – [redacted]e [redacted] source agencies to cond[redacted]ys for threatened and endangered [redacted]
  - [redacted]on 7.2 (Pg 7-7, 1st Paragraph) – Pursuant to the BO, INDOT will cooperate with t[redacted]S, IDNR, [redacted] agencies and organizations to complete biological surveys for rare and endangered species.

Biological Surveys in Project A[redacted]

- Investigations completed are:
  - 1993 Baseline Studies for Southwestern Indiana Corridor
    - Fishes, Mussels, Bats, Mammals, Reptiles, Amphibians, Birds, and Plants (BLA)
  - Publications
    - Fishes of the Patoka River Drainage (T. Simon, T.[redacted] others)
    - Fishes of Pigeon Creek (T. Cervone and Students)[redacted]
  - IDNR Studies
    - Fish and Bird Studies (Hoggatt and Castrale)[redacted]
    - Bat Surveys for AML Sites and Others (J. Whita[redacted]
    - [redacted]cal Surveys (Mike Homoya)
    - Bobcat Radiotelemetry (S. Johnson)
  - USFWS Studies[redacted]
    - [redacted]perbelly Watersnake Surveys (Bruce Kingsbury, Mark Sellers)
    - Fish and Crayfish Surveys, especially within the Patoka River Area (T. Simon)
    - Mussel Surveys (Heidi Dunn)[redacted]
    - Contaminant Studies, including Invertebrates (T. Simon, S. Sobiak)
  - [redacted] Publications
    - TNC (Thousand Acre Woods) – H. Allison

1993 Biological Surveys

- BLA and others (Max Henschen - Mussels, Dave Dumond – Botanist, Ornithologist, Wetlands), John Whitaker - Bats) completed surveys from Evansville to Bloomington in the early to mid 1990's as part of the Southwestern Indiana Corridor
- Alternative 3C today in Tier 2 is very similar to the selected Corridor in 1996
- Sections 5 and 6 today were not included in the earlier 1993 or 1996 studies

Differences in Location of Alignment from 1996 DEIS

- Section 1 – No changes
- Section 2 – Shifted alignment to the east of Prides Creek to avoid wetland impacts (Wetland Issue)
- Section 3 – No changes
- Section 4 - Three shifts in the alignment
  - Moved south of Combs Unit for the Ma[illegible]e Forest south of Koleen (Managed Land Issue)
  - [illegible] southwest of American Bottom[illegible] 6 miles or more from cave (TES Issue)
  - Moved west of the Virginia Ironworks south of Stanford [illegible]trial Archaeology Issue)
- Section 5 – Not included in 1996 D[illegible])
- [illegible]n 6 – Not included in 1996 DEIS (New!)

Surveys Completed in 1993

(Evansville to Bloomington Only)

- Bats - 21 sites and recorded 7 species (Netted *Myotis sodalis*)
- Fish - 93 sites and recorded 71 species
- Mussels - 41 sites and 12 species
- Birds - 30 sites and recorded 101 species
- Mammals – 20 species (trapping and observations, excluding bats)
- Amphibians – 5 species (Drift Fence Array
- Reptiles – 4 species (Drift Fence Array)
- Plants – 361 species recorded from walking the alignment, birds sites, wetland delineations, and Patoka River botanical survey (*dichotomum* - SE, *Diodia virginiana* – ST, *Taxodium distichum* – ST, *Carex socialis* - Rare)
- Forest Plots (5 lowland and 6 upland sites – 39 species of trees including DBH's within a 20 meter diameter sampling plot)

Section 1

(Wabash Lowlan

- Land Use
  - *Farmland (540 acres or 97%)*
  - Forest (10 acres or 2 %)
  - Wetland (5 acres NWI* or 1%
- Unique Biological Areas
  - Pigeon Creek Bottoms
    - Crossing Pigeon Creek in an open area with the majority of the bottoms to the east

***C ed an overestimate – No jurisdictional wetlands were determined in 1996 DEIS**

Section 1 – Previous Surveys

- Fish – Sampled 16 Streams
- Mussels – Sampled 4 Streams
- Mist Netting Sites – 1 Bat Site
- Bird Site – Viewing from 1 Site
- Forest Plots – None
- Wetlands – None

Results - No Federal or State TES

Recommendation for Section 1

- Mist net 12 sites for the Indiana bat
- Wetland Determinations and Delineations
- Consideration for a Wildlife Crossing at Pigeon Creek Crossing (Landscape Connectivity Issue)
- No other formal surveys for a[illegible]are recommended in Section 1 because:
  - Previous studies have not found any listed wildlife or plants
  - Section 1 avoids the wet & wooded Pigeon Creek Bottoms
  - Land use in the R/W is 97% farmland

Section 2

(Wabash Lowlan[redacted]

- Land Use
  - *Farmland (1,180 acres or 91%)*
  - Forest (100 acres or 8%)
  - Wetlands (35 acres* NWI or < 1[redacted]
- Unique Biological Areas [redacted]
  - *Patoka River Bottoms a*[redacted] *White River*

* [redacted]d to be an overestimate since wetlands delineated in 1996 DEIS showed about 16 acres including Pri[redacted]=2.4 ac). The alignment has been moved east of the Pri[redacted]Wetland [redacted]x.

Section 2 – Previous Surveys

- Fish – Sampled 37 Streams
- Mussels – Sampled 18 Streams
- Mist Netting Sites – Netted 7 Sites
- Bird Site – Viewing from 11 Sites
- Forest Plots – 2 plots
- [redacted] – Yes, about 16 acres in [redacted] (most less than 1 acre). The Patok[redacted] about 7.2 acres of wetlands.

Results – 2 Indiana bats (lactating females), [redacted]*is* and *Diodia virginiana* were found in the Patoka River Bottoms

Recommendations for Section 2

- Mist net 30 sites for the Indiana bat
- Wetland Determinations and Delineations
- Completely span the Patoka River Floodplain - 0.5 mile+ (Landscape Connectivity Issue)
- Formal surveys within the 2,000 [redacted] corridor for wildlife and plants in the following areas: [redacted]
  - [redacted]ka River Bottoms to include Surv[redacted] crayfishes, birds, reptiles, amphibians, and plants) – Emphasis on copperbelly watersnake, Harlequin Dar[redacted]bug, [redacted]rulean Warbler and others)
  - Thorough mussel survey and fish survey for the crossing of the East Fork of the White River, i.e., 1.5 miles downstream and 0.5 mile [redacted]pstream of the proposed crossing – Emphasis on mussels (Eastern Fanshell) and fishes (Sand Darter) and others.

Section 3

(Wabash Lowlan[redacted]

- Land Use
  - *Farmland (1,070 acres or 97%)*
  - Forest (30 acres or 3%) [redacted]
  - Wetlands (5 acres* NWI or [redacted]
- [redacted] Biological Areas [redacted]
  - Thousand Acre Woods (1-2 miles West) [redacted]

* **Considered to be reasonably accurate s[redacted]ossing of [redacted]eek and Doans Creek includes about 3.6 and 2.8 acres o wetland respectively.**

Section 3 – Previous Surveys

- Fish – Sampled 16 Streams
- Mussels – Sampled 12 Streams
- Mist Netting Sites – Netted 3 Sites
- Bird Site – Viewing from 8 Sites
- Forest Plots – 1 plot
- Wetlands – Yes, First Creek and D in the First Creek Bottoms, and 2.4 acres in Doans Creek. The First Creek cros se nd highly erodable soils. The First Creek crossing may be a corridor for a nu nimals.

Results – No Federal or State TES

Recommendation for Section 3

- Mist net 23 sites for the Indiana bat
- Wetland Determinations and Delineations
- Consideration for a Wildlife Crossing at First Creek Crossing (Landscape Connectivity Issue)
- Within Daviess County, the proposed R/W does not take any loggerhead shrike habitat
- No other formal surveys for animals or plants are recommended in Section 1 because:
  - Previous studies have not found any listed wildlife or plants
  - Section 3 avoids the wet & wooded Hundred Acre Woods, approximately 1-2 miles west
  - Land use in the R/W is 97% farmland

Section 4

(Crawford Uplan[redacted]chell Plain Regions)

- Land Use
  - Farmland, primarily pasture (670 acres or 43%)
  - ***Forest (890 acres or 57%)***
  - Wetlands (20 acres* NWI or < 1%)
- Unique Biological Areas
  - ***Caves, Sinking Stream[redacted]s Sinkholes, and Springs***[redacted]
  - American Bottoms and a Priority 1 Cave for the Indiana bat (distance to cave is 6 miles or greater)[redacted]

* C[redacted]o be an overestimate. The 1996 DEIS showed about 8.4 acres of wetland with the majority along Plummer Creek and Clifty Branch. The alignment has been shifted east of the original alignment to increase the [redacted]a Priority 1 Indiana Bat cave and the number of wetland acres is unknown at this time.[redacted]

Section 4 – Previous Surveys

- Fish – Sampled 24 Streams
- Mussels – Sampled 7 Streams
- Mist Netting Sites – Netted 10 Sites
- Bird Site – Viewing from 10 Sites
- Forest Plots – 6 plots
- Wetlands – Yes but the number of acres is unknown at this time. The 2 areas with the greatest about of wetlands in the 1996 DEIS were Plummer Creek near Koleen and Clifty Branch. Significantly, however, the alignment has been moved from the original to enter into the Indian Creek drainage area near Hobbieville (including further downstream crossing of Clifty Branch). Additional creeks crossed are Black Ankle, Dry Branch, and Indian Creek. Not crossing Clifty Branch with the new alignment.

<u>Rare – *Panicum dichotomum* found in the Clifty Branch Area</u>

Recommendations for Section 4

- Mist net 30 sites for the Indiana bats
- Wetland Determinations and Delineations
- Wildlife Corridor Considerations in crossing Plummer Creek and its tributaries (i.e., Black Creek and Dry Branch) & the mainstem of Indian Creek near Hobbieville (Landscape Connectivity)
- Formal surveys within the 2,000 foot [illegible] life and plants in the following areas:
  - Plant Surveys – Inventories via walking the alignment, wetland delineations, and in areas of special interest (e.g., rocky outcrops, seeps / springs, sinkholes, coves / alcoves, etc.)
  - Cave Surveys - Vertebrate and invertebrate surveys in appropriate sized caves

Section 5

(Mitchell Plain, Norman Upland, and Martinsville Hills)

- Land Use
  - Farmland, primarily pasture (485 acres or 84%)
  - Forest (90 acres or 16%)
  - Wetlands (5 acres NWI or
- Unique Biological Areas
  - Morgan Monroe State Fore
  - nblossom Bottoms
  - Garrison Chapel Valley (Dis GCV is miles west)

Section 5 – Previous Surveys

- No Surveys have been completed in Section 5 by BLA or others. This section was not a part of the 1996 DEIS
- Existing SR 37 will be widened as needed for the design of Section 5 (inclu
- Impacts - Socioeconomic and roadside
- Stream crossings include Stout Creek, Griffy Creek, Beanblossom Creek, Bryant Creek, Little Indian Creek, Jordan Creek, and Indian Creek

Recommendations for Section [redacted]

- Mist net 24 sites for the Indiana bat
- Within the R/W and 100 feet beyond (including proposed interchanges), the following will be conducted:
  - Wetland Determinations and De[redacted]
  - [redacted]ng for fishes, mussels, crayfishes and plants
  - Observations for birds, reptiles, amphibians and [redacted]mals
  - Cave surveys as appropriate

Section 6

- Land Use
  - Farmland, primarily pasture (465 acres or 93%)
  - Forest (30 acres or 6%)
  - Wetlands (5 acres NWI or
- Unique Biological Areas
  - Riparian Corridor of White R
  - SR37 to the West
  - Cikana Fish Hatchery
  - Blue Bluffs Nature Preserve (2+ miles west)

Section 6 – Previous Surveys

- No Surveys have been completed in Section 6 by BLA or others. This section was not a part of the 1996 DEIS
- Existing SR 37 will be widened as needed for the design of Section 5 (including interchanges)
- Impacts - Socioeconomic and
- Stream crossings include West Fork of Clear Creek, Clear Creek, Stotts Creek, Crooked Creek, North Bluff Creek, Travis Creek, Honey Creek, Pleasant Run Creek, and Little Buck Creek

Recommendations for Section [redacted]

- Mist net 29 sites for the Indiana bat
- Within the R/W and 100 feet beyond (including proposed interch[redacted]s), the following will be conduct[redacted]
  - Wetland Determinations a[redacted]
  - Sampling for fishes, mussels, crayfishes and plants
  - Observations for birds, rept[redacted]phibians [redacted]d mammals

Thank You

We appreciate you b[redacted]

Environmental Resource Agency Meeting

AGENDA

August 12, 2004
10:00 AM to 4:00 PM
Indiana Government Center South, Training Room #5
Morning and Afternoon Sessions including Lunch

Morning Session (10:00 AM to 12:00 Noon)

Welcome	Janice Osadczuk (INDOT) Anthony DeSimone (FHWA)
Introduction – Team Members – Brief History	Kent Ahrenholtz – PMC Project Manager (BLA)
Purpose of Meeting – Agency Coordination	Tom Cervone – PMC Deputy PM (BLA)
Purpose & Need – Alternatives Analysis	Mike Grovak – PMC Deputy PM (BLA)
Public Involvement	Jonna Stack – PMC Deputy PM (BLA)
Project Schedule/Timeframes	Anthony DeSimone (FHWA)
Open Informal Discussion with Agencies	Kent Ahrenholtz (BLA)

Buffet Lunch

Afternoon Session (1:00 PM to 4:00 PM)

Study Area	Section 1	Roger Wade (Qk4)
	Section 2	Randy Perkinson (HWC/Jacobs Civil Team)
	Section 3	David Pluckebaum (Corradino Group)
	Section 4	Bruce Hudson (DLZ)
	Section 5	Wendy Vachet (Michael Baker)
	Section 6	Tim Miller (HNTB)
Open Informal Discussion with Agencies		Kent Ahrenholtz (BLA)
What Happens After this Meeting?		Kent Ahrenholtz (BLA)

Correspond 4.1 - section3pm [Message 344 of 358 in folder inbox]

Status: Reading Message 344

Message 344 in folder inbox GO!

MAIN SAVE FOLDER COMPOSE REPLY FWD REDIRECT DELETE PREV NEXT

Date:	Thu, 22 Dec 2005 14:21:06 -0600
From:	Mail Delivery System <Mailer-Daemon@pepe.cinergycom.net> ADD ADDRESS
To:	section3pm@i69indyevn.org
Subject:	Mail delivery failed: returning message to sender

```
This message was created automatically by mail delivery software.

A message that you sent could not be delivered to one or more of its
recipients. This is a permanent error. The following address(es) failed:

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  allison@i69indyevn.org
    unknown user <allison@i69indyevn.org> (0x09)
  jason@i69indyevn.org
    unknown user <jason@i69indyevn.org> (0x09)
  dupont@i69indyevn.org
    unknown user <dupont@i69indyevn.org> (0x09)

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Return-path: <section3pm@i69indyevn.org>
Received: from webnobody by pepe.cinergycom.net with local (Exim 4.52)
 id 1EpWvy-0004R3-GQ; Thu, 22 Dec 2005 14:21:06 -0600
Reply-To: section3pm@i69indyevn.org
From: "I-69 Tier 2 Studies Section 3 Project Manager"
<section3pm@i69indyevn.org>
Date: Thu, 22 Dec 2005 14:21:06 -0600 (CST)
To: k@i69indyevn.org, allison@i69indyevn.org
Subject: wildlife xings (fwd)
```

X-Mailer: Correspond 4.1
X-Architecture: Mozilla/4.0 (compatible; MSIE 6.0; Windows NT 5.1; SV1; .NET CLR 1.1.4322)
X-IP-Address: 69.208.145.108
X-Correspond-Data: 7Jk27278305eeDg/section3pm
Message-Id: <E1EpWvy-0004R3-GQ@pepe.cinergycom.net>

Put this in the Adminstrative Record and on the PCN. thanks.

Dave

---------- Forward message ----------
Date: Mon, 23 Aug 2004 15:23:58 -0500
From: melgin.wendy@epamail.epa.gov
To: tcervone@blainc.com
Cc: section1@i69indyevn.org, section2@i69indyevn.org, section3@i69indyevn.org, section4@i69indyevn.org, section5@i69indyevn.org, section6@i69indyevn.org, westlake.kenneth@epamail.epa.gov, Laszewski.Virginia@epamail.epa.gov, Garra.Catherine@epamail.epa.gov
Subject: wildlife xings

Tom: As I mentioned to you at the I-69 meeting on Aug. 12, I have information on wildlife crossings that I want to pass along. Sandra Jacobson is a wildlife biologist with the U.S. Forest Service and specializes in wildlife crossing issues. She recommended a few references an offers some general advice. Since wildlife crossings were
mentioned several times during the presentations, it would be ideal to use the best available science and technology that is often lacking in the Midwest on this issue.

----- Forwarded by Wendy Melgin/R5/USEPA/US on 08/23/04 03:11 PM -----

Sandra
L

Jacobson

<sjacobson@fs.fe
d.us>
To

To
08/19/04 05:58 PM
Wendy Melgin/R5/USEPA/US@EPA
cc

bcc

Fax to

Subject
Re: wildlife xings

Hi, Wendy,

I didn't do a hard copy document, but what I did do is the Wildlife Crossings Toolkit website, http://www.wildlifecrossings.info

A lot of the midwestern states are pretty far behind in terms of considering critter crossings. Some midwestern states have collaborated on the deer/vehicle-collision issue, and some of the results of that work can be found at www.deercrash.com This group just finished a thorough report on all sorts of DVC mitigation measures, but it's very oriented towards the driver's safety rather than from the deer's perspective (and even less a holistic ecological perspective).

There are two excellent state of the art summaries (aside from the excellent resources you can find on the (ahem) Wildlife Crossings Toolkit).

The first is the European handbook at IENE, which can be ordered either CD or hardcopy online (unfortunately in Euros). This document is truly excellent, and should be in the library of everyone who has any dealings with highways and wildlife. Europeans are far ahead of us, and this is an summary of all they have learned. http://www.iene.info/ go to Cost 341 products.

The second is Road Ecology by Richard T.T. Forman et al, 2003, Island Press. This book is chock full of most of the basics behind why we worry about roads.

There is no source that gives specific 'how big, how wide, how tall' directions on what type of wildlife crossings to build. That information is unknown right now. However, there are some guidelines.

Here's some general advice:

1. Design structures based on the biology of the animals you are trying to get across the road. Work with their behavior, not against it.
2. Design structures to maintain the integrity of the ecosystem, not just to get one species across. Building for the most sensitive animal in terms of size and number will help do this. In other words, skunks will use everything, but grizzly bears will not.
3. Some type of barrier or diversion fencing combined with the appropriate size, shape, substance, and interval of crossing structure has been effective for virtually all taxa of wildlife. Matching those attributes with your target animal is the tricky part, but it's not rocket science.
4. If in doubt, make structures larger rather than smaller. This allows more species to use it, and more animals use larger structurs than small, enclosed structures.
5. Start with a statewide connectivity analysis to help decide which areas are important to maintain connectivity in a larger scale context. Put mitigation where it counts, not where it's convenient.

If you want to give your contacts my name, I'd be happy to give them a jumpstart in some of these concepts. Hope this helps!

Sandra L. Jacobson
Wildlife Biologist
USDA Forest Service
Redwood Sciences Lab
Pacific Southwest Research Station
1700 Bayview Drive
Arcata, CA 95521

707-825-2985
Fax: 707-825-2901
Email: sjacobson@fs.fed.us

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103-0001-OEP

United States Department of the Interior
Fish and Wildlife Service

Bloomington Field Office (ES)
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273

27 August 2004

Keith Mike G.
Vince Jim G
Dean
Dave F
Kent
Tom

Amy Henry
BHE Environmental, Inc.
7041 Maynardville Highway
Knoxville, TN 37918

Virgil Brack, Jr.
Environmental Solutions and Innovations, Inc.
781 Neeb Road
Cincinnati, OH 45233

RECEIVED
SEP - 1 2004
BLA

RE: Pre-survey site-specific coordination and BFO authorization for conducting fall surveys for the Federally endangered Indiana bat at potential hibernacula within 5 miles of INDOT's proposed I-69 corridor in Greene and Monroe counties, Indiana.

Dear Amy and Virgil,

This letter is in response to your letters from BHE Environmental, Inc. (BHE) and Environmental Solutions and Innovations, Inc. (ESI) (dated 13 and 23 August 2004 respectively) requesting authorization from the U.S. Fish and Wildlife Service's Bloomington Field Office (BFO) to conduct fall surveys and radiotelemetry on the Federally endangered Indiana bat (*Myotis sodalis*). These requests regarded conducting fall surveys for the presence of Indiana bats at the entrances of 60 caves (30 by BHE, and 30 by ESI) in association with the above referenced project.

This work would be conducted under BHE's and ESI's Federal permits (TE 809227-16 and TE-023664-12 respectively). BFO Biologist, Andy King, has been in close coordination with the staff of Bernardin, Lochmueller & Associates, Inc. (BLA) and the Indiana Geological Survey regarding which specific caves merit being surveyed in the fall of 2004, their field locations, and access. You are authorized to conduct bat surveys at the 30 caves assigned to your company by BLA as designated in the enclosed attachments. You are authorized to survey the cave entrances using harp traps. If you are unable to safely or effectively erect a harp trap at a cave entrance (e.g., a pit entrance that is too large to safely/completely seal with plastic netting), you may use mist nets or an alternative technique as described in the attached survey protocol.

This letter serves as authorization for you and others specifically named on your Federal permits to conduct bat surveys using harp traps or mist nets at the 30 caves assigned to your respective companies in Greene and Monroe counties between 27 August and 15 October 2004 (Note: a separate authorization

letter will be required from the BFO before any winter cave surveys for Indiana bats associated with this project may be initiated).

The caves in the attached lists have been color-coded according to their perceived likelihood of serving as an Indiana bat hibernaculum and/or a swarming site. The priority of some caves was also elevated because of their close proximity to the I-69 corridor (e.g., , and caves). Weather permitting; surveys of all red-shaded caves (highest priority) should be completed from 12 September to 3 October 2004. Similarly, an effort should be made to survey as many of the orange-shaded caves during the 12 September to 3 October time frame as possible. The yellow-shaded caves can be surveyed anytime between 27 August and 15 October.

This letter must be carried with your Federal permit when conducting work at these sites. All captures of Indiana bats should be reported directly to Andy King at this office within 24 hours (voice mail should be left at 812-334-4261 ext. 216 or e-mail Andrew_King@fws.gov).

We understand a potential need to survey alternative caves may arise if access to a previously approved cave is denied. If a cave substitution is warranted/needed, we request that you or BLA coordinate this on a case-by-case basis with Andy King prior to surveying at a new cave. We request that you keep BFO abreast of the anticipated dates and specific caves that you will be surveying on a weekly basis so FWS staff will have an opportunity to visit you in the field. Finally, we remind you and your staff to review your State permits, and amend them as appropriate, if you have not already done so.

If you have questions please contact Andy King (812-334-4261, extension 216).

Sincerely,

Scott E. Pruitt
Field Supervisor

cc: Catherine Gremillion-Smith, Indiana Department of Natural Resources
Tom Cervone, BLA

Cave List for BHE

#	CAVE_NAME	ENT_SIZE_F	AIRFLOW	IND_BAT_HA	HABITAT_NO
1	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
2	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
4	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
5	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
6	Blasarus Blunder Cave	3.5 x 3.5	Slight outflow	Medium Possible	Sucks cold air in winter
7	Breeden Karst Window Cave	3 x 3	None	Medium Possible	Sucks cold air in winter
8	BRIAR SINK CAVE	2 x 5	Slight outflow	Medium Possible	Possible winter cold trap
9	ELLER CAVE	2 x 4	Slight outflow	Medium Possible	Possible winter cold trap
10	MISTER POTATO PIT	4 x 12	Slight outflow	Medium Possible	Possible winter cold trap
11	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
12	Patterson Quarry Cave	3 x 4	Slight outflow	Medium Possible	Possible winter cold trap
13	Windy Rock Cave	5 x 10	Moderate outflow	Medium Possible	Winter cold trap
14	Blair Springs Cave System (Brinegar)	9 x 5	None	Weak Possible	Possible winter cold trap
15	Blair Springs Cave System (Triple J)	4 x 2	Slight oscillation	Weak Possible	Possible winter cold trap
16	Goode's Cave	5.5 x 30	Slight outflow	Weak Possible	Sucks cold air in winter
17	New Cave 1	1.5 x 1.5	None	Weak Possible	Possible winter cold trap
18	New Cave 2	6 x 6	Slight outflow	Weak Possible	Possible winter cold trap
19	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
20	SHIRLEY SPRINGS CAVE	4 x 8	Slight inflow	Weak Possible	Winter cold trap
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	Isom Cave 1	2.5 x 1.5	None	Unlikely	Possible winter cold trap, small
23	JIMs HOLE	4 x 6	Slight outflow	Unlikely	Wet in winter; sucks cold air
24	LITTLE BLAIR CAVE	3 x 2	Slight outflow	Unlikely	Possible winter cold trap, small
25	Matlock Cave	2 x 3	None	Unlikely	Winter cold trapl, wet, heavily visited
26	New Cave 5 (Deckard Spring Cave)	1 x 4	Slight outflow	Unlikely	Landowner reports bats, possible flooding
27	R&R Cave	1 x 3	Slight outflow	Unlikely	Low and tight, cold trap in winter
28	Trapdoor Cave	8 x 3	None	Unlikely	Entrance is cold trap, but cave is warm in winter
29	Sira Cave			Unlikely	Owner reported seeing bats
30	Showcase Cave			Unlikely	3600 ft. passage

Cave List for ESI

#	CAVE_NAME	ENT_SIZE_F	AIRFLOW	IND_BAT_HA	HABITAT_NO
1	[redacted]				
2	[redacted]				
3	[redacted]				
4	[redacted]				
5	[redacted]				
6	Clyfty Cave	5 x 10	Slight outflow	Medium Possible	Sucks cold air in winter
7	DuBois Den	5 5	Indeterminate	Medium Possible	Possibly sucks cold air in winter
8	Garton Groundhog Cave	1 5	Slight outflow	Medium Possible	Possible winter cold trap
9	GIMSEY HOLE	5 x 8	Slight outflow	Medium Possible	Possible winter cold trap
10	GROSS HOLE	2 5 x 2 5	None	Medium Possible	Possible winter cold trap
11	LINTHICUM SPRING CAVE	5 x 2 5	Slight outflow	Medium Possible	Sucks cold air in winter, landowner reports bats

BAT SURVEY PROTOCOL*
FOR ASSESSING USE OF POTENTIAL HIBERNACULA
(I-69 Tier 2 Studies)

RATIONALE

A typical cave or mine portal survey is an attempt to determine presence or probable absence of the species; it does not provide sufficient data to determine population size or structure. Following these guidelines will standardize procedures for bat surveys at cave and mine portals. Although the capture of Indiana bats confirms their presence, failure to catch Indiana bats does not absolutely confirm their absence.

ASSESSING CAVES/ABANDONED MINES FOR BAT SURVEYS

In general, openings can be dismissed from bat surveys when:

- There is only one horizontal opening less than 6 inches in diameter and no or very little airflow is detected.
- Vertical shafts <1 foot in diameter.
- Passage continues less than 50 feet and terminates with no fissures that bats can access.
- Mines/caves that are prone to flooding, collapsed shut and completely sealed, or otherwise inaccessible to bats.
- Openings, which have occurred recently (within 1 year) due to subsidence.

SAMPLING DATES, TIMES AND TEMPERATUE CRITERIA

- In 2004, fall sampling may be conducted from 29 August thru 15 October.

- Sampling will start ½ hour before sunset and continue for at least 5 hours.

- Weather must provide for:
    1. Temperatures >50° F (10°C) for first 2 hours of sampling and not fall below 35°F (1.6°C) by midnight.
    2. At least 3 hours free of heavy rain and thunderstorms.

- Sampling will be conducted on two evenings. If no bat captures (of any species) occur and no bat activity is noted with a bat detector on the first evening during acceptable weather conditions, sampling can be suspended for the site.

- The shining of lights, and noise will be kept to a minimum with no smoking around the sample site. The use of radios, campfires, running vehicles, punk sticks, citronella candles and other disturbances will not be permitted within 300 feet of site during surveys.

- Before conducting surveys, local residents and/or law enforcement agencies should be informed of the scheduled nighttime activities.

* Adapted from the protocol used by the Pennsylvania Game Commission

EQUIPMENT

No equipment, litter or other debris will be /eft unattended at site that could result in the capture or entanglement of any animals. Any equipment stored at site between sampling sessions will be clearly labeled with contact information.

Harp Traps (first choice): Place in front of opening and block surrounding space with plastic sheeting or bird netting. Traps should be tended at least once per hour. When the catch rate is high (>25 bats per hour) or during inclement weather, traps should be tended more frequently.

Mist Nets (second choice): 50 denier, 38mm mesh. Place in front or around openings that can not be harp trapped. Nets need to be monitored closely and checked at least once every 20 minutes. At sites with a heavy bat swarm, the net may need to be monitored continuously.

Bat Detector: In addition to the harp trap or mist nets, an ultrasonic bat detector should be on site to periodically monitor general bat activity and to assess the general effectiveness of the harp trap or mist net placement.

Alternative Monitoring Techniques: In situations where cave/mine entrances can not be safely/effectively trapped or netted, bat detectors (e.g., heterodyne or AnaBat) and/or night-vision/infrared/thermal-imaging recording devices should be used to monitor and record bat activity to determine bat use of the site. Bat activity in or around the entrance can be monitored by counting bat passes with a bat detector, or night vision/infrared video tapes can be made providing actual counts of bats entering the opening. As with trapping, monitoring should be conducted for 5 hours. Reporting format will be: Start and end time for 1-hour sample period and bat passes for that hour. If a bat detector is used to monitor a cave/mine entrance, the biologist should 1) manually operate a tunable detector to quantify the amount of bat activity (i.e., tally # of bat passes/hour for 5 hours) at the cave entrance, 2) write down the peak frequency associated with each bat pass, and 3) take field notes describing the bat activity throughout the 5-hour sampling period (e.g., are bats entering and/or exiting the entrance, just passing by etc...).

If alternative monitoring techniques are needed to complete a survey, these should be coordinated with Andy King at the BFO on a case-by-case basis prior to being employed.

CAPTURED BATS

Standard measurements should be taken and recorded for all captured bat species. Photo documentation of Indiana bats is also encouraged.

Fecal Samples: Fecal samples should be collected from Indiana bats (and other species as time allows), clearly labeled, placed within separate Ziploc bags, and stored on ice or in a freezer. Fecal samples may be hand delivered to Andy King at the BFO at any time during normal working hours.

Banding (*M.sodalis* only): A single, uniquely numbered/embossed band (preferably celluloid/plastic) of a high- contrast color (e.g., white) should be placed on the right forearm of each male and the left forearm of each female Indiana bat. If many bats are captured at one time, it is acceptable to only band a subset of the individuals to avoid having to hold them for a long period of time. Please use your best professional judgment.

BERNARDIN • LOCHMUELLER & ASSOCIATES, INC.
PLANNERS • ENGINEERS • SURVEYORS • ENVIRONMENTAL SERVICES
6200 VOGEL ROAD, EVANSVILLE, INDIANA 47715-4006
PHONE: (812) 479-6200 / FAX: (812) 479-6262

TRANSMITTAL

DATE: September 1, 2004

TO: Indiana Department of Natural Resources
South Region Environmental Biologist
553 East Miller Drive
Bloomington, IN 47401-6323

RE: USGS quad maps with I-69 Tier 2 Corridor

ATTENTION: Daniel Gautier

BLA PROJECT NO.: 103-0001-OPL / PL12

We Transmit:

☒ Attached ☐ Under Separate Cover ☒ In Accordance With Your Request

Via:

☒ UPS Ground ☐ UPS Next Day Air ☐ First Class Mail ☐ Pick-Up ☐ Messenger

No. Copies	Dated	Description
1		"I-69 Tier 2 Corridor on USGS Quads" Index Map
1 each		USGS quad maps with I-69 Tier 2 Corridor: Elberfeld, Francisco, Oakland City, Petersburg, Winslow, Sandy Hook, Washington, Montgomery, Epsom, Lyons, Scotland, Koleen, Owensburg, Stanford, Clear Creek, Bloomington, Modesto, Hindustan, Martinsville, Cope, Mooresville East, Bargersville, Maywood

REMARKS: Enclosed are the USGS quad maps with the I-69 Tier 2 Corridor (variable width corridor shown in orange) for the entire length of the Corridor.

Sincerely,

BERNARDIN • LOCHMUELLER & ASSOCIATES, INC.

Daniel Townsend

By: Daniel Townsend
PMC Section 1 & 2 Coordinator

/dst

Copies to: file
Lyle Sadler - INDOT
Chris Baynes - INDOT

S:\Projects\103-0001\Correspondances\transmittal_Gautier_IDNR_quadmaps.doc

BERNARDIN · LOCHMUELLER & ASSOCIATES, INC.
Engineering • Surveying • Planning • Environmental Services • Water & Wastewater
6200 Vogel Road
Evansville, Indiana 47715-4006
Telephone 812-479-6200 · Toll Free 812-423-7411 · FAX 812-479-6262

TRANSMITTAL

DATE: September 7, 2004

RE: Agency Coordination Information

TO: Tier 2 Consulting Agencies

BLA PROJECT NO.: 103-0001-0PL

CLIENT PROJECT NO.: n/a

WE TRANSMIT:

☑ **Attached** ☐ **Under Separate Cover** ☐ **In Accordance With Your Request**

VIA:

☐ **UPS Ground** ☐ **UPS Next Day Air** ☑ **US Mail** ☐ **Pick-up** ☐ **Messenger**

No. Copies	Dated	Description
1	8/12/04	Meeting Minutes from the Environmental Resource Agency Meeting
1		CD containing "Agency Coordination Kickoff Meeting" information

REMARKS:

Sincerely,
Bernardin, Lochmueller & Associates, Inc.

BY: Kent Ahrenholtz, P.E.
Project Manager

Copies to: File

103-0001-DED

United States Department of Agriculture
Forest Service
Hoosier National Forest Supervisor's Office
811 Constitution Avenue
Bedford, IN 47421
Phone: 812-275-5987
Fax: 812-279-3423
TDD: 1-800-877-8339

File Code: 1950-5
Date: September 22, 2004

Keith
Vince
Dean
Dave I
Kent
Tom
Mike G.
Jim G

Kent Ahrenholtz, P.E.
Project Manager
Bernardin, Lochmueller & Associates, Inc.
6200 Vogel Road
Evansville, IN 47715-4006

Dear Mr. Ahrenholtz:

This is in response to your request for comments on the scope and direction of the I-69, Tier 2 Environmental Impact Statements for the six Tier 2 Sections. Our comments are relevant to the Tier 5 Section, since that is the only section in proximity to the Hoosier National Forest.

Our original concern in protecting the Tincher Special Area is no longer an issue as a result of the Tier 1 alternative chosen. However, we would like the broader mitigations we first proposed to remain.

1. Forested lands mitigated at a 1:3 ratio—for every acre of forested land needed for I-69, replace it with three acres protected somewhere else. The Forest would be willing to discuss opportunities of any newly acquired forested land to become part of the Hoosier National Forest.

2. Wetlands mitigated beyond "no net loss" on a 1:4 ratio—the same process for forested land could be used to acquire lands suitable for wetland restoration.

3. Karst areas mitigated at a 1:4 ratio—in particular, there may be opportunities near Wesley Chapel Gulf in the national forest to acquire important karst features so they can be protected and studied.

Thank you for the opportunity to have input on the Tier 2 Sections. If you have any questions or need additional information, please contact Franklin Lewis at 812.275.5987.

Sincerely,

KENNETH G. DAY
Forest Supervisor

RECEIVED
SEP 22 2004
BLA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

SEP 3 0 2004

SEP 2 3 2004

REPLY TO THE ATTENTION OF:
B-19J

Tony DeSimone, Project Manager
Federal Highway Administration - Indiana Division
575 N. Pennsylvania St., Room 254
Indianapolis, Indiana 46204

RE: EPA Comments on the August 12, 2004, I-69 Corridor Tier 2 Studies "Kick-off" Meeting Minutes, and EPA Questions and Additional Comments on the Tier 2 Process and Tier 2 EISs.

Dear Mr. DeSimone;

Thank you for inviting us to the I-69 Corridor Tier 2 Studies Kick-off Meeting held on August 12, 2004. We found the meeting to be informative. This letter: (1) provides EPA's comments on the August 12th Meeting Minutes, and 2) poses several questions and requests for more detailed information on some key issues that were not satisfactorily addressed in the *Discussion Paper: Purpose and Need, No Build, and Alternatives Analysis for I-69 Tier 2 Studies* (Discussion Paper) or during the August 12, 2004, meeting. We also provide some additional comments on the Tier 2 process and the level of documentation and analysis we expect to see for some key issues in the six Tier 2 Environmental Impact Statements (EISs).

Meeting Minutes

The August 12, 2004, meeting minutes will become part of the Federal Highway Administration - Indiana Division (FHWA) National Environmental Policy Act (NEPA) agency coordination documentation for the Tier 2 EIS and should be included in all six Tier 2 EISs. Consequently, it is important that the meeting minutes generated for all Tier 2 interagency meetings are detailed and accurate. We compared the August 12, 2004, meeting minutes we received on September 10, 2004, with our meeting notes. Enclosed with this letter are our specific revisions to the meeting minutes. Most of our revisions are additions/supplements to the current version of the meeting minutes.

The Discussion Paper was used as the basis for the interagency discussion during the August 12, 2004, I-69 Tier 2 Studies "Kick-off" meeting. Several questions remain that were not adequately addressed by the Discussion Paper or during the meeting. We request information concerning the following:

<u>Specifics on BLA's role and responsibilities for coordinating mitigation</u> - It is our understanding that Bernardin Lochmueller & Associates (BLA), Project Management Consultant (PMC) is responsible for coordination on mitigation efforts in each segment and ensuring consistency for

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the whole project. EPA requests details on how BLA plans to coordinate mitigation between the six separate segments and demonstrate how the coordination will manifest in mitigation implementation in a timely manner.

I-69 Wayside Rest Area Locations - When and how will the decision be made as to which segment/s will contain the two proposed wayside rest areas? Alternative locations and their associated direct and indirect impacts will need to be identified, evaluated and considered in the appropriate Tier 2 EIS/s.

"Basic Project Purpose" - While the Discussion Paper defines the "overall project purpose" as the nine project goals in the Tier 1 EIS, the Discussion Paper does not specifically define the "basic project purpose" as distinct from the "overall project purpose." The "basic project purpose" and "overall project purpose" should be defined and included in each Tier 2 EIS.

Tier 2 Structure

Notice to EPA of Meetings and Draft Document Reviews - While the August 12, 2004, meeting was very informative, additional interagency working meetings on this overall project will be needed. We request at least a 4-week lead time on knowing the potential dates for these meetings to allow us to fit them into our schedules. In addition, we request at least a 4-week advance notice before sending us hard copies of documents for our review and comment. We will attend meetings, review and comment on Pre-Tier 2 DEIS draft documents as staff time and travel funds allow.

EPA Participation - As much as we would like to participate in the details of all six project segments, this will be difficult. We would appreciate having a forum for discussing our overarching concerns for all of the Tier 2 work. We also recognize that different issues will demand different emphasis in the various segments depending on the variables of the natural and built environment in each segment. We would like to be involved early in the consideration of procedures for the screening and evaluation of alternatives in the Tier 2 NEPA process.

Transportation Conformity 8 hour ozone and PM 2.5 - FHWA will need to address the 8-hour ozone designations and 8-hour conformity requirements. At this time, the grace period lasts until June 15, 2005. This means that if a Record of Decision (ROD) for any of the Tier 2 segments is completed prior to June 15, 2005, FHWA will not need to have a transportation conformity determination under the 8-hour ozone standard. However, if a ROD is completed after June 15, 2005, then the segment must have a completed 8-hour ozone transportation conformity determination if a segment is within a nonattainment area.

The same will be true of any segments that are completed after the PM 2.5 designations. PM 2.5 designations are expected to be published in December 2004. We anticipate an approximately 1-year grace period. Please coordinate with us and the Indiana Department of Environmental Management as the implementation schedule for PM 2.5 becomes firmer.

Consideration of Impacts Beyond A Segment's Termini - We endorse the plan to look at environmental issues for one mile beyond the termini of each segment. This will help to ensure the segments are connected in an environmentally sound manner. However, we recommend there be flexibility for this study area to go further than one mile if that would help address and resolve issues in a problematic situation.

Interagency Technical Committee on Water Issues - We endorse the immediate formation of an interagency technical committee on water issues. This would include wetlands, streams, springs, impaired waters, drinking water (surface and ground water supplies, wells, Well Head Protection Areas), karst, aquatic habitats, and floodplains. We look forward to serving on such a committee to help get the six Tier 2 studies off to an effective start. The EPA representative would be Cathy Garra, Wetlands and Watersheds Branch; she may be reached at 312-886-0241.

Below, we identify some of the topics and issues that will need to be addressed in the Tier 2 EISs. Many of them should be considered by the Interagency Technical Committee on Water Issues.

Tier 2 Natural Resources

Special Aquatic Sites - All special aquatic sites, as defined and discussed in Subpart E of the Section 404(b)(1) Guidelines, should be identified and located or formally delineated. Special aquatic sites for this study area are most likely to include wetlands, areas of riffle-pool stream structure and sanctuaries and refuges (Federal, State or local designations). The study area should be, at least, the entire 2000 ft. wide project corridor, so that roadway alignment alternatives can be planned to avoid special aquatic sites and meet the intent of the Guidelines in any Section 404 permitting.

Streams - The geomorphology of all streams, including "ditches," in the project corridor should be inventoried so that stream crossings can be effectively planned and their impacts offset in a way that protects and enhances the stream system over the long-term. The Tier 2 studies should document conformance with any applicable State or local water quality management plans for point and non-point source pollution factors for streams and other waterbodies.

Wetlands - For all alignment alternatives, the wetlands traversed should be assessed for their variety of functions and values. A rapid assessment methodology suitable for this geographic area should be adopted. An existing methodology may need to be adapted to the characteristics of the study area.

Existing Conservation or Mitigation Projects - Conservation projects funded by the Natural Resources Conservation Service (NRCS) through the Wildlife Habitat Improvement Program, the Wetlands Reserve Program, etc., should be avoided by the various alignment alternatives. NRCS will be able to assist with identifying these projects. Likewise, any areas serving as compensatory mitigation for previous Section 404 permits must be avoided. The latter issue was investigated during Tier 1 and appears to be resolved.

Farmed and Prior Converted Wetlands - NRCS can assist the project on the identification of farmed wetlands and prior converted wetlands in the study band.

Karst Areas - Karst issues will be complex and difficult for this project. With different karst consultants for sections 4 and 5, careful coordination is essential.

The Karst Memorandum of Agreement stresses the identification of karst areas and protection of biological resources, which will be essential for this project. Given the sensitivity and high probability of encountering rare or endangered species in areas with karst geology, the Tier 2 EISs will need to include the specific provisions that will be made for knowledgeable biologists to monitor the construction work.

The Tier 2 documents must fully consider the hydrologic and water quality aspects of environmental impacts of building the highway in karst terrain. The documentation should address well and water supply issues. Groundwater flow patterns and wellhead protection areas should be identified, especially in karst areas. The NEPA documents should identify and address the adequacy of proposed or current measures that are in place for handling spills, including hazardous response plans. The documents should also identify any changes that are likely as a result of the project.

Tier 2 Secondary Land-use Impacts Analysis and Tier 2 Cumulative Impacts Analysis
Both direct and indirect impacts (especially in "avoided" situations) to aquatic and other natural resources need to be assessed in the Tier 2 documents. Each Tier 2 EIS should include a detailed and thorough Secondary Land-use Impacts Analysis and a Cumulative Impacts Analysis specifically developed for each segment. These analyses are especially important in segments that contain karst geology. See EPA's February 11, 2004, letter addressed to Robert F. Tally, Jr., Division Director, FHWA - Indiana Division, for additional details concerning these analyses. The analyses will aid in identifying a preferred alternative alignment for each segment and will help determine the appropriate level of mitigation that should be identified and committed to in each of the six Tier 2 EISs/ROD.

Tier 2 Mitigation
Sound design choices, construction methods, and management practices must be addressed for both the construction period and for long-term operation and maintenance of the project, to reduce adverse environmental effects.

To the extent possible for each step in the Tier 2 EIS process (Draft EIS, Final EIS, Record of Decision), the Tier 2 documents should discuss and present the possibilities for viable mitigation practices, and present the commitment and the structure for their implementation and long-term use. This will be especially important when long-term maintenance is required. We anticipate that the focus of what actions will be taken will become more specific at each step in the NEPA process.

Wetlands and Aquatic Resources - For wetlands and other aquatic resources, please make use not only of the 1991 Agreement, but also the newer guidance from the Interagency Coordination Agreement on Wetland Mitigation Banking (2002) and the Louisville District's Mitigation Guidelines (draft of 12/03 or current subsequent version). The banking materials have good discussions on planning for effective mitigation whether or not a formal mitigation bank structure will be established for the project. Fewer mitigation acres may be required if mitigation banks are established with credits approved in advance of project construction.

Although the project is logically proceeding through the NEPA process in six separate Tier 2 studies, compensatory mitigation for wetlands should offset the resource lost within the 8-digit watershed where it was located. This can involve some blended mitigation sites between the six independent projects to achieve these watershed goals. Compensatory mitigation should be planned for many restoration sites, not just for a couple of sites, to retain the functions and values of the lost wetlands throughout the study area. Work in Tier 1 pointed to a number of promising potential sites where this might occur.

Wetland restoration is preferred to creation for the greater reliability of its hydrology and likelihood of ecological success over the long-term. Mitigation for wetlands and other aquatic resources should incorporate suitable buffers of native plant species and include design and management measures to control invasive species in restored wetlands and stream side habitat.

Streams and Flood plains - Careful attention must be paid to providing effective mitigation for the geomorphological stability of stream structure and aquatic/riparian habitat alterations and losses. We have a preference for bridging over the wetlands and floodplains of all streams, to reduce adverse impacts, not only at the Patoka River and Flat Creek. Bridging of floodplains associated with streams also has an added benefit of providing continuity of wildlife corridors. We encourage planning your flood plain work with the Indiana Department of Natural Resources to meet State requirements and to have a prudent project.

Impaired Water bodies - When working in the watersheds of water bodies with designated impairments, mitigation must be designed to address reducing those impairments, where feasible.

Stormwater - Stormwater runoff, its treatment and drainage need to be planned, designed and managed to avoid adverse impacts to streams, wetlands and karst/groundwater hydrology. Details of stormwater management plans and treatment methods should be part of each segment's NEPA documentation.

Wildlife Crossings - It will be important to incorporate wildlife crossings into highway design for upland areas as well as in stream/floodplain areas. Since the August 12, 2004, meeting, Wendy Melgin of EPA's Wetlands and Watersheds Branch, has forwarded some technical reference material on wildlife crossings to Bernard Lochmueller and Associates.

Mitigation Funding - An adequate budget must be reserved to implement high quality mitigation measures, including funding for subsequent management and monitoring where appropriate.

Mitigation Implementation - Mitigation should be done in advance or concurrently with highway construction.

We look forward to receiving your responses to our questions and look forward to working with FHWA, InDOT and their consultants on the Tier 2 studies as staff time and travel funds allow. If you have any questions regarding this letter, please contact Virginia Laszewski of my staff at 312-886-7501.

Sincerely,

Kenneth A. Westlake, Chief
Environmental Planning and Evaluation Branch

enclosure (1)

cc: Janice Osadczuk, Chief, Division of Preliminary Engineering and Environment, INDOT
Doug Shelton, Regulatory Branch, U.S. Army Corps of Engineers - Louisville District
Amy Babey, Regulatory Branch, U.S. Army Corps of Engineers - Louisville District
Scott Pruitt, Field Supervisor, U.S. Fish and Wildlife Service - Bloomington Field Office
Andy King, U.S. Fish and Wildlife Service
Lori Kaplan, Commissioner, Indiana Department of Environmental Management
Andrew Pelloso, Indiana Department of Environmental Management
John Goss, Director, Indiana Department of Natural Resources
Kent Ahrenholtz, Project Management Consultant, Bernardin Lochmueller & Associates
Roger Wade, Section 1 Project Manager, Qk4
Randy Perkinson, Section 2 Project Manager, HWC/Jacobs Civil Team
David Pluckebaum, Section 3 Project Manager, Corradino Group
Bruce Hudson, Section 4 Project Manager, DLZ
Wendy Vachet, Section 5 Project Manager, Michael Baker
Tim Miller, Section 6 Project Manager, HNTB

U.S. EPA Comments on the Meeting Minutes for the Environmental Resource Agency Meeting on August 12, 2004.

Brief History (page 2 of 11)

✓ (3rd bullet) - amend to read: "All Tier 2 alternatives, by definition, will meet Tier 1 Purpose and Need"

✓ (5th bullet) - amend to read: "Each Section will complete and EIS and Record of Decision"

✓ (Q/A) - amend "A" to read: "In general, we are focusing on the 2000' corridor and the specific needs within the section (e.g., grade separations, interchanges, frontage roads). For some issues . . . "

Purpose of Meeting / Agency Coordination (page 2 of 11)

✓ **Section 7 Consultation / Bat Mist Netting (page 2 of 11)**

(1st bullet) - amend to read: "INDOT and FHWA are completing, with the USFWS and InDNR interaction on the study design/review, mist netting for the Indiana bat in each section. Second stage of the bat survey work is contingent on first stage satisfying USFWS, InDNR."

✓ **Project Management Consultant (page 3 of 11)**

(Add a 3rd Bullet) - "Project-wide sub-contractors have been hired for: 1) archaeology, 2) historic resources, 3) human environment (e.g., relocations, community impacts, environmental justice).

Purpose and Need (pages 5 of 11 and 6 of 11)

✓ (3rd bullet) - insert "be" in the second sentence between the words "will" and "the identification"

✓ (1st Q/A) - for "Q" insert: What is the "basic project purpose" alluded to in the discussion paper on page 6 of 9? (EPA)"

✓ (Add another Q/A) - "Q": "The Discussion Paper already identifies the "overall project purpose" as the Tier 1 EIS nine project goals. What is the "basic project purpose?" Is the "basic project purpose" the statement found within the first bullet in Section D. Role of Purpose and Need in Selecting a Preferred Alternative on page 7 of 9 of the Discussion Paper, i.e., "completion of an Interstate highway system [between Evansville and Indianapolis]?"

A: No answer given.

✓ (2nd Q/A) - delete "Q" and insert: We hope that the Purpose and Need Sections of the 6 EISs will not be as overly complex and cumbersome as the Tier 1 Purpose and Need. The purpose and need for the proposal should be succinctly summarized, perhaps in a table, and focus on the 3 major core goals for the proposal identified in the Tier 1 EIS." (EPA)

A: in the first sentence insert the words "and need" after "project purpose."

Public Involvement (page 6 of 11)

(Add a 5th bullet) - "Each SIU will have a community advisory committee."

(Add a 6th bullet) - "Media contact coordinated by INDOT with PMC."

Project Schedule / Time Frames (continued on page 7 of 11)

✓(Add a Q/A bullet between 3rd and 4th Q/A) - "Q": "Where will mitigation be memorialized?"
"A": "In the Record of Decisions (RODs)."

✓(4th Q/A) - add to "A": "INDOT has identified communities and solicited interest. Planning grants will be used by locals to plan for land use practices after I-69 is built."

(7th Q/A) - add to "A": "Tier 1 ROD commits project to use context-sensitive design principles to improve performance and reduce impacts."

Section 1 Presentation (continued on page 8 of 11)

✓(Add an 8th bullet) - "DEIS is expected to be issued by Spring, 2005, with FEIS by Fall 2005."

✓(4th Q/A) - Add to "Q": "Non-attainment areas for very fine particulates (PM2.5) will be announced in December 2004, with a compliance date yet to be determined."

✓(Add a comment bullet) - "A wildlife corridor should probably be incorporated into the roadway at Pigeon Creek." (T. Cervone)

✓(Add a comment bullet) - "Perhaps this is one of those areas where the roadway may need to go outside the corridor?" (EPA)

Section 3 Presentation (continued on page 9 of 11)

(Add a new bullet) - comment: "Develop design standards special for "horse and buggy" travel." (EPA)

Section 4 Presentation (page 9 of 11)

(Add 5th bullet) - "Species of concern for this section include Indiana bat, bald eagle, cave fish and invertebrates."

(Add 6th bullet) - "This section will cross Clear Creek, which is impaired due to PCBs."

(Add 7th bullet) - "Indian Creek is crossed in more than one location, large floodplain . . . possible wildife crossing location."

Section 5 Presentation (page 9 of 11)

(4th bullet) - add "PCBs" after "Lemon Lane"

[End EPA's Meeting Minutes comments]

cc: KENT AHRENHOLTZ, BLA.

103-0001-0PL

Keith
Vince
Matt
Kent
Jonna
Mike G.

U.S. Department of Transportation
Federal Highway Administration

Indiana Division

575 North Pennsylvania Street, R
Indianapolis, Indiana 46204

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OCT 18 2004
BLA

October 13, 2004

HAD-IN

Kenneth A. Westlake, Chief
Environmental Planning and Evaluation Branch
U.S. Environmental Protection Agency
Region 5
77 West Jackson Blvd
Chicago, IL 60604-3590
Attn: Virginia Laszewski

Dear Mr. Westlake:

Re: EPA comments on the August 12, 2004, I-69 Corridor Tier 2 Studies "Kickoff" Meeting Minutes, and EPA Questions and Additional Comments on the Tier 2 Process and Tier 2 EISs

We sincerely appreciated your attendance at the I-69 Corridor Tier 2 Kick-off Meeting. We hope it has helped you understand the process we are undertaking. We also appreciate your thorough review of the minutes. Your comments and additions to the minutes will be thoroughly considered and will assist us in the proper direction for these Tier 2 studies. A revised version of the meeting minutes will be circulated to all attendees, and will be included in the project files. Below are responses to your individual questions. I hope that this helps to clarify the issues in which you are concerned.

<u>Specifics on Bernardin Lochmueller and Associate's (BLA's) role and responsibilities for coordinating mitigation</u> – BLA is responsible for assisting the Federal Highway Administration (FHWA) and the Indiana Department of Transportation (INDOT) in implementing mitigation that was committed in the Tier 1 Environmental Impact Statement (EIS) and in maintaining consistency between each of the Tier 2 EISs. They have been tasked with identifying potential mitigation sites and maintaining consistency among the many environmental areas such as purpose and need refinement, wetland impacts, endangered species identification and impacts, historic impacts, public involvement and community impact assessment, general consistency between documents and many other areas that need this overall oversight. BLA is also responsible for developing the wetland mitigation plan as detailed impacts are identified in each of the Tier 2 studies and the traffic analysis over the region. BLA meets with each of the section consultants monthly, individually and as a group with INDOT and FHWA, to answer

BUCKLE UP AMERICA

questions and provide Tier 2 guidance. FHWA and/or INDOT reviews all guidance given to the Tier 2 consultants and will review in detail all final documents before they are distributed for public or resource agency review.

It is INDOT's and FHWA's intention to implement mitigation for impacts identified in the Tier 1 Final EIS early, when appropriate, as sites are identified. This is evident in INDOT's purchase of forested tracts (the Indiana Power & Light property) in southwest Indiana in the vicinity of the I-69 corridor earlier this year. The local planning grants that were discussed in the Tier 1 Final EIS are also under development.

I-69 Wayside Rest Area Locations – Location of rest areas will be identified, as reasonable locations are determined based on proper spacing, minimal negative impacts to the natural and human environment, and may include efforts to support local interest and interpretation of the area. Rest Area locations are expected to be included in the Draft EIS for the two sections that will contain the rest areas. Prior to the publication of the Draft EIS, we will coordinate with EPA and other regulatory agencies to discuss the selection of the rest area locations.

"Basic Project Purpose" – The terms "basic project purpose" and "overall project purpose" were used interchangeably in the Purpose and Need Discussion Paper. For consistency, we will use the term "overall project purpose" (rather than basic project purpose) from this point forward. For purposes of the Tier 2 studies, the term "overall project purpose" means the purpose and need for the Evansville-to-Indianapolis section of I-69 as defined in the Tier 1 Final EIS, which is as follows: "The purpose of the I-69, Evansville to Indianapolis Project is to provide an improved transportation link between Evansville and Indianapolis which: Strengthens the transportation network in Southwest Indiana; Supports economic development in Southwest Indiana; and Completes the portion of the National I-69 project between Evansville and Indianapolis." This "overall project purpose" will be further refined in each Tier 2 EIS to include implementation of the Tier 1 Record of Decision as related to each section, which may include possible local needs to be identified during public involvement for each section.

In response to the items related to the Tier 2 Structure, Natural Resources, Secondary (Indirect) and Cumulative Impacts Analysis, and Mitigation, FHWA and INDOT will take these under advisement as we proceed with the development of the environmental documents. We intend to give EPA and other resource agencies as much notice as possible on upcoming meetings and release of documents. Four weeks advance notice should be possible in most instances when scheduling a meeting. Shorter notice may be necessary for meetings on individual issues, but those will be scheduled in cooperation with the specific agencies involved. We are working with the INDOT and BLA to create an interagency technical team to address the water quality issues you have identified.

We are interested in your suggestion to have a forum for discussing your overarching concerns for all the Tier 2 work. Please contact my staff as listed below at your convenience to further discuss this idea and how we can bring it to fruition to help support this study and your involvement.

We greatly appreciate EPA participation in the development of the environmental documents for this and all projects. Your participation helps us to develop projects with more streamlined methods that help produce better projects for both the human and natural environments while providing for the purpose and needs identified. We understand that your early participation helps reduce review times on final documents and allows us to address your concerns earlier in the process. We hope that this project in particular has positive impacts on both the natural and human environment through mitigation, enhancement and context sensitive solutions that are intended to improve the communities by which the highway passes.

My staff looks forward to working with you and your staff on these environmental studies. If you require further information, please contact Tony DeSimone of this office at (317)226-5307 or by email to Anthony.desimone@fhwa.dot.gov.

Sincerely yours,

/s/ Robert F. Tally, Jr.

Robert F. Tally, Jr., P.E.
Division Administrator

cc:
Kent Ahrenholtz, BLA
Lyle Sadler, INDOT, N-848

Carol Hood

From: "ANDREW PELLOSO" <APELLOSO@dem.state.in.us> [APELLOSO@dem.state.in.us]

Sent: Thursday, November 04, 2004 9:15 AM

To: Tom Cervone; JASON RANDOLPH; pehret@dnr.state.in.us; garra.cathy@epamail.epa.gov; westlake.kenneth@epamail.epa.gov; Andrew_King@fws.gov; Michael_Litwin@fws.gov; scott_pruitt@fws.gov; Amy.Babey@lrl02.usace.army.mil; Doug.Shelton@lrl02.usace.army.mil

Cc: Daniel Townsend; Jason Dupont; Jeremy Kieffner; Josh Sherretz; Kent Ahrenholtz; dmunn@blainc.indy; DMunn@blainc-indy.com; Anthony.DeSimone@fhwa.dot.gov; JOSADCZUK@indot.state.in.us; LSADLER@indot.state.in.us

Subject: Re: Interagency Water Resources Coordination Team (I-69 - Tier2)

At this point, Jason Randolph of my staff would represent IDEM on the wetland, streams, water quality, and related issues. I will identify a person to assist with aquifers, water supplies, and wellhead protection areas.

>>> "Tom Cervone" <tcervone@blainc.com> 11/04/04 10:09AM >>>
Dear Reviewers,

We are requesting your participation in the development of an Interagency Water Resources Coordination Team (Committee) for the six Tier 2 studies on I69 (Evansville to Indianapolis). Would you please respond as to your selected representatives (1 to 2) from each agency.

The purpose of this committee is to discuss water resources and appropriate efforts to avoid and minimize impacts. It is our expectation that the committee would review and provide input on the guidance developed for the following resources, as well as potential mitigation measures:

1) Wetlands
2) Streams
3) Floodplains / Floodways
4) Water Quality
5) Karst Geology
6) Aquifers and Water Supplies
7) Wellhead Protection Areas
8) Other Water Resources, as appropriate

We look forward to hearing from you and your cooperation in this matter is much appreciated. If you would like to call me, my telephone number is 8004237411 and FAX # is 8124796262.

Thanks
Tom

Carol Hood

From: "Babey, Amy S LRL02" <Amy.S.Babey@lrl02.usace.army.mil> [Amy.S.Babey@lrl02.usace.army.mil]

Sent: Monday, November 08, 2004 7:19 AM

To: Tom Cervone; APELLOSO@dem.state.in.us; JRANDOLP@dem.state.in.us; pehret@dnr.state.in.us; garra.cathy@epamail.epa.gov; westlake.kenneth@epamail.epa.gov; Andrew_King@fws.gov; Michael_Litwin@fws.gov; scott_pruitt@fws.gov; Doug LRL02 Shelton

Cc: Daniel Townsend; Jason Dupont; Jeremy Kieffner; Josh Sherretz; Kent Ahrenholtz; dmunn@blainc.indy; DMunn@blainc-indy.com; Anthony.DeSimone@fhwa.dot.gov; JOSADCZUK@indot.state.in.us; LSADLER@indot.state.in.us

Subject: RE: Interagency Water Resources Coordination Team (I-69 - Tier 2)

Tom,

I will be the Corps of Engineers contact for wetlands and streams. My level of participation will vary depending upon the location, resource, and timing.

Thanks!

Amy S. Babey
Project Manager
US Army Corps of Engineers
Louisville District
(502) 3156691

Original Message
From: Tom Cervone [mailto:tcervone@blainc.com]
Sent: Thursday, November 04, 2004 10:10 AM
To: APELLOSO@dem.state.in.us; JRANDOLP@dem.state.in.us; pehret@dnr.state.in.us; garra.cathy@epamail.epa.gov; westlake.kenneth@epamail.epa.gov; Andrew_King@fws.gov; Michael_Litwin@fws.gov; scott_pruitt@fws.gov; Babey, Amy S; Shelton, Doug
Cc: DMunn@blaincindy.com; Daniel Townsend; Jason Dupont; Jeremy Kieffner; Josh Sherretz; Kent Ahrenholtz; dmunn@blainc.indy; Anthony.DeSimone@fhwa.dot.gov; JOSADCZUK@indot.state.in.us; LSADLER@indot.state.in.us
Subject: Interagency Water Resources Coordination Team (I69 Tier 2)

Dear Reviewers,

We are requesting your participation in the development of an Interagency Water Resources Coordination Team (Committee) for the six Tier 2 studies on I69 (Evansville to Indianapolis). Would you please respond as to your selected representatives (1 to 2) from each agency.

The purpose of this committee is to discuss water resources and appropriate efforts to avoid and minimize impacts. It is our

expectation that the committee would review and provide input on the guidance developed for the following resources, as well as potential mitigation measures:

1) Wetlands
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6) Aquifers and Water Supplies
7) Wellhead Protection Areas
8) Other Water Resources, as appropriate

We look forward to hearing from you and your cooperation in this matter is much appreciated. If you would like to call me, my telephone number is 8004237411 and FAX # is 8124796262.

Thanks
Tom

108-0001-OED

DNR Indiana Department of Natural Resources

Joseph E. Kernan, Governor
John Goss, Director

Executive Office
Room W256
402 West Washington Street
Indianapolis, IN 46204-2748
Telephone: (317) 232-4020
FAX: (317) 233-6811

November 18, 2004

Keith Daniel
Vince Jason
Dean Dean M.
Dave I Jeremy
Kent Josh
tom
Mike G.
Jim G.

Kent Ahrenholtz, PE
Bernardin, Lochmueller & Associates, Inc
6200 Vogel Road
Evansville, IN 47715-4006

RE: DNR #11114, I-69 Evansville to Indianapolis Tier 2 Studies; August 12, 2004 Agency "Kick-off" Meeting; (Tier 1 reviews = DNR #9642)

Dear Mr. Ahrenholtz:

The Indiana Department of Natural Resources appreciates the invitation to participate in the I-69 Tier 2 Studies kick-off meeting for the environmental review agencies on August 12, 2004. Several Department representatives attended this meeting, and we found the meeting to be very informative and helpful in understanding the sequence of events to occur during the various stages of this project review.

Our agency looks forward to continued coordination with you over the course of the Tier 2 process for this project.

Sincerely,

John Davis
Deputy Director
Department of Natural Resources

Note: Please include the above DNR # on any future correspondence regarding this project.

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NOV 24 2004
BLA

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Carol Hood

From: <Andrew_King@fws.gov> [Andrew_King@fws.gov]

Sent: Monday, November 29, 2004 1:39 PM

To: Anthony.DeSimone@fhwa.dot.gov; LSADLER@indot.state.in.us

Cc: Kent Ahrenholtz; Tom Cervone; APELLOSO@dem.state.in.us; kgsmith@dnr.state.in.us; Garra.Catherine@epamail.epa.gov; westlake.kenneth@epamail.epa.gov; scott_pruitt@fws.gov

Subject: I-69 Communications

Dear I69 Project Managers,

During the I69 Tier 2 Environmental Resource Agency Meeting on 12 August 2004, I inquired whether INDOT would/could provide (i.e., email) the appropriate resource agencies with monthly updates from each of the EEAC project managers (or whomever is most knowledgeable) regarding the status of ongoing field surveys (e.g., karst, wetlands, forest, T&E species), mitigation opportunities, synopsis of significant findings, and tentative schedules for survey reports and NEPA milestones (e.g., completion of Draft EIS) for each of the six Sections. The minutes distributed from that meeting stated that you would "continue to provide updates on ongoing activities," but I have not yet received such updates other than specific issues pertaining to Indiana bat surveys (thank you Tom). At the time of the agency meeting, we were told that project/NEPA schedules were still being negotiated. Is this still the case?

I have also heard that multiple CAC meetings have now been held. Could I please be put on an email distribution list(s) to receive agendas/meeting minutes being prepared for these meetings?

I69 is one of several large and complex consultations that I need to fit into my work schedule. I would greatly appreciate it, if you would please consider distributing some form of a monthly/quarterly/regular update that will allow the U.S. Fish and Wildlife Service and others (EPA, DNR, IDEM, COE?) to stay abreast, participate as needed, and ideally avoid schedule conflicts with other competing priorities.

Thank you for your consideration of this matter.

Sincerely,

Andy King

Carol Hood

From: "JASON RANDOLPH" <JRANDOLP@dem.state.in.us> [JRANDOLP@dem.state.in.us]
Sent: Monday, December 06, 2004 9:25 AM
To: Tom Cervone; belifritz@dem.state.in.us; pehret@dnr.IN.gov; jeggen@dnr.state.in.us; jhebenstreit@dnr.state.in.us; rbraun@dnr.state.in.us; garra.catherine@epa.gov; laszewski.virginia@epa.gov; Andrew_King@fws.gov; Amy.Babey@lrl02.usace.army.mil
Cc: Jason Dupont; Jeremy Kieffner; Josh Sherretz; Kent Ahrenholtz
Subject: Re: Dear Reviewers,

Tom

I am available to meet on both December 14 and 16. Let me know when and where and I will be there.

Jason Randolph
Office of Water Quality
Indiana Dept. of Environmental Management
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 462066015

Phone:3172330467
Fax: 3172328406
EMail: jrandolp@dem.state.in.us

>>> "Tom Cervone" <tcervone@blainc.com> 12/06/04 10:14AM >>>
Dear Reviewers,

INDOT and FHWA are requesting your participation in the development of an this Interagency Water Resources Coordination Team (Committee) for the six Tier 2 studies on I69 (Evansville to Indianapolis). This email is being provided to organize the Water Resources Team for I69 (including professionals from USEPA, USACOE, USFWS, IDEM, and IDNR). An earlier email on November 4, 2004 recommended those individuals receiving this email now. If you would, please look over the email addresses, and check that I have all correct addresses (esp. IDNR's). If there are corrections, please tell me and pass along the information accordingly.

We are tentatively looking at our first meeting on December 14 or 16 of this year in Indianapolis. Please respond as to your availability on either of these days. We sincerely apologize for the last minute notice. If you can not make either of these days, can you make a conference call? Please identify.

The purpose of this committee is to discuss water resources and appropriate efforts to avoid and minimize impacts. It is our expectation that the committee would review and provide input on the guidance developed for the following resources, as well as potential mitigation measures:

1) Wetlands
2) Streams
3) Floodplains / Floodways
4) Water Quality
5) Karst Geology

6) Aquifers and Water Supplies
7) Wellhead Protection Areas
8) Other Water Resources, as appropriate

We look forward to hearing from you and your cooperation in this matter is much appreciated. If you would like to call me, my telephone number is 8004237411 and FAX # is 8124796262.

Thanks
Tom

Carol Hood

From: Kent Ahrenholtz [blainc.Bla_Mailbox.Kent]
Sent: Friday, December 10, 2004 1:24 PM
To: Andrew Pelloso; Bonnie Elifritz; Jason Randolph; Jim Hebenstreit; Paul Ehret; Randy Braun; Jim Hebenstreit; Randy Braun; Cathy Garra; Andrew_King@fws.gov; Amy Babey; Amy S LRL02 Babey; Doug LRL02 Shelton
Cc: Al Ferlo; Bill Malley; Carol Hood; Daniel Townsend; Jason Dupont; Jeremy Kieffner; Josh Sherretz; Terry Campbell; tcervone@blainc.com; Dean Munn; Anthony Desimone; Brad Steckler; CHRIS BAYNES; Janice Osadczuk; LYLE SADLER; RBUSKIRK@indot.state.in.us
Subject: Re: Interagency Water Resource Team Meeting on December 14, 2004

Just a brief update...

The conference call access code for this meeting has changed to the following:

Access Code: 3030001#

I have also attached a tentative agenda for the meeting. Please review and provide any comments or additional subjects that you might like to see covered.

As Dr. Cervone mentioned below, please don't hesitate to contact with Tom or myself if you have questions or concerns.

Thanks,

Kent

Kent L. Ahrenholtz, P.E.
Bernardin Lochmueller & Associates
6200 Vogel Road
Evansville, IN 47715

(812) 479-6200
Fax: (812) 479-6262
Cell: (812) 459-9909
Email: kahrenholtz@blainc.com

>>> "Tom Cervone" <tcervone@blainc.com> 12/09/04 11:00AM >>>
Dear Reviewers,

Thank you for responding about having a proposed team meeting related to the developing Interagency Water Resource Team on I-69 (Evansville to Indianapolis). Following your information on available times, we provide the following on a meeting.

The meeting is to be held as follows:

I-69 Tier 2 Interagency Water Resources Team Meeting
Tuesday, December 14, 2004
1:30 p.m. to 3:30 p.m. EST (Indy Time)
INDOT Central Office N755 Bay Window Conference Room

For those of you that can't join us in person, we are providing the following telephone # and access code for a conference call.

Telephone Number - 800-811-3000
Project Access Code - 1030001 #

If you can not conference call or attend, we will individually call you and pass along the information including the meeting minutes. Any questions, please email or call Tom or Kent (800-423-7411).

We all look forward to the meeting and putting our heads together.

Thanks
Tom

Tier 2_Interagency Water Res T...

103-6001-0ED

United States Department of the Interior
Fish and Wildlife Service

Bloomington Field Office (ES)
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273

10 December 2004

Amy Henry
BHE Environmental, Inc.
7041 Maynardville Highway
Knoxville, TN 37918

Dr. Virgil Brack, Jr.
Environmental Solutions and Innovations, Inc.
781 Neeb Road
Cincinnati, OH 45233

Keith Daniel
Vince Jason
Dean Dean M.
Dave F Jeremy
Kent Josh
Tom Jonna
Mike G. Nick
Jim G.

RECEIVED
DEC 17 2004
BLA

RE: Pre-survey site-specific coordination and BFO authorization for conducting winter cave surveys for the Federally endangered Indiana bat at potential hibernacula within 5 miles of INDOT's proposed I-69 corridor in Greene and Monroe counties, Indiana.

Dear Amy and Virgil,

This letter is in response to your letters from BHE Environmental, Inc. (BHE) and Environmental Solutions and Innovations, Inc. (ESI) (dated 30 November 2004 and 2 December 2004 respectively) requesting authorization from the U.S. Fish and Wildlife Service's Bloomington Field Office (BFO) to conduct winter surveys for the presence of Federally endangered Indiana bats (*Myotis sodalis*) within 60 caves (30 by BHE, and 30 by ESI) in association with the above referenced project.

This work would be conducted under BHE's and ESI's Federal permits (TE 809227-16 and TE-023664-12 respectively). BFO Biologist, Andy King, has coordinated with the staff of Bernardin, Lochmueller & Associates, Inc. (BLA) and the Indiana Geological Survey regarding the caves listed in your letters. Individuals named on your respective permits are authorized to conduct bat surveys within the 30 caves assigned to your company by BLA and listed below. Please note that we have coordinated with BLA and have removed cave from BHE's survey list, because the Indiana DNR, Division of Fish and Wildlife, Wildlife Diversity Section plans to have it surveyed by Dr. Virgil Brack, who has been contracted to conduct the routine biennial winter surveys of Indiana bat hibernacula on behalf of the state. A suitable substitute cave has yet to be named to replace . This cave substitution and any others that may be warranted/required should be coordinated with Andy King prior to conducting surveys. In addition, BLA, BHE, and Dr. Brack must coordinate with one another to ensure that their proposed survey areas within the) do not overlap and to ensure disturbance to hibernating bats will be minimized.

This letter serves as authorization for you and others specifically named on your Federal permits to

conduct winter bat surveys at the 30 caves assigned to your respective companies in Greene and Monroe counties (lists enclosed). All cave surveys should be conducted during January and February 2005, except for and caves, which may be surveyed by BHE as early as mid-December in order to avoid potential winter flooding. The valid winter survey period for this project will not be extended beyond 10 March. Survey methods should generally follow those of Brack et al. (1995; enclosed) to ensure consistency.

If any dead bats (of any species) are encountered, they should be salvaged and submitted to the BFO for ongoing contaminants studies. Hair samples may be collected from Indiana bats (preferably females) to support Dr. Eric Britzke's ongoing stable isotope study. However, removal of hibernating Indiana bats from clusters for the sole purpose of collecting a hair sample is prohibited. Hair samples may only be collected opportunistically from individual bats that have already been aroused from hibernation and/or, fallen from cave ceilings, accidentally been injured etc. Hair samples should be collected following the protocol provided by Dr. Britzke (enclosed). Collection of tissue samples from Indiana bats is not authorized at this time.

This letter must be carried with your Federal permit when conducting work at these sites. If you observe Indiana bats within a previously unknown hibernaculum, you should report this to Andy King at this office within 24 hours (voice mail should be left at 812-334-4261 ext. 216 or e-mail Andrew_King@fws.gov). In addition, we request that you keep Mr. King abreast of your anticipated survey schedule of specific caves on a weekly basis so BFO staff will have an opportunity to assist you in the field when feasible. Finally, we remind you and your staff to ensure your State permits are in order and to amend them as needed, if you have not already done so.

If you have questions please contact Andy King (812-334-4261, extension 216).

Sincerely,

Scott E. Pruitt
Field Supervisor

cc: Catherine Gremillion-Smith, IDNR, Wildlife Diversity Section
Scott Johnson, IDNR, Wildlife Diversity Section
Tom Cervone, BLA

Tier 2 I-69 Winter 2004-2005 Indiana Bat Winter Cave Surveys

BHE's Cave Suvey List

1. Cave
2. Cave
3. Cave
4. t Cave
5. Cave
6. Cave
7. Cave
8. r Cave
9.
10. Cave
11. Cave
12. Cave
13.)
14.
15. Cave
16. Cave 1
17. Cave 2
18. Cave
19. Cave
20. Cave
21. Cave 1
22. Hole
23. Cave
24. Cave
25. Cave 5 (Cave)
26. Cave
27. Cave
28. Cave
29.
30. To Be Announced (replacement for)

ESI's Cave Survey List

1.
2.
3. r
4.
5.
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7.
8.
9.
10.
11.
12.
13.
14. Cave 8
15.
16. Cave 9
17.
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28.
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30.

I-69 Winter Hibernacula Surveys for Indiana Bats

Please follow the same survey and reporting methodology used by Brack et al. (1995) below.

Brack, V., Jr., K. Tyrell, and K. Dunlap. 1995. A 1994-1995 winter census for the Indiana bat (*Myotis sodalis*) in hibernacula of Indiana. Unpublished technical report for the Indiana Department of Natural Resources, Division of Fish and Wildlife, Nongame and Endangered Wildlife Program, Indianapolis, Indiana prepared by

MATERIALS AND METHODS

Twenty-two caves were visited in January and February 1995 (Table 1). One of these, Cave, is a Priority I hibernacula for the Indiana bat. Seventeen caves were known non-Priority I hibernacula containing smaller numbers of Indiana bats. Four caves, , (Crawford County), , and , were entered because they had the potential to serve as a hibernaculum because of their physical configuration or because cavers reported clusters of bats.

The methods followed were those of Brack et al. (1993). Bats were tallied by species and by location in the cave. Individuals and small clusters of Indiana bats were counted directly. Larger clusters were measured with a tape measure or engineer's rule when they could be reached; at other times cluster areas were estimated. In Wyandotte and Jug Hole caves, where clusters form on high ceilings, 10x50 binoculars and a 1,250,000 candlepower spot light (Collins Dynamics "Magnum" model search light) were used to count bats. Cluster densities were estimated at 300 bats per square foot (LaVal and LaVal, 1980). Species of bats other than Indiana bats were counted directly. Banded bats were noted, and when possible, band color and number were recorded.

Temperatures were taken at cave entrances, in the twilight area, near clusters of Indiana bats when possible, near concentrations of other species of bats, and at intervals throughout the caves. Temperatures were generally taken with a Raytek Model ST2 infrared thermometer, with a range of -18 to 400°C, an accuracy of + or -2% of reading, and a display to the nearest °C or °F. Occasionally a Schultheis quick recording thermometer was used. It is calibrated by 0.2°C increments.

STANDARDIZATION OF DATA

The reason for this survey, and surveys completed every other year for the past 14 years, is to obtain an accurate estimate of the number of bats hibernating in non-Priority I hibernacula in Indiana. This census is part of a range-wide effort to monitor, over time, the numbers of this endangered bat.

To assure an accurate comparison over time, a number of factors must be considered:

- Data must be collected consistently across years
- Hibernacula must be appropriately searched
- Methods must provide reproducible results
- Safety of the surveyors must be ensured
- Other data potentially of value, now or in the future, and compatibility over time

Using the protocol of Brack et al. (1993), the following items are considered essential to standardize collection, interpretation, and comparison of data over time:

1. Cave name, location, and legal description
2. Date of visit
3. A general description of the cave, including published accounts of the cave (when available)
4. The portion of the cave visited during the survey, including a map locating features of

the cave important to the survey (when available)

5. The number of Indiana bats found
6. The locations of Indiana bats, including maps marking locations where bats were found (when maps are available)
7. Temperatures of areas where Indiana bats hibernate (at a minimum) and other related data such as temperatures of areas where other species hibernate and where no bats were found
8. Other species and numbers of bats using the cave

In an effort to standardize data collection and reporting, the following format was adopted by Brack et al. (1993). It is followed in this report, with the addition of a section to describe equipment or safety considerations.

Each cave is introduced with a brief description of its morphology and character. The name and legal description, including county, U.S.G.S. quadrangle, and quarter section description are in Table 1. Other data are standardized by using the following headings.

Portion of Cave Visited:
Date:
Number of Indiana Bats:
Location of Indiana bats:
Hibernaculum Temperatures:
Other Species of Bats:
Equipment or Safety Considerations:

The text for each cave that contained Indiana bats is accompanied by a map showing the area where the bats were found and the extent of the survey within each cave. Data that reflect the location within the cave where bats were found, hibernacula temperatures, and survey dates are also supplied in Table 2.

TISSUE AND HAIR SAMPLING PROTOCOLS

Thanks you for being willing to collect hair and tissue samples from bats you typically encounter. The table below lists the species and the type of samples to collect. If you have any questions feel free to contact me at EBritzke@sbcglobal.net

Sampling guidelines

Species	Tissue Type	Timing
Myotis leibii	Hair and tissue	Year-round
Myotis sodalis (Females and juvenile males only)	Hair	Year-round[1]
Myotis austroriparius	Hair and tissue	Year-round
M. lucifugus and *M. septentrionalis* (Females and juvenile males only)	Hair	summer
All *Lasiurus* species	Hair and Tissue	Year-round
Lasionycteris noctivagans	Hair and Tissue	Year-round
Pipistrellus subflavus	Hair and Tissue	Year-round
Nycticeius humeralis	Hair and Tissue	Year-round

[1] Unless we have talked with you directly about collecting for this project, please collect hair from Indiana bats **only during the summer**.

Instead of collecting samples from only the bats that we encounter, we are contacting researchers to collect samples from bats that they normally encounter during their surveys. This maximizes samples sizes and reduces the time and cost required to get project up and running. Some of these samples are for projects that are already underway, while others are for projects that are just getting started. Because samples can be used for a long time (up to 100 years for hair), we thought it prudent to collect samples now, and when funding becomes available, the analyses can be quickly run. Since hair will be used to investigate migration, any samples collected during the spring and fall would be extremely valuable.

Hair Sampling Protocol:

1. Clip a small amount of fur (1.5 cm × 1.5 cm area) from the area between the scapulae using scissors. Get as much of the length of the hair as possible, but you do not necessarily have to cut down to the base.

2. Store the hair in one of the empty vials provided. Please label the vial with the date (day/ month/year), bat species, sex, age, your unique identifier for that bat (e.g., band number), and the location. Try to leave a bit of room so that we can write our own identifier on the vial.

3. Once finished, please wipe any remaining hair off of the scissors with an alcohol swab. Be very careful to avoid cross-contamination.

Tissue Sampling

When taking tissue from the wing membranes, stay close to the body (between the leg and the fifth digit in the wing) so as not to greatly affect flight performance. Do not punch areas with large blood vessels. Based on recaptures of sampled bats, the hole in the membrane usually grows back within 2-3 weeks, so there are no long-term effects. Bats are commonly captured with holes much larger than those we are inflicting on their wings, and these holes don't appear to result in a loss of flight ability. Tissue samples should then be stored in DMSO solution provided.

Membrane Sampling Protocol:

1. Flame the instruments (punch, forceps) thoroughly to sterilize them, and to ensure that no tissue or hair from the last bat remains. The instruments should get hot.

2. LET THE INSTRUMENTS COOL, by placing them on the vial box in such a way that the business ends do not touch anything, and remain sterile. If you don't let them cool, you will cauterize the hole, and it won't grow back. Wipe the instruments with an alcohol swab to remove any residue from the flaming, and then let the instruments dry for a few seconds.

3. Then stretch the wing or tail membrane over a flat, hard or semi-hard surface (cutting board, clipboard, binder, cardboard, etc.). While stretching the membrane press the punch down onto the membrane of one wing close to the legs (between the legs and the fifth digit), and twist and/or rock the punch slightly until you can tell the punch has gone through the membrane on all sides. Make sure to avoid major blood vessels. There is no need to hammer the punch down through the membrane, and doing so will decrease the life of the punch. Each punch can be reused multiple times (5-40 depending on how hard you are on it), but please use your judgment as to how well the punch is cutting, and dispose of punches as soon as they start to dull.

4. If you are lucky, the cut tissue will now be sitting on the surface you punched on and you can easily pick it up with forceps. If not, the membrane may be in the hollow portion of the punch, in which case you can dig it out with the forceps. Store the punches in the O-ring vials containing salt/DMSO solution (clear liquid). The tissue tends to stick to the forceps, so you might have to shake the forceps semi-vigorously in the solution in the vial to dislodge it, or wipe it off onto the side of the vial.

5. Repeat for the other wing. Place both pieces of membrane from an individual into the same vial containing salt/DMSO solution. When finished, please make sure that both pieces of tissue are sitting in the solution, and you may have to shake the vial (with the cap on!) to dislodge them from the sides of the vial.

6. Make sure to label all vials with your unique identifier for that bat, the date (with the month written out, e.g., 12/Aug/2001, or Aug/12/2001), location, bat species, sex, reproductive condition, and age. Please also fill out the data sheet provided with the necessary information.

7. Between bats, please make sure you clean the punching surface well, either by flushing with a spray bottle containing alcohol (isopropyl, 70-95% ethanol) or wiping down the surface well with an alcohol swab. The goal is to minimize the chances of contaminating future samples.

8. If you ever have the opportunity to collect from dead bats, please collect a decent amount of membrane from each wing (1cm × 1 cm area) and drop it into a vial with DMSO. Please also take some muscle tissue (it is easiest to take it from the pectoral muscles) and store it in a separate vial containing salt/DMSO. Take a minimum of a 2 mm^3 piece of tissue (a small cube), but if you can, collect as much as will fit into the vial.

General:

1. Repeat the above procedure for each bat.

2. While in the field, store the vials (empty or with tissue samples) at "room temperature" or a slightly cool space, and out of direct sunlight (sunlight degrades the DMSO). Letting them get too hot isn't very good (e.g., in a truck in full sunlight). Once out of the field, please freeze them if you can, or at least store them in a refrigerator, at your earliest convenience. This helps to slow down any potential decay.

3. At the end of the field season, I would be most grateful if you could provide the capture data (date, location, identifier, species, sex, age, reproductive condition, mass, forearm length) for each bat in electronic or paper form, along with a GPS or map location for each capture site (in UTM's or lat/long, to place the sampling locations on a map). All data will be treated with strict confidence, and will only be used to provide the background for the genetic and isotopic analyses.

In terms of what samples to collect, in an ideal world we would want 30 females and 30 males from each species in a given area. However, this is obviously not realistic for most species and areas, and you will obviously have other priorities while you are in the field, so please only collect when you feel comfortable or can actually do so. Please try to collect punches from any individuals of rare or less common species you capture. However, the more samples we can get of both sexes per population per species the better, and all samples will be useful, so please collect as many samples as you are willing to. If you are sampling over a broad geographic area, use your judgment as to what constitutes a population of potentially interacting animals. Sampling locations within ~10 km of each other or from within the same valley can likely be treated as a single population. If the sampling locations are very far apart, or separated by an obvious barrier, then they likely can't.

List of Necessary Equipment:

Lighter (to flame instruments)
Vials containing storage solution for membrane punches, empty vials for hair
Storage box for vials
Fine-point or tissue forceps
Iris scissors
Biopsy punches (3 mm)
Bottle of alcohol or alcohol swabs for wiping instruments and surface
Latex gloves (optional)

Data sheet to be completed on each sample collected for feasibility of using stable isotope analysis to determine migratory patterns of female Indiana bats. For latitude/ longitude please place these coordinates in NAD83 and decimal degrees (i.e., 36.56789).

Collector_____ Address_____

Phone Number _____ Email_____

State	County	Quad	Latitude	Longitude	Sample type[1]	Sex	Age	Sample number	Date

[1] Hair, tissue, or both

103-0001-OPL

DEPARTMENT OF THE NAVY
CRANE DIVISION
NAVAL SURFACE WARFARE CENTER
300 HIGHWAY 361
CRANE INDIANA 47522-5001

IN REPLY REFER TO:

13 DEC 2004

Mr. Kent Ahrenholtz
Bernardin, Lochmueller & Associates, Inc.
Project Management Consultant Firm
Project Manager
Evansville, Indiana 47715

Keith
Vince
Dean
Dave I
Kent
Tom
Mike G.
Jim G.
Daniel
Jason
Dean M.
Jeremy
Josh
Jonna
Nicole

Dear Mr. Ahrenholtz,

Thank you for the presentation, briefing, and update on the I-69 project. The interaction between your project team and TEAM Crane as well as the information exchange is vital to both our teams.

Please accept my sincere appreciation and thanks on behalf of TEAM CRANE. I wish you and your family a blessed and safe Holiday season.

Regards,

M. S. WELSH
Captain, U. S. Navy
Commanding Officer, NSWC Crane

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***Tentative* AGENDA**

Tier 2 Interagency Water Resources Coordination Team Meeting

INDOT Central Office, N755 Bay Window Conference Room, Indianapolis, IN
Tuesday, December 14, 2004, 1:30 p.m. EST

I. Introductions and Opening Remarks

II. Purpose of Interagency Coordination Team
- A. Agencies Participating – FHWA, INDOT, US EPA, USA COE, USFWS, IDEM & IDNR
- B. Water Resources Considerations
  1) Wetlands
  2) Streams
  3) Floodplains / Floodways
  4) Water Quality
  5) Karst Geology
  6) Aquifers and Water Supplies
  7) Wellhead Protection Areas
  8) Other Water Resources, as appropriate
- C. Guidance Review and Discussion
- D. Potential Mitigation Measures

III. Status of Tier 2 Water Resources Efforts
- A. PMC Finalizing Master Schedule
- B. PMC Developing & Providing Guidance to EEACs
- C. EEACs Performing Data Collection & Developing Alternatives

IV. Discussion of Guidance Development
- A. Wetlands
- B. Streams
- C. Others Under Development

V. Other Water Resources Issues

VI. Next Meeting(s)
- A. February 2005 to Discuss Additional Guidance

Tier 2

I- 69 (Evansville to Indianapolis) Interagency Water Resources Coordination Team Meeting

December 14, 2004

1:30 to 3:30 PM

IGCN – Room 755

Introductions

- Thank you for coming to the first meeting. We appreciate you being here.
- This meeting is a combination of a conference call for some and a person to person meeting for others.
- Please sign the participant's list that is being sent around the table. For those of you on the conference call, we will write in your information, i.e., name, agency, address, telephone numbers (office and cell), fax number, and email.
- Would you please introduce yourself, the agency you represent, and tell us if you have been involved in I-69 before or not.

Opening Remarks

- INDOT and FHWA welcomes all participants.
- These agencies have requested that a Water Resource Team be developed so as to discuss potential water resource issues.
- Communications in water resources is important and requires utmost coordination with review agencies.
- INDOT and FHWA are anxious to work with review agencies on water resource issues.

Purpose of Interagency Meeting

- The purpose of the team and this meeting as well as other meetings is to discuss with INDOT and FHWA potential NEPA-related issues associated with permitting.
- Discussions are directed to NEPA activities that promote successful permitting in the future.
- Permitting is not a activity in the completion of EIS documentation in this project.

Participating Agencies

- FHWA – Tony DeSimone and Robert Dirks
- INDOT – Janice Osadczuk, Chris Baynes and Lyle Sadler
- USEPA – Ken Westlake, Cathy Garra, Virginia Lascewski
- USACE – Doug Shelton and Amy Babey
- USFWS – Scott Pruitt and Andy King
- IDEM – Andrew Pelloso, Jason Randolph & Bonnie Elifritz
- IDNR – Paul Ehret, Jon Eggen, Bob Hebenstreit and Randy Braun
- Other Agencies – Please add, as appropriate
- Other Persons – Please add, as appropriate

PMC Representatives

- Bernardin, Lochmueller and Associates, Inc.
  - **Kent Ahrenholtz, Project Manager**
  - **Tom Cervone, Principal/Chief of Env. Services**
  - **Jason Dupont, Env. Manager (Sections 3 and 4)**
  - **Jeremy Kieffner, Env. Coordinator (Sections 1, 2 and 3)**
  - **Josh Sherretz, Env. Coordinator (Sections 4, 5 and 6)**
  - **Rusty Yeager, Sr. Field Biologist (Wetlands, Forests, TES)**
  - **Kia Gillette, Sr. Field Biologist (Wild and Scenic Rivers)**
  - **Neal Schroeder, GIS Manager (GIS and Quantm)**
  - **Cinda Bonds, Wildlife Biologist (GIS and Land Use Patterns)**
- Shrewsberry and Associates, Inc.
  - **Vince Epps (Water Quality and HazMat Sites)**

Water Resources

- Wetlands
- Streams
- Floodplains and Floodways
- Water Quality
- Karst Geology
- Aquifers and Water Supplies
- Wellhead Protection Areas
- Other Water Resources – Please identify!

Guidance Review and Discussion

- Presently, INDOT has an MOU for wetlands and a MOU for Karst Activities (Copies provided at this meeting).
- Coordination with INDOT and FHWA on these documents and others, as appropriate.
- Each Water Resource will have a brief or summary written on protocol.

Project Management Consultant

- The responsibility of the PMC is to coordinate activities of all six sections and provide for consistency in methodology.
- The PMC does not make policy; however, will participate fully with INDOT, FHWA and review agencies in developing project guidance for water resources in all six sections.
- The PMC will write and distribute guidance, and require implementation by the EEAC's.

Potential Mitigation Measures

- The PMC is responsible for permitting at a future date (Post-NEPA), and some mitigation measures now (e.g., wetlands, forests, and TES)
- The EEAC is responsible with guidance from the PMC to complete the normal mitigation measures in each EIS.
- Mitigative measures that require direct communication with the review agencies will be the responsibility of the PMC.

Master Schedules

- Master Schedules has been revised and are now made available to review agencies at this meeting. Please review schedules before moving onto any other slides.
- Schedules have been developed with the review agencies in mind, i.e., review of EIS's have been spaced apart for consideration and convenience.
- INDOT, FHWA and PMC are promoting the streamlining process (Purpose and Need, Alternatives, and PAMP) with the DEIS, FEIS and ROD.

Meetings with Review Agencies

- INDOT, FHWA and PMC acknowledges the importance of the review agencies, and is making an attempt to streamline their participation in reviewing I-69 documentation.
- For this reason, the I-69 Team is promoting the following with the Env. Review Agencies:
  - Principally conference call meetings, and only in person meetings, as needed with individual agencies or collectively.
  - Possibly 2 group meetings a year for the purpose of general information on the project and the opportunity for tours.
  - A monthly summary of progress (general 1-page brief) for each section.

Scope of Services

- The PMC is working with the EEACs in developing Scope of Services for each of the sections.
- A Tier 2 Guidance Manual has been made available to the EEACs, of which was updated in December 2004. This manual will be updated again in January 2005. It is considered a “living document” and will be updated throughout the life of this project.
- The PMC started working on this project in April of 2005 (a little more that half a year). Much has been done to date, especially in Section 7 Consultation and Section 106.

Data Collection & Prel. Alternatives

- The EEAC's have started working on wetlands in their sections. Section 1 has a report done on their results.
- Preliminary Alternatives are in the process of being developed by each EEAC. Many of the sections have already provided Quantm for analysis.
- Quantm is a highly sophisticated computer system that uses GIS data to analyze each alternative for natural and human resources.
- Preliminary alternatives are within a 2,000 foot corridor. Note - Some areas of the corridor are less, especially in areas crossing streams and in the vicinity to wetlands and sinkholes. or more than 2,000 feet.

Commitment to Review Agencies

- The PMC will be prepared for each meeting and use their time wisely with the Env. Review Agencies.
- The Review Agencies will be provided appropriate information for meetings approximately 2 weeks before conference call meetings / group meetings.
- Information for the review agencies will include a brief that summarizes the information in the package. This may be an Executive Summary for the DEIS or FEIS, OR a short description for Purpose and Need Statements, Alternative Analyses, and PAMPs (Streamline Process).
- Remember that the Env. Review Agencies will receive all information for each of the 6 sections.

Wetlands

- Alternative Analysis
  - Each EEAC will roughly determine the boundary of all jurisdictional wetlands within the corridor (connected to an OHWM and isolated), and determine the type, estimated acres and quality
  - All alternatives will have a wetland comparison for LEDPA as discussed with the Env. Review Agencies
- Wetland Delineations - Preferred Alternative
  - Formal delineations of jurisdictional wetlands within the Preferred Alternative will be completed following the 1987 USACE Wetland Delineation Manual
  - Submittal of a Delineation Report to USACE
    - Report includes wetland descriptions, locations, type, alternative analysis, quality assessment, and jurisdictional Assessment
- General Guidance on Wetlands will be provided to the Env. Review Agencies in this meeting.

Stream Analysis and Evaluations

- All waterways with a “bed and bank” crossed by the alternatives will be identified on maps.
- Alternatives will have stream comparisons for LEDPA as discussed with the Env. Review Agencies.
- Waterways will:
  - be surveyed in the field for an OHWM, vegetation, and land use
  - have coordinates including all appropriate geographical data
  - have photographs (upstream, downstream and perpendicular)
  - include potential impacts
    - Identify whether bridged, culvert, filled, relocated or other
    - Estimated amount of discharge and excavation
    - Length of impact and area of impacts below OHWM
- Waterway Quality Assessment
  - Professional Opinion on quality including a description of substrate, pool riffle complexes, legal drains, biological indices, etc.
- General Guidance on Streams will be provided to the Env. Review Agencies in this meeting.

Floodplains and Floodways

- Floodplains and Floodways
  - Width of floodplains will be measured using FIRM maps for all preliminary alternatives, as available.
  - Floodway data will be used, as available in this study. All resources will be used to obtain such data. Such information is needed for length of bridges.
  - A commitment has been made to bridge the entire Patoka River floodplain (about 0.9 miles in width), and other floodplains, as appropriate (e.g., Flat Creek).

Water Quality

- Streams will be assessed by:
  - biological indices (Shannon Weaver, base 2)
  - adjacent land uses
  - county uses (e.g., legal drains, etc.)
  - state designations (e.g., impaired streams)
  - historical references (e.g., dredging, PCB's)
  - scientific publications (on water quality)
  - testimonies, as available
  - their associated with HazMat sites (CERCLIS, RCRA, LUSTs, and others)

Karst Geology

- Presently, two companies (subcontractors) are mapping karst features in Sections 4 and 5 respectively.
- The Karst MOU is being followed in this project . NEPA related guidelines include the first four commitments in the Karst MOU.
- Dye tracing in Section 5 has been ongoing since July 2005. It is soon to begin in Section 4. All efforts are being made to understand groundwater flow in and adjacent to the corridor.
- Similarly, all efforts are being made to identify springs so as to avoid / minimize impacts to them.

Aquifers and Water Supplies

- Aquifers are located throughout Indiana, and this project will identify the various aquifers crossed by each corridor.
- Water supplies to cities and towns will be identified too, and all efforts will be made to avoid / minimize impacts to them.
- Data on water supplies is confidential, and coordination with IDEM and other agencies is required.

Wellhead Protection Areas

- Wellhead Protection Areas (WPAs) will be identified in this project. All efforts will be made to avoid and/or minimize impacts to such areas.
- The location of WPAs are confidential and the EEACs with the PMC will work with IDEM and other agencies to protect such areas.
- Section 6 has a few WPAs in the vicinity of existing SR 37.

Wild and Scenic Rivers

- There are no Federally listed Wild and Scenic Rivers in this project.
- State river classifications and designations will be reviewed for each section. All appropriate coordination will take place in the crossing of any state designated stream.

Next Step

- We are asking the Env. Review Agencies to please review this information, and return to the PMC comments on water resources for discussion with INDOT and FHWA.
- Comments should be directed to Tom Cervone at tcervone@blainc.com. His telephone number is 800-479-6200 (Extension 148).
- Your consideration in this matter is much appreciated.
- Tom will get your comments to INDOT and FHWA, and get back to you with responses.

Next Meeting

- February 2005 (Day and Time TBA)
- Purpose - To discuss your comments and finalize protocols for water resources issues.

Summary

- We look forward to talking with you in the next 2 months on Water Resources, and we extend our heartfelt and sincere appreciation for your company today and your comments.
- Have a Merry Christmas and a Happy New Year for 2005.

Thank you very much!

I-69 Tier 2 Interagency Water Resources Coordination Team Meeting
INDOT Central Office, N755 Bay Window Conference Room, Indianapolis, IN
Tuesday, December 14, 2004, 1:30 p.m. EST

A Tier 2 Interagency Water Resources Coordination Team Meeting for the I-69 project was held at the INDOT central office on Tuesday, December 14, 2004. The purpose of the meeting was to discuss water resource issues as they pertain to the I-69 highway project. Topics included introductions, the purpose of the interagency coordination team, the status of Tier 2 water resource efforts, a discussion of guidance development, other water resource issues, and future meetings. Those present at the meeting include the following:

Bob Buskirk, INDOT	(rbuskirk@indot.state.in.us)
Eric Swickard, INDOT	(eswickard@indot.state.in.us)
Janice Osadczuk, INDOT	(josadczuk@indot.state.in.us)
Lyle Sadler, INDOT	(LSADLER@indot.state.in.us)
Tony DeSimone, FHWA	(Anthony.DeSimone@fhwa.dot.gov)
Al Ferlo, Akin Gump (via phone)	(Aferlo@AKINGUMP.com)
Virginia Laszewski, USEPA NEPA Program (via phone)	(laszewski.virginia@epa.gov)
Cathy Garra, USEPA	(garra.catherine@EPA.gov)
Andy King, USFWS (via phone)	(Andrew_King@fws.gov)
Jason Randolph, IDEM	(jrandolp@dem.state.in.us)
Bonny Elifritz, IDEM	(belifrit@dem.state.in.us
Amy Babey, USCOE (via phone)	(Amy.Babey@lr102.usace.army.mil)
Jim Hebenstreit, IDNR	(jhebenstreit@dnr.in.gov)
Jon Eggen, IDNR	(jeggen@dnr.IN.gov)
Randy Braun, IDNR	(rbraun@dnr.state.in.us)
Jason Dupont, BLA (via phone)	(jdupont@blainc.com)
Jeremy Kieffner, BLA	(jkieffner@blainc.com)
Kent Ahrenholtz, BLA (via phone)	(kent@blainc.com)
Kia Gillette, BLA	(kgillette@blainc-indy.com)
Tom Cervone, BLA	(tcervone@blainc.com)
Vince Epps, Shrewsberry & Associates, Inc.	(vince@shrewsusa.com)

Introduction

Prior to the start of the meeting, participants were given an information folder containing a tentative agenda, a communication form, the wetland Memorandum of Understanding (MOU), the karst Memorandum of Understanding (MOU), draft copies of the proposed wetland and stream Tier 2 guidance, a slide presentation handout, and a Tier 2 update newsletter.

Participants were asked to complete the communication form so that they can be kept abreast of upcoming meetings.

The meeting began by members of BLA, INDOT, and FHWA welcoming and thanking participants for attending. Participants then introduced themselves and their past experience with the I-69 project. The consultant then began a power point presentation which covered the topics in the meeting agenda.

The following questions/comments and answers were entertained during the presentation:

Q/C. "Are there any other agencies or individuals that should be invited to future meetings?"
A. Yes, we should include the NRCS, especially in regards to farmed wetlands.
A. Please include Wendy Melgin from EPA.
A. A regulatory agency replied, you may want to include the state health department in regards to drinking water.

Q/C. "It is important to announce the specific topics and focus for the future meetings so the appropriate people from the agencies can attend."
A. Thank you, we will try to do this in the future.

Q/C. "If the meeting pertains to karst, IGS should be invited."
A. Yes, we have been working closely with IGS and will continue to have meetings with them in the future.

Q/C. "The project was set up such that the PMC (Project Management Consultant) (BLA) will be the agencies main point of contact. This was done purposely for consistency and so that the agencies would not have to coordinate with six individual section projects."

Q/C. " Will INDOT and FHWA review documents before they are sent to the agencies?"
A. Yes, INDOT and FHWA will review the documents and will not send out a document until they are satisfied with it.

Q/C. "It is important to note that each section will have its own unique issues."
A. Yes, we are trying to have a consistent methodology for all sections; however, some sections will have issues that others will not, such as, karst or coal mining lands.

Q/C. "We are currently working on a calendar of milestone schedules and hope to have that out to the agencies tomorrow. The agencies should not have more than one DEIS to review at a time."

Q/C. "How is this method different from streamlining?"
A. The agencies will still receive a Purpose and Need & Preliminary Alternatives package and Preliminary Alternatives Mitigation Package (PAMP). But instead of having a face-to-face meeting, we will be having conference calls and internet conferencing. We will have periodic face-to-face meetings that will update all 6 projects, probably every 6 months. Also, there will be monthly updates starting in January. We will also have a van tour for each of the sections.

Q/C. "If you don't hear from the agencies on any of the packages, don't assume we agree. And if there are any major issues, please call and let us know. Don't wait for us to read it in the newsletter."

A. Yes, we can call you if there are major issues. Also, for all agencies, please contact us if you would like to have a meeting regarding any major issue.

A. Also, sometimes permitting agencies find it of value to look at delineated wetlands. We aren't there yet, but if you are interested we can arrange that either during or after the delineations.

Q/C. "We realize that we are just getting started with these meetings, but a lot of activities have been going on so far. We have already completed mist netting and harp trapping for bats for Section 7 consultation. The Section 106 process has been started, and karst studies, such as, field reconnaissance and dye tracing have also been started."

Q/C. "Do you have any written information on the karst studies you are doing? Such as a work plan or methodology? If so could you please send it to EPA?"
A. Right now we are researching existing records of caves and karst features, doing field studies of the corridor and outside the corridor, mapping features, some dye tracings with more to come in the spring. This will all be written up so we can look into where potential issues will be.

Q/C. "EPA likely already has a lot of information from karst studies regarding PCBs in the Bloomington area. It was a fairly extensive study."
A. This has likely been part of our background research.

Q/C. "Regarding Indiana bats, 148 sites have been netted and we captured 50 Indiana bats. We've surveyed 60 caves and found Indiana bats at the entrance to 8 caves. A lot of work has been done so far. We are now starting winter (internal) cave surveys for Indiana bats. Two caves have been completed to date. Fifty-eight are remaining. If caves can not be entered for an internal survey, such caves will have an additional Spring harp trapping."

Q/C. "In regards to Quantm, it is not being used on Sections 5 and 6 which are on existing alignment for the most part."

Q/C. "Why is it not being used on those sections?"
A. Because Quantm generates alternatives and we will be using as much of the existing SR 37 right-of-way in those sections that we can.

Q/C. "It would be helpful for the agencies to have a mini training on Quantm."
A. Yes, we will try to have that at the next face-to-face agency meeting.
A. Like anything, Quantm is a tool. It requires professional judgment of inputs and analysis.

Q/C. "Two weeks is not a very long time to notify the agencies of upcoming meetings."
A. We have 30 days listed in the information we will send out to you tomorrow.
A. There may be shorter time periods if a specific individual has a specific request.

Q/C. "For multi day meetings and others, the sooner you can notify us the better."
A. We will try and notify you as early as possible.

Q/C. "A guidance for wetlands and streams has been included in your information folder. Please look it over and give us suggestions."

Q/C. "Does this include a formal jurisdictional delineation?"
A. No, general wetland boundaries will be determined for the entire corridor so we can try and avoid the most and highest quality wetlands. Formal delineations will be done for the preferred alternative. A delineation report for the preferred will be submitted to the USCOE and IDEM.

Q/C. "So wetlands will not be delineated in the DEIS or FEIS?"
A. No, rough delineations will be done in the corridor so alternative analysis can be done. No data forms will be completed. A full blown, Corps approved, delineation will be done for the preferred alternative.

Q/C. "What sort of functions and values assessment will you use?"
A. We will use a qualitative approach using vegetation. We will not have a hydrogeomorphic analysis.

Q/C. "Will one person be doing all the determinations to be consistent? There are a number of methods available. Such as the Minnesota Rapid Assessment or the Ohio Rapid Assessment."
A. The PMC will review (has already for Section1) all wetlands and wetland quality assessments to ensure consistency.

Q/C. "Do you have a data sheet you are using to record information?"
A. This information is written down for each area.

Q/C. "I recommend an orderly method of recording these quality judgments."

Q/C. "Are you aware of any other assessment methods?"
A. There are several, Wisconsin and Kentucky have versions.

Q/C. "Can BLA please work with EPA on getting something you are comfortable with?"
A. Yes.

Q/C. "Is the wetland and stream guidance new? Previous correspondence indicated that wetland delineations would not be done for the corridor."
A. No, this is new. We will also be including an opinion on jurisdictional versus isolated.

Q/C. "How are you going to determine discharge and excavation when you don't have detailed engineering information?"
A. We are having the section consultants go a little bit further with the engineering that what is normally done.

Q/C. "How will you make this call without detailed survey at every little site?"
A. We will not be looking at the entire corridor for this, it will be more detailed for the preferred.

Q/C. "It would help for you to do a detailed cumulative impacts analysis assessment so you know where to focus, particularly in karst areas."

Q/C. "Will you have a more detailed guidance for later? Such as for fish studies and mussel studies?"
A. Yes, that will be a possible consideration. Presently, we are using the Shannon-Wiener Diversity Index for fishes. This is a popular measure for richness and equitability. This index is also used to measure habitat quality which may be degraded by human activities.

Q/C. "Are you planning on spanning the floodway or the floodplain?"
A. The floodplain in the Patoka River and Flat Creek areas.
A. In Tier 1, the FEIS committed to revisit that issue for other areas in Tier 2 studies.
A. We've also been working with IDNR regarding wildlife corridors and crossings.

Q/C. "What exactly do these handouts mean? Are they a draft for us or are they guidance?"
A. It is a starting point for you, but will eventually be put into the guidance manual.

Q/C. "I suggest you look at the DEIS and FEIS agency comments from Tier 1. They should give information on what we would like to see."
A. We will review them. Thank you.

Q/C. "Will you only be dye tracing in the corridor?"
A. No, they are using a sphere of influence or drainage basin for the area which will go outside the corridor.

Q/C. "What do they hope to find or get out of these studies?"
A. Originally, we had 4-8 springs, now we have 20 or more. We are researching in these studies both input and output sources.

Q/C. "It was my understanding that there were wells in the area used for drinking water. Are these being looked at?"
A. Yes, they will be looked at, particularly in areas with public water wells (e.g., Odon).
A. We will need to coordinate with IDEM to get such sensitive information, and then look at what we will need to do to protect these areas. BMP's and beyond. We will need to work with the agencies on this aspect of the project.

Q/C. "How do you know you won't be affecting water sources outside the corridor in karst areas?"
A. Each section is learning more about water supplies from the public while out in the field.
A. That is one of the results we should get from the dye tracings.

Q/C. "Individual water supplies are also important to consider."
A. Yes, we will need to investigate this aspect of the study.
A. We have a data set from the IDNR of well records and are now working to see how best to research this information. We also use water utility information to see where they do and don't have service.

Q/C. "We are planning on having our next big meeting in February 2005."

Q/C. "I suggest that BLA get with EPA regarding rapid bioassessment protocols.

Q/C. "You had mentioned using the Shannon-Weaver index. What would this be on-diatoms or insects?"
A. Right now just fishes.

Q/C. "Again, work with the agencies to make sure they are comfortable with the methodology. If there are topics that need to be addressed in the near future, please let us know."

A. Please make sure the Corps gets a phone card.

Q/C. "Right now we are trying to get enough detail to make a good decision and gather more information on the preferred alternative."
A. It is important to have really good information on karst and groundwater, as well as cumulative impacts analysis. Also, we need enough information where the sections connect.

Q/C. "We are trying to set up a field review for karst information for EPA and anyone else who may be interested."
A. Please keep EPA and USFWS aware of any karst meetings.

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I-69 Tier 2 Interagency Water Resources Coordination Team Meeting
INDOT Central Office, N755 Bay Window Conference Room, Indianapolis, IN
Tuesday, December 14, 2004, 1:30 p.m. EST

A Tier 2 Interagency Water Resources Coordination Team Meeting for the I-69 project was held at the INDOT central office on Tuesday, December 14, 2004. The purpose of the meeting was to discuss water resource issues as they pertain to the I-69 highway project. Topics included introductions, the purpose of the interagency coordination team, the status of Tier 2 water resource efforts, a discussion of guidance development, other water resource issues, and future meetings. Those present at the meeting include the following:

Bob Buskirk, INDOT	(rbuskirk@indot.state.in.us)
Eric Swickard, INDOT	(eswickard@indot.state.in.us)
Janice Osadczuk, INDOT	(josadczuk@indot.state.in.us)
Lyle Sadler, INDOT	(LSADLER@indot.state.in.us)
Tony DeSimone, FHWA	(Anthony.DeSimone@fhwa.dot.gov)
Al Ferlo, Akin Gump (via phone)	(Aferlo@AKINGUMP.com)
Virginia Laszewski, USEPA NEPA Program (via phone)	(laszewski.virginia@epa.gov)
Cathy Garra, USEPA	(garra.catherine@EPA.gov)
Andy King, USFWS (via phone)	(Andrew_King@fws.gov)
Jason Randolph, IDEM	(jrandolp@dem.state.in.us)
Bonny Elifritz, IDEM	(belifrit@dem.state.in.us
Amy Babey, USCOE (via phone)	(Amy.Babey@lr102.usace.army.mil)
Jim Hebenstreit, IDNR	(jhebenstreit@dnr.in.gov)
Jon Eggen, IDNR	(jeggen@dnr.IN.gov)
Randy Braun, IDNR	(rbraun@dnr.state.in.us)
Jason Dupont, BLA (via phone)	(jdupont@blainc.com)
Jeremy Kieffner, BLA	(jkieffner@blainc.com)
Kent Ahrenholtz, BLA (via phone)	(kent@blainc.com)
Kia Gillette, BLA	(kgillette@blainc-indy.com)
Tom Cervone, BLA	(tcervone@blainc.com)
Vince Epps, Shrewsberry & Associates, Inc.	(vince@shrewsusa.com)

Introduction

Prior to the start of the meeting, participants were given an information folder containing a tentative agenda, a communication form, the wetland Memorandum of Understanding (MOU), the karst Memorandum of Understanding (MOU), draft copies of the proposed wetland and stream Tier 2 guidance, a slide presentation handout, and a Tier 2 update newsletter.

Participants were asked to complete the communication form so that they can be kept abreast of upcoming meetings.

The meeting began by members of BLA, INDOT, and FHWA welcoming and thanking participants for attending. Participants then introduced themselves and their past experience with the I-69 project. The consultant then began a power point presentation which covered the topics in the meeting agenda.

The following questions/comments and answers were entertained during the presentation:

Q/C. "Are there any other agencies or individuals that should be invited to future meetings?"
A. Yes, we should include the NRCS, especially in regards to farmed wetlands.
A. Please include Wendy Melgin from EPA.
A. A regulatory agency replied, you may want to include the state health department in regards to drinking water.

Q/C. "It is important to announce the specific topics and focus for the future meetings so the appropriate people from the agencies can attend."
A. Thank you, we will try to do this in the future.

Q/C. "If the meeting pertains to karst, IGS should be invited."
A. Yes, we have been working closely with IGS and will continue to have meetings with them in the future.

Q/C. "The project was set up such that the PMC (Project Management Consultant) (BLA) will be the agencies main point of contact. This was done purposely for consistency and so that the agencies would not have to coordinate with six individual section projects."

Q/C. " Will INDOT and FHWA review documents before they are sent to the agencies?"
A. Yes, INDOT and FHWA will review the documents and will not send out a document until they are satisfied with it.

Q/C. "It is important to note that each section will have its own unique issues."
A. Yes, we are trying to have a consistent methodology for all sections; however, some sections will have issues that others will not, such as, karst or coal mining lands.

Q/C. "We are currently working on a calendar of milestone schedules and hope to have that out to the agencies tomorrow. The agencies should not have more than one DEIS to review at a time."

Q/C. "How is this method different from streamlining?"
A. The agencies will still receive a Purpose and Need & Preliminary Alternatives package and Preliminary Alternatives Mitigation Package (PAMP). But instead of having a face-to-face meeting, we will be having conference calls and internet conferencing. We will have periodic face-to-face meetings that will update all 6 projects, probably every 6 months. Also, there will be monthly updates starting in January. We will also have a van tour for each of the sections.

Q/C. "If you don't hear from the agencies on any of the packages, don't assume we agree. And if there are any major issues, please call and let us know. Don't wait for us to read it in the newsletter."

A. Yes, we can call you if there are major issues. Also, for all agencies, please contact us if you would like to have a meeting regarding any major issue.

A. Also, sometimes permitting agencies find it of value to look at delineated wetlands. We aren't there yet, but if you are interested we can arrange that either during or after the delineations.

Q/C. "We realize that we are just getting started with these meetings, but a lot of activities have been going on so far. We have already completed mist netting and harp trapping for bats for Section 7 consultation. The Section 106 process has been started, and karst studies, such as, field reconnaissance and dye tracing have also been started."

Q/C. "Do you have any written information on the karst studies you are doing? Such as a work plan or methodology? If so could you please send it to EPA?"
A. Right now we are researching existing records of caves and karst features, doing field studies of the corridor and outside the corridor, mapping features, some dye tracings with more to come in the spring. This will all be written up so we can look into where potential issues will be.

Q/C. "EPA likely already has a lot of information from karst studies regarding PCBs in the Bloomington area. It was a fairly extensive study."
A. This has likely been part of our background research.

Q/C. "Regarding Indiana bats, 148 sites have been netted and we captured 50 Indiana bats. We've surveyed 60 caves and found Indiana bats at the entrance to 8 caves. A lot of work has been done so far. We are now starting winter (internal) cave surveys for Indiana bats. Two caves have been completed to date. Fifty-eight are remaining. If caves can not be entered for an internal survey, such caves will have an additional Spring harp trapping."

Q/C. "In regards to Quantm, it is not being used on Sections 5 and 6 which are on existing alignment for the most part."

Q/C. "Why is it not being used on those sections?"
A. Because Quantm generates alternatives and we will be using as much of the existing SR 37 right-of-way in those sections that we can.

Q/C. "It would be helpful for the agencies to have a mini training on Quantm."
A. Yes, we will try to have that at the next face-to-face agency meeting.
A. Like anything, Quantm is a tool. It requires professional judgment of inputs and analysis.

Q/C. "Two weeks is not a very long time to notify the agencies of upcoming meetings."
A. We have 30 days listed in the information we will send out to you tomorrow.
A. There may be shorter time periods if a specific individual has a specific request.

Q/C. "For multi day meetings and others, the sooner you can notify us the better."
A. We will try and notify you as early as possible.

Q/C. "A guidance for wetlands and streams has been included in your information folder. Please look it over and give us suggestions."

Q/C. "Does this include a formal jurisdictional delineation?"
A. No, general wetland boundaries will be determined for the entire corridor so we can try and avoid the most and highest quality wetlands. Formal delineations will be done for the preferred alternative. A delineation report for the preferred will be submitted to the USCOE and IDEM.

Q/C. "So wetlands will not be delineated in the DEIS or FEIS?"
A. No, rough delineations will be done in the corridor so alternative analysis can be done. No data forms will be completed. A full blown, Corps approved, delineation will be done for the preferred alternative.

Q/C. "What sort of functions and values assessment will you use?"
A. We will use a qualitative approach using vegetation. We will not have a hydrogeomorphic analysis.

Q/C. "Will one person be doing all the determinations to be consistent? There are a number of methods available. Such as the Minnesota Rapid Assessment or the Ohio Rapid Assessment."
A. The PMC will review (has already for Section1) all wetlands and wetland quality assessments to ensure consistency.

Q/C. "Do you have a data sheet you are using to record information?"
A. This information is written down for each area.

Q/C. "I recommend an orderly method of recording these quality judgments."

Q/C. "Are you aware of any other assessment methods?"
A. There are several, Wisconsin and Kentucky have versions.

Q/C. "Can BLA please work with EPA on getting something you are comfortable with?"
A. Yes.

Q/C. "Is the wetland and stream guidance new? Previous correspondence indicated that wetland delineations would not be done for the corridor."
A. No, this is new. We will also be including an opinion on jurisdictional versus isolated.

Q/C. "How are you going to determine discharge and excavation when you don't have detailed engineering information?"
A. We are having the section consultants go a little bit further with the engineering that what is normally done.

Q/C. "How will you make this call without detailed survey at every little site?"
A. We will not be looking at the entire corridor for this, it will be more detailed for the preferred.

Q/C. "It would help for you to do a detailed cumulative impacts analysis assessment so you know where to focus, particularly in karst areas."

Q/C. "Will you have a more detailed guidance for later? Such as for fish studies and mussel studies?"
A. Yes, that will be a possible consideration. Presently, we are using the Shannon-Wiener Diversity Index for fishes. This is a popular measure for richness and equitability. This index is also used to measure habitat quality which may be degraded by human activities.

Q/C. "Are you planning on spanning the floodway or the floodplain?"
A. The floodplain in the Patoka River and Flat Creek areas.
A. In Tier 1, the FEIS committed to revisit that issue for other areas in Tier 2 studies.
A. We've also been working with IDNR regarding wildlife corridors and crossings.

Q/C. "What exactly do these handouts mean? Are they a draft for us or are they guidance?"
A. It is a starting point for you, but will eventually be put into the guidance manual.

Q/C. "I suggest you look at the DEIS and FEIS agency comments from Tier 1. They should give information on what we would like to see."
A. We will review them. Thank you.

Q/C. "Will you only be dye tracing in the corridor?"
A. No, they are using a sphere of influence or drainage basin for the area which will go outside the corridor.

Q/C. "What do they hope to find or get out of these studies?"
A. Originally, we had 4-8 springs, now we have 20 or more. We are researching in these studies both input and output sources.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

103-0001-OED

Keith Daniel
Vince Jason
Dean Jeremy
Dave F Josh
Kent Jonna
Tom Nicole
Jim G. Dean Munn
Mike G.

REPLY TO THE ATTENTION OF:

WW-16J

22 DEC 2004

Mr. Tom Cervone
Chief, Environmental Services
Bernardin-Lochmueller and Associates, Inc.
6200 Vogel Rd.
Evansville, Indiana 47715-4006

Dear Mr. Cervone:

After the initial meeting, 12/14/04, of the I-69 Interagency Water Resources Coordination Team, we want to follow up on some points raised there, as you requested.

As a practical matter, the U.S. Environmental Protection Agency (USEPA) reiterates the critical importance of early coordination for meeting dates–at least 30 days. Both our NEPA and water staff members have to budget for time and travel with a large number of projects, and we know that the other resource agencies face similar challenges. The earlier we can block off the dates for meetings, especially longer meetings with site tours, the better. It will also help us if we know the water topics on the agenda at the meeting so we can schedule participation by other Water Division staff as necessary, such as someone from our Drinking Water Program.

Wendy Melgin, Deputy Chief of the Watersheds and Wetlands Branch, will be USEPA's representative to the karst workgroup. Please send her information at USEPA Region 5 Water Division, WW-16J, 77 W. Jackson Blvd., Chicago, IL 60604. Phone: 312/886-7745. E-mail: melgin.wendy@epa.gov.

We were asked to provide comments on two older Memoranda of Understanding (MOU). USEPA is not a party to the mitigation MOU. We recommend that the participating agencies consider it in light of the recent agreement we have on mitigation banking in Indiana and the new mitigation guidelines for the Louisville District, both of which provide valuable information. We are skeptical about the advisability of wetland creation, where there was no wetland previously. Current thinking is that these are generally not likely to succeed as are wetland restoration projects. USEPA Region 5 typically encourages that compensatory mitigation start at a ratio of 1.5:1 of acres restored to acres lost, to make up for the time and uncertainty involved in wetland restoration. The exception would be using certified credits from an established wetland mitigation bank; in this situation 1:1 is acceptable. While we are also not a party to the MOU on

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karst, we do note that this document covers more about identifying than protecting the resource. We encourage an expanded update to it that addresses protection of karst terrain and water resources, as well as identifying karst features.

We were also asked to provide comments on the handouts for Wetland Analysis/Evaluation and Stream Analysis/Evaluation. As always, the audience and uses of these documents will determine their degree of detail. They will need to be expanded significantly to be used for the scope of work of contractors for each project segment, especially the wetland data for alternatives analysis. Presumably they can also be adapted for the NEPA document write ups. In the future, getting materials such as these in advance of a meeting can help the group hold a full, prepared discussion about them. Active discussion will be at the heart of an effective workgroup.

We were also asked for input on wetland and stream assessment approaches for Tier 2 NEPA work. What we see is needed is an orderly, qualitative means of comparison of various wetlands in the development of alternatives and in the final refinements to the proposed alternatives. Please bear in mind that this is different than jurisdictional delineations (determining the legal boundaries of wetlands on the ground, which eventually will be conducted for the preferred alternative). It is also not predictive modeling. The assessment needs to consider and document multiple aspects of the wetlands, not only, say, vegetative quality or site hydrology or aquatic habitat. Likewise, an orderly way of organizing qualitative information on stream characteristics will be important. For either effort if multiple study teams work within each Tier 2 study segment, then they need to be "calibrated" in some way against each other to ensure consistency of interpretation. There are currently no methodologies in common use in SW Indiana that we are aware of for either stream or wetland assessment, so we suggest adapting something suitable for this project. We are fortunate to have two brand new technical references that EPA can offer, Review of Rapid Assessment Methods for Assessing Wetland Condition and Physical Stream Assessment. You can find full copies of them, respectively, on the web at www.epa.gov/owow/wetlands, under "monitoring and assessment, methods" and at www.mitigationactionplan.gov, under "status of action items." Wetland assessment methodologies in use in Region 5 can be found in the wetlands program areas of the web sites of the Ohio Environmental Protection Agency, the Minnesota Board of Soil and Water Resources and the Wisconsin Department of Natural Resources.

"Level 2" rapid assessment methodologies for wetlands are ways of being orderly about observing and documenting professional judgements about the characteristics of a site through office research and simple field observations on a variety of wetland characteristics. The Wetland Analysis paper begins to point to something like this, so it is not far removed from your current path of thinking about the project. For the purpose of this project we suggest picking a qualitative methodology that seems to be reasonable workable and customizing it for the resource attributes and issues found in the study area. We suggest providing multiple scores by category rather than a single score for the entire wetland unit. Some form of "high-medium-low" is more suitable than a numeric score for qualitative assessment. Results on the site characteristics and its functions

and values should be presented separately from the potential project impacts to the wetland. All of this can go into the entry on a given wetland site in your wetland atlas-style document, but it would have the effect of keeping observations and conclusions separate.

Likewise, an orderly method needs to be found or adapted for stream documentation and assessment for the project. This would involve documenting channel form characteristics and alterations, stream substrate, vegetative cover, bank stability, habitat variability, and so forth. The methodology would need to reflect the landscape alterations encountered in the study area, for example, are old dredge spoil berms found next to the stream or ditch? More information should be included on what the bioassessment covers and why the group of study organisms was selected. Consideration needs to be given to separating out the legal status of the water body from its actual geomorphological properties. For example, a stream that is legally considered to be a ditch or a drain may still retain a good part of its natural stream structure.

Additional or more detailed methodologies, such as a floristic quality assessment, may be desirable in assessing the impacts to and mitigation for the preferred alternative.

We are glad that the project will be up to date on the Clean Water Act jurisdiction of streams. Please consult with the Corps of Engineers as you plan your work. For eventual 404 permitting purposes, it will be important to know as part of your site visits where any riffle-pool stream structure remains and the location of wetlands and water resources that are part of any State, Federal or locally designated sanctuaries and preserves. As always, the Natural Resources Conservation Service will have the lead on water resource identification in farmed areas.

We look forward to continued discussions of wetland and water issues as part of the Tier 2 NEPA work. If you have any questions please call me at 312/886-0241.

Sincerely,

Catherine G. Garra

Catherine G. Garra
Life Scientist
Watersheds and Wetlands Branch

cc: FHA–Janice Osadczuk
InDOT–Robert. Buskirk
USFWS–Andy King
Corps, Louisville–Amy Babey
IDEM–Jason Randolph
IDNR–Jon Eggen

From: "Eggen, Jon" <JEggen@dnr.IN.gov>
To: "'Tom Cervone'" <tcervone@blainc.com>
Date: 12/23/04 2:06PM
Subject: RE: Interagency Water Resource Meeting on December 14, 2004

Tom,
Just wanted to comment on the wetlands and other mitigation.
The MOU you referred to is only between INDOT, DNR, and USFWS. I believe it is only applicable to these three agencies. I believe that the Corps and IDEM may have higher mitigation ratios.

DNR also requires forest mitigation for impacts within a floodway to non-wetland forest. This is typically 2:1 and within the same 14 digit watershed for impacts one acre or greater. Impacts to less than an acre are usually mitigated by planting 5 trees, at least 2 inches in diameter-at-breast height, for each tree which is removed that is ten inches or greater in diameter-at-breast height. This is usually completed in a nearby area.

The MOU specifies a range of ratios with the lowest ratio being appropriate for the poorest quality and the higher ratio obviously for higher quality. The appropriate ratio should therefore be somewhere in that range. It will not always be the lowest ratio as is usually proposed. This will need to be planned for early on in the process.

The MOU also states that INDOT, not being a resource agency, will transfer title of wetland mitigation land to an agreed upon recipient in lieu of holding such lands in perpetuity. Indiana DNR would like to be considered a recipient to hold these lands in lieu of holding a permanent conservation easement.

These comments are pretty general and informal but may help clarify some of the documents.

Jon Eggen, Environmental Supervisor
Indiana Department of Natural Resources
402 W Washington St. Rm W273
Indianapolis, IN 46204
(317) 232-4080
Fax (317) 233-8150

-----Original Message-----
From: Tom Cervone [mailto:tcervone@blainc.com]
Sent: Tuesday, December 21, 2004 4:52 PM
To: AFerlo@AKINGUMP.com; WMalley@AKINGUMP.com; APELLOSO@dem.state.in.us; BELIFRIT@dem.state.in.us; JRANDOLP@dem.state.in.us; jhebenstreit@dnr.IN.gov; rbraun@dnr.IN.gov; jeggen@dnr.state.in.us; jhebenstreit@dnr.state.in.us; rbraun@dnr.state.in.us; garra.catherine@epa.gov; laszewski.virginia@epa.gov; melgin.wendy@epa.gov; Anthony.DeSimone@fhwa.dot.gov; Andrew_King@fws.gov; scott_pruitt@fws.gov; CBAYNES@indot.state.in.us; eswickard@indot.state.in.us; JOSADCZUK@indot.state.in.us; LSADLER@indot.state.in.us; RBUSKIRK@indot.state.in.us; Amy.Babey@lrl02.usace.army.mil; Amy.S.Babey@lrl02.usace.army.mil;

From: <Andrew_King@fws.gov>
To: "Tom Cervone" <tcervone@blainc.com>
Date: 12/30/04 1:07PM
Subject: USFWS Comments on I-69 Wetland/Stream Protocols

Dear Tom,

On behalf of the Bloomington Field Office (BFO) of the U.S. Fish and Wildlife Service (Service), I thank INDOT, FHWA, and you for inviting us to participate as a member of the I-69 Interagency Water Resources Coordination Team. We believe that your coordinating our collective expertise and input, and seeking involvement of all the resource agencies and other stakeholders is a very good idea and will be an effective approach to ensure that adverse impacts from the I-69 project to water and other water-dependent resources will be minimized and adequately mitigated.

As requested, please consider this e-mail as our informal input at this time. We anticipate that we will provide additional comments on water- and karst-related issues as we revisit the existing wetland and karst MOUs and continue our review of currently proposed protocols. If deemed necessary, we will provide you with additional/formal comments once the proposed protocols have been further refined. After the team's initial meeting on December 14, 2004, I and my BFO colleague, Dr. Tom Simon, reviewed the information contained within the packet and PowerPoint presentation that you had dropped off at my office earlier that morning. We agree with your statement in your e-mail message below that "some modifications are needed to the existing wetland and stream protocol." Based on our current understanding of the information you have provided, the Service highly recommends that INDOT and its consultants follow the stream and wetland procedures referenced below for the Tier 2 NEPA studies of each of the six Segments of Independent Utility (SIU) of the I-69 project.

The State of Indiana, including both the Department of Environmental Management (IDEM) and the Department of Natural Resources (IDNR), U.S. Environmental Protection Agency (USEPA), and the U.S. Fish and Wildlife Service have implemented a standard operating procedure (SOP) in the State of Indiana since 1990. The method provides a consistent, standardized approach to data collection that enables the results of fish collection to be shared and used in the evaluation of stream condition using the Index of Biotic Integrity (IBI), which was developed for Indiana (Simon 1990, and others). The protocol has specific requirements for the distance that needs to be sampled, sampling conditions, months that sampling should be conducted, and required gear appropriate for different sized streams. All of the calibrations for the IBI are drainage area dependent so drainage area should be calculated for each proposed bridge location. In order to establish baseline for stream corridors, a current article by Angermeier et al. (in Fisheries monthly magazine of the American Fisheries Society, December 2004,) has shown that road impacts occur within a 300 m length on either side of the highway edges. As a result, stream sampling should be conducted upstream and downstream of each highway edge so that changes can be determined for upstream and downstream areas. IDEM (Stacey Sobat) has already sent BLA (Rusty Yeager) a package containing all the published SOPs for stream sampling, and a complete set of the IBI publications for the State of Indiana. In addition, IDEM has prepared 6 additional SOP/IBI

packages (see end of this message for list of contents) for other INDOT consultants to reference and use. These 6 packages are available and should be picked up at the BFO (to avoid shipping costs) at your earliest convenience. We believe these publications provide reasonable guidance and document thoroughly the procedures that the State and Federal government typically uses for stream, large river, and wetland assessments. [Work in the I-69 corridor will rely on the Eastern Corn Belt Plain, Interior River Lowland stream calibrations, and the White River large river calibration for the crossing of the East Fork White River].

Current wetland assessment efforts can also rely on published work by Simon (1998), Simon & Stewart (1998), Simon et al. (2000, 2001), which will provide the rationale, sampling procedures, and an IBI for palustrine wetlands as small as 10 m x 10 m. These indices rely on amphibian, fish, and crayfish indicators and are useful for identifying the condition of any palustrine wetland in the central and southern portions of Indiana. Additionally, riverine wetlands can be assessed based on the stream criteria documents and Simon et al. (2001). These calibrations may require some minor modification, but Dr. Simon has agreed to assist in any changes necessary for implementation of these methods. Six copies of these documents will also be available along with the IBI documents mentioned above.

In addition, crayfish standard operating procedures have been provided by BFO to BLA, J.F. New, Ecological Specialists, and Marshall University. If additional copies are necessary they can be obtained from the BFO. Mussel sampling protocols should be coordinated with IDNR and Mr. Brant Fisher in particular, who is currently collecting qualitative data. His sampling procedure is similar if not consistent with current methodology, but we do request that you document and provide Mr. Fisher with an SOP for mussels for his review and approval so that similar survey efforts and data is being collected for mollusks.

Finally, as a requested during 14 December meeting, please keep the Service (i.e., A. King) abreast of all planned meetings/activities of the "karst working group" as we continue to be deeply concerned with the status, threats, and conservation of all karst-dependent fauna within the I-69 study area.

We look forward to working with you and the other coordination team members regarding wetland and water issues. Should you have questions or require additional information, please contact Tom Simon or Andy King via e-mail or by calling us at 812-334-4261.

Sincerely,

R. Andrew King, M.S.
Fish and Wildlife Biologist

and

Thomas P. Simon, Ph. D.
Fish and Wildlife Biologist

Contents of SOP/IBI Packages:
1) IDEM Field SOPs (recon, QHEI, and Fish collection)
2) IDEM Laboratory SOPs (fish processing protocol)
3) IBI calculations (Dufour 2002)
4) IBI documents
    a) Central Corn Belt Plain (Simon 1991)
    b) Huron-Erie Lake Plain (Simon 1994)
    c) Northern Indiana Till Plain (Simon 1997)
    d) Interior Plateau (Simon 1997)
    e) Eastern Corn Belt Plain (Simon and Dufour 1998)
    f) Interior River Lowland (Simon DRAFT)
    g) Wabash River (Simon and Stahl 1998)
    h) White River (Simon 1992)
5) WEMAP documents
    a) Assessment Report (IDEM 1997)

In addition, BFO has made copies of wetland IBI work for you:
    a) Palustrine IBI (Simon 1998) and validation (Simon & Stewart 1998)
    b) Vernal ponds IBI (Simon et al. 2000)
    c) Plant IBI (Simon et al. 2001)
    d) Coastal wetland plant IBI (Rothrock and Simon in press)

"Tom Cervone" <tcervone@blainc.com>
12/21/2004 04:51 PM

To
<AFerlo@AKINGUMP.com>, <WMalley@AKINGUMP.com>, <APELLOSO@dem.state.in.us>, <BELIFRIT@dem.state.in.us>, <JRANDOLP@dem.state.in.us>, <jhebenstreit@dnr.IN.gov>, <rbraun@dnr.IN.gov>, <jeggen@dnr.state.in.us>, <jhebenstreit@dnr.state.in.us>, <rbraun@dnr.state.in.us>, <garra.catherine@epa.gov>, <laszewski.virginia@epa.gov>, <melgin.wendy@epa.gov>, <Anthony.DeSimone@fhwa.dot.gov>, <Andrew_King@fws.gov>, <scott_pruitt@fws.gov>, <CBAYNES@indot.state.in.us>, <eswickard@indot.state.in.us>, <JOSADCZUK@indot.state.in.us>, <LSADLER@indot.state.in.us>, <RBUSKIRK@indot.state.in.us>, <Amy.Babey@lrl02.usace.army.mil>, <Amy.S.Babey@lrl02.usace.army.mil>, <Doug.Shelton@lrl02.usace.army.mil>, <vince@shrewsusa.com>
cc
<DMunn@blainc-indy.com>, <kgillett@blainc-indy.com>, "Daniel Townsend" <dtownsend@blainc.com>, "Jason Dupont" <jdupont@blainc.com>, "Jeremy Kieffner" <jkieffner@blainc.com>, "Josh Sherretz" <jsherretz@blainc.com>, "Rusty Yeager" <ryeager@blainc.com>
Subject
Interagency Water Resouce Meeting on December 14, 2004

Dear Water Resouce Team Members,

We would like to thank you all for your attendance in person or on the

telephone at the 1st Interagency Water Resource Meeting held in Indianapolis on December 14, 2004 (Room IGCN 755 - Time was 1:30 PM to 4 PM).

It was a productive 2.5 hours, and the meeting provided for a discussion of a number of issues. Please review the contents given to you in your packet, and respond "informally" via telephone or email at this time with your thoughts, concerns or other. Please do not send formal comments yet for we believe that some modifications are needed to the existing wetland and stream protocol. You may respond to me at this email, by phone (800-423-7411) or directly to the following persons:

The following persons will be or have provided individual contacts to the following agencies since our meeting:

1) EPA - Kia Gillette
2) ACE - Jeremey Kieffner
3) IDEM - Jason Dupont
4) USFWS - Tom Cervone
5) IDNR - Josh Sherretz
6) NRCS - Rusty Yeager

We sincerely thank you again for the meeting and will have DRAFT minutes to you shortly. We value your input and interest in this project, and look forward to working with you.

Merry Christmas and Happy New Year
Tom

CC: <scott_pruitt@fws.gov>, <Thomas_Simon@fws.gov>, <bfisher@dnr.state.in.us>, <AFerlo@AKINGUMP.com>, <WMalley@AKINGUMP.com>, <APELLOSO@dem.state.in.us>, <BELIFRIT@dem.state.in.us>, <JRANDOLP@dem.state.in.us>, <jhebenstreit@dnr.IN.gov>, <rbraun@dnr.IN.gov>, <jeggen@dnr.state.in.us>, <jhebenstreit@dnr.state.in.us>, <rbraun@dnr.state.in.us>, <garra.catherine@epa.gov>, <laszewski.virginia@epa.gov>, <melgin.wendy@epa.gov>, <Anthony.DeSimone@fhwa.dot.gov>, <CBAYNES@indot.state.in.us>, <eswickard@indot.state.in.us>, <JOSADCZUK@indot.state.in.us>, <LSADLER@indot.state.in.us>, <RBUSKIRK@indot.state.in.us>, <Amy.Babey@lrl02.usace.army.mil>, <Amy.S.Babey@lrl02.usace.army.mil>, <Doug.Shelton@lrl02.usace.army.mil>, <vince@shrewsusa.com>, <ryeager@blainc.com>

APPENDIX C
AGENCY COORDINATION CORRESPONDENCE

2004 Agency Coordination
2005 Agency Coordination
2006 Agency Coordination
2007 Agency Coordination
2008 Agency Coordination
2009 Agency Coordination
2010 Agency Coordination
2011 Agency Coordination
2012 Agency Coordination
2013 Agency Coordination

103-0001-0ED

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
6013 Lakeside Blvd.
Indianapolis, IN 46278-2933

January 3, 2005

Keith
Vince
Dean
Dave I
Kent
Tom
Jim G.
Daniel
Jason

Jeremy
Josh
Jonna
Nicole
Dean
Mike G.
Rusty

Rusty Yeager
Environmental Biologist
Bernardin-Lochmueller & Assc.
6200 Vogel Rd.
Evansville, IN 47715

Dear Mr. Yeager:

I received your letter dated December 13, 2004, and the packet of materials concerning FPPA Coordination for I-69 to be submitted for FPPA analysis. I have reviewed the material and shall address your issues in order.

The GIS material looks good. I have overlaid the soils shape file over the county mosaic and it appears to match closely enough to use for FPPA determinations. The only problem I can see at this point is that the mines have extended beyond there mapped boundaries. These mined areas should be non-prime soils and the original mapping might have them mapped as prime soils. I should, however, be able to work around this.

The plotted general alignment on 1:6,000 scale is probably better than we need to have. It shows plenty of detail but since this is a hard copy reference, we may not need to have this much detail. You could go to 1:10,000 or 1:12,000 scale and this would probably be sufficient. I do not know if this will save a great deal of time or paper so we can stay at 1:6,000 if you wish.

An NRCS-CPA-106 form for each county and one for each subsection of the project that is submitted is correct. Guidance to the consultants should include emphasis being placed on the completion of Sections I and III by the consulting firms to ensure that the records are maintained with the appropriate section. As for indirect conversion, I would prefer that these areas would be in a separate polygon or file and drawn on the above referenced alignment maps as separate units. I would not anticipate a large amount of Indirect Conversion to be included but I can add this to the report if the consulting firms wish to have it as part of their report.

While we should still be able to do multiple counties on the AD-1006 or equivalent form, the INDOT questionnaire needs to be county specific. Therefore, one form per county should be submitted.

If you have any questions, please call me at 317-290-3200, ext. 375

RECEIVED
JAN 10 2005
BLA

RICK NEILSON
MLRA Project Leader

The Natural Resources Conservation Service provides leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment.

An Equal Opportunity Provider and Employer

Carol Hood

From: <Andrew_King@fws.gov> [Andrew_King@fws.gov]

Sent: Friday, January 07, 2005 2:54 PM

To: Tom Cervone

Cc: AFerlo@AKINGUMP.com; WMalley@AKINGUMP.com; Garre Conner; Jason Dupont; Jeremy Kieffner; Josh Sherretz; Kent Ahrenholtz; kgillett@blainc-indy.com; Anthony.DeSimone@fhwa.dot.gov; scott_pruitt@fws.gov; eswickard@indot.state.in.us; JOSADCZUK@indot.state.in.us; LSADLER@indot.state.in.us; RBUSKIRK@indot.state.in.us

Subject: Re: Request for a Meeting

Tom,

Thank you for stopping by our office yesterday afternoon. As Scott and I briefly discussed with you and Josh yesterday, we would prefer to postpone our meeting with INDOT and FHWA by a week or so to allow us a little more time to more thoroughly review the bat survey reports you recently delivered to us. At this point, we are available to meet on any day in the last full week of January (i.e.,24th 28th), but would prefer to have the meeting on Tues., Wed., or Thurs if possible. We don't have a particular preference for a meeting time; just whatever is most convenient for those having to travel from Evansville etc. is fine with us. Also, since we would prefer to meet with everyone in person, it seems it may work best to hold the meeting in Indianapolis this time around.

Please let me know which date and time works best for everyone and we will put it on our calendars.

Thanks and Have a good weekend!

Andy

"Tom Cervone" <tcervone@blainc.com>
12/27/2004 05:14 PM

To
<Andrew_King@fws.gov>, <scott_pruitt@fws.gov>
cc
<AFerlo@AKINGUMP.com>, <WMalley@AKINGUMP.com>, <kgillett@blaincindy.com>, "Garre Conner" <gconner@blainc.com>, "Jason Dupont" <jdupont@blainc.com>, "Jeremy Kieffner" <jkieffner@blainc.com>, "Josh Sherretz" <jsherretz@blainc.com>, "Kent Ahrenholtz" <kahrenholtz@blainc.com>, <Anthony.DeSimone@fhwa.dot.gov>, <eswickard@indot.state.in.us>, <JOSADCZUK@indot.state.in.us>, <LSADLER@indot.state.in.us>, <RBUSKIRK@indot.state.in.us>
Subject
Request for a Meeting

Dear Andy and Scott,

INDOT and FHWA would like to have a meeting with USFWS during the week of January 1014, 2005 or January 19, 2005. Please provide us a day that is convenient for you both. Also, identify your preferred location and time for such a meeting.

In reviewing your phone message, it is my understanding that you will not be back from Christmas until December 29, 2004 (Wednesday). At that time, I would like to deliver the 6 Indiana bat reports. Please call so I may schedule such a delivery. The wall map should be available at that time or a day or two later.

Proposed topics for the meeting are as follows:

1) Review of Summer and Fall Results
2) Discussion of Ongoing Winter Surveys
3) Thoughts for Sampling in 20052006
4) Additional Future Activities
5) Thoughts on Proposed Mitigation
   a. Purchase of a Cave(s)
   b. Identification of Maternity Colonies
   c. General Thoughts on Mitigation for Summer Habitat
5) Discussion on the Recovery Plan for the Indiana bat (Panel of Experts)
6) Other topics, as appropriate

Welcome back and I look forward to hearing from you.

Thanks
Tom

103-0001-OPL

United States Department of Agriculture
Forest Service
Hoosier National Forest Supervisor's Office
811 Constitution Avenue
Bedford, IN 47421
Phone: 812-275-5987
Fax: 812-279-3423
TDD: 1-800-877-8339

File Code: 1950-5
Date: January 10, 2005

Keith Jason
Vince Jeremy
Dean Josh
Dave F Jonna
Kent Nicole
Tom Dean
Jim G. Mike G.
Daniel

Kent Ahrenholtz, P.E.
Project Manager
Bernardin, Lochmueller & Associates, Inc.
6200 Vogel Road
Evansville, IN 47715

Dear Mr. Ahrenholtz:

This is in response to your request for comments on the refined approach to formal agency coordination and milestone scheduling relating to the six I-69 Evansville to Indianapolis Tier 2 Sections.

The process you are proposing is adequate in allowing us to formally respond and provide input for the Tier 2 EIS's. In particular, feedback via conference call and internet telecast will be real time savers and still avail us the opportunity to respond.

Sincerely,

KENNETH G. DAY
Forest Supervisor

RECEIVED
JAN 12 2005
BLA

Carol Hood

From: "DAVID PARRY" <DPARRY@dem.state.in.us> [DPARRY@dem.state.in.us]
Sent: Friday, January 14, 2005 12:43 PM
To: Kent Ahrenholtz
Cc: JAMES SULLIVAN; PAT CARROLL; PAT DANIEL
Subject: IDEM Contact for I-69 Wellhead Protection

The contact for IDEM Wellhead Projection issues is Jim Sullivan, 317/3083388 jsulliva@dem.state.in.us

I understand from Drinking Water Branch Chief Pat Carroll, and from Jim himself, that he already has been working with the IDEM GIS staff on this matter.

I will follow later with a karst contact.

Jim, Kent phone # is 800/4237411

David Parry
Permit Coordinator
Indiana Department of Environmental Management

dparry@dem.state.in.us
Phone: 317/2334638
Fax: 317/2335968

IGCN Room 1315
100 N. Senate Avenue
Indianapolis, IN 46204

BERNARDIN · LOCHMUELLER & ASSOCIATES, INC.
6200 Vogel Road · Evansville, Indiana 47715-4006 · www.blainc.com
Phone 812.479.6200 · Toll Free 800.423.7411 · Fax 812.479.6262
One Source for a World of Solutions

Keith
Matt
Tom G
Rusty
J.m G.
Kent

January 17, 2005

Mr. Mike Cox, State Conservation Engineer
Natural Resources and Conservation Service
U.S. Department of Agriculture
6013 Lakeside Boulevard
Indianapolis, IN 46278

Re: Water Resources Coordination for I-69 Tier 2 EIS
INDOT DES Nos. 0300377, 0300378, 0300379, 0300380, 0300381, 0300382, 0400128
Bernardin · Lochmueller and Associates Project No. 103-0001-1PL Task ED24

Dear Mr. Cox,

On December 14, 2004 an I-69 Tier 2 Interagency Water Resources Coordination Team Meeting was held at the INDOT office in Indianapolis. Participating agencies included the Federal Highway Administration, Indiana Department of Transportation, U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, Indiana Department of Environmental Management, and Indiana Department of Natural Resources. The meeting focused on identification of the principal water resource concerns that need to be taken into consideration for the project, development of assessment and evaluation methodology guidance and potential mitigation measures (see Tentative Agenda in attached packet). Subsequent to the meeting is was recognized that the USDA Natural Resources and Conservation Service should be included as a participating agency concerning issues related to water resources.

On December 20, 2004, Jane Hardisty identified yourself and Bruce Milligan as the appropriate NRCS personnel at the Indianapolis Headquarters office for agency coordination concerning water resource issues related to the I-69 Evansville to Indianapolis EIS currently in progress. On December 21, 2004, I contacted you via phone to briefly describe our current objective of establishing an appropriate methodology to assess and evaluate aquatic resources (streams and wetlands) throughout the entire study corridor. As the Project Management Consultant (PMC), one of Bernardin, Lochmueller and Associates, Inc. major tasks is to develop the standardized methodology to be followed by each of the six Engineering, Environmental Assessment Consultants (EEAC) responsible for studying the various segments of the corridor. A preliminary draft of this guidance was distributed to the water resource agencies at the December 14 meeting (see Wetland and Stream Analysis/Evaluation handout in attached packet). This was the starting point from which further development of the guidance took place. Following this meeting and subsequent individual agency meetings, revisions have been made to the guidance in anticipation of release to the EEACs in February or March of 2005. Among the major changes/additions to the guidance is the inclusion of INWRAP (Indiana Wetland Rapid Assessment Procedure) and QHEI (Qualitative Habitat Evaluation Index) to assess wetland and stream quality respectively.

As part of the coordination process, Bernardin, Lochmueller and Associates, Inc. would like to invite the NRCS to provide any thoughts or comments concerning the assessment of water resources for the project and/or particular water resource impact concerns. The NRCS will be included in all future Water Resource Coordination Team activities including review of subsequent guidance revisions. Please feel free to contact me at (812) 479-6200 or via e-mail at ryeager@blainc.com if you have any questions or concerns.

Sincerely,
BERNARDIN · LOCHMUELLER AND ASSOCIATES, INC.

Rusty K. Yeager

Rusty K. Yeager
Environmental Biologist II

cc: file

Enclosures:

S:\Projects\103-0001\Correspondances\Cox ltr 2005-01-17.doc

BERNARDIN · LOCHMUELLER & ASSOCIATES, INC.
6200 Vogel Road · Evansville, Indiana 47715-4006 · www.blainc.com
Phone 812.479.6200 · Toll Free 800.423.7411 · Fax 812.479.6262
One Source for a World of Solutions

January 17, 2005

Mr. Bruce Milligan, State Resource Conservationist
Natural Resources and Conservation Service
U.S. Department of Agriculture
6013 Lakeside Boulevard
Indianapolis, IN 46278

Re: Water Resources Coordination for I-69 Tier 2 EIS
INDOT DES Nos. 0300377, 0300378, 0300379, 0300380, 0300381, 0300382, 0400128
Bernardin · Lochmueller and Associates Project No. 103-0001-1PL Task ED24

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Sincerely,
BERNARDIN · LOCHMUELLER AND ASSOCIATES, INC.

Rusty K. Yeager

Rusty K. Yeager
Environmental Biologist II

cc: file

Enclosures:

S:\Projects\103-0001\Correspondances\Milligan ltr 2005-01-17.doc

Carol Hood

From: "Kia Gillette" <kgillett@blainc-indy.com> [kgillett@blainc-indy.com]

Sent: Tuesday, January 18, 2005 10:09 AM

To: Aferlo@AKINGUMP.com; belifrit@dem.state.in.us; JRANDOLP@dem.state.in.us; jeggen@dnr.IN.gov; jhebenstreit@dnr.IN.gov; rbraun@dnr.state.in.us; garra.catherine@EPA.gov; laszewski.Virginia@EPA.gov; melgin.wendy@EPA.gov; Anthony.DeSimone@fhwa.dot.gov; Andrew_King@fws.gov; bruce.milligan@in.usda.gov; mike.cox@in.usda.gov; bsteckler@indot.state.in.us; eswickard@indot.state.in.us; JOSADCZUK@indot.state.in.us; LSADLER@indot.state.in.us; RBUSKIRK@indot.state.in.us; Amy.Babey@lr102.usace.army.mil; vince@shrewsusa.com

Cc: Carol Hood; Jason Dupont; Jeremy Kieffner; Josh Sherretz; Kent Ahrenholtz; Tom Cervone; Rusty Yeager; jane.hardisty@in.usda.gov

Subject: I-69 Tier 2 Interagency Water Resources Team

Dear All:

We would like to thank everyone who has, or who will be, working as part of the I69 Tier 2 Interagency Water Resources Team. Your comments and coordination are an extremely important part of this project.

Since our last meeting, we have received comments from some agencies and are still waiting for comments from some others.

In the interim, we are compiling a table of water resource related subjects and any comments/concerns each agency has on each subject. This will help us modify the draft wetland and stream guidances for each of the 6 sections, and ensure we address all of your concerns.

If you have provided comments, we may be in contact with you again just to make sure we have adequately covered your concerns in the table.

We are also working on setting up another meeting in February, but do not yet have a date nailed down.

Thanks again for all your time and effort. Try and stay warm!

Kia Gillette

Kia Gillette
BernardinLochmueller & Associates, Inc.
18888306977
3172091130

Carol Hood

From: "DAVID PARRY" <DPARRY@dem.state.in.us> [DPARRY@dem.state.in.us]
Sent: Tuesday, January 18, 2005 2:31 PM
To: Kent Ahrenholtz
Cc: LARRY STUDEBAKER; PAT DANIEL
Subject: IDEM Contact for I-69 Wellhead Protection

Kent
The contact for IDEM for I69 karst issues will be:
Scott Johanson 317/2340996 sjohanso@dem.state.in.us

Scott,
You can contact Kent Ahrenholtz at phone # is 800/4237411 kahrenholtz@blainc.com

David Parry
Permit Coordinator
Indiana Department of Environmental Management

dparry@dem.state.in.us
Phone: 317/2334638
Fax: 317/2335968

IGCN Room 1315
100 N. Senate Avenue
Indianapolis, IN 46204

103-0001-OED

Mitchell E. Daniels, Jr., Governor

DNR Indiana Department of Natural Resources

Division of Water
402 W. Washington St.
Room W264
Indianapolis, IN 46204
Phone (317) 232-4160
Toll-free (877) 928-3755
Fax (317) 233-4579
www.in.gov/dnr/water/

Keith Jason
Vince Jeremy
Dean Josh
Dave I Jonna
Kent Nicole
Tom Dean M.
Jim G Mike G.
Daniel

January 20, 2005

Kent Ahrenholtz, PE
Bernardin, Lochmueller & Associates, Inc
6200 Vogel Road
Evansville, IN 47715-4006

RE: DNR #11114-1, Review Approach for I-69 Evansville to Indianapolis Tier 2 Studies; (Tier 1 reviews = DNR #9642)

Dear Mr. Ahrenholtz:

The Indiana Department of Natural Resources appreciates the chance to comment on the approach to formal agency coordination and milestone schedule relating to the six (6) Tier 2 Sections. We offer the following comments in response to the process of review.

The proposed agency coordination appears to be appropriate and should provide opportunity for well thought out and planned avoidance and minimization of impacts. The process also appears to appropriately provide for coordination meetings and for consistency of review among the six sections.

Fish, wildlife, and botanical resources losses can be expected to occur as a result of this project. These impacts can be minimized through advance coordination and avoidance and minimization. Mitigation should be used only after all possible avoidance and minimization has been considered.

Our agency looks forward to continued coordination with you over the course of the Tier 2 process for this project.

Sincerely,

John Davis
Deputy Director
Department of Natural Resources

Note: Please include the above DNR # on any future correspondence regarding this project.

RECEIVE

JAN 24 2005

BLA

An Equal Opportunity Employer

January 25, 2005

Mr. Michael Neyer, Director
Indiana Department of Natural Resources (Division of Water)
Indiana Government Center South
402 West Washington Street, Room W264
Indianapolis, IN 46204-2748

Re: **I-69 Tier 2 Studies, Evansville to Indianapolis**
Overall I-69 Agency Coordination Meeting on February 23-24, 2005

Dear Mr. Michael Neyer:

On behalf of the Indiana Department of Transportation (INDOT) and Indiana Division of the Federal Highway Administration (FHWA), we are respectfully requesting your agency's attendance and participation in the Overall I-69 Agency Coordination Meeting as part of the ongoing formal agency coordination for the I-69 Tier 2 Studies.

The meeting will be a two-day event and is scheduled for Wednesday and Thursday, February 23-24, 2005, and will be held at the I-69 Section 3 Project Office in Washington, Indiana at *2 Commercial Park Drive* (directions are enclosed). A tentative agenda is included with this package. There will be three objectives of the meeting, the first objective being to give a "snapshot" of the I-69 Tier 2 project progress of where we've been, where we are now, and where we are going. The second objective will be to provide an update on the progress of each of the Tier 2 Sections, and the third objective of the meeting will give agencies a chance to address issues that may have arisen in previous meetings or conference calls and see how the INDOT, FHWA, and the PMC are addressing these issues. On the second day of the meeting we will provide agencies the opportunity to tour or visit the project area within particular I-69 sections.

A list of Washington area hotels/motels has been included with this package to allow each of you to make reservations, if appropriate. We respectfully ask that you return the enclosed reply card to us as soon as possible so that accommodations can be made for lunch and the tours. Please direct any comments, questions or requests for additional information to Kent Ahrenholtz or Tom Cervone of Bernardin, Lochmueller & Associates at 800/423-7411 or at kahrenholtz@blainc.com or tcervone@blainc.com. Please address all written correspondence to Kent Ahrenholtz, P.E., Project Manager, Bernardin, Lochmueller & Associates, 6200 Vogel Road, Evansville, IN 47715. Thank you and we appreciate your participation in the I-69 Tier 2 Studies.

Sincerely,
Bernardin, Lochmueller & Associates, Inc.

Kent Ahrenholtz, P.E.
Project Manager

Enclosures (Tentative Agenda, Reply Card, Hotel/Motel List, and Directions)

Cc: T. DeSimone (FHWA)
J. Osadczuk (INDOT)
L. Sadler (INDOT)
W. Malley (Akin Gump)
T. Cervone (BLA)

Overall I-69 Agency Coordination Meeting

AGENDA

February 23-24, 2005
10:00 AM to 5:00 PM (EST)
Section 3 Project Office, Washington, IN
Morning and Afternoon Sessions including Lunch

Day 1: Wednesday, February 23

Morning Session (10:00 AM to 1:00 PM)

Welcome		Janice Osadczuk (INDOT) Anthony DeSimone (FHWA)
Formal Agency Coordination Process		Kent Ahrenholtz – PMC Project Manager (BLA)
Project Schedules/Timeframes		Kent Ahrenholtz – PMC PM (BLA)
Purpose & Need – Alternatives Analysis		Mike Grovak – PMC Deputy PM (BLA)
Open Informal Discussion with Agencies		Kent Ahrenholtz – PMC PM (BLA)
Study Area	Section 1	Roger Wade (Qk4)
	Section 2	Randy Perkinson (HWC/Jacobs Civil Team)
	Section 3	David Pluckebaum (Corradino Group)
	Section 4	Bruce Hudson (DLZ)
	Section 5	Wendy Vachet (Michael Baker)
	Section 6	Tim Miller (HNTB)
Open Informal Discussion with Agencies		Kent Ahrenholtz (BLA)

Buffet Lunch (1:00PM to 2:00PM): The Black Buggy *(at Section 3 Project Office)*

Afternoon Breakout Sessions (2:00 PM to 5:00 PM)

Interagency Water Resources Coordination Team

Interagency Karst Geology Coordination Team

Quantm Demonstration Training

Day 2: Thursday, February 24

Morning Session (9:00 AM to 1:00 PM)

Tour of I-69 Sections 1, 2, and 3

Afternoon Session (1:00 PM to 1:30 PM)

What Happens After this Meeting?	Kent Ahrenholtz (BLA)

Next I-69 Overall Agency Coordination Meeting: August 2005

Closing Remarks

Overall I-69 Agency Coordination Meeting

February 23-24, 2005, Section 3 Project Office in Washington, IN

I-69 Evansville to Indianapolis, Tier 2 Studies with EIS

You are invited to participate in consultation to identify human and natural environmental issues, assess effects, and seek ways to avoid, minimize, or mitigate adverse effects. Please complete and return this post card and check if you "will" or "will not" be at the meeting and plan on lunch, and "will" or "will not" participate in the Section tours on the projects. Thank you.

☐ *We "will" be at the meeting*
*Number for Meeting*_____
*Number for Lunch*_____

☐ *We "will" participate in the tours*

☐ *We "will not" be at the meeting*

☐ *We "will not" participate in the tours*

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Organization:_____

Address: _____

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Telephone Number: _____ Fax: _____

E-mail Address: _____

Overall I-69 Agency Coordination Meeting

February 23-24, 2005, Section 3 Project Office in Washington, IN

I-69 Evansville to Indianapolis, Tier 2 Studies with EIS

You are invited to participate in consultation to identify human and natural environmental issues, assess effects, and seek ways to avoid, minimize, or mitigate adverse effects. Please complete and return this post card and check if you "will" or "will not" be at the meeting and plan on lunch, and "will" or "will not" participate in the Section tours on the projects. Thank you.

☐ *We "will" be at the meeting*
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*Number for Lunch*_____

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☐ *We "will not" participate in the tour*

Name: _____

Organization: _____

Address: _____

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Telephone Number: _____ Fax: _____

E-mail Address: _____

BERNARDIN, LOCHMUELLER & ASSOCIATES
ATTN: Kent Ahrenholtz, PMC Project Manager
6200 Vogel
Evansville, IN 47715

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DIRECTIONS to Section 3 I-69 Project Office

Section 3 Project Office
2 Commercial Park Drive (former Daviess Co. REMC Building)
P.O. Box 522
Washington, IN 47501

Phone: 812-257-0083

From the Northeast (Indianapolis, etc.):

US 231 southbound: go through town of Loogootee and take the US 50 West, go through town of Montgomery for a few miles or so. Turn Right (North) onto 50 Business/E. National Hwy). On 50 Business turn right onto the first road (Commercial Park Drive). The Section 3 Project Office is the first building on the right side of the road.

Washington is approximately 2 hours and 15 minutes from Indianapolis.

From the Northwest (Chicago, etc.):

Take US 41 southbound (it will turn into 63 along the way, but stay on it for it will turn back to US 41 at Terre Haute). Stay on US 41 until you get to Vincennes and then take the US 50 East exit to Washington.

In Washington, stay on US 50 and drive until the double lanes change to single lanes. Turn Left (North) onto 50 Business/E. National Hwy. On 50 Business turn right onto the first road (Commercial Park Drive). The Section 3 Project Office is the first building on the right side of the road.

From the South: (Evansville, etc.)

Take I-164 Northbound (changes later to SR 57 Northbound): drive to the SR 50/57 Bypass and turn Right (East) onto US 50 and drive until the double lanes change to single lanes. Turn Left (North) onto 50 Business/E. National Hwy. On 50 Business turn right onto the first road (Commercial Park Drive). The Section 3 Project Office is the first building on the right side of the road.

Hotels and Motels List (Washington, IN area)

Hotels

Baymont Inn & Suites
www.baymontinns.com/washington 1-800-301-0200
7 Cumberland Drive Washington, IN (located off SR 50)

Holiday Inn & Suites
www.hiexpress.com/washington 812-254-6666
1808 East National Highway (on Hwy. 50 Business) Washington, IN

Motels

Budget Inn 412 South Street Washington, IN
812-254-5816

City Motel 1115 East National Highway (on Hwy. 50 Business) Washington, IN
812-254-4696

Theroff's Motel 2001 East National Highway Washington,IN
812-254-4279

MONTGOMERY, IN

Hotels

Gastohof Village Inn
812-486-2600
"Southern Indiana's Amish Country"
www.gasthofamishvillage.com
County Road 650 E - PO Box 60

Motels

Black Oak Motel SR 50 East
812-486-3271

The Baymont and Holiday Inn are the closest to the Section 3 Project Office (5-7 minutes)

RESTAURANTS Located in Washington, IN and surrounding area

Washington, IN

The Black Buggy Restaurant *(Home style Amish cooking)*
www.blackbuggy.com
Located on Highway 57
Washington, IN 47501
Phone: 812-254-254-8966

Bobe's Pizza
Highway 57 South
812-254-2048

The Brass Lantern
800 East National Highway, Washington
812 254-1115

Hunan Gardens
207 East National Highway, Washington
812-254-7568

Mason's Drive-In
1201 East National Highway, Washington
812-254-2830

Mi Pueblo Mexican Restaurant
1207 Highway 57 South, Washington
812-254-7152

The New White Steamer
21 Main Street, Washington

Ponderosa
Highway 57 South & 50 Bypass, Washington
812-257-0090

Also At Washington: Arby's, Burger King, Domino's Pizza, Hardee's, Kentucky Fried Chicken, Long John Silver's, McDonald's, Pizza Hut, Taco Bell, and Wendy's.

Montgomery, IN

GASTHOF AMISH Restaurant & Bakery
www.gasthofamishvillage.com
812-486-2600

Things to Do and See in Washington, IN and surrounding area

Kerasotes Indiana Theatre (812) 254-4427
419 East Main Street, Washington, IN, 47501

Glendale Fish And Wildlife Area (812) 644-7711
Route 2, Box 300 Montgomery, In 47558

Glendale Fish & Wildlife Area is dedicated to providing quality hunting and fishing opportunities while maintaining 8,060 acres of land and over 1,400 acres of lakes and impoundments.

The campground includes 67 Class A sites with electrical outlets and 54 Class B sites. Some campsites have fire rings. Firewood is sold at the boat rental concessions. Camping is open all year on a first come first serve basis. A picnic area is also available. The comfort station, located in the campgrounds, provides heated showers and flush toilets. It is open from April 1st to October 31st. Water fountains are open from April 15th to October 15th.

East Side Park (812) 254-8234
Washington City Park Community Bldg.
501 Burkhart Drive Washington, Indiana, 47501
(Home of Baumert Lake: fishing, boating, pedestrian/bicycling walkways, etc.)

Dinky's Auction (812) 486-2880
Every Friday night Dinky's Auction Center, a 36,000 square foot building fills to capacity with the sounds and sights of six or seven auctioneers auctioning off anything you can possibly imagine all at one time. The facility is located on the Odon-Cannelburg Road, five miles north of Highway 50 in Daviess County.
Dinky's Auction Center represents an unusual entertainment spot in Daviess County. Every Friday evening thousands of people from hundreds of miles around converge in the heart of Amish Country to soak in the unique atmosphere and find a real bargain.
Consignments are accepted all day Fridays and the Auction starts at 6:00 p.m. You can buy just about anything, including furniture, farm machinery, hand tools, food, produce and household items plus other items too numerous to mention. Just to come and take it all in is an unforgettable experience.
In addition to the regular Friday night Auctions many miscellaneous antique, livestock, horse/pony and tack, and consignment auctions are held here on a regular basis. It is not unusual to have as many as three to four thousand people attend one of the three National Horse & Carriage Sales, representing up to 27 states and a few foreign countries, that are held here by the Amish people of Daviess County.

Washington Country Club (812) 254-2060
908 Bedford Rd Washington, IN 47501

This golf course has small, undulating greens. Every year the course hosts a $10,000 amateur tournament. There are five holes with sand bunkers and five holes with water coming into play. The signature hole is #5, a 156-yard, par 3, featuring formidable native area extending from tee to green.

Country Oaks Golf Club (812) 486-3300Fax: (812) 486-3378
U S Hwy 50 W Montgomery, IN 47558

This golf course was built on mildly-rolling farmland and is highlighted by lakes and creeks running throughout the design. Although the terrain is fairly level, there are several hills that provide an occasional uneven lie. The conservative fairways play to ample putting surfaces, and their extreme undulation adds an additional challenge. The finishing hole, a 300-yard, par 4,

offers a good risk-reward opportunity. With the tee and green located on opposite ends of a lake, you can elect to lay up, or try to reach it off the tee.

May through October

Etienne Farm Market (812) 254-7978
State Road 57 South Washington, IN

Graber's Greenhouse (812) 295-2560
County Road 200 North Cannelburg, IN

Main Street Washington
Farmers Market Every Saturday Morning

The Produce Patch
Rr 1, Box 44 Plainville, IN

Wichman's Farm Market (812) 254-6566
Rr 3, Box 76 Washington, IN

Gasthof Outdoor Flea Market (812) 486-3977
The Gasthof, Montgomery
Tuesday - Wednesday - Saturday, 9-4

Homestead Outdoor Flea Market (812) 486-2699
Main Street Montgomery
Tuesday - Wednesday - Saturday, 9-4

Main Street Flea Market
1st Street, Montgomery
Tuesday - Wednesday - Saturday, 9-4

Carol Hood

From: Carol Hood
Sent: Tuesday, January 25, 2005 1:30 PM
To: jrodocker@commerce.state.in.us; jwickard@commerce.state.in.us; apelloso@dem.state.in.us; belifrit@dem.state.in.us; dclark@dem.state.in.us; jrandolph@dem.state.in.us; sdeloney@dem.state.in.us; jeggen@dnr.IN.gov; jhebenstreit@dnr.in.gov; jcarr@dnr.state.in.us; rbraun@dnr.state.in.us; rjones@dnr.state.in.us; garra.catherine@EPA.gov; laszewski.virginia@epa.gov; melgin.Wendy@epa.gov; Westlake.Kenneth@epa.gov; kday@fs.fed.us; andrew_king@fws.gov; Eugene_goldfarb@hud.gov; jane.hardisty@in.usda.gov; jsteinm@indiana.edu; Amy.Babey@lr102.usace.army.mil; Doug.Shelton@LRL02.usace.army.mil; david.poynter@navy.mil
Cc: kahrenholtz@blainc.com; tcervone@blainc.com; anthony.desimone@fhwa.dot.gov; josadczuk@indot.state.in.us; lsadler@indot.state.in.us
Subject: Invitation to participate in the Overall I-69 Agency Coordination Meeting

Hello All! As mentioned to most of you at the Interagency Water Resource Meeting on December 14, 2004 and in the Agency Coordination Package that was mailed out on December 17, 2004, the Overall I-69 Agency Coordination Meeting would be held twice a year. The first meeting will be held in February.

This is an invitation for you to participate in the meeting that will be a two-day event, scheduled for Wednesday & Thursday, February 23-24, 2005. A tentative agenda for the two-day event will follow shortly. A more formal invitation will be sent out to you through the mail.

If there is someone that I have inadvertently left off this email please, pass along this message and also forward me their name, email, and mailing address.

In the meantime, if you have any questions or comments please do not hesitate to give me an email buzz.

Thanks so much,

Carol

Carol Hood
Project Coordinator
BLA, PMC
(812) 479-6200

Meeting Summary

Meeting with U.S. Fish and Wildlife Service

Indiana Government Center North, Room N955
Indianapolis, IN
January 27, 2005, 10:30 a.m. – 2:00 p.m. EDT

Attendee	Organization
Scott Pruitt	USFWS
Andy King	USFWS
Robert Dirks	FHWA
Tony DeSimone	FHWA
Janice Osadczuk	INDOT
Lyle Sadler	INDOT
Bob Buskirk	INDOT
Tom Cervone	Bernardin Lochmueller & Associates
Kent Ahrenholtz (by telephone)	Bernardin Lochmueller & Associates
Bill Malley	Akin Gump Strauss Hauer & Feld

I. General Remarks by USFWS

The USFWS provided several general comments at the outset of the meeting:

- Of 15 known Indiana bat maternity colonies located within Indiana (prior to 2004/I-69 Tier 2 Bat surveys), two colonies (13%; in Hendricks and Warren counties) appear to be persisting in areas with only about 10% forest cover within a 2.5-mile radius of their primary roost tree. However, in both of these situations the remaining forested parcels have a relatively high degree of connectivity. The 13 other maternity colonies were in areas with approximately 30 - 80% forest cover and had various degrees of forest fragmentation. Although, some Indiana bat maternity colonies may be capable of persisting in fragmented habitat for some period of time, we currently do not know how increased forest loss and fragmentation affects a colony's reproductive rate or the survival rates of adults and their young. So, while some Indiana bat maternity colonies may appear to be persisting in areas with fragmented habitat that certainly does not mean they are thriving in those areas.

- Avoiding and minimizing impacts to Indiana bat maternity colonies within the I-69 summer action area will be a primary focus in Section 7 consultations during Tier 2.

- Based on results of 2004 field surveys, the USFWS will likely require additional terms and conditions in order to protect the maternity colonies located along the I-69 corridor. For example, they may set a minimum percentage of forest cover and/or connectivity to be maintained around each colony.

- In situations where the forest cover is already very fragmented around a maternity colony, the USFWS may require FHWA and INDOT to seek ways to ensure that levels of forest cover and connectivity do not fall below a minimum level needed to ensure viability of the colony.

- Indiana bats, particularly females, tend to be highly faithful to their roosting and foraging areas year after year. Once a primary maternity roost tree(s) falls or is no longer suitable, the maternity colony will shift its use to a new roost tree or multiple trees within the range of the colony, yet some of the females will still remain faithful to their original foraging areas, even though their new roost is located significantly farther away.

II. Review of Tier 1 Biological Opinion

FHWA distributed excerpts from the Tier 1 Biological Opinion (BO), and reviewed key points from the BO as background for the meeting:

- The Tier 1 BO was prepared using a programmatic approach. It considers the impacts of the project (Alternative 3C) as a whole, subject to more detailed analysis of specific sections of the project during Tier 2 studies.

- The findings in the Tier 1 BO were based on conservative ("reasonable worst case") assumptions. These assumptions were intended to provide the "benefit of the doubt to the listed species."

- The Tier 1 BO included a finding of "no jeopardy" for the Indiana bat and the bald eagle. The no-jeopardy finding was largely based on FHWA and INDOT's conservation measures that they had incorporated into the project's proposed action. The conservation measures must be implemented in order for the no-jeopardy finding to remain valid.

- The Tier 1 BO also included an Incidental Take Statement (ITS) for both of those species. The incidental take statement included Reasonable and Prudent Measures (RPMs) and non-discretionary Terms and Conditions (TCs) that must be fully implemented in order for the ITS to remain valid. The Tier 1 BO stated that the USFWS may require additional section-specific RPMs and TCs as part of Section 7 consultation during Tier 2.

- The Tier 1 ITS authorizes the taking of a specific number of acres of Indiana bat habitat for each Section of I-69. Separately, it also authorizes the taking of 10 Indiana bats per year due to vehicular collisions.

- Section 7 of the Endangered Species Act (ESA) and the Tier 1 BO require preparation of a separate Biological Assessment (BA) for each Tier 2 section for which an EIS is being prepared. If the USFWS, after reviewing a BA for a specific Tier 2 section of I-69, finds that the anticipated effects to Indiana bats and bald eagles are complete and consistent with those analyzed within the Tier 1 BO and the anticipated level of incidental take is within the limits established within the Tier 1 ITS, then the Tier 1 BO states that the BA and other documentation prepared during Tier 2 for that Tier 2 Section will be "appended" to the BO, and thus complete Section 7 ESA consultation for that particular Tier 2 section of I-69.

III. Review of Summer Mist Netting Results

BLA provided a summary of mist-netting surveys conducted during the summer of 2004, and a preliminary interpretation of the findings based on those surveys:

- Mist-netting occurred at 148 sites. The sites were initially identified by the consultants, including bat experts; the final list of sites was approved by the USFWS. The sites were distributed along the entire length of the I-69 Evansville-to-Indianapolis project.

- Mist-netting was conducted according to the standard protocol (two nights, with two mist-nets per site).

- At those 148 sites, 48 Indiana bats were found at 31 locations. The results from the studies are summarized on an oversized "wall map" (dated February 14, 2005) that has been provided to the USFWS. Detailed reports documenting the results are being prepared and will be submitted to the USFWS.

The USFWS provided preliminary reactions to the surveys completed to date:

- The USFWS expressed satisfaction with the level of effort by INDOT's consultants in the mist-netting process, and recognized the scale and complexity of the work involved in carrying out a large number of mist-netting surveys in multiple areas in a short period of time.

- The USFWS indicated that they had hoped the radio tracking of captured bats would have been more effective, but also recognized that radio tracking of bats is very challenging given the terrain and the limitations of the transmitters that are attached to the bats. The USFWS noted that the reason radio tracking is important is that it allows the researchers to identify the location of the bat's roost tree. Without this knowledge, the USFWS may have to assume that some roost trees are located within the I-69 footprint that is proposed to be cleared.

- The USFWS requested that BAs for individual Tier 2 sections include a map showing the specific routes searched as part of the radio tracking – i.e., how and where the teams looked for radio signals when they were unable to locate a signal from a captured bat. The USFWS noted that this information could help to show where the captured Indiana bats probably *aren't* roosting, which could then be used to narrow down the range of areas where they may be roosting.

- The USFWS stated that if there is uncertainty about the location of a maternity colony's roost trees and foraging areas, the USFWS will continue to follow the approach used in Tier 1 – that is, give the benefit of the doubt to the species, by making reasonable worst-case assumptions about potential impacts on the bats. Worst-case assumptions about impacts will generally lead to more restrictive terms and conditions in the USFWS's approval of the Tier 2 BA.

- The USFWS believes it is difficult to draw firm conclusions about how far Indiana bats will fly from roost trees to foraging areas. Based on linear distances between mist net site capture locations and subsequent roost tree locations, it seems that most of the radio-tagged female bats flew less than the 2.5-mile distance that was used in defining the Action Area in Tier 1. Conversely, since several radio-tagged females were not relocated after multiple searches within the action area it is plausible that they flew and roosted beyond the 2.5-mile distance. There are some examples (from other studies) of Indiana bats flying up to 5 miles between their roost tree and foraging area in a night.

- Based on the data submitted to date, the USFWS believes that there may be 13 or 14 maternity roosting colonies altogether, distributed as follows among the six Tier 2 sections:

    - Section 1: 1 colony (near Pigeon Creek)

    - Section 2: 4 colonies (Patoka River, Flat Creek, East Fork, and Veales Creek)

    - Section 3: 2 colonies (West Fork of the White River – Boat Ramp and SR 57)

    - Section 4: 2 or possibly 3 colonies (Doan's Creek, Plummer Creek, and Indian Creek). The number of maternity colonies in this section depends on whether the utility pole near Indian Creek is considered a colony. At this point, since uncertainty remains and we have no

evidence to the contrary, the USFWS will give the benefit of the doubt to the species and assume the bats using the utility pole are a maternity colony.

  - Section 5: 1 colony (Bryant Creek)
  - Section 6: 3 colonies (White River/Clear Creek, Crooked Creek, and White River between Bluff Creek and Honey Creek).

- If the USFWS has time, they will conduct a GIS analysis to estimate the level of existing forest cover within a 2.5-mile radius of each Indiana bat maternity colony identified in 2004 and then subtract the amount of forest cover that would be permanently lost to construction of I-69. This exercise will be used as an aid in conducting an effects analysis for each colony. Otherwise, the USFWS expects each BA to contain similar GIS-based analyses for each maternity colony that incorporate the proposed forest and wetland mitigation areas as well.

- The USFWS would like FHWA and INDOT to fund additional mist netting and radio-tracking in those areas where maternity colonies are believed to be present (as listed above), but where the 2004 radio-tracking efforts were unsuccessful (or juveniles weren't radio-tagged) at locating any roost trees or only found one or two "alternate" roost trees and not a "primary" roost tree.

IV. Review of Fall/Winter Surveys

BLA reviewed the fall cave surveys, which have been completed, and the winter cave surveys, which are ongoing:

- The purpose of the fall/winter cave surveys was to identify any additional caves that serve as swarming sites and/or hibernacula for the Indiana bat (in addition to caves that are already known hibernacula).

- 357 caves were identified within the winter action area, based on information provided by the Indiana Geological Survey.

- Of those 357 caves, 60 were selected for harp trapping in the fall to determine if Indiana bats are present in or around those caves (which would indicate that they may also be used as winter hibernacula); the 60 caves were selected because, based on multiple factors, they were viewed as being the most likely to have Indiana bats present.

- Indiana bats were found at 8 of the 60 caves (14 bats altogether). These 8 caves are not necessarily winter hibernacula for the Indiana bat; the fact that they were being used by Indiana bats in the fall is an indication that they have some value to the species and *may* be used as hibernacula.

- In the winter, all 60 caves will be surveyed to determine whether they are actually being used as hibernacula. Those surveys are in progress; 32 of the 60 have been completed; they must be completed by March 10. Of the 32 caves surveyed to date, only one has been found to contain hibernating Indiana bats.

The USFWS described ongoing activities related to surveys of known winter hibernacula for the Indiana bat:

- Separately from the I-69 studies, the Indiana Department of Natural Resources conducts surveys of known hibernacula every two years. These surveys were last completed in 2003, and are being done again this winter. These surveys provide the basis for determining the overall trends in the winter population of the Indiana bat within Indiana and range-wide.

V. Next Steps – Section 7 Consultation Procedures for Tier 2

The USFWS provided guidance regarding Section 7 consultation procedures for Tier 2, based on the procedures outlined in the Tier 1 BO as well as the USFWS's experience with programmatic consultation in other situations.

Overall Approach

- This project is being addressed through a programmatic approach to Section 7 consultation. This approach is described in the Tier 1 Biological Opinion.
- With a programmatic approach, it is important to ensure that site-specific reviews are completed before specific projects are approved, rather than approving specific projects based solely on a large-scale, program-level analysis. The process defined in the Tier 1 B.O. does require site-specific reviews to be carried out for each Tier 2 section.
- The documentation prepared during Tier 2 for each Tier 2 section should include (1) a Biological Assessment, which will be prepared by INDOT and FHWA, and (2) a letter from the USFWS concurring in the findings of the Biological Assessment. The USFWS will issue the letter only after it is satisfied that the no-jeopardy finding remains valid and that the potential for an incidental take has been minimized.
- The documentation prepared for each Tier 2 section will be appended to the original Biological Opinion issued in Tier 1. For this reason, the USFWS refers to the process being used here as the "appended programmatic" approach.

Expectations for Tier 2 BAs

- Ideally, the Tier 2 Biological Assessments should describe how the originally proposed conservation measures committed to in Tier 1 will be met in a particular section as well as any additional conservation measures that INDOT and FHWA believe are warranted based on the results of the Tier 2 studies – e.g., site-specific measures to protect maternity colonies roost trees and foraging areas that have been identified in the Tier 2 studies. These additional conservation measures should be developed through informal consultation with the USFWS during the preparation of the BA.
- The submittal of a Tier 2 BA typically does not re-initiate formal consultation for the Tier 1 BO. Formal consultation was concluded with the issuance of the Biological Opinion in Tier 1. Formal consultation will have to be re-initiated only if the circumstances specified on p. 85 of the BO occur – for example, if the exempted amount or extent of incidental take is exceeded or if a type of incidental take/adverse effect is anticipated that was not previously analyzed in the Tier 1 BO.
- Another key issue in Tier 2 will be indirect (induced) development, which has the potential to cause impacts on Indiana bat habitat – e.g., maternity colonies, hibernacula/swarming habitat . The BAs should include predictions of the potential for indirect development, particularly around interchanges and near hibernacula – i.e., predictions about where development is reasonably likely to occur.
- If the BA contains sensitive information regarding endangered species locations (e.g., information that would allow the reader to identify specific locations of highly sensitive hibernacula), that information should be presented in a "confidential appendix" to the BA. This approach will allow complete information to be presented to the USFWS and included in the USFWS's project file, while also facilitating efforts to protect the confidentiality of sensitive information.

- The USFWS will provide INDOT with samples of correspondence received from the Hoosier National Forest in connection with the programmatic Section 7 consultation process for the forest management plan. These letters can be used as a reference in drafting correspondence for this programmatic consultation process.

- Drafts of the BA for a Tier 2 section may be provided to the USFWS for informal review before the BA is officially submitted. Developing the BA with advance input from the USFWS will increase the likelihood that the USFWS can approve the BA when it is officially submitted.

- The official submittal of the BA *may* occur before the DEIS; it is not necessary to wait until after the DEIS is completed before submitting the BA. If the BA is not submitted before the DEIS, it should be submitted at some point between the DEIS and the FEIS.

USFWS's Review and Approval of BAs

- If the USFWS is satisfied with the "conservation measures" included in the "proposed action" for a particular Tier 2 Section as described in its BA, then no additional section-specific RPMs and TCs will be required. The USFWS has authority to include other RPMS and TCs that are not specifically proposed as "conservation measures" in the BA.

- Generally, the review time for a BA in Tier 2 will be 30 days (assuming the BA adequately assesses all anticipated effects and is complete). Given the large scale and complexity of the bat and/or eagle issues, some I-69 sections may take longer than 30 days to review. The USFWS would issue its approval letter and append the BA to the Tier 1 BO at the end of the 30-day review period.

- The USFWS does not intend to approve a BA prior to publication of the DEIS. Instead, the USFWS expects that its letter approving/appending the BA will be issued at some point between the DEIS and the FEIS for a Tier 2 section.

- If section-specific "conservation measures" are not incorporated into the proposed action of the Tier 2 BAs up front, then the USFWS anticipates that most or all of the Tier 2 Sections will need to have additional non-discretionary section-specific Terms and Conditions added during their review of each Tier 2 BA that would require site-specific measures to further minimize incidental take of Indiana bats, in addition to the more general T&Cs that were included in the Tier 1 BO.

- The USFWS welcomes suggestions from INDOT and FHWA at any time regarding potential section-specific "conservation measures". It is not "too early" to begin considering those additional measures, for possible inclusion in the BA for a Tier 2 Section.

VI. Other Issues

Potential Mitigation Opportunities

- The USFWS is continuing its efforts to purchase and caves, in cooperation with Indiana DNR, using federal funds that were granted to DNR specifically for this purchase. The major barrier to this acquisition has been the federal appraisal system. INDOT is willing to fund the acquisition of these caves as a mitigation measure for I-69, if desired by the USFWS and DNR.

Bald Eagle

- The bald eagle should be addressed in the BAs for the Tier 2 sections; however, there is no need for additional field work. Some level of analysis is definitely needed in each Tier 2 BA.

Upcoming Indiana Bat Risk Analysis Workshop

- The USFWS will be using a "structured-decision-analysis" process in an upcoming Indiana Bat Risk Analysis Workshop (March 15-17, 2005) involving USFWS Biologists from across the species' range, Recovery Team members, and an invited panel of experts. Goals of the workshop are to provide recommendations to the USFWS regarding (1) potential changes to the Recovery Plan for the Indiana bat and (2) prioritizing recovery actions (3) current population status, ongoing threats, and risk of extinction and (4) setting management decisions within the USFWS regarding proper effects determinations and jeopardy decisions under various hypothetical section 7 consultation scenarios having variable degrees of impact to individual Indiana bats, maternity colonies, and/or hibernacula in order to improve consistency among USFWS field offices. Management decisions resulting from this meeting may or may not have an affect on the ongoing Section 7 consultation for I-69 and other FHWA funded INDOT projects.

[Following the January 27, 2005 meeting, USFWS representatives from the Bloomington Field Office attended the Indiana Bat Risk Analysis Workshop on March 15-17, 2005. USFWS provided the I-69 study team with a DRAFT workshop agenda and an "appendix" to an example programmatic biological opinion on April 13, 2005. The appendix included an example of letter asking the USFWS to append it to a programmatic biological opinion, a map, and balance sheet that shows the individual acres of habitat/exempted take for each project and tracks the cumulative total to ensure that the total allotted amounts of take/acres are not exceeded. This would be analogous to a Section of I-69. USFWS requested a letter and balance sheet be included with each I-69 Section BA. The appendix also included a response letter from USFWS.]

I-69 EVANSVILLE TO INDIANAPOLIS TIER 2

Meeting Minutes-Section 106

February 15, 2005

Attendance:

Frank Hurdis, DHPA/SHPO
John Carr, DHPA/SHPO
Karie Brudis, DHPA/SHPO
Rick Jones, DHPA/SHPO
Mary Kennedy, INDOT
Linda Weintraut, Weintraut & Associates
Connie Zeigler, Weintraut & Associates

IHSSI Cards: While the descriptions were good and for the most part the cards were satisfactory, the following problems should be addressed on the cards for Section 1.

1) No UTM coordinates are recorded; Weintraut said either the UTM coordinates or GPS number would be added. This was agreeable to SHPO. Karie Brudis indicated that a list of survey numbers with GPS points would be acceptable.
2) The number of resources shown on the site plan isn't always reflected in the contributing and non-contributing numbers noted by the surveyor in sections 25 and 26 of the forms. Weintraut said this would be checked and corrected.
3) Sometimes the property is rated contributing but there are no contributing resources shown. Weintraut said the consultants were asked to record a card on all resources formerly rated contributing, even if they had fallen into the non-contributing category; this might account for the discrepancies. This will be checked.
4) Sometimes the resource count is missing. Weintraut: this will be corrected.
5) Sometimes the descriptions indicate that a property might be Notable, yet it is rated Contributing. An example is the Vincent Georges property #35032. Weintraut asked if the consultants should be rating the properties since they haven't viewed all the properties in the township. Hurdis said yes they could assign that rating; it was agreed that Weintraut & Associates would review all ratings and could attach a post-it note indicating the property was worthy of a Notable or Outstanding rating.

Weintraut said that all the survey cards will be checked and corrected as necessary at Weintraut & Associates offices.

Historic Property Report: Section 1

1) Specific questions about the Henry Bessing farmstead: the property was not deemed eligible, and yet, it seemed good enough to have been considered. In that case, it should have been one of the selected ineligibles described in the report so that the consultant could justify the ineligible designation.

2) John Carr noted that it was good to see specific properties cited in the context.

3) SHPO agreed with the assessment that there are no eligible properties in Section 1.

Historic Property Reports-In General

1) SHPO requested the survey forms for each section so they can review them as they read the reports.

2) It was decided that the selected ineligibles sections of the Historic Property Reports should include the best of the properties that are not deemed eligible as well as all properties formerly rated Notable or Outstanding and the introduction to each ineligible section should include a paragraph why these particular properties had been singled out for discussion. This paragraph should also indicate those properties that were "borderline."

3) The historic property reports (future ones) will include a photograph and brief description of integrity of all properties that were not previously inventoried. It was agreed that a photograph and a notes on integrity could be added to the existing table format.

Quarries:

John Carr asked that Rick Jones join the group.

Issues of quarries will need to be addressed by Sections 4 and 5. Section 4 has quarries in the APE but not in the corridor. Section 5 has at least one quarry in the corridor, the Vernia quarry.

1) The consultants will evaluate the integrity and resources at the quarries, but the PMC wants to create a methodology so they will be consistent in evaluation.

2) Weintraut referred to the NR nomination of the Woolery site, which provides a model. The nomination compares the Woolery to other sites in a table format. SHPO and Weintraut agreed that this would be a useful way to look at the quarries in these sections. It was agreed that the Woolery site would be the standard with which the other sites will be compared.

3) The Vernia site was discussed. Rick Jones said that Tom Beard did the initial archaeological reconnaissance of the site and concluded only that it should be looked at in the future. Jones said the next step would be some sort of archaeology at the site.

4) Bob Bernacki has told Rick Jones that the Woolery nomination would provide context for the mills/quarries.

5) Hurdis said an eligible mill would have a "more complete above-ground picture" and not just remnants.

6) Jones said he could contact a couple of industrial archaeologists and get an idea of what to look for at quarries. He thought it would be a good idea to compare the milestones in the industry, which Weintraut has begun to compile from secondary sources, with the resources extant at Vernia. He doesn't believe the Vernia site was excavated with a plan, but rather simply followed the vein of limestone.

7) John Carr and Frank Hurdis were agreeable to participating in a tour of the quarry sites, if it was appropriate.

Eligibility issues: Pleasant View

The final issue was to ask SHPO for an opinion on the Pleasant View (Monroe 30055). The property is in the overlap area between Sections 4 and 5; the two consultants disagree as to its status.

Hurdis indicated that the property was "borderline" but would give it the benefit of the doubt for inclusion due to the large number of extant outbuildings and the dwindling number of similar resources in the township. However, the interior plan characteristics need to be extant for inclusion.

Weintraut thanked SHPO for ongoing consultation.

Meeting concluded.

Details discussed in this meeting are subject to change, but are a reflection of how things stood at the close of the meeting.

Note: This meeting summary documents ongoing, internal agency deliberations. Accordingly, the information contained in this summary is considered to be pre-decisional and deliberative.

103-0001-06D

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

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Keith Jason
Vince Jeremy
Dean Josh
Dave F Jonna
Kent Nicole
tom Dean M.
Jim G Mike G.
Daniel

VIA CERTIFIED MAIL 7002 0510 0004 2581 5059

February 16, 2005

Mr. Thomas H. Cervone
Bernardin, Lochmueller & Associates
6200 Vogel Road
Evansville, IN 47715

Dear Mr. Cervone:

Re: Water Resources Comment Letter
Project: I-69 Evansville to Indianapolis

The following letter is the Indiana Department of Environmental Management's (IDEM) response concerning the proposed analysis and evaluation of water resources located within the proposed Interstate 69 corridor from Evansville to Indianapolis. The analysis and evaluation will identify water resources within the 2,000 foot wide corridor and the results will be used to identify the best alternative route to minimize water resource damages from the proposed project. This letter will follow the same outline for the analysis and evaluation protocol handed out during the December 14, 2004, Water Resources Meeting. This letter will also provide guidance on future permitting issues.

Wetland Evaluation

1. Alternative Analysis

   a. In the general quality definition include a justification for the definition. What is going to determine if the wetland is low, medium, high, or exceptional quality? At a minimum, this definition should look at the species diversity within the wetland, position of the wetland within the landscape, the hydrologic function of the wetland, habitat function provided by the wetland, and estimated percent coverage of invasive or nonnative species.
   b. Isolated wetlands identified within the corridor should be evaluated in accordance with the definitions found in Indiana Code 13-11-25.8. Include a justification for the classification of the isolated wetlands.

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FEB 18 2005
BLA

2. Preferred Alternative

    a. All wetlands, including wetlands which may be isolated, shall be delineated in accordance with the Army Corps of Engineers 1987 Wetland Delineation Manual. Any wetland that extends beyond the proposed study corridor should be delineated to show the entire boundary of the wetland.
    b. Isolated wetlands identified within the corridor should be evaluated in accordance with the definitions found in Indiana Code 13-11-25.8. Include a justification for the classification of the isolated wetlands.
    c. Conduct a reptile and amphibian survey in any wetland area proposed to be impacted by this project.

3. Delineation Report for the Army Corps of Engineers

    a. A copy of the wetland delineation report must be submitted concurrently to this office.
    b. The wetland delineation should be verified by the Army Corps of Engineers before there is any discussion of avoidance, minimization, and impacts.

Compensatory mitigation for unavoidable impacts to jurisdictional wetlands should follow the new Army Corps of Engineers Mitigation Guidelines. Compensatory mitigation should be provided in accordance with the following ratios for all jurisdictional wetland impacts: Open Water 1:1, Emergent Wetlands 2:1, Scrub/Shrub Wetlands 3:1, and Forested Wetlands 4:1. Compensatory mitigation sites should be located within the same 8-digit watershed and should be directed towards sites that will improve water quality to any state impaired waterbody. Please refer to the 303d list of impaired waters for the State of Indiana. If section 319 watershed studies have been conducted within the watersheds please contact the local sponsor of the study to identify areas that will most benefit water quality.

Compensatory mitigation for unavoidable isolated wetland impacts shall be provided in accordance with the ratios outlined in Indiana Code(IC) 13-18-22-6. Please note that IC 13-18-22-6 requires the replacement wetland to be of a specified class (dependant on the class of wetlands the activity occurred in), and that Class I, Class II, and Class III wetlands are defined as isolated. This means you will need to replace isolated wetlands with isolated mitigation wetlands. This could mean that separate mitigation sites for isolated wetlands and jurisdictional wetlands are needed. Mitigation must be provided within the same 8-digit watershed or county.

Stream Evaluation

Because of the length of this project and the detrimental impacts to water quality this project could have, IDEM requires you to conduct the following assessments to ensure there will be no degradation of water quality, any detrimental impacts to plant and animal life, and that existing beneficial uses will be maintained:

1. Stream Assessments

    a. Stream habitat assessments using Ohio's QHEI and HHEI.
    b. Fish surveys to look at species diversity to include any State or Federally listed rare, threatened, or endangered species.

c. Mussel surveys to look at species diversity to include any State or Federally listed rare, threatened, or endangered species.
d. Crayfish surveys to look at species diversity to include any State or Federally listed rare, threatened, or endangered species.
e. Macroinvertebrate surveys to get an overall picture of water quality.
f. Amphibian surveys to look at species diversity to include any State or Federally listed rare, threatened, or endangered species.

2. Riparian Corridor Assessment

a. Mean width of riparian corridor in the proposed alternatives.
b. Density of trees within the riparian corridor.
c. Tree species, mean DBH, and importance value within the riparian corridor.
d. Wetlands, waterways, or other drainage features within the riparian corridor.
e. Identify if there is suitable Indiana Bat habitat within the riparian corridor and whether the area has been surveyed for the Indiana Bat.
f. Reptile and Amphibian surveys within the stream and riparian corridor habitat.

This data will be used to evaluate the impacts to water quality from the proposed project. This information will also be used as success criteria for any stream and riparian corridor compensatory mitigation. These assessment methods should be in accordance with assessment methods used by the IDEM Assessment Branch and the Fish and Wildlife biologists with the Indiana Department of Natural Resources.

Additionally, IDEM recommends you design a protocol to evaluate the stability of the stream banks upstream and downstream from any crossing. The increased runoff associated with impervious surface and stormwater runoff will increase velocities within the stream and contribute to additional bank erosion. At a minimum, you should assess 500 linear feet upstream and downstream from any bridge or culvert crossing. If an on-and-off ramp system is located within close proximity to a stream, the length of upstream and downstream assessment should be extended to 1,000 linear feet. During this assessment you should identify problem areas and recommend appropriate measures to stabilize stream banks that will be impacted by increased runoff. Bioengineered stabilized methods are preferred by this office.

Compensatory mitigation for stream impacts shall be provided at a 1:1 ratio. Instream habitat features such as riffle-pool and meander complexes as well as bioengineered bank stabilization and root wads should be included as part of the stream mitigation. The Indiana Department of Transportation's I-70/Six Points Road stream mitigation is the standard for this project. Riparian corridor mitigation shall be provided to compensate for loss and functions of riparian corridors. Mitigation will be calculated by adding up the total loss of riparian corridor from the project. All stream mitigation should be located within the same 8-digit watershed and should be directed towards sites that will improve water quality to any state impaired waterbody.. Again, please refer to the 303d list of impaired waters for the State of Indiana. If section 319 watershed studies have been conducted within the watersheds please contact the local sponsor of the study to identify areas that will most benefit water quality.

When choosing the preferred alternative route for this project, the designers should avoid turning ephemeral, intermittent and perennial streams into roadside ditches. All streams should be crossed in a perpendicular manner. If it becomes necessary to turn streams into roadside ditches

you should justify the necessity to do so. Referencing Department of Transportation design standards is not a justification for these impacts!

If you have any questions about this letter, please contact Jason Randolph, Project Manager, of my staff at 317-233-0467, or you may contact the Office of Water Quality through the IDEM Environmental Helpline (1-800-451-6027).

Sincerely,

Martha Clark Mettler

Martha Clark Mettler, Chief
Watershed Planning Branch
Office of Water Quality

cc: Amy Babey, USACOE-Louisville
Andy King, USFWS
Catherine Garra, EPA Region 5
Tony Desimone, FHA
Robert Buskirk, INDOT
Jon Eggen, IDNR

Carol Hood

From: <Laszewski.Virginia@epamail.epa.gov> [Laszewski.Virginia@epamail.epa.gov]

Sent: Thursday, February 17, 2005 10:29 AM

To: Carol Hood

Cc: Kent Ahrenholtz; Tom Cervone; jrodocker@commerce.state.in.us; jwickard@commerce.state.in.us; apelloso@dem.state.in.us; belifrit@dem.state.in.us; dclark@dem.state.in.us; jrandolph@dem.state.in.us; sdeloney@dem.state.in.us; jeggen@dnr.IN.gov; jhebenstreit@dnr.IN.gov; jcarr@dnr.state.in.us; rbraun@dnr.state.in.us; rjones@dnr.state.in.us; Garra.Catherine@epamail.epa.gov; Kenney.Thomas@epamail.epa.gov; melgin.wendy@epamail.epa.gov; westlake.kenneth@epamail.epa.gov; Anthony.DeSimone@fhwa.dot.gov; kday@fs.fed.us; Andrew_King@fws.gov; Eugene_goldfarb@hud.gov; jane.hardisty@in.usda.gov; jsteinm@indiana.edu; JOSADCZUK@indot.state.in.us; LSADLER@indot.state.in.us; Amy.Babey@lr102.usace.army.mil; Doug.Shelton@LRL02.usace.army.mil; david.poynter@navy.mil

Subject: I-69 Meeting(Feb. 23-24) - 2nd QUANTUM Training Session?

Carol,

Is there going to be a second Quantum Training Session (e.g., early morning on day 2)? I've discussed the subject of having a second session and its importance with Kent Ahrenholtz and Tony DeSimone in the recent past but have not received an answer.

It is important for the people on the Water Resources Committee and Karst Committee to be intimately aware and informed, in part, on how water resources information and Karst information (including assumptions) will be input and used in Quantum.

Another thing to consider: The Water Resources Committee and the Karst Committee have overlapping concerns/issues (e.g., water quality) that would best be identified and tackled together.

At this time only Ken Westlake, Cathy Garra and myself will be able to attend the two day meetings. I will let you know which of us will be sitting in on which breakout session as soon as I get a response to my above question.

Thank you.

Virginia Laszewski
Environmental Scientist

US EPA, Region 5
OSEC, NIS
77 W. Jackson Blvd. (mail code: B19J)
Chicago, IL 606043590
Phone: (312) 8867501
Fax: (312) 3535374
email: laszewski.virginia@epa.gov

Good morning Everyone!

I am trying to do some planning for the breakout sessions that we will have in the afternoon of Feb. 23. Can you let me know which session you are planning to participate in (Interagency Water Resources Coord. Team, Karst Geology Coord. Team, or Quantm Demonstration/Training session)?

Thanks so much,

Carol

Carol Hood
Project Coordinator
BLA, PMC
(812) 4796200
18004237411

Meeting Minutes

Tier 2 IDEM Land of Quality/PMC Meeting

Friday, February 18, 2005, 10:30 a.m. EST

Attendees:	Kia Gillette - Bernardin, Lochmueller & Associates (BLA)
Bruce Palin - IDEM	Tom Cervone - BLA
Bruce Oertel - IDEM	Vince L. Epp - Shrewsberry & Associates (S&A)
Tim Johnson - IDEM	Kandas Bean - S&A
Tom Duncan - INDOT	

Communication Between the EEACs and IDEM

- A formal chain of communication between INDOT, BLA, S&A, IDEM and EEACs was established. S&A and BLA will facilitate communication between the EEACs and IDEM Office of Land Quality through Tim Johnson (IDEM Site Investigation Section Senior Project Manager).
- Tim Johnson (IDEM) will facilitate practicable and consistent approach to Hazardous Materials (Haz-Mat) issues for each EEAC through the Project Management Consultant (PMC: BLA and S&A).
- The PMC will communicate with INDOT.

Comments made by PMC (Tom Cervone)

- Section 1 DEIS should be completed as early as summer 2005. Each section has a tentative schedule to follow.
- The Tier 2 Milestone Schedule will be provided to IDEM.
- The Draft Tier 2 Environmental Impact Statement for Sections 1 through 4 will identify alternative routes for future analysis and will include Haz-Mat issues. Sections 5 and 6 will be developed along the existing SR 37 to the extent practicable, and will also include Haz-Mat issues.

Haz-Mat Identification

- Each EEAC has reviewed available governmental records and identified potential hazardous materials and sources based on IDEM database.
- Each EEAC will communicate with the PMC regarding any additional or new potential environmental concerns.
- The PMC has constructed a Haz-Mat Methodology for the EEACs to use to identify and assess potential Haz-Mat issues.
- INDOT will review Initial Site Investigations (ISA) to determine the extent of impact and if future action is needed.
- Remedial solutions should be consistent throughout each section.
- Potential environmental concerns include unregistered dumps, landfills, USTs, LUSTs, RCRA and CERCLA sites.

Other Items

- IDEM was provided with the Tier 1 Report and Environmental atlas.
- Tim Johnson (IDEM) requested a large section map and a project schedule for each section.

Action Items:	Owner:	Due Date:
Section Map & Project Schedule to Tim Johnson	Kia Gillette-BLA	-

Details discussed in this meeting are subject to change, but are a reflection of how things stood at the close of the meeting.

These meeting minutes represent my understanding of the events that occurred. Please forward any comments or revisions to my attention, Carol Hood.

Note: This meeting summary documents ongoing, internal agency deliberations. Accordingly, the information contained in this summary is considered to be pre-decisional and deliberative.

February 21, 2005
Monthly Agency Update
October 2004 – January 2005

The following information comprises an update of the activities of the seven consultant teams – Project Management Consultant (PMC) and Engineering and Environmental Assessment Consultants (EEACs) – working on the I-69 Evansville to Indianapolis Tier 2 Studies for the period from October 2004 to January 2005. This update includes the status of ongoing field activities related to various natural and man-made resources, as well as public and agency outreach activities.

PMC: The PMC has completed the following activities during the period of October 2004 through January 2005.

- Continued management of and coordination with the EEACs in terms of schedule, scopes of work, costs, and other contractual elements through conduct of coordination meetings, team communications, and outreach. Also, continued coordination with the Indiana Department of Transportation (INDOT) and the Federal Highway Administration (FHWA) with regard to project meetings, project record, EEACs billings, and overall project and program management.
- Continued Section 7 consultation, including compilation of the summer mist netting efforts on the Indiana bat and submission to the U.S. Fish and Wildlife Service (USFWS). Additional fall and winter Indiana bat hibernacula surveys are currently ongoing and have been coordinated with USFWS. This effort has included an extensive reconnaissance of known caves within the Indiana bat action area for their potential as hibernacula.
- Coordination of the ongoing karst geology studies in Sections 4 and 5 including conducting the Karst Technical Team Meetings and reviews of initial karst feature identification.
- Established an Interagency Water Resources Coordination Team consisting of appropriate resource agencies to assist in the development of water resources evaluation methodology for the Tier 2 Studies. Conducted an initial meeting of this team in mid-December. Also, reviewed Section 1 wetland identification efforts.
- Continued coordination with Indiana Department of Natural Resources (IDNR) Division of Historic Preservation and Archaeology (DHPA) relative to Section 106, including conducting a meeting with DHPA regarding the Amish/Mennonite communities in Daviess County.

- Continued public involvement through publishing of a project newsletter in December 2004 that was distributed to property owners along the corridor and those expressing interest in the project.

Section 1: The Section 1 EEAC, Qk4, has completed the following activities during the period of October 2004 through January 2005.

- Drafted historic property report (above-ground) for PMC review during the fall; it is presently under agency review.
- Completed wetland delineations for wetlands within the corridor during the fall. In late September, performed a "walk through" with the PMC of the identified wetlands.
- Completed noise receptor readings.
- Conducted a HazMat/Water Quality meeting with PMC staff and continued field reconnaissance of hazardous materials sites.
- Submitted a draft wetland delineation report and a summer bat mist netting report to the PMC for review. The section has received Tier 1 archaeological data and submitted it to their sub-consultant.
- Held first Community Advisory Committee (CAC) meeting in October. Second CAC meeting held in early November to discuss preliminary alternative alignments. First Public Information Meeting held November 18. Showed public the preliminary alternatives and discussed the purposes and needs of the project.

Section 2: The Section 2 EEAC, Hannum Wagle and Cline/Jacobs Civil Inc., has completed the following activities during the period of October 2004 through January 2005.

- Completed wetland delineations for wetlands within the corridor during the fall. Updated the wetland related GIS data.
- Completed noise receptor readings.
- Summer bat mist netting report completed.
- Collected bird study data. Currently continuing work on the bird study data report.
- Completed collection of fish data in the South Fork of the Patoka River this fall. Mussel and wildlife surveys also began in the fall, but were delayed because of weather conditions. Surveys will resume in the spring of 2005.
- Completed field investigations to identify plant and tree species in the corridor.
- Currently coordinating research of utilities within corridor with gas pipeline companies. Currently investigating mineral rights within corridor.
- Revision of historical property report underway.
- Evaluation of farmland impacts and review of existing hazardous materials data underway.

- First CAC meeting held in October. Second CAC meeting held in mid-December. CAC members gave feedback on the preliminary alternative alignments and the possible locations of interchanges and grade separations. First Public Information Meeting held on February 2 to show preliminary alternatives to the public.

Section 3: The Section 3 EEAC, The Corradino Group, has completed the following activities during the period of October 2004 through January 2005.

- Completed historic surveys and sent draft historic report to the PMC. Currently preparing document for SHPO review. Conducted interviews with the Amish and Mennonite community and evaluated the existence of a potential historic district or landscape for Section 106 consideration.
- Completed wetland delineations for wetlands within the corridor during the fall.
- Completed land use evaluations.
- Submitted summer bat mist netting report to the PMC.
- Utility coordination team meeting held in October.
- First CAC meeting held in October. Second CAC meeting held in December to discuss preliminary alternatives. Public Information Meeting held in December to show preliminary alternatives to the public. Working to arrange meeting to show the preliminary alternatives to the Amish/Mennonite communities.

Section 4: The Section 4 EEAC, DLZ Corp., has completed the following activities during the period of October 2004 through January 2005.

- Nearly completed initial karst geology field survey to identify karst features. Future evaluation of the data will determine features/areas warranting additional evaluation. Attended karst technical team meetings in November and December.
- Provided summer bat mist netting report to the PMC.
- Completed ecological survey of corridor. Identified several potential wildlife crossing locations.
- Historic research field work continues. Meeting regarding Virginia Ironworks held in January to discuss appropriate evaluation procedures for this resource and potentially associated archaeological resources.
- Work on land use mapping and initial research to identify hazardous material sites continues.
- Held Community Advisory Committee meeting in early December. Currently considering topics for the next CAC meeting to be scheduled in the coming months.

Section 5: The Section 5 EEAC, Michael Baker Jr., Inc., has completed the following activities during the period of October 2004 through January 2005.

- Completed wetland delineations for wetlands within the corridor during the fall. Completed wetland mapping with GPS.
- Karst geology dye-tracing is underway. Attended karst technical team meetings in November and December.
- Completed field work on pedestrian survey, baseline ambient noise study, and socio-economics study.
- Completed fieldwork to identify potential above-ground historic resources. Completed background research regarding archaeological items within corridor.
- Received comments from PMC regarding the summer bat mist netting report. Final report completed in December.
- Sent and received responses to church and emergency services surveys. Currently conducting a business needs survey.
- Review of land use and Traffic Analysis Zones underway.
- Completion of the noise model is on hold pending traffic data.
- Held CAC meeting in early November. In coordination with Section 6, held a joint CAC meeting for the Martinsville/Morgan County area in November.

Section 6: The Section 6 EEAC, HNTB, has completed the following activities during the period of October 2004 through January 2005.

- Completed evaluation of historic properties on eligibility for National Register criteria. Completed historic properties field work. Conducted meeting with PMC to examine potentially eligible properties. Section historian continues research of properties. Background archaeological research within the study corridor continues.
- Completed summer bat mist netting report this fall.
- Completed field survey with GPS location of all businesses within the 2000-foot corridor.
- Currently working on existing and future land use survey.
- Completed draft typical sections and began initial development of preliminary alternative alignments for early February coordination meeting with INDOT and the PMC.
- Currently working on the Community Impact Assessment (CIA) for the existing environment. Researched and drafted community profiles, and existing social and demographic characteristics within the study corridor.
- Held an initial CAC meeting and a joint CAC meeting in coordination with Section 5 for the Martinsville/Morgan County area in November.

I-69 Overall Agency Coordination Meeting

Formal Agency Coordinat

& Project Schedu

February 23, 2005

I-69 Evansville to Indianapolis Tier 2 Studies

Summary

- Environmental Streamlining
- Agency Coordination
- Project Schedules/Timeframes

Environmental Streamlining

- Basic Elements
- EIS Development
  - Notice of Intent
  - Kickoff Agency Coordination Meeting
  - Periodic Agency Coordination M
  - Purpose & Need and Prelimina
  - Preliminary Alternatives Analysis & Screening
- Draft EIS
- Preferred Alternative & Mitigation
- Final EIS & ROD

Agency Coordination

- Agency Review Packages at Streamlining Coordination Points
- Agency Feedback through [redacted]erence Calls
- [redacted] I-69 Agency Coordination [redacted] Meetings [redacted]
- Monthly Agency Update "N[redacted]ter" [redacted]

Agency Review Packages

- Purpose & Need/Preliminary Alternatives Package
- Preliminary Alternatives Analysis and Screening Package
- Preferred Alternative and Mitigation Package

Agency Feedback

- Through Use of Conference Call & Internet Telecast
- Approximately 30 Days Following Distribution of Package
- Questions, Clarifications and Comments
- Additional 30 Days to Provide Comments

Overall I-69 Agency Coordination Meetings

- Periodic Meetings Throughout Project *(approximately every 6 months)*
- General Update from Each I-69 Section
- "Snapshot" of Project Progress
- Multiple Day Events

Monthly Agency Updates

- Monthly Update of Activities of PMC & Section Consultants
- Ongoing Field Activities to [redacted]us Resources
- [redacted]ublic & Agency Outreach Activities

Project Schedules

- Major Milestone Schedules
  - Six Separate Schedules for I-69 Sections
  - “Staggered” Issuance of EIS[redacted]
  - All Complete within 36 mo[redacted]er NOI
- [redacted]tent Approach & F[redacted]

Points of Contact

Mr. Kent Ahrenholtz, Project Manager
Dr. Thomas Cervone, Deputy Project Manager
Bernardin, Lochmueller & Associates
6200 Vogel Road
Evansville, IN 47715
Ph[redacted]) 479-6200 or (800) 423[redacted]
Fax: (812) 479-6262
Em[redacted] kahrenholtz@blainc.com
[redacted] tcervone@blainc.com

THANK YOU!

MEETING MINUTES

Interagency Water Resources Breakout Session

Section 3 Project Office, Washington, IN
February 23, 2005, 2:00 p.m. – 5:00 p.m. EST

Attendees:	
Lyle Sadler, INDOT PM	Wendy Vachet, Section 5 PM – Michael Baker
Bo Diechmeyer, INDOT Env. Assessment	Bill McCartney, Section 5– Michael Baker
Michelle Allen, INDOT – Env. Assessment	Jack E. Nelson, IDNR Div. of Forestry
Tamara Ratliff-Roberts, IDEM	Roger Wade, Section 1 PM – Qk4
Jason Randolph, IDEM – OWQ – 401	Kevin Allison, Section 3– Corradino
Cathy Garra, US EPA Region 5	David Pluckebaum, Section 3 PM – Corradino
Chrisie Kiefer, IDNR – Fish & Wildlife	Larry Heil, FHWA – Indiana
Henry Nodarse, PMC – BLA/PMC	Rusty Yeager, PMC – BLA/PMC
Jim Gulick, PMC – BLA/PMC	Jeremy Kieffner, PMC – BLA/PMC
Kenneth Smith, IDNR – Water	Bill Malley, Akin Gump
Carol Hood, PMC – BLA/PMC	Janice Osadczuk, INDOT EPE
Mike Tackett, Section 3 – Corradino	Tony DeSimone, FHWA – Indiana
David Cleveland, Section 3 DPM – Corradino	Doug Wolf, IDNR Div. of Soil Conservation
James Sullivan, IDEM	Vince Epps, Shrewsberry & Associates
Jason Stone, Section 4 DPM – DLZ Indiana	Tim Miller, Section 6 PM – HNTB
Kia Gillette, PMC – BLA/PMC	

Welcome and Opening Remarks **Kia Gillette**

Introductions

Purpose of Interagency Meeting **Kia Gillette**

- Familiarize agencies with how work is being done.
- Give an understanding of who is doing the work.
- What has been done so far.
- Present information for each section.
- Since the last meeting:
    - Each water resource will have a brief or summary on protocol.
    - Draft wetland and stream guidance
    - Received verbal and written comments regarding the draft guidance.
    - Revised guidance based on comments and concerns.
    - Groundwater resources and water quality, floodplains and floodways guidances are in progress.

3 Part Methodology **Jeremy Kieffner**

- Wetland activities completed for entire corridor:
    - Identify/confirm wetland locations

  - Background information for USGS topo maps, NWI maps, soil survey data, aerial photography
  - Approximate boundaries have been identified and mapped, and will extend outside corridor if necessary
  - Features on aerials, GPS, NWI boundaries
  - PMC will review field verification, boundaries will be flagged
  - Classification
  - Compensatory mitigation sites.
  - Field locations identified and estimated wetland boundaries in the corridor will be considered in the initial development of alternatives.
  - Wetland avoidance and minimization will be built in to the alternatives as they are developed and evaluated.
- Rivers and Streams activities completed for entire corridor:
  - Field reconnaissance: All perennial, intermittent, and ephemeral streams with an OHWM will be identified on aerials and USGS topo maps.
  - Classification: Cowardin et. Al, 1979
  - All impaired waters as listed in the IDEM 303 9d) report will be identified.
- Wetlands activities completed for alternatives carried forward for detailed analysis:
  - Assessment of functions: qualitative, possibly documented using InWRAP.
  - Preliminary jurisdictional determination: USCOE jurisdiction vs. isolated; provided to USCOE and IDEM for review
  - Farmed wetlands – defined by the USDA NFSAM; investigations will follow NRCS guidelines.
- Wetlands and streams activities completed for alternatives carried forward for detailed analysis:
  - Information developed at this stage will be considered in the selection of a preferred alternative.
  - Information regarding quality, functions, jurisdictional status, and acreage will be considered.
- Rivers and streams activities completed for alternatives carried forward for detailed analysis:
  - Mapping: county, quad, TRS, UTM coordinates
  - Assessment of habitat quality – QHEI with IDEM SOPs, OHWM, length of impact, photos
  - Impaired waters
- Wetlands and streams activities completed only for the preferred alternative:
  - More detailed information will be gathered in order to more precisely define impacts for mitigation purposes.
  - Uniformed naming system for wetland and stream impacts will be used for each section.
- Wetlands activities completed only for the preferred alternative:
  - Boundaries mapped to sub-meter accuracy.
  - Delineation draft report documents impacts from the preferred alternative.
  - Delineations verified by the PMC.
- Rivers and streams activities completed only for the preferred alternative:
  - Waterway- crossing impacts:
    - Bridge, culvert, or relocation
    - Length of impact, type of stream
    - Width of OHWM
    - Area of impact

Q/A and Comments (C):

C: *Pay close attention to ephemeral streams, especially in Section 4 where it is very rugged. (IDEM)*

Q: *How will stormwater impacts be mitigated? INDOT should allow room within the right-of-way for structures to deal with stormwater runoff and pollutants.(IDNR)*
A: We may need to add additional rights-of-way in some areas for those structures. *(INDOT)*

Q: *These structures should not be in wetlands or other structures. (IDEM)*
A: Yes, we are aware of this. *(INDOT)*

C: *Consider impacts to privately owned dams, including the potential to convert low-hazard dams to high-hazard dams based on proximity of the roadway. (IDNR)*
A: We will look into this issue. *(INDOT)*

Q: *If you have a wetland with multiple community types, how will that be treated?. (EPA)*
A: Each wetland area will have only one site name, but the community types will be delineated and identified within each site if more than one community type exists. *(PMC)*

Q: *Is the IDNR floodplain mapping available for the entire Study Area? (EPA)*
A*:* Most of the digital floodplain data has been compiled by IDNR.
C: *This data is really just digital data that already existed. (IDNR)*

C: *Streams can be jurisdictional even though there is no floodplain (IDNR)*

Q: *Will you be delineating watersheds because IDEM and IDNR have different jurisdictions? (IDEM)*
A: No. We will be using the HUC map to identify the 8 digit watersheds. *(PMC)*

Q: *Are you identifying and calculating secondary and cumulative impacts on water resources?*
A: No. The water resources assessment guidance that we have developed provides the methodology for addressing for direct impacts. We are in the process of developing our methodology for secondary and cumulative impact assessment. Secondary and cumulative impacts will be considered.

Q: *Are the wetland boundary estimates going to be liberal? (FHWA)*
A: Yes. We hope that numbers will go down as we get more detailed.

InWRAP **Rusty Yeager**

- Being considered for utilization in this study.
- Developed through a need identified in the Indiana Wetlands Conservation Plan, in consultation with state and federal agencies.
- InWRAP assessment overview: organizes map data, site identification, site visit conditions, and landscape setting.
- A preliminary assessment examines a single NWI polygon for hydrology, soil type, community type, degree of disturbance, and “red-flag” indicators.

- Rapid indicators give more specific information on wetland quality; including hydrological features, health of plant community, animal habitat.

Q: *Is this used to evaluate existing wetlands in the corridor? (IDNR)*
A: Yes.

Q: *This isn't affecting wetlands adjacent? (IDNR)*
A: No, this does not do that.

Q: *Wouldn't that (impacts to wetlands adjacent to the highway) fall into indirect effects?*
A: Yes that is correct. InWRAP is a prioritization method, it does not address indirect effects. *(PMC)*

Q: *Are you doing this for all wetlands? (IDEM)*
A: For all alternatives carried forward for detailed analysis. It will be used during selection of the preferred alternative. *(PMC)*

Q: *Can InWRAP be implemented prior to delineations? (EEAC)*
A: Yes.

Q: *The strength of the InWRAP method is that it is Indiana-specific, but it was developed by academics and has had limited real life application. It may need to be refined for use on this project. You should talk to the people who developed it. (EPA)*
A: Yes. We have talked to them and will continue to talk with them to make it appropriate to the area.

Q: *You want to make it as conducive as possible to use? (EPA)*
A: They have already done some testing so we may not need to tweak it too much. Any tweaking will have to be based on professional knowledge. *(PMC)*

Q: *Looking at all of the data presented in InWRAP, it will eventually come down to professional judgment. InWRAP will not produce a single metric (measurement) of the quality of a wetland, so you will have a lot of data, but how will you make sense of all of this when you're trying to determine which alternative causes "least harm" to wetlands? (FHWA)*
A: This approach will provide a consistent, detailed description of every wetland. Interpreting the data will require a professional judgment. This judgment will be made in coordination with agencies during field review. Views expressed by the resource agencies will be important in determining which alternative overall causes least harm to wetlands. *(INDOT)*

You could develop a matrix – not necessarily a single number for each wetland, but a matrix that summarizes important data. This would assist in interpreting a large volume of data. *(PMC)*

Q: *Where will the acreage come in?*
A: It will have to be a balance of acreage and functional assessment, as well as how you are hitting it.

Qualitative Habitat Evaluation Index (QHEI) **Rusty Yeager**

- Quantitative assessment of physical characteristics of a stream.
- There are 6 metrics, each with individual components: substrate, instream cover, channel morphology, riparian zone and bank erosion, pool/glide riffle/run quality, and map gradient.
- Supplementary information:
  - Major suspected impacts
  - Subjective rating
  - Aesthetic rating
  - Canopy cover
  - Riffle-Run-Glide-Pool percents

Q: Are there specific flow conditions that QHEI can be used for? (EEAC)
A: I haven't read anything about that, although I wouldn't do it after a big storm. *(PMC)*

Q: Time of year to use?
A: Not sure, perhaps use what you think might be typical. This will be checked into. Used more for perennial systems. HHEI will likely be used for headwater streams. *(PMC)*

Section 1 **Roger Wade, Project Manger**

- Delineation in the wetlands in the corridor is done. Most are isolated and small, and many will not be in the alternatives.
- Floodplain and floodway report will be provided in late March with J.F. New and Section 1 internal individuals.

Q: How will ground water connection be addressed?
A: Guidance will be developed on how it will be addressed in a tiered manner to get more specific. Some guidance to use include: are we in a wellhead protection area, identify more specific things later on, private drinking wells, and look at impacts.
C: Early coordination with wellhead protection groups would be helpful.

Section 2 **Randy Hancock, Deputy Project Manager**

- Refuge – South Fork and Patoka, East Fork of White River:
  - Wetland initial work being completed
  - Expected to have the highest acreage – associated with riparian areas and complexes
  - Indiana bats found in many areas.
  - Will be narrowed down to a preferred.
- Wellhead protection south of Petersburg.
- There is nothing in the way of HAZMAT.
- Jacobs Engineering did the work.
- IDEM can come up with other issues.

C: Need to be careful in the use of the word delineation documentation, which implies a use in the 1987 manual. (EPA)

Section 3 Presentation **Dave Pluckebaum, Project Manager**

- Wetland areas: Amish area (16 or so families)
- Groundwater in town of Odon, and no others.
- Corradino Group and Eco Tech are doing the work.

Section 4 Presentation **Bruce Hudson, Project Manager**

- Tasks completed:
  - Resource reconnaissance
  - 51 adjunct wetlands
  - 4 isolated wetlands
  - 59 isolated/exempt manmade ponds
- More wetlands east of CR 588 than indicated on the NWI.
- Identified anything that was thought to be karst and given to specialists.
- GPS nearly complete, develop dye tracing.
- 1205 karst features identified (14 miles and high density areas).

Q: *Are there any sinkhole ponds or wetlands that are important resources that you are aware of? Will there be any consideration of runoff? (IDEM)*
A: Yes, that is a project-wide consideration. A CD of the karst presentation will be available.

C: *Dye trace studies may show that people are using groundwater for drinking. (IDEM)*
A: Karst is an important consideration, which is why we are doing such inventories.

Q: *Measures that are not typical for Indiana may need to be used in karst areas during and after construction. (IDNR)*
A: Yes, we will be doing special measures before and after construction. *(INDOT)*

Q: *Runoff consideration?*
A: This is being worked on.

Section 5 Presentation **Wendy Vachet, Project Manager**

- Field verified with Tier 1 atlas.
- Additional wetlands have been identified that were not in Tier 1.
- Fish ecology done by Echo Tech.
- 2 Intermittent streams.
- 25 species in Indian Creek.
- Mussels/crawfish has to be done over.
- Groundwater:
  - Identified resurgents
  - Dye tracing is almost complete

Section 6 Presentation **Tim Miller, Project Manager**

- J. F. New doing wetlands fish/mussels.
- Determined wetlands: are GPSed and identified.
- Delineation once preferred alternatives are done.
- No national lakes or ponds, but open water quarries (1 on south side and 2 on north side)
- Quarries are located over the Watershed Protection Area in Perry Township. Currently there is no protection for the wastershed; we will figure out how to help. Have already met with water companies.
- Fifteen mainstreams

Next Step **Kia Gillette**

- Groundwater resources and water quality, floodplain and floodway guidances are in progress.
- Once a draft is finalized we will send them to Environmental Review Agencies for review and comment.
- Your consideration in this matter is much appreciated.

Closing Remarks **Kia Gillette**

Details discussed in this meeting are subject to change, but are a reflection of how things stood at the close of the meeting.

These meeting minutes represent my understanding of the events that occurred. Carol Hood/PMC

Meeting Minutes

Karst Breakout Session

Section 3 Project Office, Washington, Indiana
February 23, 2005, 2:00 PM to 5:00 PM (EST)

Attendees:	
Jason DuPont –BLA/PMC	Denver Harper – IGS
Tom Cervone – BLA/PMC	Richard Ray – Corradino
Garre Conner – BLA/PMC	Josh Sherretz – BLA/PMC
Bruce Hudson – DLZ	Jon Eggen - IDNR
Noel Krothe - Hydrogeology Inc.	Virginia Laszewski - EPA
Jason Krothe - Hydrogeology Inc.	Janet Eger – IDNR Div. of Forestry
Wendy Vachet – Michael Baker	Andy King – USF&W
Philip Moss – OUL	Eric Scott Johanson - IDEM
Jay Mitchell – INDOT	Jim Peyton – Michael Baker
Robert Buskirk – INDOT	Larry Heil - FHWA
Ralph Unversaw – IDNR Div. of Forestry	Ross Taylor- USDA/HNF
Tom Aley –OUL	

Opening Remarks /Introductions **Jason DuPont**

Purpose for Karst Studies

- Discussed karst areas in Sections 4 and 5
- Stated the purpose of the karst studies were to map these features, identify subsurface drainage patterns and try to identify possible bat hibernacula
- Using existing maps along with information concluded from this study to better map the karst features within the I-69 Study Area.
- To comply with the Karst MOU (October 13, 1993)

Data Acquisition for Karst Mapping

- Data includes topos, imagery and existing work maps
- This data where used to guide subsequent field investigations and to identify and delineate sinkholes, sinking stream basins and other karst features

Q: *There was a karst study that was done previously, but it was not used in the final Tier 1 document. Is this information going to be used in Tier 2? (EPA)*

A: Yes, all previously developed karst information is being used in the Tier 2 Studies. *(BLA)*

Note: This includes data developed during the karst study for the 1996 Southwest Indiana Highway Corridor DEIS as well as during the Tier 1 EIS, including comments and other data received. *(PMC)*

Field Mapping of Karst Features

- Locations of karst features are being recorded using GPS technology
- These features are being described during field observations in field forms and photographed
- Surveys of unmapped caves within the corridor will be conducted

Q: *Are the field forms consistent for both sections? (DLZ)*

A: Yes, these features are being recorded in a consistent manner. *(PMC)*

Q: *Is it better to use a form when recording these features? (EPA)*

A: It is a checklist to make sure they all take the same information at each site. They can also add other comments beside what is listed on the field forms. *(BLA)*

Dye-Tracing

- This information is used to identify relevant insurgence features within and outside of the corridor and their potential resurgence
- This information is combined with cave surveys

Karst Feature Evaluation

- Data is being used to determine the significance of karst features
- Looking at sensitivity of karst to roadway construction. This includes potential pollutant loading from the roadway

Data Acquisition of Bat Hibernacula

- Described the cave inventory project by IGS
- There are 329 recorded caves within the winter action area of varying sizes
- Used existing databases to screen caves for field further field studies

I-69 Karst Area Overview **Garre Conner**

- Described karst area as extending from southeastern Greene Co. though northern Monroe Co. in Sections 4 and 5.
- Explains the differences between Section 4 and 5 and variable considerations for the new alignment vs. existing SR 37
- The two sections are broken down into 4 karst modes.
- Section 4 is made up of mostly Modes 3 and 4 while Section 5 consists of mostly mode 1 and 2

- Descriptions of the 4 karst modes based on bedrock units

Cave Mapping

- Explained cave selections based on Indiana bat habitat criteria
- Mapped caves close to and within corridor have been georeferenced for avoidance
- Biota surveys will be done for caves crossed by the preferred alternative
- Caves ranked as high, medium and low probability

Section 4 Karst Overview **Noel Krothe Ph.D.**

Statement of Qualifications

- Hydrogeology Inc. has over 25 years experience in Southern Indiana

Description of Physiographic areas in southern Indiana

- I-69 must travel across the Norman Upland, the Mitchell Plain, the Chester Escarpment and the Crawford Upland.
- A brief description of karst characterizations was given for each area
- Blue River and Chester are two main groups of limestone

Q: *Which sections have Mode 1 and 2? Are Modes 1 and 2 the ones that are covered with a sandstone layer? (EPA)*

A: Section 5 has Mode 1 and 2 karst. The sandstone layers occur in Mode 4, which is within Section 4. *(PMC and Hydrogeology, Inc.)*

Water Flow in Karst

- Water travels through crevices in the surface rocks and seeps into the soluble limestone below
- Sinking streams are surface streams that loose all of their water through subsurface conduits
- Loosing streams only loose part of their water through conduits

Mode 3 and Mode 4 Karst

- In Mode 3, karst development with less sandstone cap rock
- Example is spring that flows through fractures in the Mississippian carbonates of the Blue River Group
- In Mode 4, there is a sandstone rock cap above the Beech Creek Limestone
- In Mode 4, recharge occurs mostly through joints in sandstone rock cap
- Example of recharge through joints in sandstone is Spring and Springs

Documentation of Karst Features **Jason Krothe**

- Features are characterized by level of importance High, Medium and Low
- Describe, photograph and GPS all new features

- Displayed map showing low, medium and high importance sinkholes, dye-tracing locations, caves close to the corridor and background sampling points throughout Section 4
- Dye-Tracing will begin when Section 5 has completed there dye traces
- We must map everything so we can figure out where to introduce the dye

Q: *Through dye-tracing, are you able to determine if roadway runoff would effect Springs? (EPA)*
A: The corridor is not within the recharge area for Springs. *(Hydrogeology, Inc.)*

Q: *How does your ranking of sinkholes apply to the decision of where the roadway will be constructed? (IDNR, Div. of Forestry)*
A: All of the information is documented and will be put into the evaluation process to try to determine the alternative, but sinkholes can change over time. These sinkholes can widen or close up in a short period of time. *(Hydrogeology, Inc.)*

Q: *What is the purpose of your dye tracing? (EPA)*
A: The purpose is to determine how water flows through the subsurface. *(Hydrogeology, Inc.)*
A: Dye tracing also helps us find connectivity between karst features. *(PMC)*

Section 5 Introduction **Jim Peyton**

- Introduced the Section 5 karst study team and gave a brief description of the section
- Ozark Underground Lab (OUL) has done several karst studies nationally and internationally
- Used previous studies and historic maps etc. to do research so as to meet the MOU requirements

Research and Field Check Results **Philip Moss**

- Showed map of insurgence features within the section
- Along SR 37 some of the roadside ditches have collapsed
- Showed map of the Simpson Chapel area
- Have seen many filled sinkholes
- All sinkhole and other features are being recorded
- Karst area north of Bloomington not been formally described before (OUL)
- During field checks there were many more springs identified in addition to what was found in Tier 1
- There were also additional sinking and losing stream found within the study area
- Showed map of dye trace study points

Q: *Tier 1 comments included 20 to 30 people that said they had caves or bats on their property. Did you follow up on these leads? (USFWS)*

A: Yes, the Tier 1 information, including comments, was one of our sources. In addition, if someone calls the project office with this type of claim, we will go out and take a look at their property. *(OUL)*

Q: *Did you contact the people in charge of the Super Fund sites around the Bloomington area for information? (EPA)*

A: Yes, they were contacted for information regarding these sites. *(OUL)*

Q: *Can a dye trace go beyond where you are looking for to it to resurface? (EPA)*

A: There are geologic boundaries through which the dye will not pass. We go out to these boundaries in order to see all locations where the dye may emerge. We have located all of our dye tracings that we have put out. *(OUL)*

Q: *Are you documenting any residential, agricultural or other uses of springs in your study area? (USFWS)*

A: Yes, we document if a spring is being used. We have not come across any residential use. We have seen some cattle grazing around springs. There are no real restrictions on agricultural uses of springs except that they are not to be used by dairy farms. *(Baker)*

Areas of Interest **Jim Peyton**

- Areas of interest include Cave System, Street/SR. 37 intersection and Simpson Chapel Area
- The Cave System crosses the corridor
- There are four other karst drainages that cross the corridor in Section 5
- The Land fill is within the Illinois Central Spring recharge area.
- has a sinking stream that runs adjacent to the site.
- Additional evaluations may need be done for these areas if so deemed necessary
- Overall goal is to avoid impacts and mitigate the areas that you cannot avoid
- Additional work in areas of interest may include biological studies and additional recharge evaluations

Q: *Are we looking for possible cave collapses and voids? (EPA)*

A: The potential for collapses is a consideration of these studies, but more detailed geotechnical/structural evaluations will be completed as a part of design. *(PMC)*

A: Most collapses that occur are not associated with a cave bedrock ceiling giving way. *(OUL)*

Q: *Will evidence of a potential collapse change the coarse of the route? (EPA)*
A: We can engineer roads to span over areas that have a potential for collapse. *(OUL)*

Q: *What about the cost associated with these engineering measures? (EPA)*
A: Additional costs for special geotechnical treatments have been included for this project in the karst area. This cost will continue to be refined as more information is collected. *(PMC)*

Q: *Are records being taken of what these sinkholes are being used for (i.e. dumping)? (IDNR)*
A: Many of the sinkholes have debris in them. The condition of the sinkholes, including fill, is recorded as part of the survey. Mostly there are things such as rocks, concrete and wood. If we see anything suspicious like drums at the bottom of a sinkhole we will definitely report it. *(Baker)*
A: We are noting conditions as we encounter them in the field. *(PMC)*

Q: *Wouldn't this be a good time to check water quality, while the karst experts are doing dye tracings? (EPA)*
A: It is hard to get a good read because of the great amount of flux in pollution loads in karst. *(OUL)*
A: Water quality sampling is currently planned for just prior to construction. *(PMC)*

Q: *What further biological studies will be done to some of the karst areas? (USFWS)*
A: We are planning to conduct cave fauna surveys within accessible caves, which are within the right of way of the preferred alternative, in addition to the Indiana bat work. *(PMC)*

C: *We need to get the water quality of the springs that may be impacted by the roadway. (EPA)*
C: *We need a good baseline for water quality for the karst studies. (USFWS)*
R: We are going to conduct water quality studies when we get closer to the construction phase of the project. *(INDOT)*
C: *We need to get a baseline now for water quality and then do the work again to see what kind of changes have occurred during this time. (EPA)*

C: *I would like to have a discussion later on what we could do to look for invertebrate species in these karst areas (i.e. springs). (USFWS)*

Q: *Are you looking at private wells in the within the study area? (EPA)*

A: Yes, we are looking at this. It is being discussed in the other water resource meeting. *(PMC)*

Meeting Conclusion **Jason DuPont**

- Announced the meeting had come to an end and that poster sessions for the Indiana bat summer mist netting, cave surveys and karst studies for Sections 4 and 5 are being held afterwards.

Details discussed in this meeting are subject to change, but are a reflection of how things stood at the close of the meeting.

These meeting minutes represent my understanding of the events that occurred. Carol Hood/PMC

Agency Coordination Meeting

Karst Geology Coordin

Breakout Sessi

I-69 Evansville to Indianapolis Tier 2 Studies

I-69 Tier 2 Karst Team

- Bernardin-Lochmueller and Associates (BLA), PMC
- DLZ Corporation, EEAC Section 4
  - Hydrogeology Inc. (karst subconsultant)
- Michael Baker Jr., Inc., EEAC Section 5
  - Ozark Underground Laboratory (karst subconsultant)

Tier 2 Karst Geology Evaluation

- Data Acquisition for Karst Mapping
- Field Mapping of Karst Features
- Data Acquisition for Identification of Bat Hibernacula
- Dye Tracing Program

Comply with the Karst MOU (October 15, 1993)

Purpose of Karst Studies

- Inventory and map karst features within and as appropriate, outside the approximate 2,000 foot corridor
- Identify subsurface drainage patterns and connectivity between selected features within and as appropriate outside and
- Provide information that could be used in a program to identify bat hibernacula in a broad area surrounding the variable corridor

Data Acquisition for Karst Mapping

- Acquired data includes detailed topographic information, imagery, and existing work maps that can be used to identify and map karst features and guide subsequent field investigations
- Existing maps
  - Topographic contour maps with a 2 feet contour interval within the corridor and best available data outside of the corridor.
  - Historical aerial photography to show variation of surface features over time, and variation in past landuse.
  - Existing and published maps showing cave and other features in a broad area will be assembled, digitized and georeferenced.

LOCATION AND DELINEATION OF INDIVIDUAL SINKHOLES, SINKING STREAM BASINS AND OTHER KARST FEATURES

Field Mapping of Karst Features

- Using the maps in Data Acquisition, field surveys are being conducted to locate and describe karst features (cave openings, sinkholes, swallowholes, springs, etc.)
- Methodology for field surveys provides a systematic coverage of the corridor and beyond where appropriate
- Locations of karst features are being recorded using GPS technology.
- Karst features are being described based [illegible] photographed as appropriate.
- Surveys of unmapped caves within the corridor will be conducted using standard cave mapping procedures [illegible]

Dye-Trace Program

- Data from Research and Field Mapping is assembled and analyzed to identify relevant insurgence features (caves, sinkholes, swallowholes) within and outside the corridor and the potential emergence (springs and seeps).
- This information is used to plan dye tracing by identifying relevant input and detection points.

Karst Feature Evaluation

- Data collected is being evaluated to determine relative significance of karst features
- Evaluation of the significance and sensitivity of karst features/systems to roadway construction
- Estimation of potential pollutant [redacted] roadway construction and operation/maintenance [redacted]

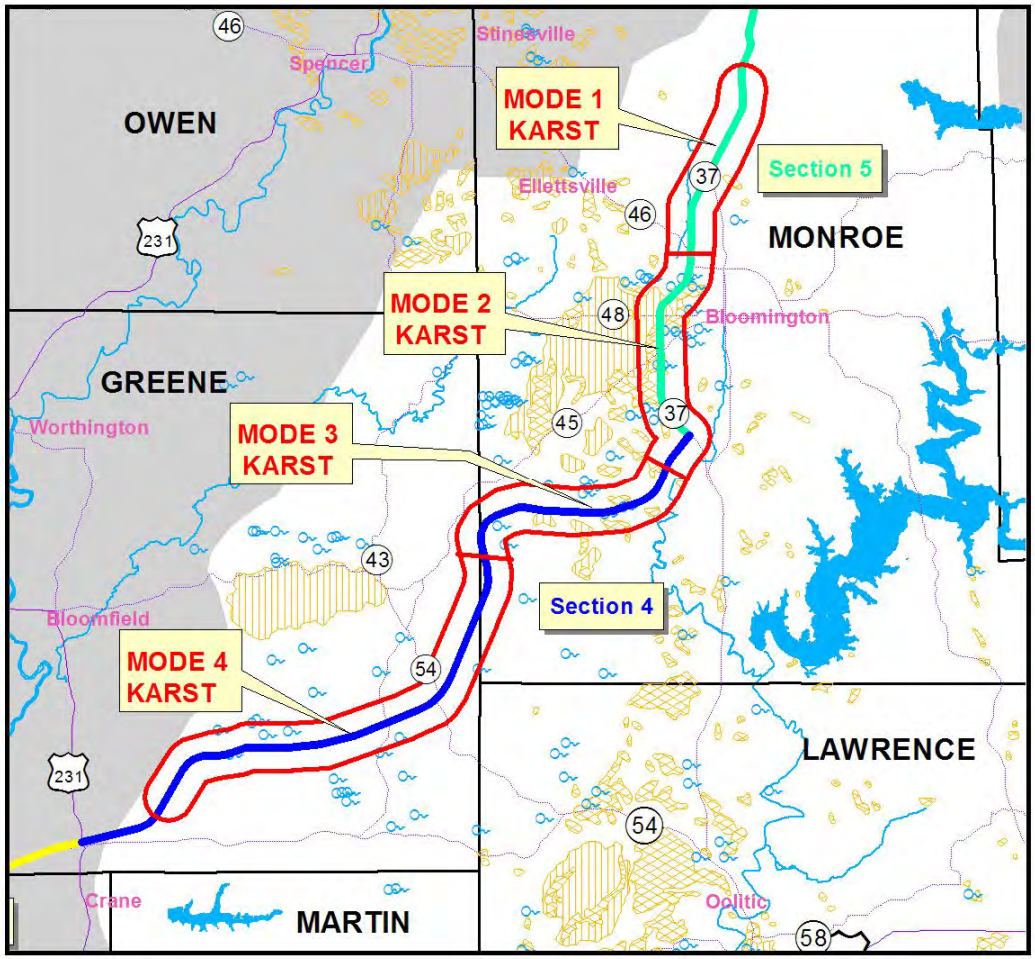
Data Acquisition for Bat Hibernac[redacted]

- Cave Inventory Project by Indiana Geological Survey
- Some caves are suitable for bats while others have a lower probability as hibernacula. There are 329 known caves in the Action Areas for this p[redacted]
- Use field verified parameters and [redacted]isting databases for screening caves for field evaluatio[redacted]a Surveys, Fall/Spring Harp Trappin[redacted]

I-69 Karst Area Overview

- Southeastern Greene County through Northern Monroe County
- Tier 2 Sections 4 and 5
- Variation of types of karst throughout the karst areas
- Variable considerations for new alignment vs. existing SR 37 corridor

Four Modes of Karst



Characteristics of the Four Karst Modes

Mode 1 – contact springs, low relief groundwater flow, soil mantled sinkholes and swallets

Mode 2 – low relief groundwater flow, pervasive swallet plains, grikes and open joints

Mode 3 – higher relief ridge groundwater flow, contour line sinkholes, intertri[illegible] lobes

Mode 4 – low relief groundwater flow, very few sinkholes, broader aquifer recharge areas on ridges

Cave Mapping

- Mapped caves within and in close proximity of the corridor have been georeferenced for avoidance/minimization
- Supplemental mapping possible for new/unmapped caves within
- Biota surveys for caves crossed by the preferred alternative

Overall I-69 Agency Coordination Meeting

AGENDA

February 23-24, 2005
10:00 AM to 5:00 PM (EST)
Section 3 Project Office, Washington, IN
Morning and Afternoon Sessions including Lunch

Day 1: Wednesday, February 23

Morning Session (10:00 AM to 1:00 PM)

Welcome		Janice Osadczuk (INDOT) Anthony DeSimone (FHWA)
Formal Agency Coordination Process		Kent Ahrenholtz – PMC Project Manager (BLA)
Project Schedules/Timeframes		Kent Ahrenholtz – PMC PM (BLA)
Purpose & Need – Alternatives Analysis		Mike Grovak – PMC Deputy PM (BLA)
Open Informal Discussion with Agencies		Kent Ahrenholtz – PMC PM (BLA)
Study Area	Section 1	Roger Wade (Qk4)
	Section 2	Randy Perkinson (HWC/Jacobs Civil Team)
	Section 3	David Pluckebaum (Corradino Group)
	Section 4	Bruce Hudson (DLZ)
	Section 5	Wendy Vachet (Michael Baker)
	Section 6	Tim Miller (HNTB)
Open Informal Discussion with Agencies		Kent Ahrenholtz (BLA)

Buffet Lunch (1:00PM to 2:00PM): The Black Buggy *(at Section 3 Project Office)*

Afternoon Breakout Sessions (2:00 PM to 5:00 PM)

Interagency Water Resources Coordination Team

Interagency Karst Geology Coordination Team

Quantm Demonstration Training

Day 2: Thursday, February 24

Morning Session (9:00 AM to 1:00 PM)

Tour of I-69 Sections 1, 2, and 3

Afternoon Session (1:00 PM to 1:30 PM)

What Happens After this Meeting? Kent Ahrenholtz (BLA)

Next I-69 Overall Agency Coordination Meeting: August 2005

Closing Remarks

I-69 Evansville to Indianapolis
Tier 2 Studies

Tier 2 Overall Agency Coordination Team Meeting *Attendance Sheet*

Wednesday, February 23, 2005, 10:00 a.m. (EST)

NAME	AGENCY	PHONE/EMAIL
Robert Buskirk	INDOT	317-232-5114
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Brad Steckler	INDOT	317-232-5137 / bsteckler@indot.state.in.us
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Eric Scott Johanson	IDEM	317-234-0996 SJohanso@dem.state.in.US

I-69 Evansville to Indianapolis
Tier 2 Studies

Tier 2 Overall Agency Coordination Team Meeting *Attendance Sheet*

Wednesday, February 23, 2005, 10:00 a.m. (EST)

NAME	AGENCY	PHONE/EMAIL
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I-69 Evansville to Indianapolis
Tier 2 Studies

Tier 2 Overall Agency Coordination Team Meeting ***Attendance Sheet***

~~Thursday~~, February ~~24~~, 2005, 10:00 a.m. (EST)
23 call

NAME	AGENCY	PHONE/EMAIL
Mike Crovak	BLA	
Tim N. Miller	HWTB	
Dave Pluckebaum	Corradino	
Bruce Hudson	DLZ	
Lyle Sadler	INDOT	
Kent Ahrenholtz	BLA	
~~Kevin Allison~~	~~Corradino~~	
Carol Hood	BLA	
Vince Epps	Shrewsberry	
~~Dave Plunkett~~		
Bill McCoy	USFWS	
Andy King	USFWS	

MEETING MINUTES

Overall Agency Coordination Team Meeting

Section 3 Project Office, Washington, IN

February 23-24, 2005, 10:00 a.m. – 6:00 p.m. EST

Attendees:	Eric Swickard, INDOT PM
Robert Buskirk, INDOT	Tony DeSimone, FHWA – Indiana
Alice Roberts, Gray & Pape	Ken Westlake, US EPA Region 5
Xavier Montoya, USDA NRCS	John L. Carr, IDNR – Hist. Pres. & Archae./SHPO
Brad Steckler, INDOT	Bill Malley, Akin Gump
Sara Dyer, Dyer Environmental Services	Janice Osadczuk, INDOT EPE
Mary Jackman, INDOT	Dan Ernst, IDNR Forestry
Rickie Clark, INDOT	Cathy Garra, US EPA Region 5
Jay Mitchell, INDOT	Virginia Laszewski, USEPA Region 5
Craig Gonsoski, Section 4 DLZ Indiana	Linda Weintraut, Weintraut & Assoc.
Randy Hancock, Section 2 DPM – HWC	Tom Cervone, PMC DPM – BLA/PMC
Wendy Vachet, Section 5 PM – Michael Baker	Michael Grovak, PMC – BLA/PMC
Bill McCartney, Section 5– Michael Baker	Tim Miller, Section 6 PM – HNTB
Roger Wade, Section 1 PM – Qk4	David Pluckebaum, Section 3 PM – Corradino
Jack E. Nelson, IDNR Div. of Forestry	Bruce Hudson, Section 4 PM – DLZ Indiana
Doug Wolf, IDNR Div. of Soil Conservation	Lyle Sadler, INDOT PM
Steve Smith, INDOT Planning	Vince Epps, Shrewsberry & Associates
Richard Ray, Section 3– Corradino	Bill McCoy, US Fish & Wildlife Service
Kevin Allison, Section 3– Corradino	Andy King, US Fish & Wildlife Service
Henry Nodarse, PMC – BLA/PMC	Kent Ahrenholtz, PMC – BLA/PMC
Jason Stone, Section 4 DPM – DLZ Indiana	Carol Hood, PMC – BLA/PMC
Denver Harper – Indiana Geological Survey	Leonard Bettess, Quantm
James Sullivan, IDEM	
Tamara Ratliff-Roberts, IDEM	
Eric Scott Johanson, IDEM	
Larry Heil, FHWA – Indiana	
David Cleveland, Section 3 DPM – Corradino	
Janet Eger, IDNR – Forestry	
Ralph Unversaw, IDNR – Forestry	
Kenneth Smith, IDNR – Water	
Ross H. Taylor, USDA – Hoosier Nat'l Forest	
Laurence Brown, IDEM – Air Quality	
Chrisie Kiefer, IDNR – Fish & Wildlife	
Jon Eggen, IDNR – Fish & Wildlife	
Jason Randolph, IDEM – OWQ – 401	
Jim Gulick, PMC – BLA/PMC	
Michelle Allen, INDOT – Env. Assessment	
Bo Diechmeyer, INDOT Env. Assessment	

Welcome and Opening Remarks **Janice Osadczuk and Tony DeSimone**

Introductions

Formal Agency Coordination Process **Kent Ahrenholtz**

- The FHWA – Indiana Environmental Streamlining Procedures include basic steps which each Tier 2 study will follow. These include EIS Development, Draft EIS, Preferred Alternative and Mitigation Package, Final EIS and ROD. There will be a large amount of Public Involvement in each of the 6 Sections throughout this process. Many of the major Public Involvement activities correspond to agency coordination points.
- During the DEIS Development, points of agency coordination include:
    - Notice of Intent
    - Kickoff Agency Coordination Meeting
    - Purpose and Need and Preliminary Alternatives Coordination Meeting
    - Periodic Overall Agency Coordination Meetings
    - Monthly Agency Updates
    - Preliminary Alternatives Analysis and Screening Coordination Meeting
- The Agency Coordination Process:
    - Agency Review Packages will be sent at the following coordination points:
        - Purpose & Need/Preliminary Alternatives Package. Purpose & Need packages should be distributed in 1 – 2 weeks for Section 1.
        - Preliminary Alternatives Analysis and Screening Package.
        - Preferred Alternative and Mitigation Package.
    - Review packages for each Section will be a standard point in the process.
        - Packages will be provided about 30 days before coordination meetings.
        - Agency feedback can be provided at the coordination meetings.
        - Agencies will have a total of 60 days after the packages are distributed to provide comments.
    - Agency Coordination Meetings will be conducted via the Internet.
        - Typically, these meetings are conducted in person.
        - Due to number of meetings to be held, Agencies have the option of attending these meetings via the Internet or teleconferencing.
        - WebEx will be used to conduct the meetings via Internet.
        - Agencies may provide comments during the Coordination Meeting.
        - After this Coordination Meeting, Agencies may submit comments any time during the 60-day review period.
        - Agency representatives may attend meetings in person, if desired.
    - Periodic Overall Agency Coordination Meetings
        - The face-to-face meetings will be held approximately every 6 months.
        - Meetings may be multiple day events.
        - Meetings will provide general updates from each I-69 Section and give "snapshot" of the project progress.
    - Monthly Agency Updates
        - Will be provided in newsletter .
        - Newsletter will include activities of the Project Management Consultant (PMC) and Section Consultants.
        - Will also describe ongoing field activities concerning various resources.
        - Will also describe public and agency outreach activities

Q: *Can we make sure that agencies are not doubled up with more than one Section Review Package at a time? (EPA)*

A: The plan is to attempt to prevent this. However, it may happen because of the number of sections in this study, and the need to adjust schedules when circumstances arise.

Q: *Will you be asking for our concurrence at each of the major milestones, when you send documents for our review, or just asking for comments? (EPA)*

A. We will not be asking for formal concurrence; we are asking for your feedback, which you can provide in the agency coordination meetings, or in writing. We understand that your formal comments will be provided on the DEIS.

Project Schedules/Timeframes **Kent Ahrenholtz**

- Major Milestone Schedules
  - There are 6 projects on 6 separate schedules.
  - The efforts with each project are an attempt to "stagger" them so that there is not more than 1 EIS out for review at one time
  - The first EIS will be released for review early in first part of the third quarter of this year.
  - Ideally, no more than 1 EIS will be circulating for review at one time, however, the logistics of conducting six studies simultaneously may not accommodate that.
  - It is our intent to publish all FEIS documents within 36 months after the NOI.
- There will be a consistent approach and format for the EISs, and where appropriate, the same methodology will be followed. The Purpose and Need will vary slightly from Section to Section based upon local needs.

Q: *What will the comment period be for the DEIS documents? (EPA)*

A: The schedule includes the standard 45 days for comments on the DEIS; however longer comment periods may be considered – for example, if two I-69 Tier 2 documents are circulating simultaneously.

Purpose & Need – Alternative Analysis **Mike Grovak**

Purpose and Need

- Any alternative for completing I-69 within the corridor will satisfy the overall Tier 1 Purpose and Need (P&N), provided that it includes access points similar to those assumed in Tier 1.
- The focus of Tier 2 Purpose and Need Analysis will be on local needs.
- Each Tier 2 EIS will have a P&N statement that will summarize Tier 1 P&N, and it will also identify local needs and goals.
- Steps that will be used to identify local needs and goals include:
  - Identifying requirements of local, regional transportation plans.
  - Use input from the Community Advisory Committee (CAC) meeting discussions.
  - Input from public and agencies.
  - Technical analysis.
  - Agency coordination meeting #1.
  - Public information meeting #1.

Alternatives Screening

- Preliminary alternatives:
  - Determined by collaborative and iterative process.
  - Resources agencies will be consulted.
  - Community Advisory Committees (CACs) will provide input.
    - Feedback from CAC members already has provided much valuable input regarding preliminary alternatives.
    - P&N packages included summary of Public Involvement and its role in determining preliminary alternatives.
- The alternatives screening will consider environmental impacts, cost, and purpose and need.
- INDOT and FHWA select alternatives for detailed study.
  - Reviewed by Agencies at Coordination Meeting #2.
  - As appropriate, presented for public review at Public Information Meeting #2.
  - These are alternatives to be analyzed in the DEIS.
  - Some alternatives may be combined for DEIS analysis.
  - Grade separations and access may be major characteristics defining alternatives.

Q: *Will the Agency members receive a copy of the CAC input and meeting minutes? (USFWS)*
A: These will be made available.

Q: *Are there any CAC members who represent environmental justice communities? (EPA)*
A: Yes, for example, in Section 5.

Q: *Are there any I-69 opponents on the CACs? (EPA)*
A: All major groups have been invited. Some have agreed to participate and are represented. However, others have declined to participate.

Q: *Will there by any major changes to the organization of the EIS? (EPA)*
A: We do not anticipate major organizational changes in the document.

Q: *Can you explain what an "alternative" will consist of? (FHWA)*
A: An alternative in Tier 2 will be more than a line on a map. It will include details regarding frontage roads, overpasses and underpasses, and interchange location and type. This information about the alternatives will assist in determining impacts and showing how concerns about access will be addressed.

Q: *Will the alternatives be developed to a higher level of detail than in a typical EIS? (EPA)*
A: The level of detail will be as high as necessary in order to assess impacts. To some extent, that will mean the level of detail will be higher than in a typical EIS – e.g., we will show interchange configurations in Section 6.

Q: *Construction impacts – will impacts for construction staging areas be shown? (USFWS)*
A: Avoidance ("no-go") areas for construction staging may be specified in the FEIS. Construction staging locations will be finalized in the design stage.

Section 1 Presentation **Roger Wade, Project Manager**

- Section 1 of the approved corridor is 13 miles long.
- Begins at junction of I64 / I-164 / SR 57 and continues northward to SR 64 west of Oakland City.

- Work tasks include environmental studies and analysis, preliminary design, and interchange locations and configurations.
- The project office has been well received by the local community.
- Alignments will encounter agricultural and rural residential lands, some forest and wetland areas, creeks (including Pigeon Creek and Smith Fork). There is little forest and wetlands.
- Local benefits of Section 1 include: improved access and reduced travel time between Evansville, Bloomington, and Indianapolis, congestion relief on local roads, and improved access to local industries, jobs, and services.
- Tasks that are completed or nearly completed:
    - Identifying property owners within/adjacent to the project corridor.
    - Surveying the area for endangered Indiana bats.
    - Identifying the locations, sizes, and types of wetlands.
    - Identifying historic cultural resources.
    - Developing preliminary alternative alignment concepts within the project corridor.
- Future tasks for Section 1:
    - Additional environmental research and analysis, including noise, air quality, ecological, and HAZMAT studies.
    - Refining alternative alignments based on results of environmental analyses, engineering feasibility, input from regulatory agencies and the public, and cost.
    - Draft EIS; we anticipate identifying a preferred alternative in the DEIS.
    - Engineer's Report
    - Final EIS
    - Record of Decision (ROD) from FHWA.
    - Access to the community of Elberfeld is an issue which needs to be resolved.
- Public Involvement activities, initiated and planned, include:
    - Project office open from 8am to 5pm weekdays.
    - Open House held on June 30, 2004 to introduce the office and personnel.
    - Public Information Meeting had about 300 attendees.
    - CAC meetings, Project Website, newsletters and information brochures
    - Community and government representative small group meetings.
    - Public meetings at key stages in the study process.
    - Public hearing when draft environmental document is published.
- Preliminary alignment concepts:
    - Section 1 is divided for purposes of alternatives analysis into 3 segments: South, Central, North.
    - Alignments will be based on considerations such as environmental analysis, public input, agency reviews, and engineering feasibility and cost.
- Preliminary design and environmental studies will culminate in FHWA's issuance of a ROD, which identifies the preferred alternative selected within Section 1.

Q: *Have you done a qualitative assessment of wetlands? (EPA)*
A: Not yet, but a qualitative assessment will be done for wetlands impacted by all alternatives carried for detailed study in the DEIS.

Q: *Will you look at prior converted wetlands? (EPA)*
A: We will consider them as potential mitigation sites, not as part of the impacts analysis.

Q: *Are farmed wetlands being considered? (EPA)*
A: Yes.

Q: *What impacts are of concern to local residents? (EPA)*
A: Farmland separation and maintaining access are the primary concerns.

Q: *If there are few wetlands in Section 1, then why should there be any impacts at all? If there are so few, why can't you avoid all the wetlands?(EPA)*
A: This may not be possible. In some cases (e.g., Pigeon Creek) there are wetlands across the entire corridor.

Q: *Is Pigeon Creek crossed in the area which will have the least impacts to wetlands?*
A. Yes. There are no woods at this location.

Q: *Do you envision SR 57 to continue onto I-164?*
A: That is an ongoing discussion with the community to determine how this will be handled.

Q: *Is each Section "looking beyond the termini" of that section into adjacent Sections, as required by the Tier 1 ROD, and will each Section discuss this today? (EPA)*
A: Section 1 is in contact with Section 2 to ensure that this occurs. Similar coordination is occurring among all adjoining sections.

Q: *Why are you going through the wooded area shown on the aerial photograph in the north segment of Section 1? (IDEM).*
A: The area is not as wooded as it appears on the aerial. We will show you that area on the bus tour tomorrow.

Section 2 Presentation **Randy Hancock, Deputy Project Manager**

- Accomplishments since the Tier 1 ROD:
  - Bat studies 31 sites, 280 bats, 10 Indiana bats
  - Mussels studies in the spring will be conducted on upstream portions of the White River.
  - Fish studies are complete in Patoka River, still must be done in the White River
  - Project office has had 280 visitors since July 1, 2004. Most visitors are positive about the project.
  - The first Public Information meeting was held in early November and around 275 people attended.
  - 280 people have visited the project office since July 1, 2004.
- Section 2 begins at SR 64 and continues to US 50 in Washington.
- Section crosses SR 57, Wabash & Erie Canal, a railroad crossing, Patoka River National Wildlife Refuse, reclaimed strip mining and Prides Creek Wetlands.
- There are two coal-fired power plants in this section, near Petersburg. The coal for these plants all comes in on trucks, which use SR 57. Also, there are extensive power lines associated with these power plants; the power lines also need to be considered in developing alternatives.
- There are also several natural gas transmission lines and oil wells.

Q: *What will occur in crossing the Patoka River?*
A: A Tier 1 commitment was made to bridge both watercourses. We will need to be attentive to runoff from the bridge. We will cross the Patoka River where there is more farmland and less woods.

Q: *What about classified forests and wildlife within the Patoka Refuge?*
A: This is a concern we are taking note of. It should also be noted that the EIS establishing the Wildlife Refuge designated the corridor we are using at the location for a highway. There will be additional mussel sampling on selected water bodies. Also, there have been changes in the South Fork of the Patoka River. We will need to restudy this area.

Section 3 Presentation **Dave Pluckebaum, Project Manager**

- Accomplishments since the Tier 1 ROD:
  - Bat Mist Netting: 23 sites netted, bridges surveyed, 13 Indiana bats, 342 total bats representing 7 species.
  - Field Surveys are occurring where the corridor widens out. We are looking for unidentified wetlands.
  - Historic properties: The APE is established – every property in APE (140 total) has been survey.
  - Met with the Amish community on two occasions.
    - We also have visited Pennsylvania to view an Amish Historic Resource in Lancaster Co, accompanied by officials from the Pennsylvania Dept. of Transportation.
    - Many Amish residents have businesses, not farms.
    - There is a fair level of support from the Amish and Mennonite community for the project; many believe it will be helpful to their businesses, which include manufacturing as well as agriculture.
    - There are Amish on the CAC s and they have stressed that they do not want any special treatment.
    - Access across the highway is the main concern of the Amish.
  - Section 3 has a lot of flat farmland, some oil wells, and an abundance of strip mining. Farm tracts in this section tend to be very large.
  - Public involvement has been huge: there have been 550 visitors to the project office since it opened, 200 people attended the first public meeting, and there have been 2 CAC meetings.
  - A coal company recently has obtained permits for a sizable coal strip-mining operation in the corridor. As information becomes available, it will be passed on.
- Local issues include access, farmland configuration, and noise.
- Alternatives/Access
  - Criteria for developing alternatives include: promote the P&N and project goals, cost effectiveness, avoidance of resources, and minimization of impacts.
  - Alternatives will look to maximizing access as opposed to simply perpetuating the existing transportation system. Some changes in county and minor state roadway designations may result.

Q: *Are there underground mines in corridor?*
A: Per IDNR, all are outside of the corridor.

Q: *Will water wells be avoided?*
A: We have met with the utilities. Most locales have water service, and do not depend upon wells for drinking water. Drainage, however, is a major concern. There are many ditches and farm field tiles in the corridor.

Section 4 Presentation **Bruce Hudson, Project Manager**

- Corridor is in Southeast Greene County and Southwest Monroe County.
- Begins at US 231 and ends at SR 37, 26.5 miles long.
- Rolling to hilly terrain.
- The landscape is over 60% forested/undeveloped.
- Several creeks are present: Doan's Creek, Black Ankle Creek, Plummer, and Indian Creek.
- Are in the process of just starting to consider alternatives.
- Our focus has been on data gathering to date.
- This section has the longest schedule of all 6 sections.

- The Tier 1 ROD circumscribes the alternatives which the Tier 2 EIS can consider. INDOT will make available the means to implement land us planning and land use controls through its Community Planning Grant program.

  In addition, economic development is not a core goal for the I-69 project. Transportation goals of improving the Evansville-to-Indianapolis connection, increased personal accessibility, and improved freight flows are the core goals. These will result in additional economic development. Since transportation goals are core goals, while economic development goals are not, non-transportation goals to produce economic development will not be considered by the section consultants. At the same time, local governments may choose to pursue non-transportation strategies to maximize the economic development potential of I-69. The Community Planning Grant Program is available to facilitate these efforts on the part of local governments.

- Interchange options:
  - US 231 and SR 37
  - Probable – SR 45
  - Under consideration – SR 54 and Greene/Monroe County line
- Access from eastern Green and western Monroe County to Bloomington is emerging as the single most important local issue.
- Indian Creek is crossed in more than one location, and there is a large floodplain. This is a possible location for a wildlife crossing.
- Environmental resource data:
  - Karst is a primary issue, 1200 karst features have been identified.
  - Caves are being searched for animal specimens.
  - There are many protected properties in the corridor.
- Virginia Ironworks is a group of dispersed archaeological sites, all lying east of the corridor, which are potentially eligible for the National Register. Based on early discussions with DHPA, it is probably not a historic district.
- There has been 1 CAC meeting thus far.
- There has been a flow of continuous office visits.
- Focus is on Monroe/Greene County access issue.

  Q: *Will Greene County adopt planning and zoning regulations? (EPA)*
  A: We can't say at this time. This is a local issue over which INDOT has no control.

Q: *Will communities be required to establish land use planning? (EPA)*
A: No. Decisions about land use will continue to be made by local governments, not by INDOT. INDOT will make available the means to implement land use planning and land use controls through its Community Planning Grant program.

Q: *Will the economic development aspect of the purpose and need require consideration of non-transportation alternatives that might provide economic development? (EPA)*
A: No. Alternatives will be considered in the Tier 2 studies only if they are consistent with the Tier 1 decision, which involves completing I-69 as an Interstate highway from Evansville to Indianapolis. Economic development objectives may be considered in deciding how to complete this project – for example, economic development may affect decisions regarding access points along I-69.

Q: *Has the Crane military base expressed any concern about encroachment from development if I-69 is built? (USFWS)*
A: A representative of Crane is included on the CAC for Sections 3 & 4. The Crane representative has not expressed a concern about encroachment. The majority of Crane's employees (more than 90%) live off the base and commute to and from work; Crane's concern is providing transportation for those employees.

Q: *The DEIS should include a detailed assessment of secondary and cumulative impacts associated with development around Crane, including industrial parks. (USFWS)*
A: The impact of development associated with Crane will be addressed in the secondary and cumulative impacts analysis.

Section 5 Presentation **Wendy Vachet, Project Manager**

- The office receives many phone calls and emails.
- Focus is on access plans and interchanges. East-to-West access is a key need and there has been much data gathering the last 6 months.
- Community Impact Assessment is very important.
- Planning for pedestrian and bicycle traffic is a major consideration.
- There have been 50 church surveys and 24 emergency services surveys returned to us.
- We are 75% through field surveys.
- A large focus is on cultural resources.
- Floodplains are a big issue, due to the new mapping which recently was released.
- There may be many utility relocations.
- Public outreach has been the highlight of the last 6 months. There have been 50-plus outreach meetings.
- There has been good cooperation with local agencies.

Q: *How much of an upgrade is required to SR 37? How much of the actual roadbed of existing SR 37 could be retained as part of I-69?*
A: This is currently being reviewed.

Q: *What will Martinsville's access be like?*
A: We are reviewing this, as well.

Q: *How will you address the cost of lost production due to the taking of farmland?*
A: We will estimate "lost farm income" as an impact of the project as part of the economic impacts analysis.

Section 6 Presentation **Tim Miller, Project Manager**

- Sections 1-4 are different from Sections 5 & 6. Both of our sections use the existing SR 37 footprint for all or nearly all of our alternatives.
- Section 6 is 26 miles.
- The PMC is developing traffic models which will be critical for our analysis.
- Work completed:
  - Bat Mist Netting
  - Fish and mussel surveys: Found 0 endangered species.
  - Historic surveys: may have up to 7 properties eligible for the National Register.
  - HAZMAT additional considerations:
    - West Fork White River
    - IDNR fish hatchery
    - Wellhead protection area
    - Forests and streams
    - Noise/air
    - Land use
- There is much ongoing development is the corridor.
- There are about 4,000 property owners adjacent to existing SR 37.
- There have been 700-800 visitors in the project office.

Q: *Has the new governor addressed changing the routing near Indianapolis?*
A: We have not been directed to make any change in our approach. We are proceeding to analyze alternatives within the designated corridor.

Q: *Will an interchange be located at SR 252 in Martinsville, rather than SR 44?*
A: This is under review.

Q: *What will the interchange at SR 37 and I-465 look like?*
A: The existing interchange will be modified. We expect that you will continue to be able to continue from I-69 along Harding Street northbound into Indianapolis. The area along I-465 including the I-69 interchange as well as the existing Harding Street interchange probably will be a single large interchange complex.

Q: *Will there be air quality impact on urban forests? Would such impacts cause the corridor be shifted?*
A: We do not expect air quality impacts on urban forests, and do not anticipate that such impacts will affect the location of the alternatives.

Closing Remarks **Kent Ahrenholtz**

Details discussed in this meeting are subject to change, but are a reflection of how things stood at the close of the meeting.

These meeting minutes represent my understanding of the events that occurred. Carol Hood/PMC.

Introduction of Section 5 Karst Studies Team

Michael Baker Jr

Ozark Underground L

Baker

Ozark UNDERGROUND LABORATORY

I-69 Evansville to Indianapolis Tier 2 Studies

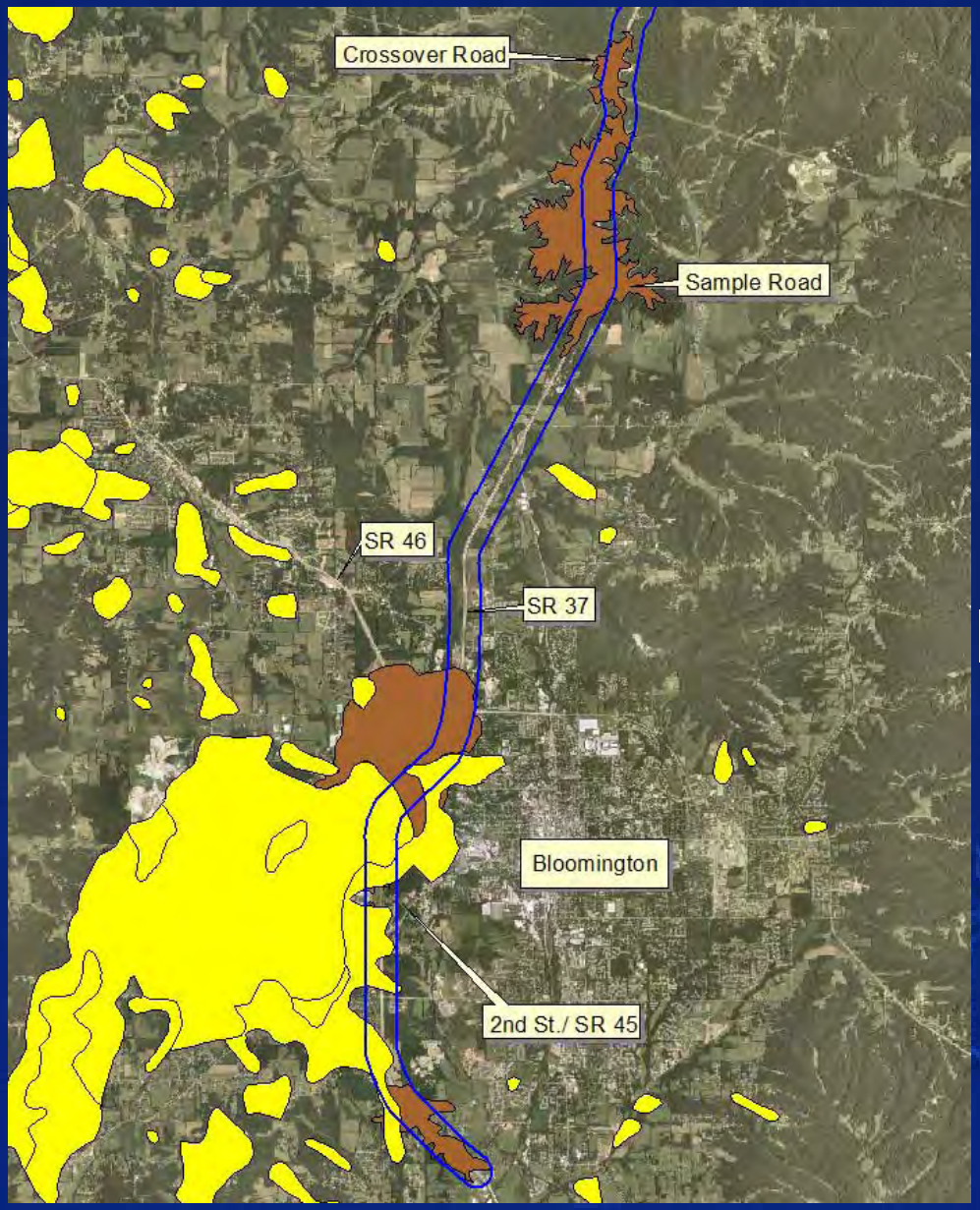
Statement of Qualifications

- OUL has worked on previous highway projects in karst in the following states: Alaska, Arkansas, Indiana, Maryland, Missouri, Tennessee, West Virginia, and Virginia as well as numerous [redacted] investigations nationally and internationally.

Methodology Used To Meet the MOU Requirements

Research:

- Tier 1 Information
- Previous Dye Trace and Environmental Reports
- Historic Aerial Photographs (stereo pairs)
- Historic Topographic Maps
- Interviews with local Karst Professionals
- 2-Foot Contours for Bloomington
- 4-Foot Contours for Monroe County



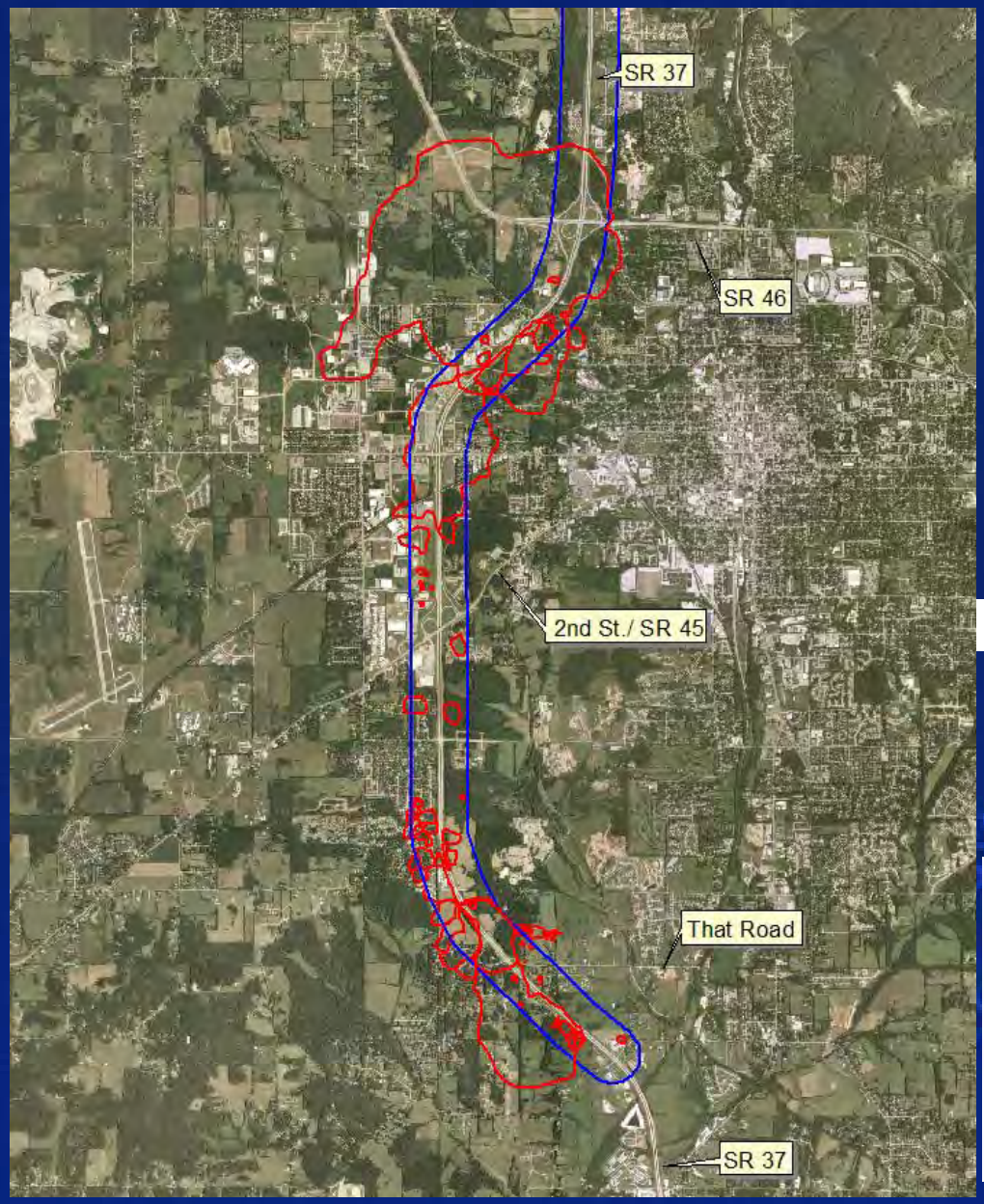
Research and Field Check Results:

[redacted]

K[redacted]as identified [redacted]

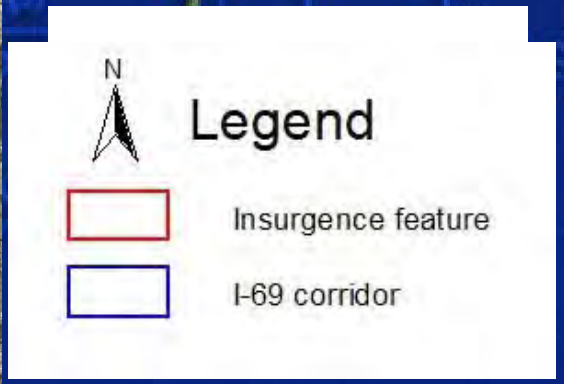
Legend

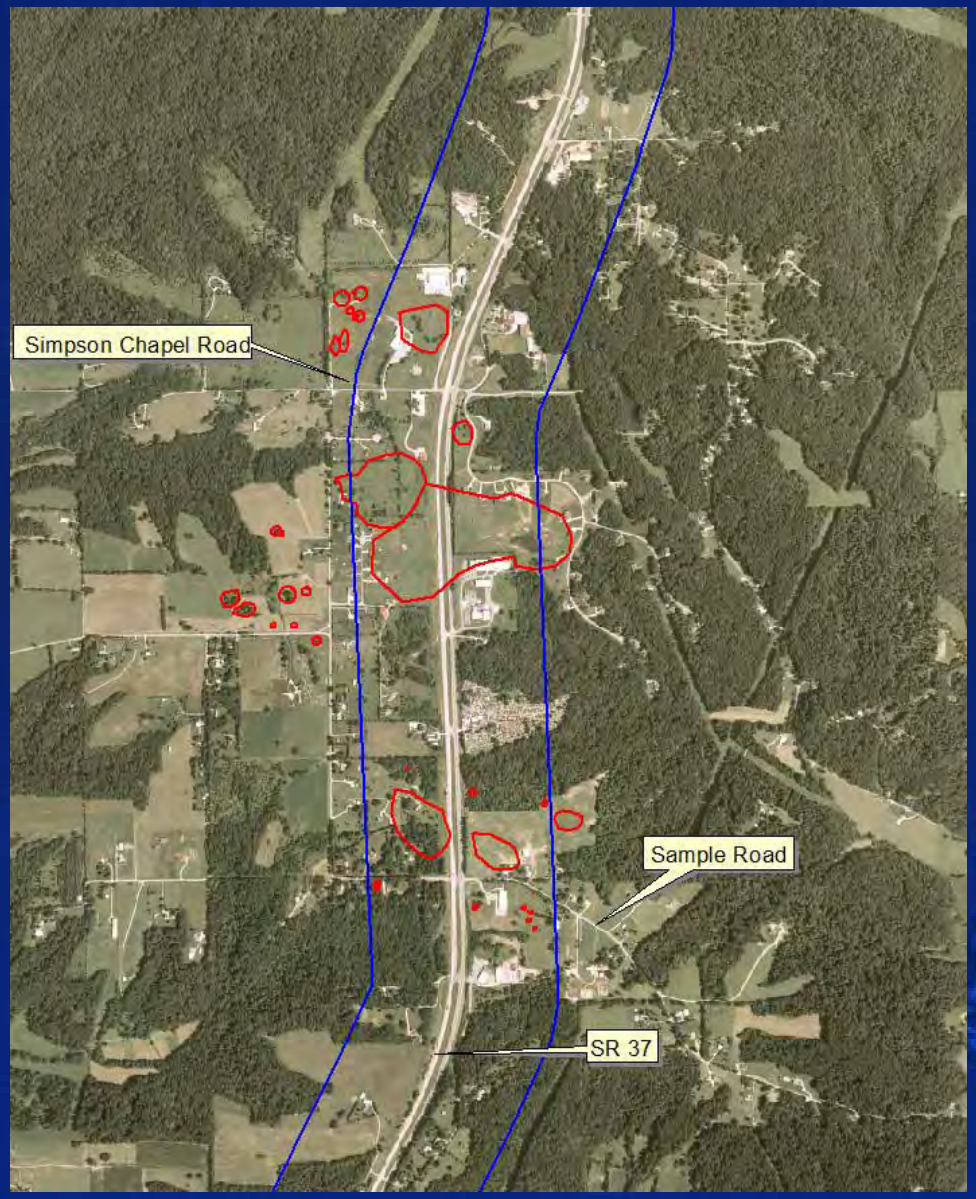
- Tier 2 identified karst
- Tier 1 identified karst
- I-69 corridor



Research and Field Check Results:

t Features



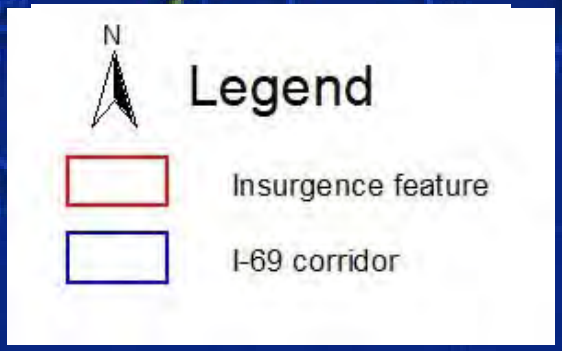


Research and Field Check Results:

[redacted]

[redacted]t Features

[redacted]



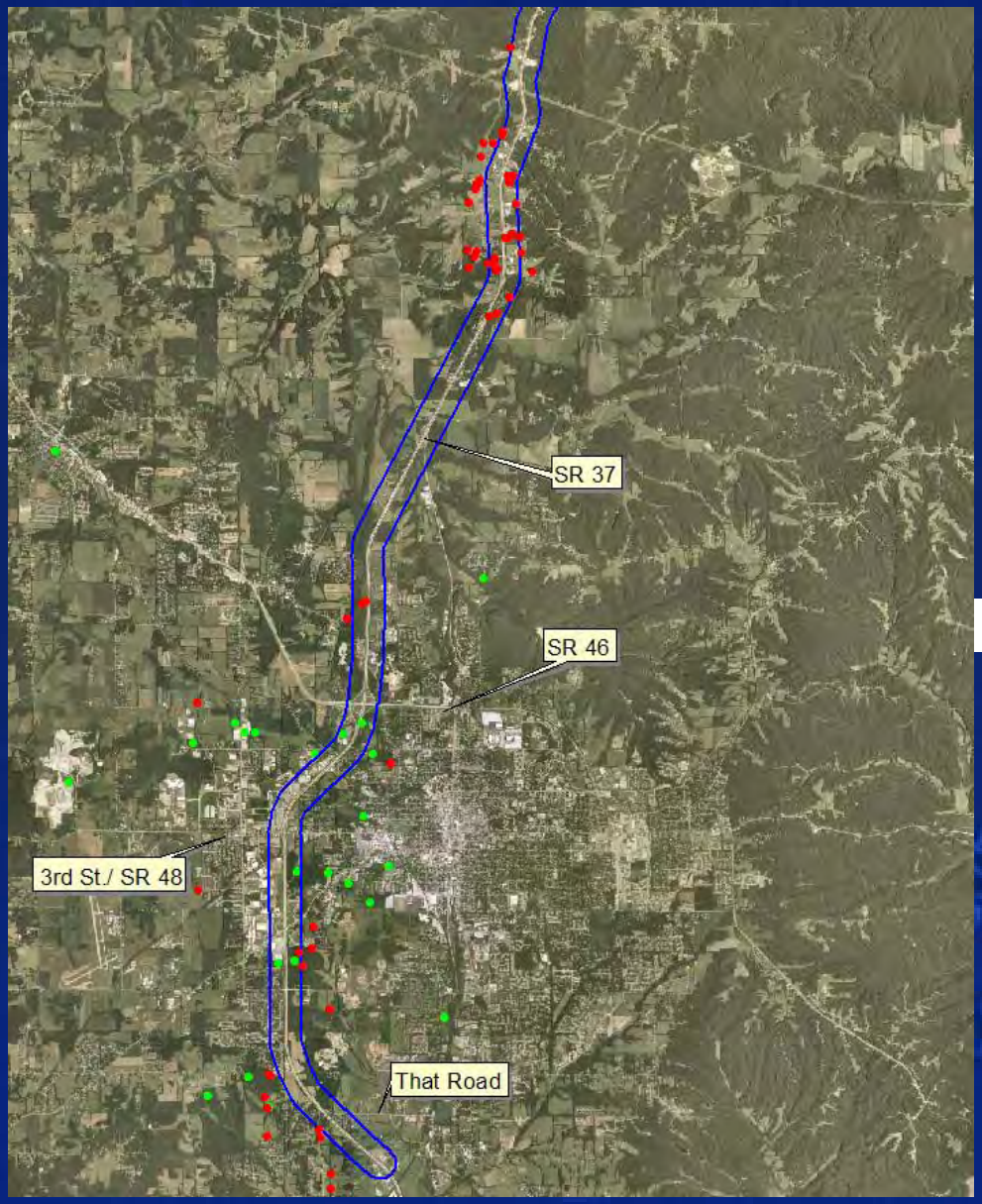
Research and Field Check Results:

Karst Valley

Simpson Chapel

Research and Field Check Results:

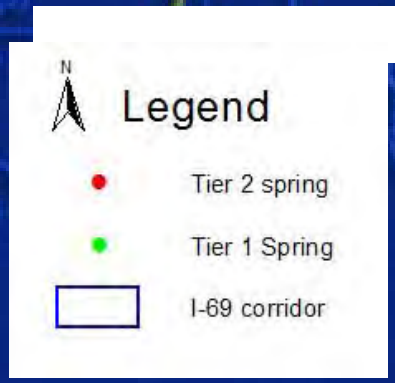
Example of Filled Sink Collapse

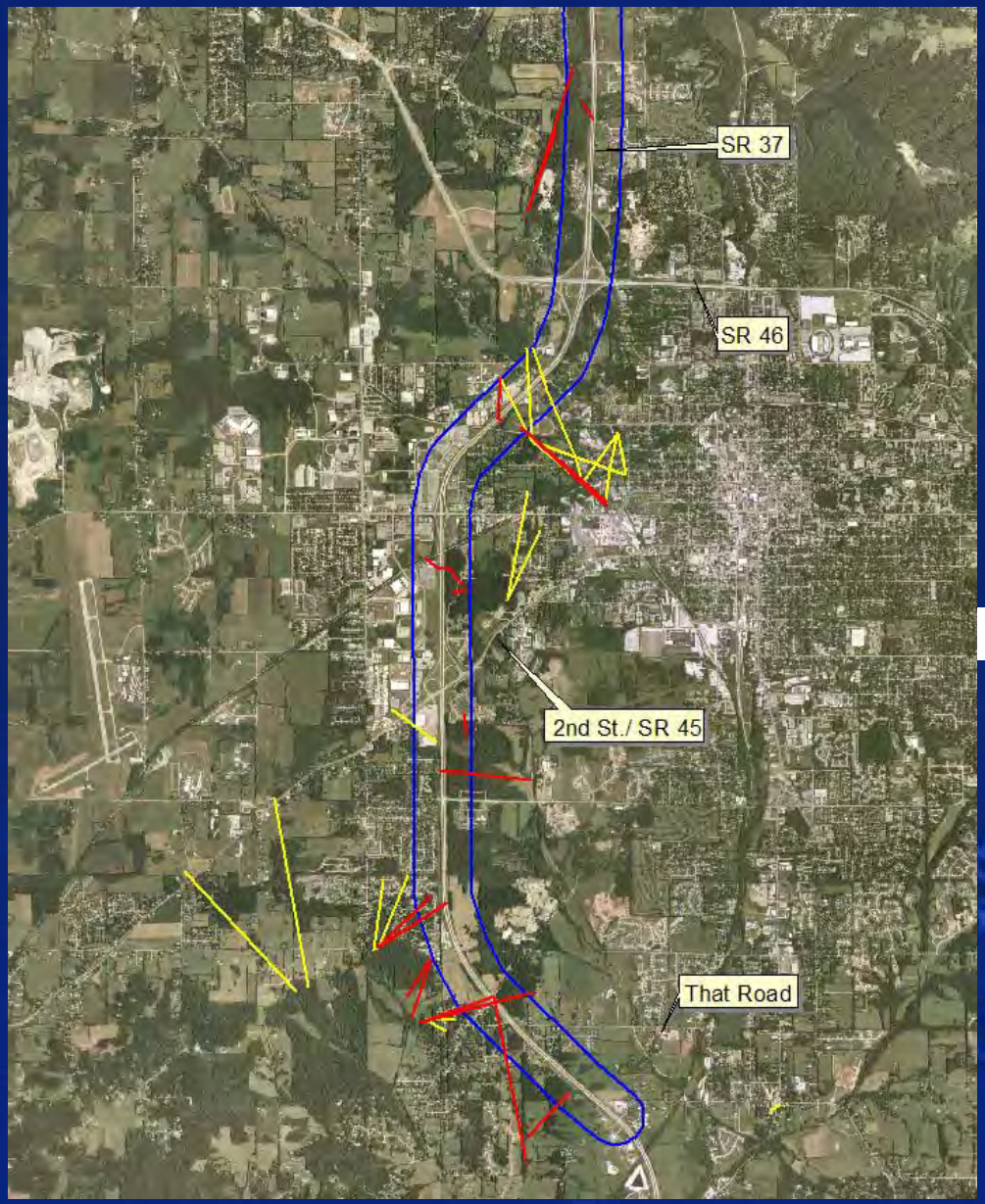


Research and Field Check Results:

[redacted]

[redacted]





Research and Field Check Results:

[redacted]

[redacted]es

[redacted]

Bloomington

[redacted]

Legend

Tier 2 dye trace

Tier 1 dye trace

I-69 corridor

Research and Field Check Results:

[redacted]

[redacted]

[redacted]

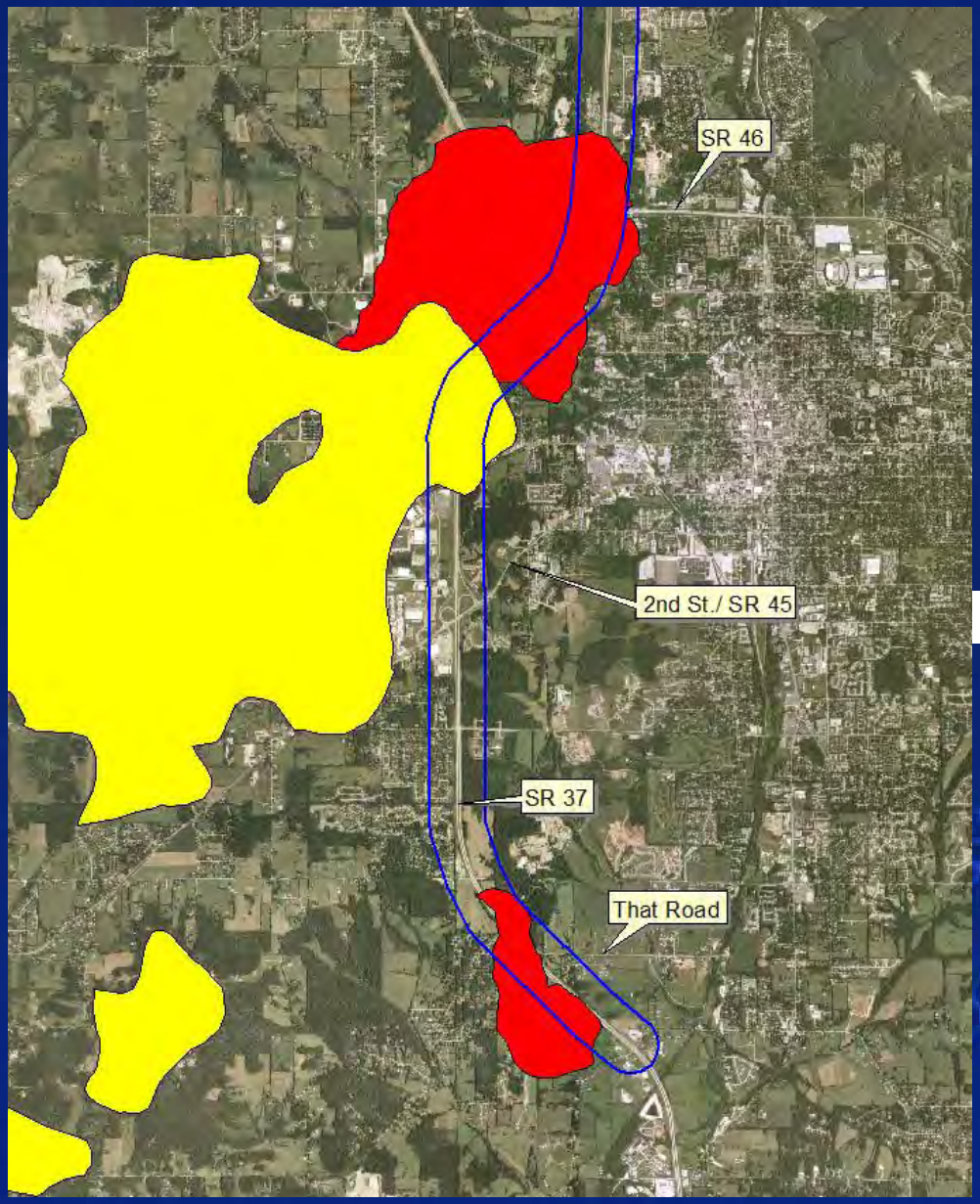
Simpson Chapel [redacted]

Legend

Tier 2 dye trace

Tier 1 dye trace

I-69 corridor



Research and Field Check Results:

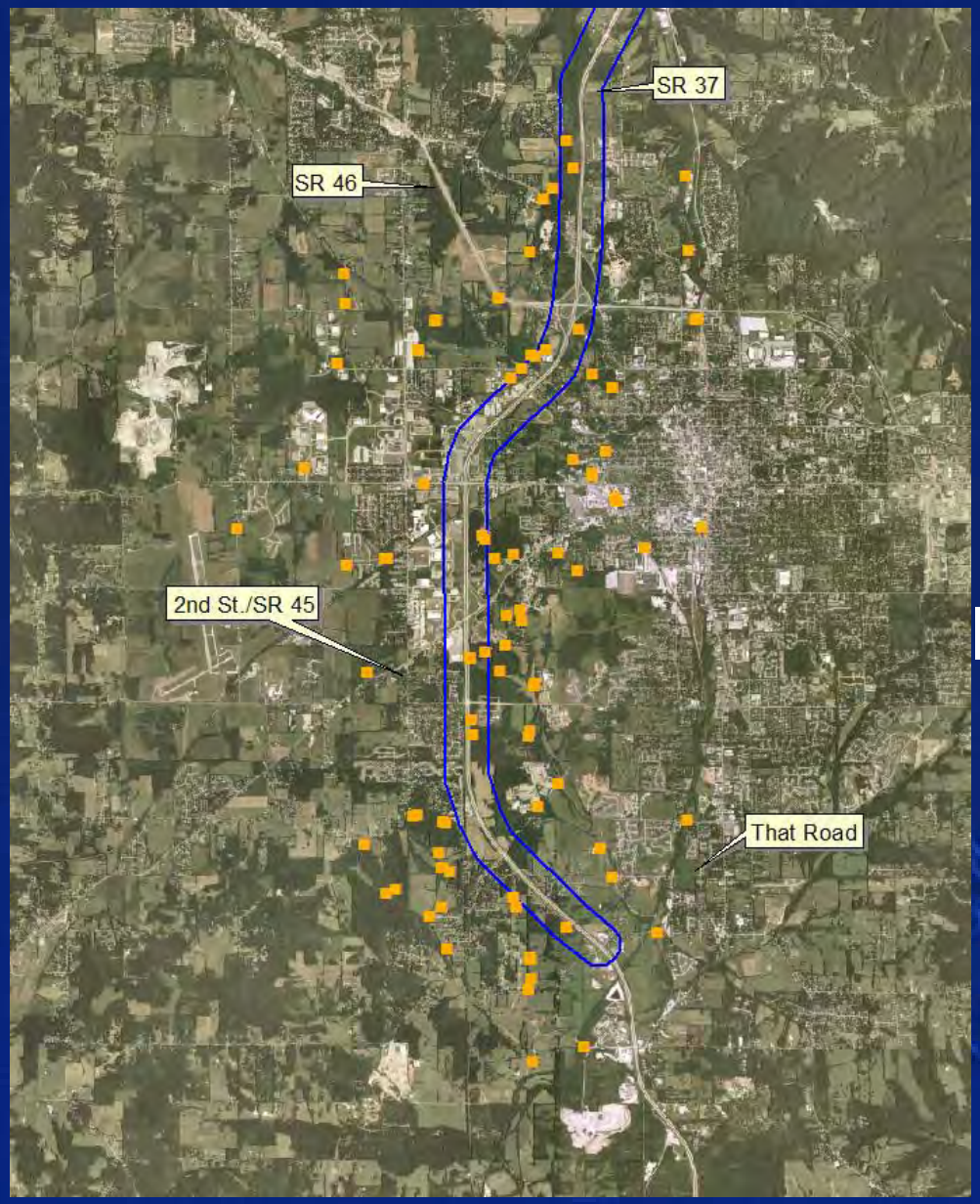
[redacted]

[redacted] osing Streams

[redacted]

South Section 5

[redacted]



Dye Trace Studies:

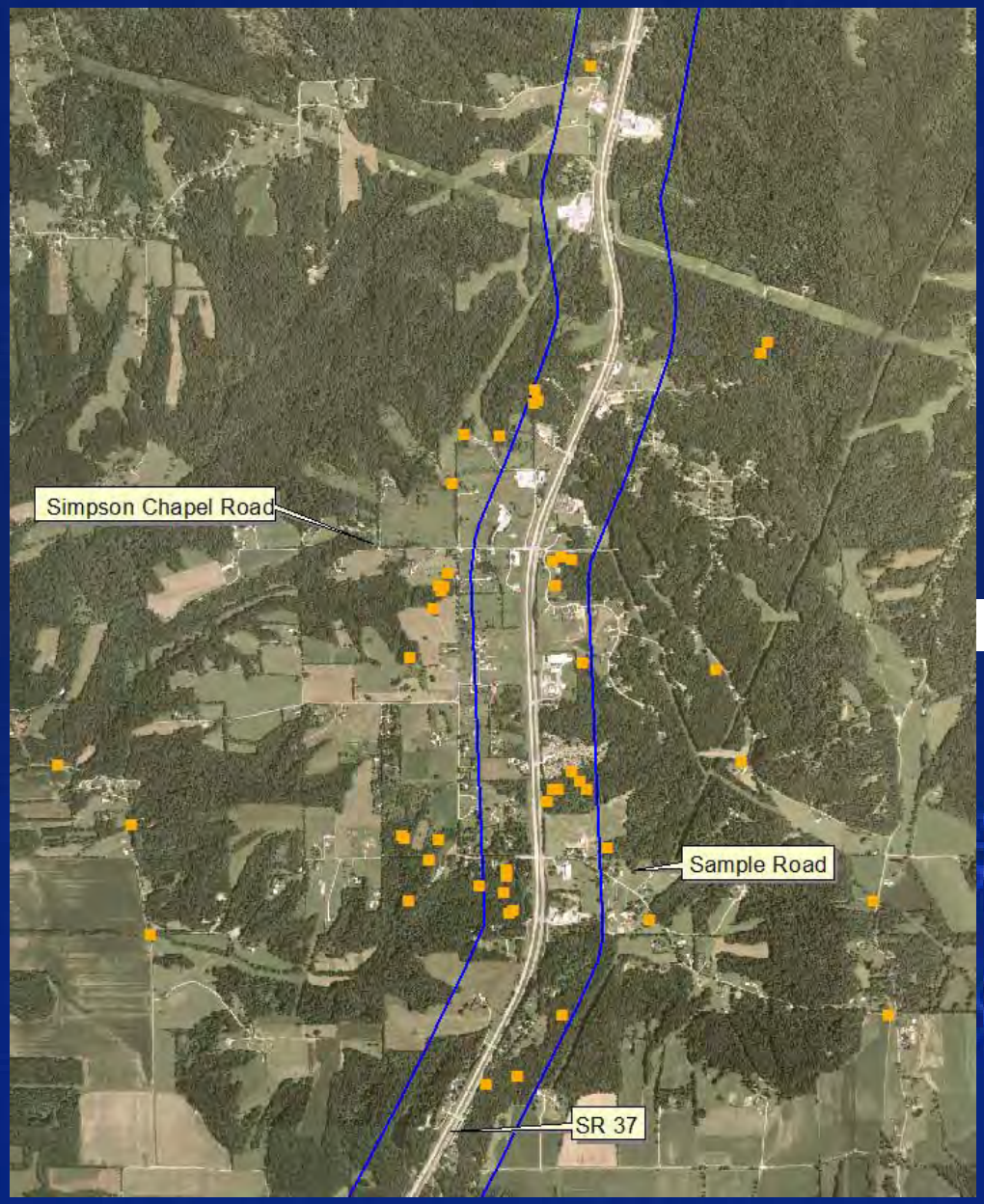
Sampling Network

ngton/

Legend

Sampling station

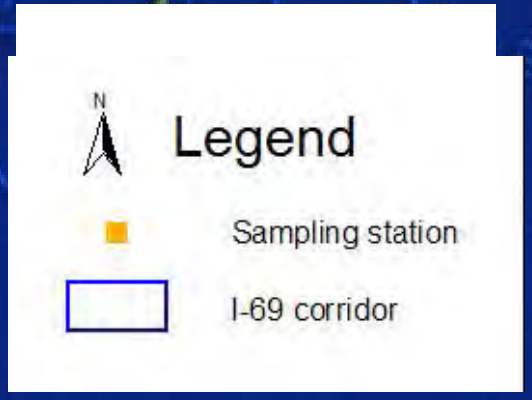
I-69 corridor



Dye Trace Studies:

g Network

n Chapel



Dye Introduction: Garden Acres

Dye Introduction: Brown School

Dye Trace Parameters (15 trac[redacted])

Length (feet)	Minimum Velocity of the Dye Front (feet/day) [redacted]	Duration of Dye Detection (days)
[redacted]990 Mean = 2,480 [redacted]	100 – 10,02[redacted] Mean = 1,335[redacted]9 [redacted]	

Spring Relevance

Springs Connected by Tracing (22 springs)	[redacted]gs in the Corridor (28 springs)	Springs not Related to the Corridor (15 springs)	Springs "not yet determined" (29 springs)
Church Spring	Backyard Spring	Leonard Spring	Bailey Spring
Downstream of Lake Wapehani	Bypass 37 Spring	Shirley Spring	Grandma's Spring
Dye Spring	Campbell Creek North	Sexton Spring West	Grandma’s Spring 2
Former Spring Box	Campbell Creek South	7th & Adams	Canyon Falls Spring
Illinois Central Spring	Deadfall Spring	Detmer Spring West	Bedding Plane Spring
Lower Stout Spring	Garden Hose Spring	Defeat Spring	Cedar Spring
May B Spring	Gateway Spring	ICG-3	Common Spring
May Spring	Green Gate Spring	ICG-6	Crestmont East Spring
Quarry B Spring	Headwall Spring	Loesch Spring	Staggs Spring
Quarry Spring	Hickory Spring	Kirby Road S[redacted]	Court Spring
Sexton Spring East	Ledge Spring	Robertson Spring	Crestmont North Spring
Sharon Spring	Oliver Spring	Sidewall Spring	[redacted]
Snoddy [redacted]	Packinghouse Culvert Spring	WN-1 Spring	
spring [redacted]	Perched Spring	WS-2 Spring	
Stoney Spring West A	Quiet Spring	Camp Wapehani [redacted]	Fenceline Spring
Stoney Spring West B	Root Spring		[redacted]
Tree Fall Branch	Salvage Spring		North Spring
Tree Fa[redacted]	Slaughterhouse Spring		Overhang Spring
Trough Spring	Steep Spring		Packinghouse Road Spring
Upstream of Trough Spring	Stile Spring		Pasture Spring
Valley Spring	Stream Rise		Pond Spring
Wein[redacted]	Trunk Spring		Shelf Spring
	Tub Spring		Sinking Creek Spring
	Tufa Spring		Sycamore Spring
	Two Small Springs		Tree Fall 2 Spring
	Van Spring		Urban Spring
	Water Tower Spring		Walls Spring
	Windsor Spring		

The comprehensive sampling network revealed that some areas yield water to multiple springs

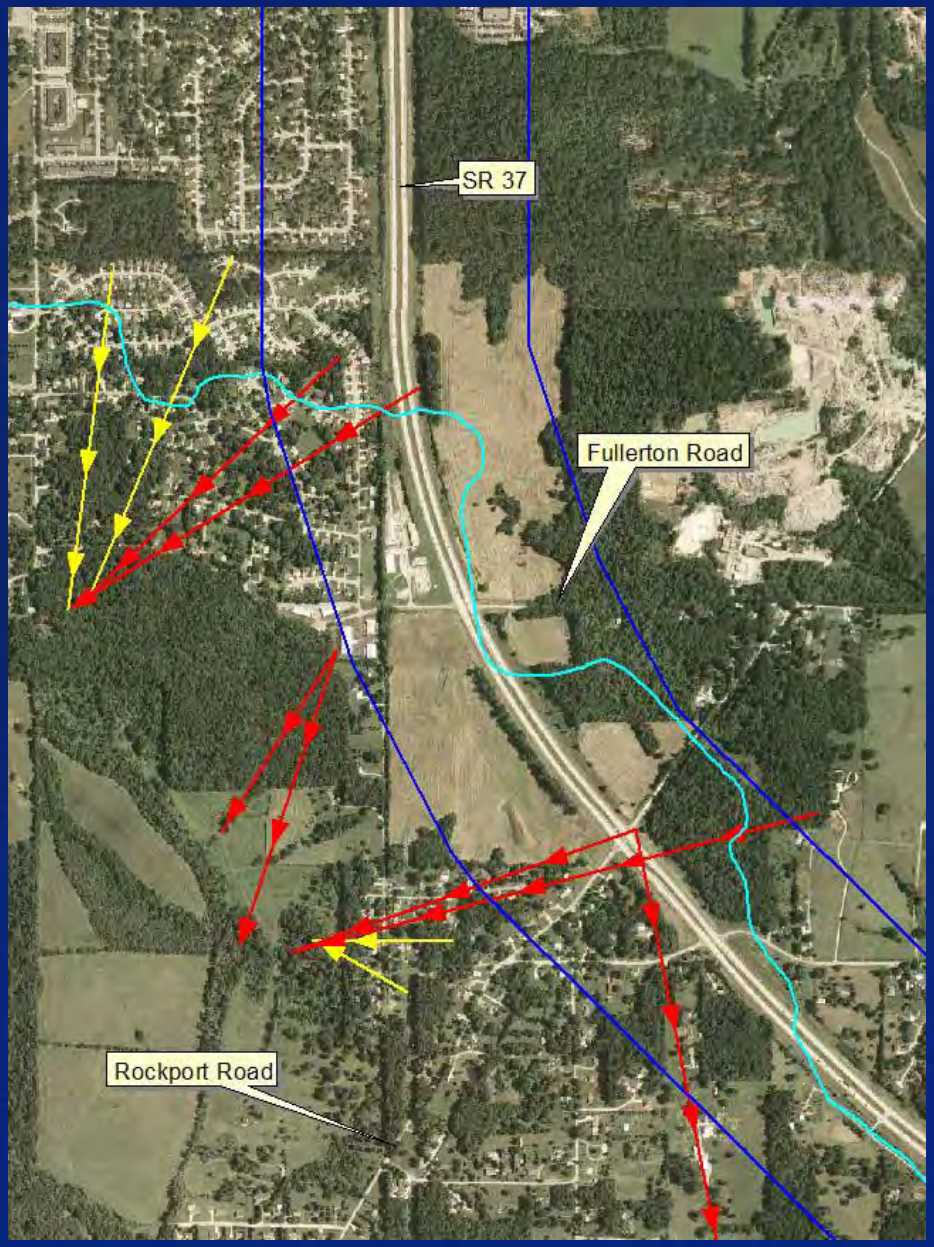
Extended sampling connection demonstrated that distribution of water among springs varies with flow rates

High and Low Flow Conditions

Church Spring

High and Low Flow Conditions

Sharon Spring



Inter-Basin Transfer

Legend

- Tier 2 dye trace
- Tier 1 dye trace
- Subwatershed boundary
- I-69 corridor

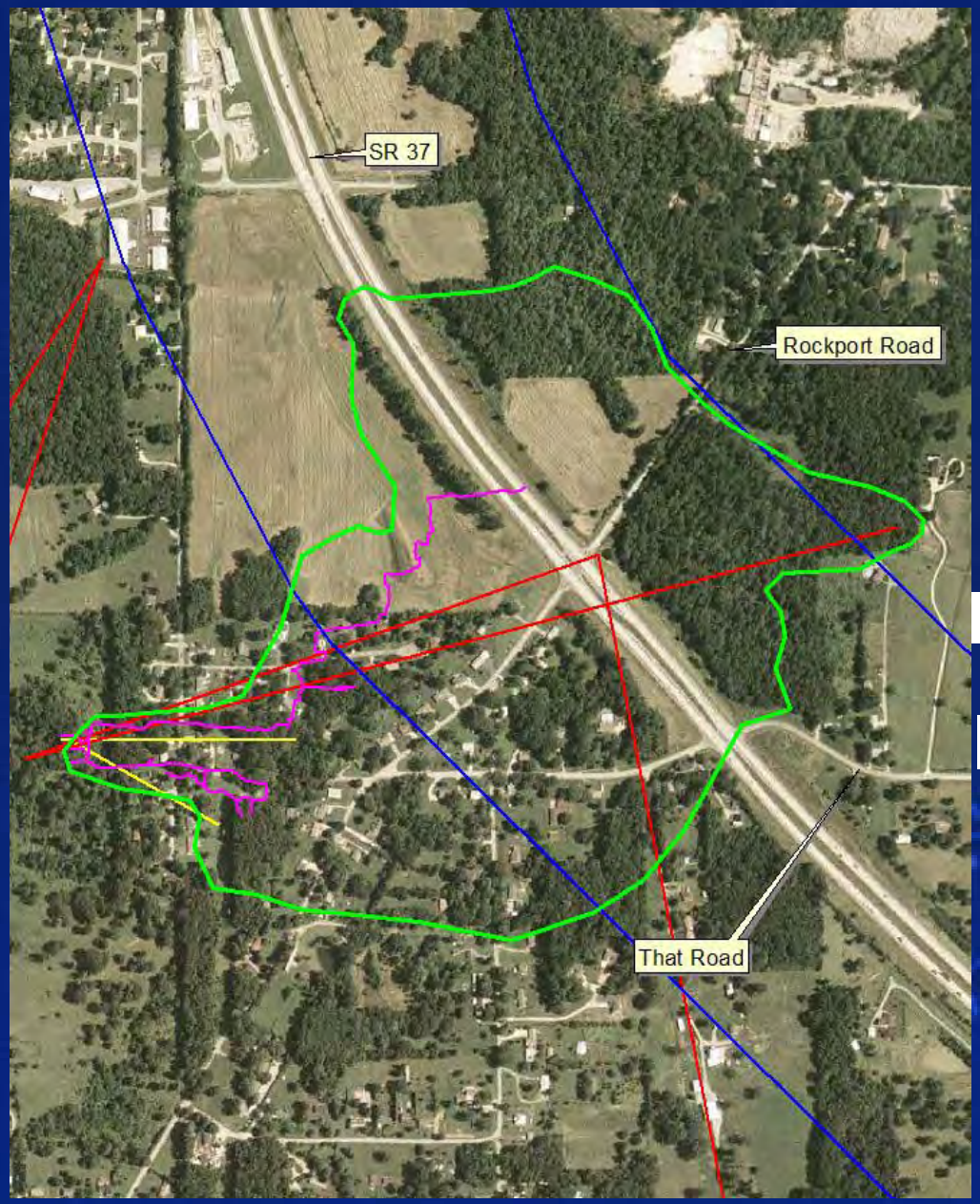
Areas of Interest Identifie[redacted] Date

- May Cave System
- Hazardous waste sites – Lemon Lane, Bennett's Dump
- 2nd Street/Rt. 37 intersecti[redacted]
- [redacted]n Chapel Area

[redacted]

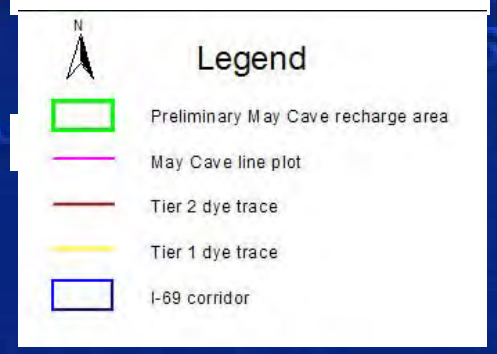
[redacted]

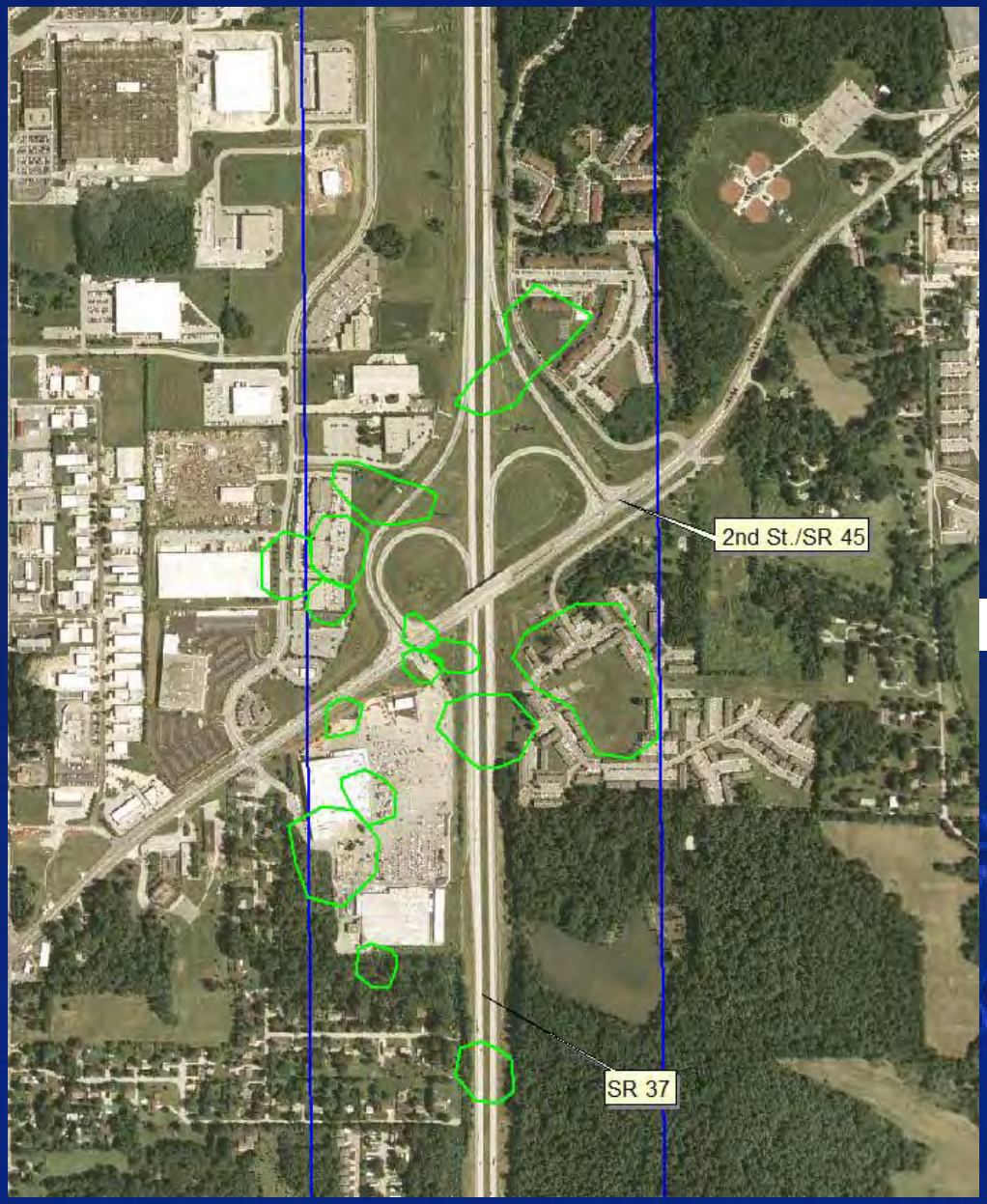
[redacted]



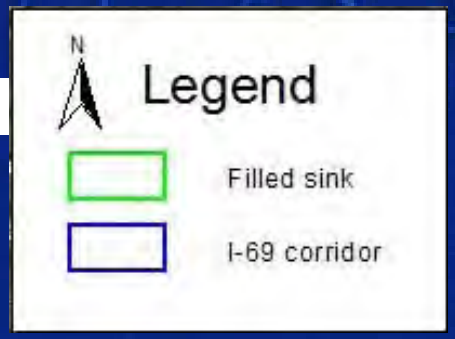
May Cave System

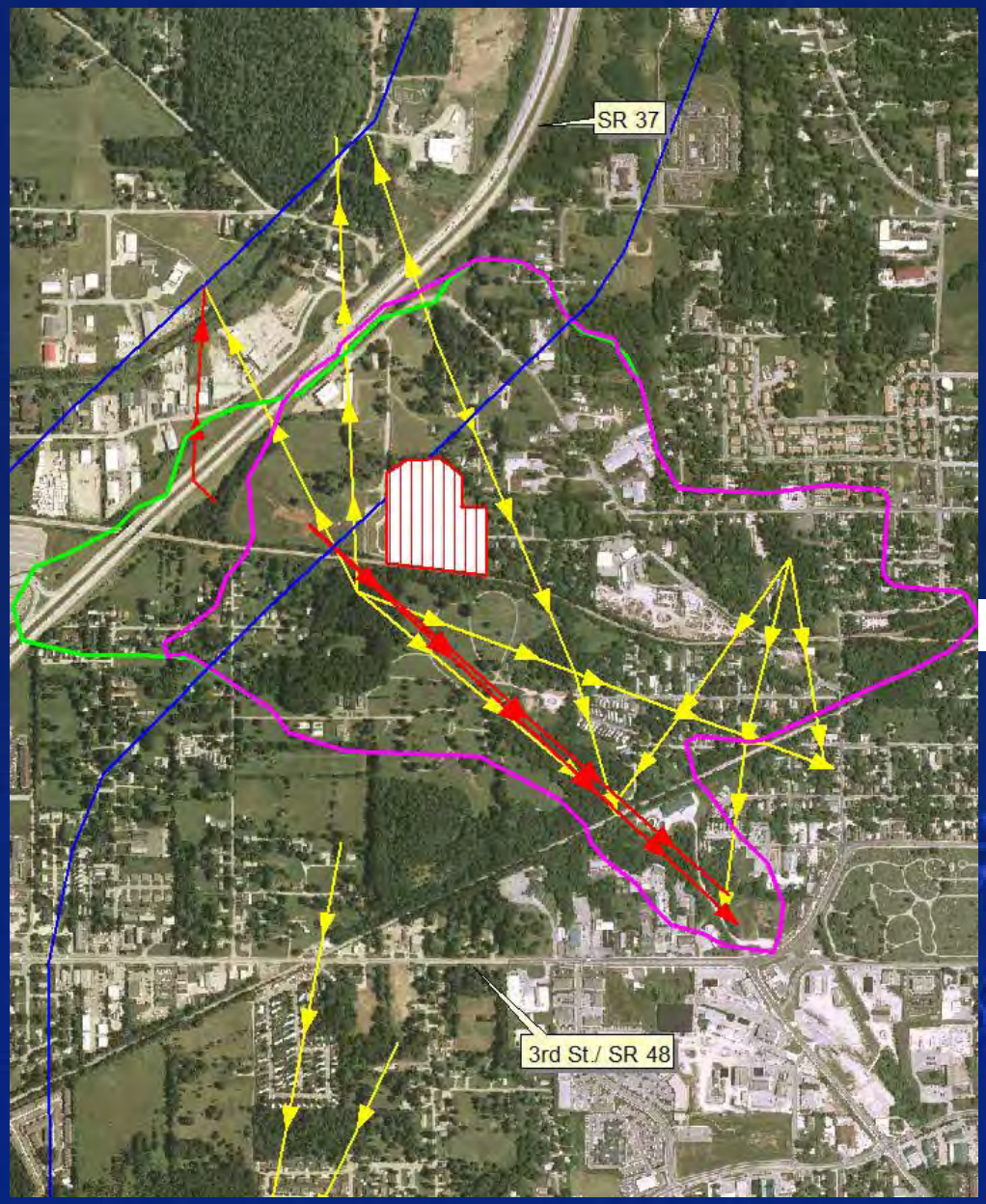
There are four other major drainages that





2nd Street – Rt. 37 Interchange



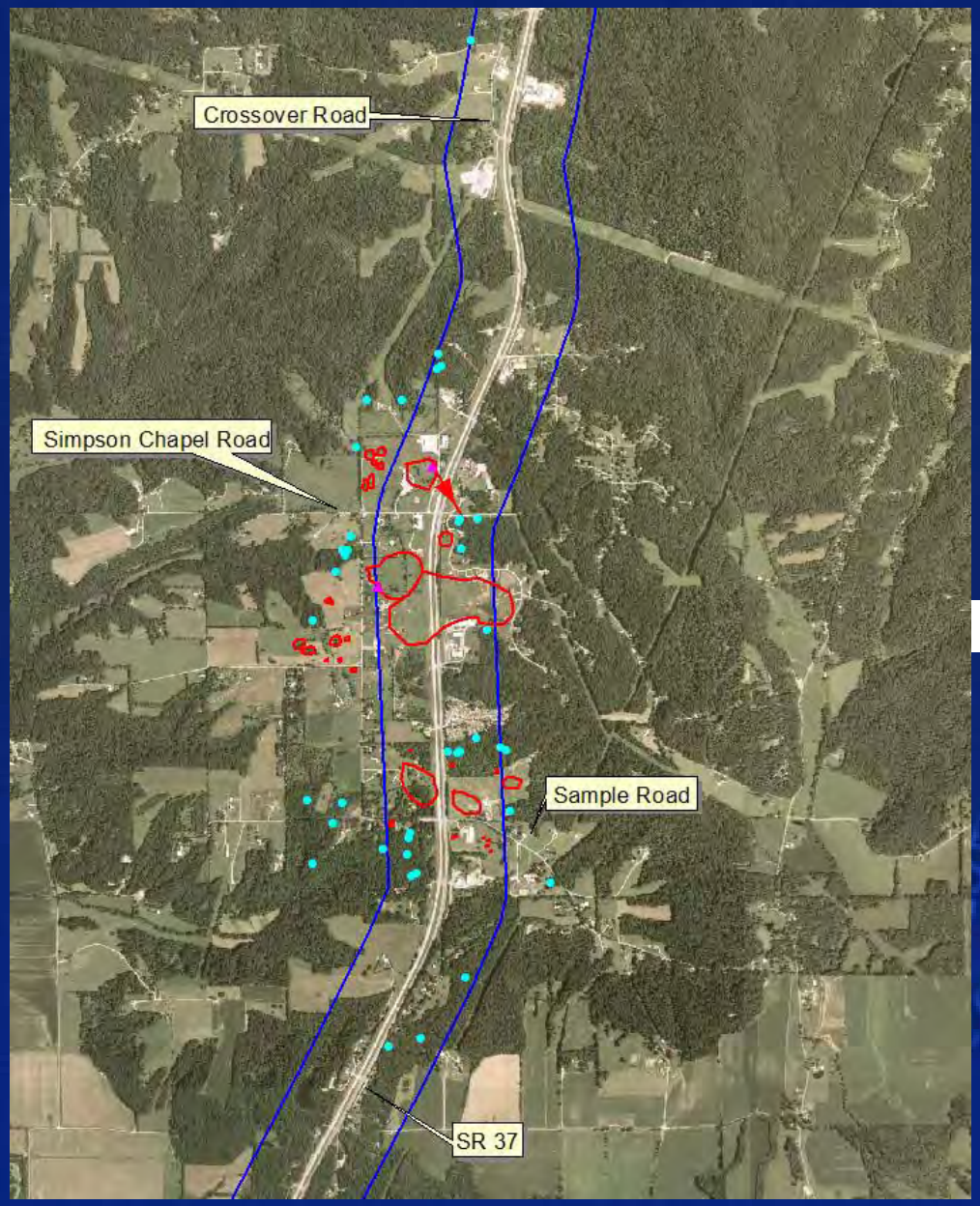


Lemon Lane

Water within the Illinois Central Spring recharge area is currently being [redacted] due to [redacted]

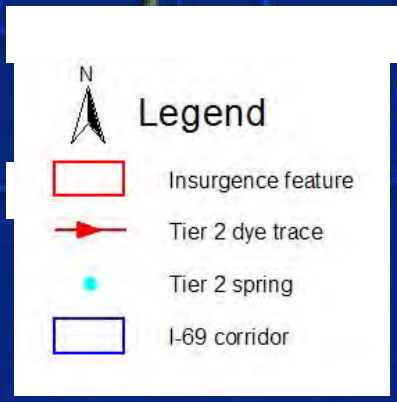
Bennett's Dump

Superfund site located
ately next to



Simpson Chapel

Area added as [redacted] ongoing [redacted]



Additional Evaluations

Additional work in areas of interest may be conducted

- Biological Studies
- Additional Recharge Area Evaluation

Pollutant Loads

- Annual
- Pre-Construction
- During Construction
- Post Construction

Avoidance/Treatment

- Avoidance
- Alternate Drainage
- Mitigation/Treatment
- Monitoring Maintenance Needs

Environmental Resource Agency Meeting

Study Area -- Se

I-69 Evansville to Indianapolis

Tier 2 Studies Up

February 23, 2005

Section 5

Michael Baker Jr., Inc. Team

- Wendy Vachet - Project Manager
- Specialty Sub Consultants

Section 5 Project Office

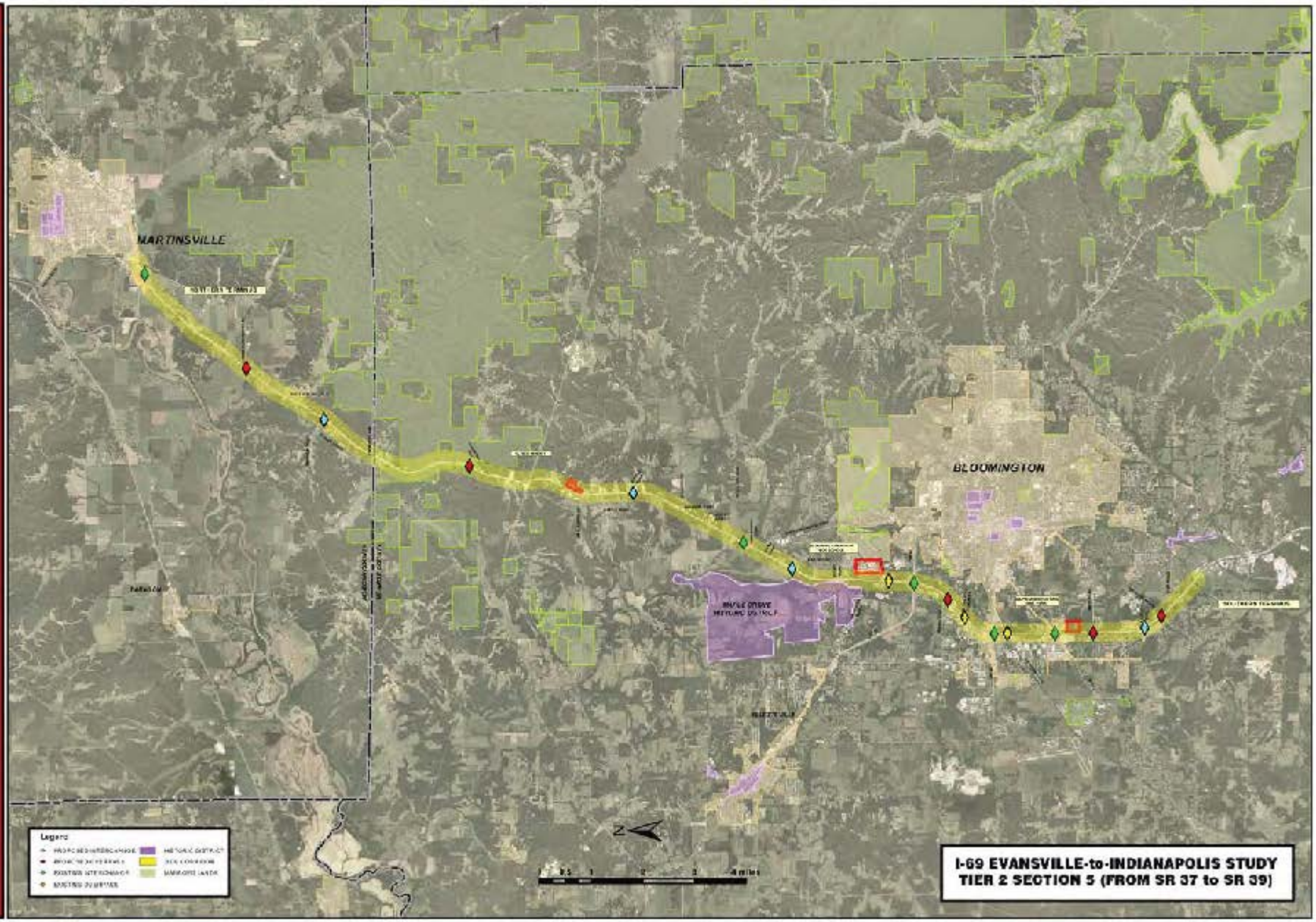
One City Centre
120 W. 7th Street, Suite 106/108
Bloomington, IN 47404
PH. 812-355-1390

Section 5

Introduction

- Location – Existing SR 37, from just north of Victor Pike (south of Bloomington), t[redacted]9 (Martinsville)
- [redacted]d 3C Corridor in Sec[redacted]n either side of the center line of [redacted]7

I-69 EVANSVILLE-TO-INDIANAPOLIS STUDY



Baker

Tier 2 Studies

- Project Purpose & Need est. in Tier 1
  - Identification of local needs- in progress
- Tier 2 will focus on developing and evaluating alternatives for upgrading SR [illegible] 69
  - Focus will be on access plan; [illegible] of interchanges
- Detailed field studies & techni[illegible] in progress
  - Land Use, Karst, Natural Environment, Hazardous Materials Surveys, Community Impact Assessment.
- Pre-draft DEIS- late Summer 2005

Section 5 Key Issues

- Access Plan (vehicles & bicycles/pedestrians)
  - Tier 1 Interchange/Overpass locations are being further evaluated
  - Bicycle & Pedestrian considerations
- Community Impact Assessment (CIA) & CSS/CSD
  - Land Use (existing/future)
  - Church/Emergency Services Survey(s)
  - Displacements/Relocations/Community Cohesion
- Physical Science
  - Topography [Memorandum of Understanding (MOU) compliance]- fieldwork 75% complete
  - Hazardous Materials Survey- in progress
  - Groundwater/Public Water Supply
- Ambient Noise Monitoring/Background
  - fieldwork complete

Section 5 Key Issues

- Cultural Resources
  - Architectural (Above Ground Resources)
    - Fieldwork complete
    - Historic Properties Report- in progress
  - Archaeological (Below Ground Resources)
    - Field review- September 2004
    - Draft Background Report- February 2
  - Cemeteries
    - Baseline fieldwork complete
- Natural Science
  - Threatened and Endangered Species
    - Indiana bat mist netting work- complete
    - Baseline fieldwork for Mussels, Crayfish and Fishes- in progress

Section 5 Key Issues

- Natural Science- Con't
  - Wetlands-
    - initial field review complete
    - detailed fieldwork Spring 2005
  - Biological Pedestrian Survey-
    - Fall survey complete;
    - Spring survey Spring 2005
  - Stream Analysis-
    - Fieldwork to be conducted Spring 2
  - Floodplains/Floodways Analysis
    - New IDNR Designations
- Miscellaneous
  - Utilities Relocation Coordination
  - Air Quality

Data Gathering/Outreach

- CAC Kick-off Meeting (s)- November 2004
  - Meeting #2- March 2005
- Public Information Meeting #1
  - Summer 2005 (has not been scheduled)
- Continued Coordination with Local Agencies
  - Bloomington MPO
  - Monroe and Morgan Counties
  - Indiana University
  - Town of Ellettsville
- Outreach
  - Area 10 Agency on Aging
  - Morgan/Monroe State Forest
  - Chamber of Commerce
  - Emergency Services Providers
  - Board of Realtors
  - Utilities (water, service, power, etc)
  - Maxwell Farm Operations (Morgan County)

Q & A

I-69 Evansville to Ind

Tier 2 Studies – Section 5

Update

February 23, 2005

Carol Hood

From: <Laszewski.Virginia@epamail.epa.gov> [Laszewski.Virginia@epamail.epa.gov]

Sent: Thursday, March 03, 2005 2:54 PM

To: JOSADCZUK@indot.state.in.us

Cc: Kent Ahrenholtz; Tom Cervone; apelloso@dem.state.in.us; belifrit@dem.state.in.us; dclark@dem.state.in.us; jrandolph@dem.state.in.us; sdeloney@dem.state.in.us; jeggen@dnr.IN.gov; jhebenstreit@dnr.IN.gov; jcarr@dnr.state.in.us; rbraun@dnr.state.in.us; rjones@dnr.state.in.us; Garra.Catherine@epamail.epa.gov; Kenney.Thomas@epamail.epa.gov; Leslie.Michael@epamail.epa.gov; melgin.wendy@epamail.epa.gov; Morris.Patricia@epamail.epa.gov; westlake.kenneth@epamail.epa.gov; Anthony.DeSimone@fhwa.dot.gov; Larry.Heil@fhwa.dot.gov; Robert.Dirks@fhwa.gov; kday@fs.fed.us; Andrew_King@fws.gov; Eugene_goldfarb@hud.gov; jane.hardisty@in.usda.gov; jsteinm@indiana.edu; LSADLER@indot.state.in.us; Amy.Babey@LR102.usace.army.mil; Doug.Shelton@LRL02.usace.army.mil; david.poynter@navy.mil

Subject: US EPA Air Contacts for Indiana and I-69 (Evansville to Indianapolis)Project

Janice,

This email follows up on your question during the I69 meeting (February 23 24, 2005) concerning US EPA Region 5 AIR CONTACT/S for INDIANA:

Michael Leslie (Air and Radiation Division) is the primary US EPA air contact for the I69 (Indianapolis to Evansville) project. Mike may be reached by calling (312) 3536680.

Patricia Morris (Air and Radiation Division) is the primary US EPA air contact for Indiana for transportation conformity on plans and TIPs that MPOs have developed. Pat may be reached by calling (312) 3538656.

However, Pat tells me that you may call either Mike or Pat with any air questions you might have whether I69 project specific or not.

Virginia Laszewski
Environmental Scientist

US EPA, Region 5
OSEC, NIS
77 W. Jackson Blvd. (mail code: B19J)
Chicago, IL 606043590
Phone: (312) 8867501
Fax: (312) 3535374
email: laszewski.virginia@epa.gov

Meeting Minutes

Tier 2 Project Management Team Meeting

Thursday, March 10, 2005, 2:30 p.m. – 4:00 p.m.

Attendee: Tamara Roberts	IDEM
Attendee: Jim Sullivan	IDEM
Attendee: Tim Johnson	IDEM-OLQ
Attendee: Scott Johanson	IDEM
Attendee: Matthew Baller	IDEM
Attendee: Steve Sperry	INDOT
Attendee: Jason Dupont	Bernardin-Lochmueller & Associates (BLA)
Attendee: Vince L. Epps	Shrewsberry & Associates (S&A)
Attendee: Kandas Bean	S&A

The purpose of this meeting was to obtain input from the Indiana Department of Environmental Management (IDEM) Groundwater Section regarding appropriate information that should be collected and/or assessed by the Tier 2 Environmental and Engineering Assessment Consultant's (EEACs).

Introduction

- The meeting opened with formal introductions of INDOT, IDEM, BLA and S&A staff members.
- An overview was given of the corridor and each section's geographical limits.
- The Tier 1and Tier 2 EIS reports are stand alone documents.
- The Tier 1 EIS evaluated a wide range of corridor alternatives to consider for the I-69 extension and selected Alternative 3C as the preferred alternative.
- The Tier 2 EIS will determine the specific alignment within the generally 2000 feet wide corridor. The environmental investigations will involve typical NEPA evaluations, as well as proposed mitigation plans.

Wellhead Protection Areas (WHPA)

- Check with the DNR for well records.
- Public wells, in all size systems, within a 3000 foot radius of the corridor and private wells two (2) miles from the centerline of the alignment are included in the assessment.
- IDEM encourages community involvement to obtain information pertaining to WHPPs.
- IDEM will provide delineation specs for approved WHPPs; however the agency recommends that the water utility be involved for specific information and planning. This will allow the communities to prepare for potentail Haz-Mat issues that may result from an accidental Haz-Mat spill.
- IDEM will provide time of travel maps and potential contamination sources for existing WHPPs.
- Vulnerability Assessments will be provided by IDEM for public water systems.
- Reggie Baker will be consulted to discuss any other potential vulnerability issues.

The EEACs should identify Transient and Nontransient systems. The IDEM has some GPS data identifying well locations, however the PMC will provide the IDEM with Tier 1 information to compare and update GPS data.

Public Water Supply

- Local water utilities can help define public water system served areas and area presumably operating on wells
- Source Water Assessments are completed for Community and Non Community systems.

Vulnerability Assessments are completed for all systems except Odon and Transient systems.

Water Supply Recharge Areas

- The IDEM is concerned with mitigation for potential contamination sources such as chemical storage, INDOT salt storage and pesticides.
- Incorporate Stormwater runoff (Rule 13) into MS4.
- Stormwater being discharged directly to the groundwater may have to meet groundwater quality standard prior to discharge. This will be addressed in INDOT's Stormwater (Rule 13) Permit.
- Check with the DNR for agricultural water supply well records.
- Cumulative effects and future impacts to businesses and residence for water availability should be considered in the Tier 2 studies.
- EEACs should consider wells abandoned prior to 1988, abandoned well closure reports and oil wells located within construction areas. Any well within the potential construction limits should be identified and noted as to its condition. Proper closure of these well should be assured during construction. Also, mitigation should identify that any wells discovered during construction are properly closed.
- Consider mitigation measures for roadside maintenance; reduce pesticides, salt, etc. especially in Karst areas.
- Mitigation for retention ponds at interchanges.

Action Items:	Owner:	Due Date:
Identifying a contact person at DNR to help assist the PMC	Jim Sullivan	
Update Confidentially Agreement to reflect Vulnerability issue	IDEM	
Provide GPS layer update information to IDEM	BLA	
Provide tables identifying well locations, Transient and Nontransient systems.	IDEM	

Details discussed in this meeting are subject to change, but are a reflection of how things stood at the close of the meeting.

These meeting minutes represent my understanding of the events that occurred. Please forward any comments or revisions to my attention, Carol Hood.

Note: This meeting summary documents ongoing, internal agency deliberations. Accordingly, the information contained in this summary is considered to be pre-decisional and deliberative.

Meeting Minutes

IDEM and USEPA Meeting on CERCLA Sites

Monday March 21, 2005, 2:00p.m. – 4:30 p.m. CST

Attendees:	
John Bassett	Earth Tech/USEPA
Mike McCann	Viacom
Thomas Duncan	INDOT
Robert Buskirk	INDOT
Jessica Fliss	IDEM
Phil Schonhoff	IDEM
Scott Johanson	IDEM
Tim Johnson	IDEM
Philip Moz	Michael Baker Jr., Inc
Jim Peyton	Michael Baker Jr., Inc
Wendy Vachet	Michael Baker Jr., Inc
Dr. Tom Cervone	Bernardin-Lochmueller & Associates (BLA)
Josh Sherretz	BLA
Vince Epps	Shrewsberry & Associates (S&A)
Susan Whitaker	S&A

The purpose of the meeting was to have dialogue with the Indiana Department of Environmental Management (IDEM) and the United States Environmental Protection Agency (USEPA) regarding appropriate information in the process of collection and/or assessment by the Tier II Environmental Engineering Assessment Consultant (EEAC) with respect to the Bloomington Area PCB sites within close proximity of the Section 5 corridor.

Review of I-69 Project Corridor

- Tier I FEIS completed in 2003 identified route 3C as the Preferred Alternative
- The corridor has been divided into six sections known as Sections of Independent Utility (SIU) for the Tier II studies
- Each SIU was assigned a Tier II EEAC. Michael Baker Jr., Inc, is the EEAC for Section 5

Review of Bennett Stone Quarry and Lemon Lane Superfund Sites

- Bennett's Dump historically used for quarrying operations
- In the 1960's, portions of the quarry was used for landfill of industrial waste
- Waste include Westinghouse electrical capacitors, which contained PCBs
- Site remedial action and monitoring programs ongoing since 1983
- PCB contamination in surface water, groundwater, sediments, and aquatic life still persist

Site Hydrogeology

- Open quarries are hydraulically connected to subsurface hydrogeology
- Illinois Central Spring Treatment Plant treats groundwater hydraulically connected to Lemon Lane
- Addition karst features have been identified north of the current PCB study area
- EEAC studies show that Stout's Creek is a losing stream

Storm Water Management

- Run-off has to be directed away from Bennett Stone Quarry and Lemon Lane
- Potential design features are still in planning phase
- Karst Memorandum of Understanding will be adhered to throughout the project
- Storm water diversions to Stout Creek is being studied
- IDEM, USEPA, and Viacom may be amenable to storm water diversion to Stout's Creek

Information Sharing

- IDEM will consult with their legal council about policies regarding sensitive information
- Michael Baker Jr. agreed to present the findings of their dye-tracing investigation at a future meeting
- S&A will continue to facilitate communication between INDOT, IDEM, USEPA, BLA, and Section 5 EEAC

Action Items:	Owner:	Due Date:
Hydrological Investigation Presentation	Michael Baker Jr., Inc/PMC	TBA

Details discussed in this meeting are subject to change, but are a reflection of how things stood at the close of the meeting.

These meeting minutes represent my understanding of the events that occurred. Please forward any comments or revisions to my attention, Carol Hood.

Note: This meeting summary documents ongoing, internal agency deliberations. Accordingly, the information contained in this summary is considered to be pre-decisional and deliberative.

Meeting Notes

USACE/IDEM Wetland and Stream Field Review-Section 1

Tuesday, March 22, 2005, 9:30 a.m. – 12:30 p.m.

Attendee	Organization
Jason Randolph	IDEM
Amy Babey	USACE
Norma Condra	USACE
Jane Wehner	Qk4
Jeremy Kieffner	Bernardin-Lochmueller & Associates (BLA)
Jason DuPont	BLA
Marc Woernle	JF New

The purpose of the meeting was to review waters identified within the Section 1 corridor during field studies to evaluate USACE vs. IDEM jurisdiction of the identified water resources. In addition, interpretation of various scenarios were considered to establish a consistent approach to be implemented for all six I-69 Tier 2 Sections. The following points summarize the discussions of the field review.

- Ditches cut through uplands (nonwetland) will not be considered waters of the US regardless of connectivity to other waters of the US, unless the ditch replaced a naturally occurring channel which exhibited a defined bed and bank.
- Ditches cut in wetlands/bottomlands (hydric soils) to drain wetlands, including roadside ditches would be considered waters of the US.
- USACE jurisdiction of waters of the US will extend upstream as far as a defined bed and bank extend, as long as it is a natural feature or an excavated ditch replacing a natural feature. There is no minimum size limit that they consider and given the size of some features identified in the field review as being jurisdictional waters of the US, these may include very small features (e.g. 6” wide x 6” deep) as waters of the US if they are natural headwater channels.
- IDEM will not require additional consideration/mitigation for channels upstream of USACE jurisdiction limits although they may be considered waters of the State.
- Grassed waterways in agricultural settings would only be jurisdictional waters of the US if they replaced naturally occurring channels which would have been identified as waters of the US.
- Both IDEM and USACE recognize that essentially the only functions that many of the small ephemeral channels provide is flood water storage capacity.
- Little or no mitigation will be required for crossings of agricultural drains, if bridged, some conditions may be included for culvert crossings. However, if riparian corridor habitat, or riffle/pool structure exists, mitigation will be required.

- No stream mitigation should be proposed along Legal Drains unless agreements are secured with the County to protect the mitigation. No in-channel measures should be proposed within these in any situation.
- Open water ponds are jurisdictional waters of the US if they are derived from the impoundment of a water of the US, or are connected to other waters of the US by a stream channel that would be a jurisdictional water of the US. There is no adjacency condition for open water ponds, they must be connected.
- Adjacency of wetlands for jurisdictional consideration as waters of the US as defined by the Louisville District USACE is limited to the 100yr floodplain (typically FEMA but possibly other source, if better defined). If any part of the wetland is within the floodplain, the entire wetland is a water of the US.
- Tiles/pipes may be considered waters of the US if they replaced a naturally occurring channel.
- IDEM considers the alignment which avoids the Gelhausen property to be the only option through this area to avoid the wetlands developed on this property. The alignment reviewed in the field is within the corridor on the west side of CR 890 E. Without detailed examination, the assumption of the group was that the ponds, lakes and wetlands on the Gelhausen property would be waters of the US.

Many comments from USACE identified conditions on manmade features that may have replaced natural channels. The primary resources to evaluate this identified by USACE included Soil Surveys, historic maps and interviews with owners/farmers.

Details discussed in this meeting are subject to change, but are a reflection of how things stood at the close of the meeting.

These meeting minutes represent my understanding of the events that occurred. Please forward any comments or revisions to my attention, Jason DuPont.

Note: This meeting summary documents ongoing, internal agency deliberations. Accordingly, the information contained in this summary is considered to be pre-decisional and deliberative.

March 29, 2005
Monthly Agency Update
February 2005

The following information comprises an update of the activities of the seven consultant teams – Project Management Consultant (PMC) and Engineering and Environmental Assessment Consultants (EEACs) – working on the I-69 Evansville to Indianapolis Tier 2 Studies for February 2005. This update includes the status of ongoing field activities related to various natural and man-made resources, as well as public and agency outreach activities.

PMC: The PMC has completed the following activities through February 2005.

- Continued management of and coordination with the EEACs in terms of schedule, scopes of work, costs, and other contractual elements through conduct of coordination meetings, team communications, and outreach. Also, continued coordination with the Indiana Department of Transportation (INDOT) and the Federal Highway Administration (FHWA) with regard to project meetings, project record, EEACs billings, and overall project and program management.
- Continued Section 7 consultation, including coordination of a consultation meeting between the U.S. Fish and Wildlife Service, the Federal Highway Administration, and the PMC.
- Facilitated two-day Agency Coordination Meeting and bus tours of Sections 1, 2 and 3.
- Coordination of the ongoing karst geology studies in Sections 4 and 5 including coordination of a breakout session at the Agency Coordination meeting with the EPA, IDEM, IDNR, USFS, and USFWS.
- Continued coordination with Indiana Department of Natural Resources (IDNR) Division of Historic Preservation and Archaeology (DHPA) relative to Section 106, including coordination of a meeting regarding the handling of cemeteries within the study area, and Virginia Iron Works.
- Continued public involvement through coordination with INDOT in developing project messages and assistance in preparations for Public Information Meetings and Community Advisory Meetings.
- Coordination of procedures for gathering information regarding the studies of Hazardous Materials in consultation with IDEM.
- Evaluation of wildlife corridors under the consultation of IDNR.

Section 1: The Section 1 EEAC, Qk4, has completed the following activities during February 2005.

- Facilitated Section 106 Consulting Party Meeting.
- Prepared draft of Elberfeld Access Study.
- Held joint meeting with Section 2 and local gas companies.
- Facilitated informational meeting with area coal companies.

- Attended an all section Community Impact Assessment Meeting.
- Attended Agency Coordination Meeting and conducted a bus tour of the Section 1 limits.
- Participated in Section 106 progress review conference call.

Section 2: The Section 2 EEAC, Hannum Wagle and Cline/Jacobs Civil Inc., has completed the following activities through February 2005.

- Held first Public Information Meeting to receive public comments on proposed alternative alignments and Purpose and Needs.
- Conducted meetings regarding guidance on hydraulics and drainage.
- Attended the Agency Coordination Meeting and conducted a bus tour of the Section 2 limits.
- Submitted historic properties report to PMC for review.
- Held joint meeting with Section 1 and local gas companies.
- Completed bird study data report.
- Attended an all section Community Impact Assessment Meeting.
- Participated in Section 106 progress review conference call.

Section 3: The Section 3 EEAC, The Corradino Group, has completed the following activities through February 2005.

- Completed draft historic properties report, currently under PMC/INDOT review.
- Hosted the Agency Coordination Meeting and conducted a bus tour of the Section 3 limits.
- Hosted an all section Community Impact Analysis technical meeting for project team members.
- Participated in Section 106 progress review conference call.

Section 4: The Section 4 EEAC, DLZ Corp., has completed the following activities through February 2005.

- The karst geology field survey has moved to the southern portion of the section. Evaluation of the data will determine if there are features/areas warranting evaluation by Section 3.
- Attended Agency Coordination Meeting.
- Historic Resource fieldwork is nearly complete. Draft Historic Properties Report will be completed in late March or early April.
- Began initial Quantm alignments.
- Attended an all section Community Impact Analysis meeting.
- Participated in Section 106 progress review conference call.
- Participated in conference call to discuss quarries in relation to Section 106 studies in Sections 4 and 5.

Section 5: The Section 5 EEAC, Michael Baker Jr., Inc., has completed the following activities through February 2005.

- Held Section 106 Local Consulting Parties Information Meeting.
- Met with PMC to discuss Section 106 historic architecture eligible resources.
- Attended an all section Community Impact Assessment meeting.
- Participated in conference call to discuss quarries in relation to Section 106 studies in Sections 4 and 5.
- Attended Agency Coordination Meeting.
- Attended IDNR kickoff meeting for updates to the FEMA floodplain insurance maps.
- Continued to update data on potential hazardous waste sites in Section 5.
- Resubmitted the Cemetery Information report to the PMC.
- Completed initial architectural survey field work for the Determination of Eligibility report.
- Participated in Section 106 progress review conference call.
- Submitted archaeology background report to PMC for agency review.

Section 6: The Section 6 EEAC, HNTB, has completed the following activities through February 2005.

- Participated in Section 106 progress review conference call.
- Attended Agency Coordination Meeting.
- Attended an all section Community Impact Assessment Meeting.
- Committed record searches for inclusion in the Section 106 archaeology background report.
- Updated the fish and mussel survey based on PMC review.

Carol Hood

From: Tom Cervone [blainc.Bla_Mailbox.TomC]
Sent: Wednesday, March 30, 2005 3:31 PM
To: Christy Kiefer
Cc: Jason Dupont; Jeremy Kieffner; Josh Sherretz; Kent Ahrenholtz; Kia Gillette; Janice Osadczuk; SADLER, LYLE; Bob Buskirk
Subject: IDNR Correspondence on I-69 Tier 2

Dear Christy,

Attached is general correspondence on I-69 with IDNR to date. Please review for any questions you may have on its content. It was a pleasure to talk with you today.

Thanks
Tom

Letter to Christy.doc (29 KB)

Water Resources Dec 14 2004 Me...

Carol Hood

From: "JASON RANDOLPH" <JRANDOLP@idem.in.gov> [JRANDOLP@idem.in.gov]

Sent: Thursday, March 31, 2005 3:49 PM

To: AFerlo@AKINGUMP.com; WMalley@AKINGUMP.com; Carol Hood; Jason Dupont; Jeremy Kieffner; Kent Ahrenholtz; Tom Cervone; kgillette@blainc-indy.com; MRueff@blainc-indy.com; Anthony.DeSimone@fhwa.dot.gov; ANDREW PELLOSO; MARTHA CLARK METTLER; JOSADCZUK@indot.state.in.us; LSADLER@indot.state.in.us; RBUSKIRK@indot.state.in.us

Subject: Re: Meeting with IDEM on April 14

Tom:

I have it marked in my calendar and will see you at 1:00.

Jason

>>> "Tom Cervone" <tcervone@blainc.com> 03/31/05 11:05AM >>>
Dear Team Members,

A meeting is scheduled on April 14, 2005 in Room N808 from 1 to 4 PM in the Indiana Government Center North Building with IDEM, INDOT and FHWA. The topic for discussion is water resources.

Please RSVP me if you can be available for this meeting.

Thanks
Tom

103-0001-0ED

United States Department of the Interior
Fish and Wildlife Service

Bloomington Field Office (ES)
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273

8 April 2005

Keith Josh
Vince Jonna
Dean Nicole
Dave I Dean M.
Kent Mike G.
Tom
Jim G
Daniel
Jason
Jeremy

Amy Henry
BHE Environmental, Inc.
7041 Maynardville Highway
Knoxville, TN 37918

Virgil Brack, Jr.
Environmental Solutions and Innovations, Inc.
781 Neeb Road
Cincinnati, OH 45233

RE: Pre-survey site-specific coordination and BFO authorization for conducting spring surveys for the Federally endangered Indiana bat at potential hibernacula within 5 miles of INDOT's proposed I-69 corridor in Greene, Lawrence, and Monroe counties, Indiana.

Dear Amy and Virgil,

This letter is in response to your letters from BHE Environmental, Inc. (BHE) and Environmental Solutions and Innovations, Inc. (ESI) (dated 4 and 5 April 2005 respectively) requesting authorization from the U.S. Fish and Wildlife Service's Bloomington Field Office (BFO) to conduct spring surveys and radiotelemetry on the Federally endangered Indiana bat (*Myotis sodalis*). These requests regarded conducting spring surveys for the presence of Indiana bats at the entrances of 9 caves (6 by BHE, and 3 by ESI) in association with the above referenced project.

This work would be conducted under BHE's and ESI's Federal permits (TE 809227-16 and TE-023664-13 respectively). BFO Biologist, Andy King, has been in coordination with Garre Conner of Bernardin, Lochmueller & Associates, Inc. (BLA) regarding the specific circumstances prompting the need for each these caves to be resurveyed this spring, their field locations, and access issues. You are authorized to conduct bat surveys at the 9 caves assigned to your respective company by BLA as designated in the table at the end of this letter. You are authorized to survey the cave entrances using harp traps as outlined in the enclosed survey protocol. If you are unable to safely or effectively erect a harp trap at a cave entrance (e.g., a pit entrance that is too large to safely/completely seal with plastic netting), you may use mist nets or an alternative technique as described in the survey protocol.

This letter serves as authorization for you and others specifically named on your Federal permits to conduct bat surveys using harp traps or mist nets at the caves assigned to your respective companies in Greene, Lawrence, and Monroe counties between 9 and 30 April 2005.

RECEIVED
APR 25 2005
BLA

This letter must be carried with your Federal permit when conducting work at these sites. All captures of Indiana bats should be reported directly to Andy King at this office within 24 hours (voice mail should be left at 812-334-4261 ext. 216 or e-mail Andrew_King@fws.gov).

If for some reason a cave substitution is warranted/needed, we request that you or BLA coordinate this on a case-by-case basis with Andy King prior to surveying at a new cave. We request that you keep BFO abreast of the anticipated dates and specific order of caves that you will be surveying on a weekly basis so FWS staff will have an opportunity to visit you in the field. Finally, we remind you and your staff to review your State permits, and amend them as appropriate, if you have not already done so.

If you have questions please contact Andy King (812-334-4261, extension 216).

Sincerely,

Scott E. Pruitt
Field Supervisor

BHE's Cave List	ESI's Cave List
Cave Cave Cave Cave Cave Cave)	Cave Cave Cave

cc: Catherine Gremillion-Smith, Indiana Department of Natural Resources
Tom Cervone, BLA

Enclosures

BAT SURVEY PROTOCOL*
FOR ASSESSING USE OF POTENTIAL HIBERNACULA
(I-69 Tier 2 Studies)

RATIONALE

A typical cave or mine portal survey is an attempt to determine presence or probable absence of the species; it does not provide sufficient data to determine population size or structure. Following these guidelines will standardize procedures for bat surveys at cave and mine portals. Although the capture of Indiana bats confirms their presence, failure to catch Indiana bats does not absolutely confirm their absence.

ASSESSING CAVES/ABANDONED MINES FOR BAT SURVEYS

In general, openings can be dismissed from bat surveys when:

- There is only one horizontal opening less than 6 inches in diameter and no or very littleairflow is detected.
- Vertical shafts <1 foot in diameter.
- Passage continues less than 50 feet and terminates with no fissures that bats can access.
- Mines/caves that are prone to flooding, collapsed shut and completely sealed, or otherwise inaccessible to bats.
- Openings, which have occurred recently (within 1 year) due to subsidence.

SAMPLING DATES, TIMES AND TEMPERATUE CRITERIA

- In 2005, spring sampling may be conducted from 9 April thru 30 April.
- Sampling will start ½ hour before sunset and continue for at least 5 hours.
- Weather must provide for:
  1. Temperatures >50° F (10EC) for first 2 hours of sampling and not fall below 35°F (1.6EC) by midnight.
  2. At least 3 hours free of heavy rain and thunderstorms.
- Sampling will be conducted on two evenings. If no bat captures (of any species) occur and no bat activity is noted with a bat detector on the first evening during acceptable weather conditions, sampling can be suspended for the site.
- The shining of lights, and noise will be kept to a minimum with no smoking around the sample site. The use of radios, campfires, running vehicles, punk sticks, citronella candles and other disturbances will not be permitted within 300 feet of site during surveys.
- Before conducting surveys, local residents and/or law enforcement agencies should be informed of the scheduled nighttime activities.

* Adapted from the protocol used by the Pennsylvania Game Commission

EQUIPMENT

No equipment, litter or other debris will be /eft unattended at site that could result in the capture or entanglement of any animals. Any equipment stored at site between sampling sessions will be clearly labeled with contact information.

Harp Traps (first choice): Place in front of opening and block surrounding space with plastic sheeting or bird netting. Traps should be tended at least once per hour. When the catch rate is high (>25 bats per hour) or during inclement weather, traps should be tended more frequently.

Mist Nets (second choice): 50 denier, 38mm mesh. Place in front or around openings that can not be harp trapped. Nets need to be monitored closely and checked at least once every 20 minutes. At sites with a heavy bat swarm, the net may need to be monitored continuously.

Bat Detector: In addition to the harp trap or mist nets, an ultrasonic bat detector should be on site to periodically monitor general bat activity and to assess the general effectiveness of the harp trap or mist net placement.

Alternative Monitoring Techniques: In situations where cave/mine entrances can not be safely/effectively trapped or netted, bat detectors (e.g., heterodyne or AnaBat) and/or night-vision/infrared/thermal-imaging recording devices should be used to monitor and record bat activity to determine bat use of the site. Bat activity in or around the entrance can be monitored by counting bat passes with a bat detector, or night vision/infrared video tapes can be recorded to provide actual counts of bats entering the opening. As with trapping, monitoring should be conducted for 5 hours. Reporting format will be: Start and end time for 1-hour sample period and bat passes for that hour. If a bat detector is used to monitor a cave/mine entrance, the biologist should 1) manually operate a tunable detector to quantify the amount of bat activity (i.e., tally # of bat passes/hour for 5 hours) at the cave entrance, 2) write down the peak frequency associated with each bat pass, and 3) take field notes describing the bat activity throughout the 5-hour sampling period (e.g., are bats entering and/or exiting the entrance, just passing by etc…).

If alternative monitoring techniques are needed to complete a survey, these should be coordinated with Andy King at the BFO on a case-by-case basis prior to being employed.

CAPTURED BATS

Standard measurements should be taken and recorded for all captured bat species. Photo documentation of Indiana bats is also encouraged.

Fecal Samples: Fecal samples should be collected from Indiana bats (and other species as time allows), clearly labeled, placed within separate Ziploc bags, and stored on ice or in a freezer. Do not hold a bat for longer than 30 minutes regardless of whether it has produced a fecal sample or not. Fecal samples may be hand delivered to Andy King at the BFO at any time during normal working hours.

Banding (*M.sodalis* only): A single, uniquely numbered/embossed band (preferably celluloid/plastic) of a high-contrast color (e.g., white) should be placed on the right forearm of each male and the left forearm of each female Indiana bat. If many bats are captured at one time, it is acceptable to only band a subset of the individuals to avoid having to hold them for a long period of time. Please use your best professional judgment.

I-69 Water Resources Agency Issues & Recommendations

Division of Soil Conservation, IDNR Issues & Recommendations

The following are Division of Soil Conservation issues and recommendations in response to the chart titled "*I-69 Water Resources Agency Issues & Recommendations To Date Draft – 2/21/05*". This chart was handed out at the February 23, 2005, Overall I-69 Agency Coordination Meeting held at the Washington Section 3 Project Office.

Chart **Criterion** (Criterion items are in bold & underlined)

Impaired Waters

The project must meet the requirements of 327 IAC 15-5 (Rule 5) and must protect all waters either impaired or of high quality from degradation from stormwater runoff. Storm water pollution prevention measures must protect receiving waters (surface streams/lakes and subterranean karst drainage systems) from degradation both in the construction period as well as for the post construction period.

Stream Crossings

The spill through flow capacity of bridges would need to be shown to be sustainable by the stream fluvial geomorphic characteristics and not prone to filling by alluvial sediments and debris. Any excavation of the stream banks or channel area for bridge flow through capacity should not destabilize the stream channel and must be stabilized with appropriate measures.

Temporary construction access for bridge construction needs to be considered during the planning process, as opposed to being left up to the contractor. In some projects, no consideration is given for construction access during the planning and right-of-way acquisition phase. The construction activities and site access needs then crowd and limit the effectiveness of the storm water pollution prevention practices. Additional temporary right-of-way may be necessary to provide adequate site access. Any stream bank/channel disturbance in temporary right-of-way areas will need bank stabilization measures appropriate for channel stability.

Construction activities in and along waterways need to be separated with effective measures to minimize erosion and sediment in construction. No stream flow is to be allowed on disturbed or unstable stream channels during construction. Cofferdams, dikes and berms used to separate work activities from stream flow need to be of non-sediment producing nature or construction. In some cases temporary diversion of stream flow may be needed to effectively separate construction activities from stream flow in bridge and culvert construction. Temporary stream diversion should be done for brief periods and not to be relied upon for extended time periods. Examples of temporary stream diversion include pumping around work areas, construction of a stabilized temporary diversion channel, cofferdam diversions or temporary piping though work areas.

Stabilization of stream banks must be effective for the entire spill-through area. Typically, no consideration or inadequate consideration is given to the immediate stream bank under-bridge deck areas. Riprap protection is often provided for the bridge cone and abutment areas but not to the stream bank areas where no effective vegetation can grow in the shade of the bridge. Stream bank stabilization should utilize as much "soft" bioengineering methodology as possible and minimize the amount of "hard" armor. Stream bank measures need to be adapted to fit the stream geomorphic characteristics, as opposed to randomly riprap armoring all stream banks and channels.

Compliance w/ Water Quality Management Plans

It should be noted in the USEPA comments that 5 acres is not the current permit compliance threshold. 327 IAC 15-5 (Rule 5) requires compliance for disturbances of 1 acre or more. As of 11/26/03 the disturbance threshold for compliance changed from 5 acres to 1 acre for activities in the State of Indiana.

All land disturbing activities associated with construction of this project will need to be permitted under 327 IAC 15-5. This would include such activities as direct road construction in right-of-ways, mitigation areas that require land disturbances and all activities outside of the right-of-way or INDOT's submission, e.g., borrow, disposal and stockpile areas, construction access roads, staging areas and asphalt and concrete plants.

Water Quality Mitigation

Measures to minimize adverse effects on water quality in both the construction stage and post-construction period are required under 327 IAC 15-5.

BMPs to minimize storm water pollution, especially for erosion and sediment control, during construction need to be part of an integrated system of well coordinated and managed measures that emphasize rapid implementation. In addition, an experienced professional in highway erosion and sediment control should be assigned to each construction contract with authority and responsibility for overseeing coordination and implementation of the storm water pollution prevention plan.

Basic practices such as silt fence, rock check dams, temporary slope drains, interceptor ditches(diversions), frequent temporary seeding, temporary mulching, timely permanent seeding, erosion control blankets, riprap, storm sewer inlet protection, temporary sediment traps and temporary sediment basins are examples of BMPS, but should not be considered a complete list. Silt fence should not be used beyond the capabilities described in the Indiana Handbook for Erosion Control for Developing Areas. All practices that require design information will need complete design information, necessary construction details for installation by the contractor and effective site management. Temporary sediment traps and temporary sediment basins will need design information that delineates the watersheds of these structures, and the structures will need to be sized to accommodate the runoff from the entire watershed in the worst case watershed scenario during construction. Temporary slope drains will need to show what watershed they can accommodate. Construction of side ditches that will handle large offsite and onsite watersheds will need special planning and implementation of erosion and sediment control measures such as

sediment basins that can accommodate the runoff of the entire watershed and/or phased construction for installation of erosion resistant channel linings with protection from sediment-laden runoff from disturbed areas.

The use of polymers (polyacrylamide [PAM] or natural polymers) that aid in rapid flocculation or settling to further reduce the sediment content or turbidity of runoff from active construction areas should be investigated for general use in highway construction activities.

Storm water pollution prevention measures in karst areas for both the construction period and post-construction period will require additional consideration and potentially additional measures due to the sensitive nature of the karst systems

Wetlands and karst features on and adjacent to the project need to be well marked on plan sheets, as should the BMPs that will protect these features during construction activities.

Project special provisions need to reflect all permit requirements issued for the project.

Stormwater [Post-Construction Stormwater]

These comments refer to post-construction stormwater runoff concerns and are not to be confused with concerns related to runoff during the construction period (stormwater issues during the construction period mainly include erosion and sediment control).

Post-construction storm water pollution prevention measures will be required to minimize discharge of pollutants in stormwater from the completed project. These measures will be even more critical in karst areas where the subterranean drainage systems are more sensitive. These areas may require additional measures to sufficiently minimize potential pollutants.

Types of pollutants generated from roadways need to be assessed and measures selected that target the pollutants of concern. There may need to be a greater reduction of pollutants in stormwater drainage where runoff enters high quality streams, wetlands and karst drainage systems to effectively minimize the impacts of highway stormwater runoff.

Post-construction stormwater pollution prevention measures may include, but are not limited to, constructed wetland basins, extended detention basins with forebays, grass swales and in-line structural treatment measures such as hydrodynamic separators. Application of a thick layer (12 – 18 inches) of fertile topsoil to all finished grades to be vegetated will promote vigorous vegetative cover for filtering sheet flow runoff. If quality topsoil is not readily available, compost may be incorporated to improve topsoil conditions.

Potential thermal impacts should also be a consideration when determining appropriate post-construction BMPs. Extensive pavement surfaces will significantly elevate the runoff temperature. These thermal impacts are detrimental to streams and runoff systems, and can be especially damaging to subterranean karst drainage systems, since runoff may rapidly/directly enter these sensitive systems.

Effective planning may allow stormwater pollution prevention measures utilized during construction, such as sediment traps and basins, to be modified and incorporated for use as post-construction measures.

Detention areas are needed to reduce peak flow discharges from the extensive pavement and highly concentrated runoff areas. This is especially critical where woodland areas were removed to accommodate the new highway.

A higher degree of spill protection measures are needed in karst areas.

MEETING MINUTES

Water Resource Meeting with IDEM

Room N808 in Indiana Gov't Center North, Indianapolis
April 14, 2005, 2:30 p.m. – 4:30 p.m. CST

Attendees:	
Janice Osadczuk, INDOT	Tony DeSimone, FHWA
Martha Clark Mettler, IDEM	Michelle Hilary, INDOT
Andrew Pelloso, IDEM	Matt Rueff, BLA
Jason Randolph, IDEM	Tom Cervone, BLA
Rusty Yeager, BLA (via conference call)	Jason Dupont, BLA (via conference call)

Welcome and Opening Remarks **Tom Cervone, Janice Osadczuk, and Tony DeSimone**

Introductions **Tom Cervone**

Purpose for Meeting

- The purpose of the meeting was to discuss and receive clarification on IDEM's water resource comments provided for the I-69 Tier 2 (Evansville to Indianapolis) project in a letter dated February 16, 2005. Their letter was in response to a December 14, 2004 interagency Water Resource Meeting where agencies were asked to comment on the Draft guidance for evaluating wetlands and streams.
- The meeting followed a Power Point presentation format so that each IDEM comment could be appropriately responded to and discussed at the meeting. The meeting showed a cooperative effort to work together and discuss a variety of issues.
- The four major discussion points were:
    - riparian corridors need to be appropriately described and calculated for mitigation during NEPA studies or during permitting
    - amphibian and reptile surveys need to be conducted during NEPA or during permitting
    - cross training on QHEI and HHEI by IDEM for I-69 subcontractors is possible and the IDEM regulatory branch will request of the IDEM assessment branch for such training
    - efforts on wetlands and streams need to be cooperatively understood and agreed upon by all agencies

Project Background

- The participants were given a short description of the project, i.e.,
    - Tier 1 ROD was completed in March 2004 was for an approximate 2,000 ft corridor
    - Currently working on six EISs (no permitting is anticipated during NEPA)
    - The six sections will have separate EISs
    - Each section has different environmental footprints and issues, and coordination on permitting now is for the successful permitting in the future
    - Staggered schedules for EIS completion
- A map showing the six sections (including EEACs) was provided for discussion. They were Qk4 in Section 1, Jacobs and HWC in Section 2, The Corradino Group in Section 3, DLZ in Section 4, Michael Baker, Jr. in Section 5, and HNTB in Section 6.
- Questions were requested from IDEM for these two introductory sections – None were raised!

Impact Assessment

- It was clearly stated that the NEPA process will follow three steps in its evaluation of resources: They are:
  - Activities to be Completed for Entire Corridor
  - Activities Completed for Alternatives Carried forward for Detailed Analysis
  - Activities Completed for the Preferred Alternative
- Refinements of impacts to the Preferred Alternative would come after NEPA in the Design and Permitting phases

Wetland Evaluation

The following are wetland comments (by IDEM in the February 16, 2005 letter) and responses (from INDOT and FHWA) provided at the meeting. The responses provided in these minutes have been revised to provide more detailed information; the revisions are highlighted in yellow.

C: *Quality definition should include a justification . What determines what is low, medium, high, or exceptional quality. Definition should look at species diversity, position of wetland in landscape, hydrologic function, habitat function, and invasive species.*

R: Wetland guidance has been revised to include the Indiana Wetland Rapid Assessment Protocol (InWRAP). InWRAP consistently documents wetland quality, taking into account hydrology, disturbance, invasive species, vegetation, and potential for animal habitat.

C: *Isolated wetlands within the corridor should be evaluated in accordance with the definitions found in Indiana Code 13-11-25.8. Include a justification for the classification of the isolated wetland.*

R: IC 13-11-2-25.8 states that isolated wetlands must be classified as either Class I, II or III. Isolated wetlands will be classified <u>for the alternatives carried forward for detailed analysis</u>. The Isolated Wetland Classification Worksheet will be completed for each isolated wetland in order to justify the classifications.

C: *All wetlands, including isolated, shall be delineated using the Corps 1987 manual. Any wetland that extends beyond the proposed corridor shall be delineated to the entire boundary of the wetland.*

R: A general boundary determination will be made for each wetland within the corridor. If wetlands extend outside the corridor, boundary determinations will be estimated in order to get a total size. Wetland delineations using the 1987 Corps manual will be performed only within the right-of-way for the preferred alternative.

C: *Conduct a reptile and amphibian survey in any wetland area proposed to be impacted by this project.*

R: This is currently being conducted using a drift fence array (about ½ mile in length) in the Patoka River bottoms. [Any additional studies will be agreed upon through consultation with IDEM and IDNR prior to permitting.]

C: *A copy of the wetland delineation report must be submitted concurrently to this office.*

R: The wetland delineation report will be submitted concurrently to IDEM and USACE.

C: *The wetland delineation should be verified by the USACE before there is any discussion of avoidance, minimization, and impacts.*

R: The wetland delineation report will be submitted to the USACE and IDEM for their review. Wetland avoidance and minimization are essentially "built in" to the alternative

selection process, and have been occurring throughout the life of this project. Wetland complexes were avoided and minimized with the selection of the preferred Tier 1 corridor. The USACE will not field verify all wetlands during the NEPA process. All efforts will be made to avoid and minimize impacts to wetlands with the selection of the Preferred Alternative.

C: *Compensatory mitigation for unavoidable impacts to jurisdictional wetlands should follow the new USACE guidelines.*

R: The project team members are working closely with the USACE and all other appropriate agencies to ensure that all wetland mitigation for impacts to jurisdictional wetlands will follow USACE guidelines.

C: *Compensatory mitigation for jurisdictional wetland impacts should be in accordance with the following ratios: Open water 1:1, Emergent wetlands 2:1, Scrub/Shrub 3:1 and Forested wetlands 4:1.*

R: Wetland mitigation for jurisdictional wetland impacts will follow the Indiana Wetland MOU dated January 28th, 1991. The MOU requires the following mitigation ratios: Farmed wetlands 1:1, Scrub/Shrub and Emergent wetlands 2:1 or 3:1 (depending upon quality), Forested wetlands 3:1 or 4:1 (depending upon quality), and Exceptional, Unique or Critical 4:1 and above. The MOU does not address open water mitigation; however, IDEM reported that they will work with INDOT to replace open water wetlands impacted by this project.

C: *Compensatory mitigation sites should be located within the same 8-digit watershed and should be directed towards sites that will improve water quality to any state impaired waterbodies (303d list). If section 319 watershed studies have been conducted, contact the local sponsor to identify areas that will most benefit water quality.*

R: Wetland mitigation sites will be within the same 8-digit watershed. Wetland mitigation sites will also be determined in consultation with all appropriate agencies (e.g., IDEM, USFWS, USACE, IDNR). Where possible, impaired waterbodies will be targeted and watershed study sponsors will be contacted.

C: *Compensatory mitigation for unavoidable isolated wetland impacts shall be provided in accordance with the ratios outlined in IC 13-18-22-6. This requires the replacement wetland to be of a specified Class (e.g., I, II or III) and that these wetlands are identified as isolated. Isolated wetland impacts will need to be replaced with isolated mitigation wetlands. Separate mitigation sites for jurisdictional and isolated wetlands may be needed. Mitigation must be provided in the same 8-digit watershed or county.*

R: Wetland mitigation sites for isolated wetland impacts will follow the requirements set forth in IC 13-18-22-6.

Stream Evaluation

The following are stream comments (from IDEM's February 16, 2005 letter) and responses provided by FHWA and INDOT at the meeting. The responses provided in these minutes have been revised to provide more detailed information; the revisions are highlighted in yellow.

C: *Stream habitat assessments using Ohio's QHEI and HHEI are required.*

R. IDEM's QHEI field sheet (adapted from Ohio EPA) and procedural manual and a portion of Ohio EPA's HHEI (water chemistry and biological sampling will not be conducted as part of HHEI) will be conducted on each stream segment that occurs within the

Alternatives Carried Forward for Detailed Analysis. INDOT will contact IDEM for background water chemistry on streams sampled by IDEM.

C: *Fish surveys to look at species diversity to include any State or Federally listed rare, threatened or endangered species shall be required.*

R: Fish surveys were conducted for Sections 1 to 4 as part of a previous study in 1996. Coordination with the IDNR indicates additional surveys are only necessary in areas that have changed significantly. New surveys have been conducted for Sections 5 and 6, as well as for the Patoka River, South Fork of the Patoka River, and the East Fork of the White River. To date, no state or federally listed fish have been found. Additional sampling may be needed prior to permitting depending upon the number of years from an approved ROD for each section to construction of that section.

C: *Mussel surveys to look at species diversity to include any State or Federally listed rare, threatened, or endangered species shall be required.*

R: Mussels surveys were conducted for Sections 1 to 4 as part of a previous study in 1996. Coordination with the IDNR indicates additional surveys are only necessary in areas that have changed significantly. New surveys have/will be conducted for Sections 5 and 6, as well as for the Patoka River, South Fork of the Patoka River, and the East Fork of the White River. To date, no state of federally listed mussels have been found. Additional sampling may be needed prior to permitting depending upon the number of years from an approved ROD for each section to construction of that section.

C: *Crayfish surveys to look at species diversity to include any State or Federally rare, threatened, or endangered species shall be required.*

R: INDOT and FHWA will work with IDEM and IDNR for appropriate sampling of crayfishes in Sections 1 to 4. At the present time, IDNR is providing INDOT historical data on Orconectes indianensis for use in a decision to sample or not in Sections 1 to 4.

C: *Macroinvertebrate surveys to get an overall picture of water quality shall be required.*

R: Existing water chemistry data and fisheries surveys will be used to get an overall picture of water quality. Preliminary macroinvertebrate surveys in the past indicate a limited number of species that were common for the physiographic regions crossed by the proposed action.

C: *Amphibian surveys to look a species diversity to include any State or Federally listed rare, threatened or endangered species shall be required.*

R: This is currently being conducted using a drift fence array (about ½ mile in length) in the Patoka River bottoms. There is only 1 state listed amphibian recorded in the Indiana Natural Heritage database in the vicinity of the project. It is the crawfish frog. Historical records in the Patoka River bottoms indicate the possible presence of this species. IDEM will coordinate with IDNR regarding the potential for state-listed amphibians in the corridor.

C: *Mean width of riparian corridor in the proposed alternatives shall be assessed.*

R: This will be included in the riparian corridor assessment.

C: *Density of trees within the riparian corridor shall be assessed.*

R: This will be generally assessed as part of the riparian corridor assessment.

C: *Tree species, mean DBH, and importance value within the riparian corridor shall be assessed.*

R: This will be generally assessed as part of the riparian corridor assessment.

C: *Wetlands, waterways, or other drainage features within the riparian corridor shall be assessed.*

R: All wetlands and drainage features with an Ordinary High Water Mark will be assessed for this study.

C: *Identify if there is suitable Indiana bat habitat within the riparian corridor and whether the area has been surveyed for the Indiana bat.*

R: Suitable Indiana bat habitat within riparian corridors will be identified and INDOT will document whether or not such habitat has been surveyed for Indiana bats. Presently, INDOT and FHWA are working with the USFWS on Section 7 Consultation for the Indiana bat. In the last year, the I-69 team has mist netted 148 sites (riparian and upland) and investigated 60 caves (i.e., 60 Fall or Spring harp trappings and 52 winter surveys) for the Indiana bats.

C: Reptile and amphibian surveys within the stream and riparian corridor habitat shall be required.

R: This is currently being conducted using a drift fence array (about ½ mile in length) in the Patoka River bottoms. Further coordination with IDEM and IDNR is needed on this issue. Such surveys may be conducted after NEPA as part of permitting.

C: *The wetland, stream, and riparian corridor data will be used to evaluate the impacts to water quality from the proposed project. It will also be used as success criteria for any stream and riparian corridor compensatory mitigation. These assessment methods should be in accordance with assessment methods used by the IDEM Assessment Branch and the Fish and Wildlife biologists with the IDNR.*

R: INWRAP, QHEI and HHEI documentation will be used in the design of compensatory mitigation sites. Non-wetland forest impacts will be mitigated either through preservation or restoration at a 3:1 ratio. Mitigation for riparian corridor impacts will be completed within a riparian corridor at a 1:1 ratio or an acceptable method to be determined later.

C: *IDEM recommends you design a protocol to evaluate the stability of the stream banks upstream and downstream from any crossing. Increased runoff associated with impervious surface and storm water runoff will increase velocities within the stream and contribute to additional bank erosion. At a minimum, you should assess 500 linear feet upstream and downstream from any bridge or culvert crossing. If an on-and-off ramp system is located within close proximity to a stream, the length of upstream and downstream assessment should be extended to 1,000 linear feet. During this assessment, you should identify problem areas and recommend appropriate measures to stabilize stream banks that will be impacted by increased runoff. Bioengineered stabilized methods are preferred by this office.*

R: Such activities will be completed prior to construction when the design for the preferred alternative is more refined and accurate in its location and details. BMPs will be utilized where possible to minimized storm water runoff and erosion.

C: *Compensatory mitigation for stream impacts shall be provided at a 1:1 ratio. In-stream habitat features such a riffle-pool complexes as well as bioengineered bank stabilization*

and root wads should be included. INDOT's I-70/Six Points Road stream mitigation is the standard for this project.

R: Compensatory mitigation will be based on the quality of the stream impacted at a 1:1 ratio. In-stream habitat features will be incorporated, as appropriate.

C: Riparian corridor mitigation shall be provided to compensate for loss and functions of riparian corridors. Mitigation will be calculated by adding up the total loss of riparian corridor from the project.

R: Mitigation for riparian corridor impacts will be done within a riparian corridor at a 1:1 ratio or an acceptable method to be determined later.

C: All stream mitigation should be located within the same 8-digit watershed and should be directed towards sites that will improve water quality to any state impaired waterbody (303d list). If section 319 waters studies have been conducted, please contact the local sponsor to identify areas that would most benefit water quality.

R: Stream mitigation will take place in the same 8-digit watershed. Where possible, impaired waterbodies will be targeted and watershed study sponsors will be contacted.

C: When choosing the preferred alternative route for this project, the designers should avoid turning ephemeral, intermittent, and perennial streams into roadside ditches. All streams should be crossed in a perpendicular manner. If it becomes necessary to turn streams into roadside ditches, you should justify the necessity to do so. Referencing DOT design standards is not a justification for these impacts.

R: All efforts will be made to prevent turning streams into roadside ditches. It will not be possible to cross all streams in a perpendicular manner. As part of the Interstate System, this project must meet the design requirements for a freeway. Consistent with the basic design requirements for this type of project, INDOT will seek to avoid and minimize impacts to water resources.

Carol Hood

From: tcervone@blainc.com
Sent: Tuesday, April 19, 2005 2:24 PM
To: Andrew Pelloso; Jason Randolph; Martha Clark Mettler; ANDREW PELLOSO; JASON RANDOLPH; MARTHA CLARK METTLER
Cc: Carol Hood; Jason Dupont; Jeremy Kieffner; Josh Sherretz; Kent Ahrenholtz; Rusty Yeager; Kia Gillette; Jon Eggen; Jon Eggen; Katie Smith; Eric Swickard; Janice Osadczuk; Bob Buskirk
Subject: QHEI and HHEI Training

Dear Martha, Andrew and Jason,

Thanks for the meeting last Thursday. It was a productive meeting, of which I am now working on the minutes. These minutes will be emailed to you for your review.

The following email discusses the following four areas:

1) Possible IDEM Cross Training for QHEI and HHEI
2) Recent discussion with IDNR (Fish and Wildlife)
3) Minutes for Thursday's meeting
4) Invitation for INWRAP Training

IDEM Cross Training for QHEI and HHEI

We look forward to the possibilitity of cross training of stream contractors, and others (e.g., agency representatives) by IDEM on completing the QHEI and HHEI forms. This training is requested to provide consistency in the evaluation of the streams in the project area for I69. Training could take place in the corridor of the proposed action (possibly Washington near midpoint) if IDEM feels this is appropriate. Different types of streams could be reviewed from large to small to ephemeral. Similarly, we hope that such training, if available, could possibly be provided the second week of May (possibly May 9 10). These are just some thoughts, so please take them as only suggestions. We look forward to hearing from you on the training.

Recent Discussion with IDNR (Fish and Wildlife)

Today, I spoke with Katie Smith, Ph.D. and Jon Eggen on animal surveys, e.g., amphibian, reptile, crayfish, and others. I relayed the information from Thursday's meeting about IDEM contacting Zack Walker and them. They are available to talk with you all as needed for such surveys. I told both Katie and Jon about the crayfish sampling and our thoughts about Orconectes indianensis. Katie is going to send me a paper completed by Larry Page, Ph.D. on a study he completed on this species in 1994 in southwestern Indiana and Illinois. Please contact Katie (3172328160) or Jon (3172334666) as needed to discuss surveys. I am emailing them so they are aware of this discussion.

Minutes for Thursday's Meeting

I will complete the minutes which will include the major points of discussion and provide participants of the meeting a "revised" Power Point presentation with such areas highlighted in red for a second review. I hope this suffices for the meeting minutes. Please call or email with comments when the minutes go out.

Invitation for INWRAP Training on May 25 and May 26

We will soon be emailing a flyer inviting agencies and wetland subcontractors to an INWRAP Workshop in

Washington on May 25 and 26. When you get that flyer, please respond with who you may want to attend. We are asking each agency to limit attendance to 12 people per agency due to the limited size of the class.

I hope this information helps, and we look forward to working with you.

Thanks
Tom

Carol Hood

From: "JASON RANDOLPH" <JRANDOLP@idem.in.gov> [JRANDOLP@idem.in.gov]
Sent: Tuesday, April 19, 2005 10:28 AM
To: Kent Ahrenholtz; Tom Cervone; josadczuk@indot.state.in.us; RBUSKIRK@indot.state.in.us
Cc: ANDREW PELLOSO; MARTHA CLARK METTLER
Subject: QHEI Training

Tom and Janice:

During the April 14, 2005, meeting regarding IDEM'S comment letter on I69 you requested QHEI and HHEI training from IDEM's Assessment Branch.

In order for my Branch Chief to request this training we will need to know the total number of individuals who would participate in the training. I know Tom mentioned all of the different consultants from the six sections and some of the BLA people who are overseeing the consultants work. I know Janice mentioned some of her section wanting to participate.

If you could, please provide the total number of individuals wishing to participate in the training. This information would need to be submitted ASAP.

Jason Randolph
IDEM Office of Water Quality
3172330467

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Keith
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Vince
Joan
Dave I
Kent
Tom
Donna
Mike G

April 20, 2005

Mr. Jim Hebenstreit, Deputy
C/o Ms. Christy Kiefer
Indiana Department of Natural Resources (Division of Water)
Indiana Government Center South, Room W264
Indianapolis, Indiana 46204

Re: I-69 Evansville to Indianapolis Tier 2 Studies

Dear Mr. Heibenstreit:

On behalf of the Indiana Department of Transportation, Bernardin-Lochmueller & Associates serves as the Project Management Consultant (PMC) for the I-69 project. As a part of the Water Resources Agency Coordination, we are pleased with the interest shown by The Department of Natural Resources (DNR) and your Department's willingness to partner in the Tier 2 Studies. We especially appreciate your involvement in the Agency Coordination Meeting held in February at the Section 3 Project Office in Washington.

This close coordination during the Tier 2 Studies should result in a coordinated approach to issues that will need to be addressed prior to the formal application for a "Construction in a Floodway" permit during the latter stages of this project (Post NEPA). Cognizant of your work load, we would like to propose procedures for this coordination that we feel would assist our Engineering and Environmental Assessment Consultants (EEACs) in making sound decisions in the development of the Tier 2 Environmental Impact Statements and at the same time constrain your time commitments to manageable proportions. We intend to limit this effort to key locations and defer other locations to the later stages of design (Post NEPA). The following are the procedures that we are proposing for the key locations:

1. The PMC performs the function of coordinating the interaction between the EEACs and the review agencies. Direct contact with the review agencies is through the PMC. The PMC is responsible for coordinating with the EEAC to obtain the information requested. The PMC will compile this input and work directly with DNR in obtaining the necessary information. The PMC will serve as the technical "bridge" between the EEAC and DNR's Division of Water technical staff.

2. DNR has graciously agreed to be a partner in this project. As such, information and technical assistance by the technical reviewers at the Division of Water is very important in the development of this project. The following items outline the assistance that can be provided by the Division of Water.
    a. Provide the 100 year storm discharges for streams without coordinated discharges, and confirm the 100 year storm discharges for streams with coordinated discharges. The PMC will receive the discharge requests from the EEACs, consolidate, and then work with IDNR in the scheduling of these requests.
    b. An important part of the modeling of any stream is the collection of any information concerning that particular stream. This collection includes existing floodway models and models perpared for individual permits for improvements in the vicinity of the stream crossing. The PMC will schedule with the Division of Water a time to inspect the Division's files, and make copies as appropriate at the Division's office. This information will be disseminated to the EEAC by the PMC.
    c. Using DNR's modeling guidelines, the PMC will develop modeling procedures, both in general, and at specific stream crossings. The PMC will set up a meeting with the Division's technical staff to review these procedures and finalize specific details. INDOT's Hydraulics Unit in the Division of Design will be invited to this meeting. Once the guidelines are finalized, the PMC will disseminate this information to the EEACs for their use in developing stream models for the existing conditions.
    d. Upon completion of the existing conditions model and subsequent review by the PMC, the existing conditions model will be informally submitted to DNR, and a meeting will be scheduled to review that model(s) at the Division's office with both the PMC and EEAC in attendance. The meeting will provide the Division a chance to review the model and provide input to further refine the existing model.
    e. Once agreement on the existing model is obtained, the floodway limits can be defined. The model will then be formally submitted to DNR for concurrence and approval of the regulatory floodway.
    f. With an approved existing model and the regulatory floodway, the EEAC can develop the models for various options for the improvements.
    g. The PMC will review the proposed models, and make a recommendation to INDOT's Hydraulics Unit in the Division of Design. Upon INDOT's concurrence, the PMC will submit the selected model(s) to the Division of Water, for their review. A meeting at the Division with the PMC, EEAC and the Hydraulics Unit of INDOT, will be held to critique the model and suggest any necessary changes.
    h. Once the Division of Water gives tentative concurrence of the proposed model, the PMC will coordinate with other Divisions of DNR for any input on potential impacts of the alternates as part of the Water Resources Agency Coordination.

We would appreciate your review of these procedures and offer any suggestions to further streamline the procedures. With the help of Ken Smith of the Division of Water we have tentatively set up a meeting on May 4, 2005 at 1pm at the Division of Water to further discuss these procedures. We will also begin a dialogue on the scheduling of the work. We expect INDOT's Hydraulics Unit in the Division of Design to be involved as well as members of our staff.

Thank you for your consideration in this matter.

Sincerely,

Kent Ahrenholtz
Project Manager

Carol Hood

From: Carol Hood
Sent: Monday, April 25, 2005 3:17 PM
To: dcleveland@corradino.com; dpluckebaum@corradino.com; rray@corradino.com; apelloso@dem.state.in.us; jrandolph@dem.state.in.us; mmettler@dem.state.in.us; barterbery@dlz.com; bhudson@dlz.com; jstone@dlz.com; ckiefer@dnr.in.gov; jeggen@dnr.IN.gov; ksmith@dnr.in.gov; garra.catherine@EPA.gov; laszewski.virginia@epa.gov; melgin.Wendy@epa.gov; Westlake.Kenneth@epa.gov; anthony.desimone@fhwa.dot.gov; andrew_king@fws.gov; scott_pruitt@fws.gov; bhoegh@hntb.com; tnmiller@hntb.com; rhancock@hwcengineering.com; kenneth.collins@in.usda.gov; xavier.montoya.@in.usda.gov; eswickard@indot.state.in.us; josadczuk@indot.state.in.us; mhilary@indot.state.in.us; rbuskirk@indot.state.in.us; John McCarthy; amy.Babey@lrl02.usace.army.mil; Doug.Shelton@LRL02.usace.army.mil; kweiss@mbakercorp.com; wvachet@mbakercorp.com; jwehner@qk4.com; rwade@qk4.com; plrothroc@tayloru.edu; rbreber@tayloru.edu
Cc: jdupont@blainc.com; jkieffner@blainc.com; kahrenholtz@blainc.com; ryeager@blainc.com; tcervone@blainc.com; kgillette@blainc-indy.com; rhanas@dlz.com; rwilson@hwcengineering.com; scollier@mbakercorp.com
Subject: I-69 Evansville to Indianapolis InWRAP Training

Importance: High

Hello Everyone!

INDOT and FHWA are sponsoring Indiana Wetland Rapid Assessment Protocol (InWRAP) training on May 25 and 26, 2005. InWRAP provides a methodology for assessing the quality of wetlands in Indiana and will be utilized for the I-69 (Indianapolis to Evansville) project. The attached flier contains information on the training course (registration, location, contacts, lodging, etc.). The course is limited to 24 students, which allows for 1-2 individuals per each agency or organization.

Thanks as always,

Carol

Carol Hood
I-69 Project Coordinator
BLA/PMC
1-800-423-7411/(812) 479-6200

INWRAP_flier.pdf (526 KB)

Washington_info.doc (36 KB)

Carol Hood

From: "Kia Gillette" <kgillett@blainc-indy.com> [kgillett@blainc-indy.com]

Sent: Friday, April 29, 2005 4:52 PM

To: mmettler@dem.state.in.us; DWolf@dnr.IN.gov; jeggen@dnr.IN.gov; jhebenstreit@dnr.IN.gov; ckiefer@dnr.state.in.us; ksmith@dnr.state.in.us; garra.catherine@EPA.gov; laszewski.Virginia@EPA.gov; melgin.wendy@EPA.gov; Westlake.Kenneth@EPA.gov; Andrew_King@fws.gov; scott_pruitt@fws.gov; APELLOSO@idem.in.gov; belifrit@idem.in.gov; JRANDOLP@idem.in.gov; kenneth.collins@in.usda.gov; xavier.montoya.@in.usda.gov; Amy.Babey@lr102.usace.army.mil; Doug.Shelton@lrl02.usace.army.mil

Cc: Carol Hood; Jason Dupont; Jeremy Kieffner; Kent Ahrenholtz; Tom Cervone; Rusty Yeager; Anthony.DeSimone@fhwa.dot.gov; ESWICKARD@indot.state.in.us; JOSADCZUK@indot.state.in.us; mhilary@indot.state.in.us

Subject: I-69 Water Resources Guidance

Dear Environmental Resource Agencies:

Attached is the I69 Water Resources Guidance we will be providing to each section consultant for your review. We have tried to incorporate many of your comments and concerns into this guidance.

Please email me if you have any questions or comments.

Thank you,

Kia Gillette

Kia Gillette
BernardinLochmueller & Associates, Inc.
18888306977
3172091130

I-69 Evansville to Indianapolis
Water Resource Guidance
April 26, 2005

Introduction

This methodology for water resource evaluation has been developed by INDOT in cooperation with FHWA, the U.S. EPA, the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, the Indiana Department of Environmental Management, and the Indiana Department of Natural Resources. This methodology is intended to provide guidance for water resource analysis and evaluation during the Tier 2 studies for the I-69 Evansville-to-Indianapolis project. It is subject to modification as these studies proceed.

This methodology describes the water resource activities that will be carried out at each stage of the Tier 2 study process. It is organized into three parts:

- Part I: Activities completed for entire corridor
- Part II: Activities completed for alternatives carried forward for detailed analysis
- Part III: Activities completed for preferred alternative

The water resource guidance has been split up into two categories: (1) Surface water analysis and (2) Ground water analysis.

Surface Water Analysis

The surface water analysis has been divided into three parts: (1) Wetland Analysis, (2) Rivers and Streams Analysis, and (3) Water Quality Analysis. The methodology for analyzing these three categories during each stage of the Tier 2 study process is described below:

Wetland Analysis

<u>Activities to be Completed for the Entire Corridor</u>

Basic information regarding wetland locations and types will be gathered throughout the corridor that was selected in the Tier 1 ROD. This corridor is generally 2,000 feet wide, but is narrower in some areas and broader in others. Data collected through these efforts will be summarized in the DEIS and documented more fully in technical reports.

A uniform naming system for wetland impacts will be used for each section. For example, the first wetland identified in the corridor in Section 1 will be Sec1-W1, the second will be Sec1-W2, and so on.

Field Reconnaissance. Initial wetland identification and data collection to be used for alternatives analysis within the 2000' corridor will include a field reconnaissance of the corridor to identify/confirm wetland locations.

Background Information. Appropriate sources of background information include USGS Topographic Quadrangle Mapping, National Wetland Inventory Mapping, Soil Survey Data, Landcover Data, and Aerial Photography.

Approximate Boundaries. Approximate boundaries of the wetlands will be identified in the field and mapped for analysis. Where wetland boundaries extend outside of the corridor, the boundary will be extended outside the corridor to determine a total wetland size.

Mapping. Mapping may be accomplished by using photo-identifiable features from project aerial mapping based on field inspection of wetland limits or by collecting GPS limits of field-estimated boundaries. If the wetland is part of an extensive contiguous complex, other mapping (for example, NWI maps) may be used to estimate a total wetland size.

Classification. All of the wetland identifications within the corridor will be classified according to Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al., 1979).

Field Verification. The estimated boundaries will be field-reviewed by the PMC and EEAC prior to analysis. The estimated limits will be roughly flagged in the field for this review.

Compensatory Mitigation Sites. All compensatory wetland mitigation sites and NRCS Wetland Reserve Program (WRP) properties will be identified and mapped.

The locations of the field-identified and estimated wetland boundaries within the corridor will be considered in the initial development of alternatives and in the screening of alternatives. This information will help to ensure that wetlands avoidance and minimization is "built in" to the alternatives as they are developed and evaluated. Wetland impact acreages will be estimated based on this information for each Preliminary Alternative.

Activities Completed for Alternatives Carried Forward for Detailed Analysis

The alternatives screening process will result in the selection of a range of alternatives carried forward for detailed analysis, which will be studied in the DEIS. Additional analyses will be completed for all wetlands located within the rights-of-way of the alternatives carried forward for detailed analysis. The results of these additional analyses will be reported in the DEIS.

Assessment of Functions and Values. The wetlands that are located within each of the alternatives carried forward for detailed analysis will be assessed for quality using the Indiana Wetland Rapid Assessment Protocol (InWRAP). The purpose of using InWRAP is to evaluate and document the function and quality of the wetlands impacted by the alternatives carried forward for detailed analysis. This information will be helpful in the avoidance, minimization and mitigation measures. **Training will be provided to the EEAC's on the use of InWRAP.**

Preliminary Jurisdictional Determination. All wetlands located within the alternatives carried forward for detailed analysis will be evaluated to determine which wetlands are "Waters of the U.S." subject to regulation by the USCOE, and which are isolated wetlands only subject to regulation by the State (IDEM) or are unregulated. All state regulated isolated wetlands will be classified as either Class I, II, or III in accordance with the definitions found in Indiana Code 13-11-2-25.8. The IDEM Isolated Wetland Classification Worksheet will be completed for each isolated wetland in order to justify the classification. This assessment will be documented in a preliminary jurisdictional assessment, which will be prepared by the EEAC. This assessment will be provided to the USCOE and IDEM for review and comment.

Farmed Wetlands. An investigation for farmed wetlands, as defined by the USDA National Food Security Act Manual, 3rd Edition, September 2000 (NFSAM), will be conducted for each alternative carried forward for detailed analysis. This investigation will follow NRCS guidelines for farmed wetland determinations. The EEACs will coordinate with the Farm Service Agency headquarters in Indianapolis to make the necessary arrangements to view FSA slides at the appropriate USDA county offices for the purposes of identifying hydrology signatures. Coordination will include a request that local NRCS assist in determining the appropriate 5 years of slides that represent normal precipitation to be used for review.

The information developed through these additional analyses will be considered in the selection of a preferred alternative. In addition, this information will be considered in preparing a Section 404(b)(1) consistency analysis for the preferred alternative. The Section 404(b)(1) consistency analysis will, among other things, address the "least environmentally damaging practicable alternative" ("LEDPA") requirement. Thus, information regarding functions and values, as well as information regarding jurisdictional status, will be considered in selecting a preferred alternative.

Activities Completed for the Preferred Alternative

Once a preferred alternative has been identified, more detailed information will be developed regarding the wetland impacts of that preferred alternative. This additional information is not intended to assist in the comparison of alternatives for purposes of NEPA or the Section 404(b)(1) requirements. Rather, this additional information is intended to assist in defining impacts more precisely, so

that appropriate mitigation measures can be developed. This information will be presented in the FEIS.

Delineation – Field Work. After the selection of a preferred alternative, wetlands impacted by the preferred alternative will be formally delineated as per the 1987 USCOE Wetland Delineation Manual. The delineated wetland limits will be mapped to sub-meter accuracy specifications and displayed on project mapping including preliminary design plans.

Delineation – Draft Report. Once the wetlands within the Preferred Alternative have been delineated, the EEAC will prepare a "Draft Wetland Delineation Report" documenting all wetlands affected by the Preferred Alternative. This "Draft Wetland Delineation Report" will be submitted to the PMC for review. After the PMC review process, and following review by INDOT and FHWA, the report will be submitted to the USCOE and IDEM. The "Draft Delineation Report" will include the following information:

- Individual Wetland Location Data. This data will include the county, USGS Quadrangle, Township, Range, Section, Quarter, Township, Range, UTM East Coordinates, and UTM North Coordinates for each delineated wetland. UTM coordinates will be for the approximate center of the wetland.

- Wetland Impact Descriptions. This data will include maps (USGS, aerials, etc.) showing the boundary and data collection points for each delineated wetland, classification of wetland type(s), primary wetland function evaluation, USCOE Routine Wetland Delineation Forms, and any other pertinent information.

- Quality Assessment. This assessment will include the InWRAP results for all wetlands encountered within the right-of-way for the Preferred Alternative. This will be a re-cap of the analysis originally performed for the Alternatives Carried Forward for Detailed Analysis.

- Jurisdictional Assessment. This assessment will include a judgment about the jurisdictional status of each delineated wetlands - whether the wetland is a "Water of the U.S." subject to regulation by the USCOE, or an isolated wetland only subject to regulation by the State (IDEM). This will be a re-cap of the analysis originally performed in Part II.

- Location in 100-Year Floodplain. The report will indicated whether the impacted wetland is located within the 100-year floodplain, and how close it is to a jurisdictional stream (displays an OHWM).

All wetland delineations will be field verified by the PMC and appropriate federal and state agencies. Once verified, the appropriate forms and Delineation Report will be included in the FEIS.

Rivers and Streams Analysis

Activities to be Completed for the Entire Corridor

Basic information regarding stream locations and types (i.e., perennial, intermittent, ephemeral) will be gathered throughout the corridor that was selected in the Tier 1 ROD. This corridor is 2,000 feet wide, but is narrower in some areas and broader in others. Data collected through these efforts will be summarized in the DEIS and documented more fully in technical reports.

A uniform naming system for stream impacts will be used for each section. For example, the first stream identified in the corridor in Section 1 will be Sec1-S1, the second will be Sec1-S2, and so on.

Field Reconnaissance. All perennial, intermittent and ephemeral streams within the corridor that display an OHWM (ordinary high water mark) will be identified on both USGS maps and aerial photographs. Any lotic system (i.e., free flowing) that possesses a "bed and bank" is, by definition, a "Water of the U.S." and under the authority of the Louisville District Army Corp of Engineers and IDEM.

Classification. Rivers and streams will be classified according to Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al., 1979).

Impaired Waters. All impaired waters as listed in the IDEM 303(d) report will be identified.

The number of stream crossings and types of each stream crossing (i.e., perennial, intermittent, ephemeral) will be determined for each Preliminary Alternative. Use the definitions of "perennial", "intermittent" and "ephemeral" from Field Evaluation Manual for Ohio's Primary Headwater Streams (Ohio EPA, 2000) to determine the hydrology of the stream segment.

Activities Completed for Alternatives Carried Forward for Detailed Analysis

The alternatives screening process will result in the selection of a range of alternatives carried forward for detailed analysis, which will be studied in the DEIS. Additional analyses will be completed for all streams located within the rights-of-way of the alternatives carried forward for detailed analysis. The results of these additional analyses will be reported in the DEIS.

Mapping. Location data will include the county; USGS 7.5 minute quadrangle; Township, Range, Section and Quarters; and UTM coordinates. UTM coordinates will be for the approximate center of the stream impact.

Assessment of Habitat Quality.

- The appropriate habitat evaluation (QHEI or HHEI) will be conducted on each stream segment that occurs within each proposed alternate.

- In general the QHEI evaluation is appropriate when the watershed above the stream segment of interest is greater than one square mile or natural deep pools are greater than 40cm regardless of watershed size. The HHEI methodology will be followed where the resource in question has a drainage area less than one square mile and/or displays pools with depths less than 40cm.

- The Watershed Delineator (http://pasture.ecn.purdue.edu/~jychoi/wd_home/) will be used to determine the drainage area at specific stream crossings.

- The IDEM Office of Water Quality Biological Studies QHEI field sheet (adapted from the Ohio EPA) and procedure manual will be used to conduct a rapid evaluation of stream habitat quality.

- A HHEI will be generated following the Methods and Procedures of *Field Evaluation Manual for Ohio's Primary Headwater Habitat Streams* (Ohio EPA, 2000).

- Water chemistry and biological sampling are not required as indicated in section 2.5.9 and 2.5.11 of the *Field Evaluation Manual for Ohio's Primary Headwater Habitat Streams* (Ohio EPA, 2000).

- Additional data to be collected for all streams will include the average width at the Ordinary High Water Mark (OHWM) and the length of the stream stretch within each alternative. Photographs will be taken upstream, downstream, and perpendicular to each waterway in both directions.

Impaired Waters. Potential impacts to impaired waters will be discussed, including whether filling of waters or "temporary" construction impacts will cause additional impairments.

Activities Completed Only for the Preferred Alternative

Once a preferred alternative has been identified, more detailed information will be developed regarding the river and stream impacts of that preferred alternative. This additional information is not intended to assist in the comparison of alternatives for purposes of NEPA or the Section 404(b)(1) requirements. Rather, this additional information is intended to assist in defining impacts more precisely, so that appropriate mitigation measures can be developed. This information will be presented in the FEIS.

Waterway-Crossing Impacts. For the preferred alternative, the nature of the impact to each individual waterway will be identified. This analysis will state whether the waterway is anticipated to be bridged, placed into a culvert, filled in, and/or relocated. It will include the length of the impact, type of stream impacted

(i.e., perennial, intermittent, ephemeral) and the area of impacts below the ordinary high-water mark (OHWM).

Riparian Corridor Assessment. For the preferred alternative, a riparian corridor assessment will be conducted for all streams with an OHWM. As part of the assessment the following information will be included:

- The mean width of riparian corridor for each side of the stream. The riparian width determined in QHEI will be used for this measure; however, this should also be determined for streams for which an HHEI was conducted.
- The general density of trees within the riparian corridor.
- Dominant tree species, general size (DBH), within the riparian corridor.
- Wetlands, waterways, or other drainage features within the riparian corridor.
- Identify if Indiana bat surveys have taken place in the riparian corridor.

Water Quality Analysis

The EEACs will include summaries of analyses and consultations with federal, state, and local agencies responsible for water quality. The ambient conditions of streams and water bodies will be described. Existing data will be used to describe ambient conditions. Existing data may include: data from the IDEM water quality atlas (http://149.166.110.236/IWQA/default.aspx), the Indiana Water Quality 305(b) Report, previous I-69 studies (Tier 1, Southwest Indiana Highway Corridor DEIS (1996)), data from local watershed groups, species collections for this study (Sections 5 & 6, Patoka River, etc.) and other previous publications. Fish collections were done for many of the streams during the 1996 Southwest Indiana Highway Corridor DEIS for Sections 1 – 4. Tolerance levels of these fish as well as Shannon-Weaver Index values can also be used to describe ambient water quality conditions. QHEI and HHEI values can also be used to describe ambient stream conditions.

Potential impacts of each alternative as well as proposed mitigation measures will be identified. Locations where roadway runoff or other non-point source pollution may adversely impact sensitive surface water resources such as high quality streams and wetlands will be identified.

From a mitigation standpoint, best management practices (BMPs) will be used during construction and incorporated into the highway design where prudent and feasible. Special features may be incorporated in sensitive areas. INDOT is currently working with IDEM on a Rule 13 permit to address stormwater issues.

Groundwater Resources & Water Quality Protection Analysis

This methodology has been developed to support groundwater resource information collection and analysis as part of the Tier 2 Environmental Impact Statement process. The groundwater information requirements have been categorized with respect to the appropriate stage of alternative evaluation.

Activities to be Completed for the Entire Corridor

The information below will be collected with respect to the entire 2,000 feet corridor selected in the Tier 1 ROD.

A. Each EEAC will identify local Wellhead Protection Areas/Programs within the corridor. IDEM will provide the PMC with updated WHPA information (GIS layers and Vulnerability Assessments) once confidentiality agreements have been signed by the EEACs and PMC. The PMC will then provide this information to the EEACs..
B. Each EEAC will identify any sole source aquifer areas within the corridor. (Currently, only the St. Joseph Aquifer has the designation of "sole source aquifer" in the State of Indiana). No currently designated Sole Source Aquifers exist within the project limits. This statement will need to be made in each of the Tier 2 EISs.
C. Each EEAC will use information from the Indiana Department of Natural Resources (IDNR), IDEM, EPA and any other appropriate sources to describe current groundwater conditions with respect to hydrologic and water quality aspects. The karst groundwater discussion for Sections 4 and 5 will be general and refer to the Karst chapter.
D. Each EEAC will identify all public water supply systems (PWS) (transient and non-transient) within the corridor. IDEM will provide the PMC with updated PWS information once confidentiality agreements have been signed by the EEACs and the PMC. This data will be confirmed and any additional data gathered through coordination with public water supply owners.
E. Each EEAC will use the IDNR Water Well Record Database to identify all high capacity wells within the corridor. This database is available at http://www.in.gov/dnr/water/ground_water/well_database/searchfield.html.

Activities Completed for the Alternatives Carried Forward for Detailed Analysis

The information below will be additional information collected or developed with respect to the alternatives carried forward for detailed analysis.

A. EEACs will discuss potential impacts of each alternative to WHPAs and possible mitigation measures.
B. Each EEAC will identify water supply recharge areas, and discuss potential impacts to these areas.
C. Each EEAC will define water supply impoundments by consultation with the public water supply owners, and discuss potential impacts to these areas.
D. Each EEAC will identify all privately owned wells within 1,000 feet of each alternative by use of the IDNR Water Well Record Database, and discuss potential impacts to these wells.

Activities Completed for Preferred Alternative

The information below will be additional information collected or developed with respect to the preferred alternative.

A. Each EEAC will identify locations where roadway run-off and/or other non-point source pollution may have adverse impacts on groundwater resources, including the potential locations of dry wells/injection wells.
B. Each EEAC will identify and address the adequacy of proposed or current measures that are in place for handling spills, including the protection of groundwater sensitive areas (e.g. karst features, WHPAs, etc.). Hazardous response plans will be prepared as part of the final design process.
C. If the Preferred Alternative impacts any WHPAs, EEACs will document compliance with management requirements of the local wellhead protection program developed by the community PWS to include review and compliance with the community PWS Vulnerability Assessment.
D. Cumulative effects and future impacts to businesses and residences for water availability will be described.

Carol Hood

From: "MATTHEW BALLER" <MBALLER@idem.in.gov> [MBALLER@idem.in.gov]
Sent: Tuesday, May 03, 2005 8:39 AM
To: Neal Schroeder
Subject: Re: I-69 Corridor

Neal,

I have attached a zip file with the wells and WHPAs that are located within the preferred I69 corridor. There were a couple of communities with a fixed radius delineation that were located right outside of the corridor, so I went ahead and included them as well, just in case you all wanted to take a closer look.

To relieve any possible confusion over the multiple sets of well locations I am sending, the PWS point data are what Bob Hamilton and Eric Oliver from our office collected specifically for wellhead purposes. The Non-Community NonTransient (NCNT) wells and facilities are part of a joint IDEM and IGS project dealing with source water assessments. I hope that helps a little. If you have any questions or need anything else, let me know.

Matt

Matthew Baller
GIS Coordinator
IDEM Drinking Water Branch
Groundwater Section
317.308.3323
mballer@idem.in.gov

>>> "Neal Schroeder" <nschroeder@blainc.com> 04/28/05 02:48PM >>>
Matt: Please find the corridor attached. The projection of the corridor is: UTM NAD 83 meters.

Thanks for your help.

Neal

Neal Schroeder
Environmental GIS Manager
Bernardin Lochmueller & Associates, Inc.
Evansville, IN 477154006
PH: 8124796200
Email: nschroeder@blainc.com

PROJECT: I-69
SUBJECT:INDNR COORDINATION MEETING #1
BLA # 103-0001-1PL
DATE: May 4, 2005

This meeting was held at Government Center-South from 1:00 pm to approximately 2:30 pm on Wednesday, May 4, 2005. A list of attendees is shown below (a copy of the sign-in sheet will be distributed to the attendees).

Kenneth Smith	INDNR
Mike Neyer	INDNR
Jim Hebenstreit	INDNR
George Bowman	INDOT
Merril Dougherty	INDOT
Jim Gulick	BLA
Henry Nodarse	BLA

The following items were discussed, though not necessarily in the order presented below.

1. Mr. Nodarse distributed a copy of the agenda for this meeting, a project schedule, and copy of a letter from Kent Ahrenholtz to Jim Hebenstreit, dated 4/20/05, to the attendees.

2. Mr. Gulick conducted the meeting, generally following the Agenda.

3. In response to Mr. Neyer's inquiry, Mr. Gulick said that the first floodway permit application based on the current project schedule, wouldn't be submitted any earlier that early 2007.

4. In response to Mr. Neyer's inquiry, Mr. Dougherty said that Flood Easements were originally not considered, but now they may be considered on a case by case basis.

5. In response to Mr. Nodarse's inquiry, Mr. Dougherty said that even if a Floodway Permit is not required, the maximum surcharge should be 0.1'.

6. In response to Mr. Smith's inquiry, Mr. Gulick said that the I-69 alignment follows the existing SR 37 alignment for the segments between Bloomington and Indianapolis, although it might become wider in areas. Access is an important component and there may be areas where portions of the existing SR 37 lanes will become local access roads. In these cases, the facility will be expanded either to the west or the east.

7. In response to Mr. Gulick's request, Mr. Neyer said that the INDNR could verify the watershed area of a specific stream (and the expected discharges), if requested.

8. Mr. Neyer said that the public has shown considerable interest in Bluff Creek, which is south of Indianapolis. DNR through its normal activities may know of areas of

controversy. Mr. Gulick related that such information would be helpful to the Section Consultants (EEACs) as they develop their alternatives.

9. Mr. Hebenstreit said that the Patoka River crossing will be very environmentally-sensitive. Mr. Gulick related that this has been a major topic during Tier 1 and continues into Tier 2. During Tier 1, the FEIS made a commitment to bridge across the floodplain. The crossing location is a result of coordination with the Patoka Refuge over a number of years and they have set aside this area for the crossing needed for I-69.

10. Mr. Neyer suggested that representatives of INDNR, USACE, and IDEM perform the field reviews collectively and that the permit applications to those three agencies be coordinated so that the special conditions of the permit will be generally the same from each of the three agencies. Mr. Gulick said that the BLA environmental group has already contacted those three agencies, and that they plan to coordinate with the three agencies.

11. In response to an inquiry, Mr. Dougherty said that INDOT is currently in a reorganization plan and that he did not know if his group as currently configured in INDOT organization would be performing hydraulic calculations at the stream crossings. In any case the hydraulic calculations will be done at this stage by the EEACs where needed and in the future during design by either the design consultant or a section within INDOT.

12. There was general discussion regarding the next coordination meeting. It was agreed that representatives from INDNR, INDOT, and BLA would meet to discuss the INDNR and INDOT requirements for performing hydraulic calculations. After that meeting, a meeting with the consultants would be scheduled.

13. There was a lengthy discussion regarding correspondence from Kent Ahrenholtz to Jim Hebenstreit, dated 4/20/05. That correspondence offered a tentative procedure to prepare hydraulic models prior to submitting floodway permit applications. Some of the comments during this discussion are presented below.

    A. Mr. Smith said that steps 2a - 2e appear to be similar to INDNR's current Floodplain Analysis Regulatory Assessment (FARA) process. Mr. Nodarse agreed, and added that the intent was to follow the current FARA process.

    B. Mr. Smith said that step g is something that INDNR does not, nor should not, do because they do not do it for other permit applications. Mr. Nodarse apologized for not being clear in step g, and that the first sentence in step g is for INDOT, the PMC (BLA) and the EEACs (the consultants) only. Mr. Nodarse also said that the second sentence was added so that the post-project models could be reviewed (in some fashion) by the INDNR prior to formally submitting the models for approval, so that when the models are formally submitted, the permit application will not be denied only because the INDNR finds deficiencies in the models during the two allotted reviews. Mr. Neyer said that deficiencies in the model can probably be determined without

performing two formal reviews, which would prevent denial only based on model deficiencies. This was agreed by all.

C. Mr. Smith said step h seems to be too late in the process to involve the other Divisions of INDNR,. Mr. Gulick said that coordination with other Divisions will be on-going. Early coordination of proposed alternatives will be done concurrently with the development of any hydraulic models. The intent of step h was to indicate that once a post-project model was determined to be permitable on a hydraulic basis, BLA will continue coordination with the other Divisions of the INDNR, advising them of the alternative being proposed. This will provide adequate dialogue such that their concerns are addressed. It is hoped that this communication with not only the Division of Water but the other divisions of DNR will ensure that the proposal would be favorably received during the formal permit application.

D. Mr. Smith said that if the INDNR formally approves a post-project hydraulic model, or even offers tentative concurrence of a model, the model should be evaluated at a later date that is closer construction, so that the effects of the I-69 project can be properly evaluated with other I-69 projects that will have been proposed by that time due to I-69 (a Wal-Mart at a proposed interchange was mentioned as an example).

E. In summary, the procedure regarding the INDNR's assistance (Division of Water only) can be simplified as such:

1. Follow the FARA process.
2. Allow INDOT, the PMC (BLA), and the EEACs (the consultants) to evaluate options at a particular stream crossing and to select one option.
3. INDNR to work with INDOT, the PMC (BLA), and/or the EEACs (the consultants) so INDOT, the PMC, and/or the EEAC's can prepare an approvable post-project model.

ACTION ITEMS

1. BLA is to issue minutes for this meeting.
2. BLA is to coordinate next coordination meeting with INDNR to be in early June. It is anticipated that meeting will focus on the technical requirements for post-project hydraulic models. The attendees for that meeting will be representatives from INDOT, INDNR, and BLA.

These minutes were taken by Mr. Nodarse. They were transcribed by Mr. Nodarse on May 5, and issued by Jim Gulick on May 9th**.** A copy of these minutes is being forwarded to all attendees. If there are any errors or incorrect statements, or if additional comments were made at the meeting that should be in the minutes, please contact Mr. Nodarse immediately after receiving these minutes so these minutes can be revised.

END OF MEETING MINUTES

Carol Hood

From: tcervone@blainc.com
Sent: Wednesday, May 04, 2005 10:44 AM
To: Thomas_Simon@fws.gov
Cc: Andrew_King@fws.gov
Subject: Water Resources Coordination

Dear Tom,

Last night, I also thought that I should provide you our Power Point presentation on biological surveys that was presented earlier in the project for discussion on sampling of federal and state listed species. Such a Power Point presentation is attached for your review.

Also, we had a meeting with IDEM (you should get an email from Kia on minutes of this meeting today) and discussed water quality data and fisheries surveys available from their agency within the project. Twentyone water quality sampling sites and 5 fish sampling sites are available for use in the project on streams crossed by the corridor. We intend on using this data along with Corbett and other publications available on water quality. I also did studies in Pigeon Creek on water quality, and it was discussed in your paper on the Patoka.

Lastly, we have completed 52 cave surveys this year, and are planning biological surveys for those caves crossed by the preferred alternative. In the next few weeks, we are planning to study and caves for cave biota.

Hope this helps. Call or email if you should have any comments.

Thanks
Tom

Carol Hood

From: jgulick@blainc.com
Sent: Thursday, May 12, 2005 8:37 AM
To: George Bowman; Jim Heibenstreit; Kenneth Smith; Mike Neyer
Cc: Henry Nodarse; Merril Dougherty
Subject: I-69 Coordination with IDNR-Division of Water

Thanks to all for meeting on May 4th. It was very productive. Henry has prepared minutes of the meeting. I am attaching them for your review and comments and or corrections. Henry and Merril are expected back on Monday, May 16th. At that time Henry will start making arrangement for the next meeting.

James R. Gulick, P.E.,S.E.
Chief Engineer
Bernardin, Lochmueller and Associates
6200 Vogel Road
Evansville, Indiana 47715
ph. 8124796200
fax: 8124796262
email: jgulick@blainc.com

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PHONE: (812) 479-6200 / FAX: (812) 479-6262

Keith
Vince
Dean
Dave F
Kent
Tom
Jim G.
Daniel

Jason
Jeremy
Josh
Jonna
Nicole
Dan M.
Mike G.
Amie

TRANSMITTAL

DATE: May 13, 2005

TO: IDEM
Drinking Water Branch
Ground Water Section
2525 North Shadeland Avenue
Indianapolis, IN 46219

RE: Confidentiality Agreements

ATTENTION: Tamara Ratliff-Roberts

BLA PROJECT NO.: 103-0001-1PL/1210/ED22

We Transmit:

☒ Attached ☐ Under Separate Cover ☐ In Accordance With Your Request

Via:

☒ UPS Ground ☐ UPS Next Day Air ☐ First Class Mail ☐ Pick-Up ☐ Messenger

No. Copies	Dated	Description
1		Bernardin Lochmueller & Associates, Inc. approved Wellhead Project Areas Confidentiality Agreement
1		Shrewsberry & Associates approved Wellhead Projection Areas Confidentiality Agreement

REMARKS:

Sincerely,

BERNARDIN • LOCHMUELLER & ASSOCIATES, INC.

Jason A. DuPont

By: Jason Dupont
Environmental Engineer I

/jw

Copies to:

S:\ADMINDOC\2003\1030001\TransIDEM.dot

Bernardin, Lochmueller, & Associates Inc.
Approved Wellhead Protection Areas

Confidentiality Agreement

I understand and acknowledge that in the course of my employment or otherwise, I will have access to IDEM approved Indiana wellhead protection area (WHPA) delineation information and vulnerability assessments of a sensitive, privileged or confidential nature obtained from or on behalf of the Indiana Department of Environmental Management. I also understand that this information will only be used for my duties at Bernardin, Lochmueller, & Associates Inc. as related to the INDOT I-69 EIS Tier II Studies and wellhead protection efforts. By my signature hereon, I agree to the following:

1.) To not reveal, disclose, copy, post, disseminate, publish or otherwise discuss any information of a sensitive, privileged or confidential nature to any unauthorized person or entity.

2.) To assure that any sensitive, privileged or confidential information maintained in an electronic format shall not be kept on a hard drive or any network/shared drives. The data shall be maintained on discs or CD's and kept in a secure area.

3.) To return to the source agency or destroy, as appropriate, any and all copies, discs or CD's, once the need for the data has been ended.

Jason A. DuPont
(Signature)
Jason DuPont
(Printed Name)
Bernardin-Lochmueller & Assoc.
(Organization)
6200 Vogel Rd.
(Street Address)
Evansville IN 47715
(City, State and Zip Code)

IDEM Authorization_____ Date_____

Shrewsberry & Associates
Approved Wellhead Protection Areas

Confidentiality Agreement

I understand and acknowledge that in the course of my employment or otherwise, I will have access to IDEM approved Indiana wellhead protection area (WHPA) delineation information and vulnerability assessments of a sensitive, privileged or confidential nature obtained from or on behalf of the Indiana Department of Environmental Management. I also understand that this information will only be used for my duties at Shrewsberry & Associates as related to the INDOT I-69 EIS Tier II Studies and wellhead protection efforts. By my signature hereon, I agree to the following:

1.) To not reveal, disclose, copy, post, disseminate, publish or otherwise discuss any information of a sensitive, privileged or confidential nature to any unauthorized person or entity.

2.) To assure that any sensitive, privileged or confidential information maintained in an electronic format shall not be kept on a hard drive or any network/shared drives. The data shall be maintained on discs or CD's and kept in a secure area.

3.) To return to the source agency or destroy, as appropriate, any and all copies, discs or CD's, once the need for the data has been ended.

Ken Beache
(Signature)
KENNETH BEACHE
(Printed Name)
SHREWSBERRY & ASSOC.
(Organization)
7168 GRAHAM ROAD SUITE 100
(Street Address)
INDPLS, IN 46250
(City, State and Zip Code)

IDEM Authorization_____ Date_____

I 69 - Tier 1 Mitigation Meeting
May 25, 2005

Participants:

Janice Osadczuk, Indiana Department of Transportation
Mary Kennedy, Indiana Department of Transportation
Curtis Tomak, Indiana Department of Transportation
Ben Lawrence, Indiana Department of Transportation
Anthony DeSimone, Federal Highway Administration
Frank Hurdis, Division of Historic Preservation & Archaeology
John Carr, Division of Historic Preservation & Archaeology
Rick Jones, Division of Historic Preservation & Archaeology
Karie Brudis, Division of Historic Preservation & Archaeology
Steve Kennedy, Division of Historic Preservation & Archaeology
Russ Dotzauer, Division of Historic Preservation & Archaeology
Kent Ahrenholtz, Bernardin Lochmueller & Associates
Linda Weintraut, Weintraut & Associates

Ben Lawrence of the Indiana Department of Transportation (INDOT) called the meeting to order.

Everyone reviewed the minutes from the last meeting held April 29, 2004.

DHPA had several suggestions for implementation of specific provisions of the Tier 1 MOA, based on that agency's interpretation of the language. (See attached.) DHPA would like the implementation of these provisions to dovetail with grants that it has received from Federal Highway Administration (FHWA).

Regarding item 1 in the DHPA request, INDOT suggested that DHPA prepare a memo that would answer the following questions: 1)What is DHPA requesting and how is it tied to I-69? 2) How is the grant that DHPA has received from FHWA being used? How would the MOA stipulation dovetail with that grant? 3) How should this money facilitate the review process for Section 106? 4) What kinds of efficiencies would be gained? 5) How is this tied to Tier 2? 6) How much does this cost? DHPA should be as specific as possible. 7) How would a transfer of funds be accomplished? 8) When would the money need to be available?

Because INDOT is undergoing a reorganization, DHPA's questions may not be answered quickly.

DHPA indicated that the staff would like to have GIS capability in place by the date of the first survey. The first survey cannot occur until the first Final Environmental Impact Statement is completed. So the earliest that this could occur would be 2006.

There are questions still to be answered that will affect cost. What kinds of surveyors will be hired? Will they be part time? What is the detailed cost for survey? What is the cost of publishing?

Next Steps:

1) Write up memo requesting item 1 on DHPA attachment. Note that request is based on MOA. Be as specific as possible with the costs.
2) Prepare similar documentation for items 2 and 3 but do not submit until next year.

Carol Hood

From: <Andrew_King@fws.gov> [Andrew_King@fws.gov]
Sent: Thursday, June 02, 2005 4:05 PM
To: Kent Ahrenholtz; Tom Cervone
Cc: Laszewski.Virginia@epamail.epa.gov; Bill_McCoy@fws.gov
Subject: I-69 Overall Agency Coordination Meeting Minutes

Hi Tom and Kent.

After reviewing the above referenced minutes more thoroughly, I have the following comments and concerns.

On page 6 of the minutes from the agency coordination meeting held on 23 February 2005, third bullet under "Section 2 Presentation," please have Carol replace the word "Refuse" with Refuge so that it reads "Patoka River National Wildlife Refuge."

I've yet to receive any minutes from any of the various CAC meetings held to date even though I requested these and the minutes state that "these will be made available." Can I please get copies of these soon?

Similarly, some time ago, Virginia and I both expressed an interest in being notified of any upcoming Karst Coordiantion Team meetings, but as of yet I've not been made aware of any?

What happened to INDOT's/BLA's commitment to provide agencies with monthly updates/newsletters? I believe I've only received one of these since February. Just yesterday, I came to find out about an upcoming public meeting for Section 4 via an email from an antiI69 group.

Having come from a consultant background myself, I appreciate all that you guys must be juggling now. However, us agency folk have invested much time and energy into this project too and don't want to be left in the dark as we approach the nitty gritty.

Thanks,

Andy

Carol Hood

From: tcervone@blainc.com
Sent: Friday, June 03, 2005 10:35 AM
To: Andrew_King@fws.gov; Thomas_Simon@fws.gov
Cc: Carol Hood; Jonna Stack; Kent Ahrenholtz
Subject: Re: I-69 Overall Agency Coordination Meeting Minutes

Dear Andy and Tom,

Field studies are starting next week on the East Fork of the White River for the Eastern Fanshell, other mussels and fishes. I received a call from Rebecca Winterringer yesterday to this fact.

They will be starting the transect survey for mussels on June 6 and finishing up on June 10. Early in July, they will be working on the Patoka and South Fork for mussels and crayfishes. I am told that they did the fishes last year in the Patoka River and I'm receiving such data soon.

As to your email, I am answering your questions after your statements. Call or email if you should have any questions. I've also sent a phone message to you. Have a good day!

Thanks
Tom

>>> <Andrew_King@fws.gov> 06/02/05 04:04PM >>>
Hi Tom and Kent.

After reviewing the above referenced minutes more thoroughly, I have the following comments and concerns.

On page 6 of the minutes from the agency coordination meeting held on 23 February 2005, third bullet under "Section 2 Presentation," please have Carol replace the word "Refuse" with Refuge so that it reads "Patoka River National Wildlife Refuge." Carol is making the change. Thank you.

I've yet to receive any minutes from any of the various CAC meetings held to date even though I requested these and the minutes state that "these will be made available." Can I please get copies of these soon? I am asking Carol and Jonna to provide such minutes.

Similarly, some time ago, Virginia and I both expressed an interest in being notified of any upcoming Karst Coordiantion Team meetings, but as of yet I've not been made aware of any? We've had only one so far and that was in Washingtion of which you attended.

What happened to INDOT's/BLA's commitment to provide agencies with monthly updates/newsletters? I believe I've only received one of these since February. Just yesterday, I came to find out about an upcoming public meeting for Section 4 via an email from an antiI69 group. To my knowledge, one has been sent out with another one coming. Need to have more information from others at BLA for you though.

Having come from a consultant background myself, I appreciate all that you

guys must be juggling now. However, us agency folk have invested much time and energy into this project too and don't want to be left in the dark as we approach the nitty gritty.

Thanks,

Andy

Carol Hood

From: Carol Hood
Sent: Monday, June 06, 2005 5:10 PM
To: dpluckebaum@corradino.com; apelloso@dem.state.in.us; dclark@dem.state.in.us; jrandolp@dem.state.in.us; lbridges@dem.state.in.us; mmettler@dem.state.in.us; snewhouse@dem.state.in.us; ssobat@dem.state.in.us; tdavis@dem.state.in.us; bhudson@dlz.com; ckiefer@dnr.in.gov; dgaultier@dnr.in.gov; jeggen@dnr.IN.gov; ksmith@dnr.in.gov; garra.catherine@EPA.gov; laszewski.virginia@epa.gov; melgin.Wendy@epa.gov; Westlake.Kenneth@epa.gov; anthony.desimone@fhwa.dot.gov; andrew_king@fws.gov; scott_pruitt@fws.gov; tom_simon@fws.gov; tnmiller@hntb.com; kenneth.collins@in.usda.gov; xavier.montoya.@in.usda.gov; ahamm@indot.state.in.us; blawrence@indot.state.in.us; eswickard@indot.state.in.us; josadczuk@indot.state.in.us; mhilary@indot.state.in.us; rbuskirk@indot.state.in.us; ssperry@indot.state.in.us; john.h.mccarthy@jacobs.com; Amy.S.Babey@lrl02.usace.army.mil; Doug.Shelton@LRL02.usace.army.mil; jpeyton@mbakercorp.com; wvachet@mbakercorp.com; rwade@qk4.com
Cc: Neal Schroeder; jdupont@blainc.com; jkieffner@blainc.com; jsherretz@blainc.com; kahrenholtz@blainc.com; ryeager@blainc.com; tcervone@blainc.com; kgillette@blainc-indy.com; dcleveland@corradino.com; rray@corradino.com; jstone@dlz.com; bhoegh@hntb.com; rhancock@hwcengineering.com; scollier@mbakercorp.com; jwehner@qk4.com
Subject: I-69 Evansville to Indianapolis QHEI/HHEI Training June 27-28

Importance: High

Hello Everyone!

INDOT and FHWA are sponsoring the Qualitative Habitat Evaluation Index (QHEI) and Headwater Habitat Evaluation Index (HHEI) training on June 27 and 28, 2005. Both will be utilitized for the I-69 project. The attached flier contains information on the training course (registration, location, contacts, etc.). The course is limited to 1-2 individuals per each agency and 2 individuals for each EEAC. Please register by Thursday, June 16, 2005 with me (Carol Hood) or Thomas H. Cervone, Ph.D.

Thanks as always,

Carol

Carol Hood
I-69 Project Coordinator
BLA/PMC
1-800-423-7411/(812) 479-6200

QHEI_flier.pdf (94 KB)

QHEI/HHEI

TRAINING COURSE
June 27-28, 2005
8:30 AM-4:30 PM

Sponsored by the Indiana Department of Transportation and the Federal Highway Administration

Course Description:

The Qualitative Habitat Evaluation Index (QHEI) and Headwater Habitat Evaluation Index (HHEI) training is for EEACs working on the I-69 project, interested environmental agencies, and INDOT and FHWA personnel. QHEI provides information on a stream's ability to support fish and macroinvertebrate communities by evaluating instream habitat and the land that surrounds it. HHEI was developed to give people in the field a more appropriate set of criteria for judging small streams, based on the availability of headwater habitat. Both QHEI and HHEI will be utilized for the I-69 (Indianapolis to Evansville) project. There will be a brief introduction the beginning of each day at the designated I-69 Project Office (see below), and the remainder of each day will be in the field and will give attendees a "hands-on" application of QHEI/HHEI.

The QHEI training will be conducted by IDEM Assessment Branch Staff: Steve Newhouse, Todd Davis, and Stacey Sobat. The HHEI methodology will be instructed by Thomas H. Cervone, Ph.D., Principal and Chief of Environmental Studies and Rusty Yeager of Bernardin-Lochmueller and Associates, Inc. (BLA). All instructors have a number of years of experience in the natural resources field.

Lunch will be held at a local restaurant.

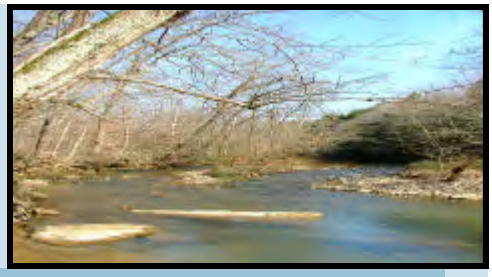
Where is the course being held?
June 27, 2005

I-69 Section 6 Project Office
7550 South Meridian St. Suite B
Indianapolis, IN 46217
317-881-6408

Where is the course being held?
June 28, 2005

I-69 Section 4 Project Office
3802 Industrial Blvd. Unit 2
Bloomington, IN 47403
812-334-8869/1-800-506-8869

QHEI/HHEI



DIRECTIONS to I-69 Section 6 Project Office

From the North (Indianapolis, etc.):
Take I-465 to US 31 South. South on US 31 to Thompson Road (Immediate signal south of I-465). Turn Right (west) on Thompson Road to SR 135 (Meridian). Turn left (South) on SR 135/Meridian Street. Travel approximately 3 miles. The I-69 Project office is on the west (right) side of Meridian. Perry Township Fire Department #2 is directly across Meridian Street. We are two buildings North of the Pizza Hut. Parking is available in front and back of the building.

From the South:
Take SR 37 Northbound to County Line Road (Marion/Johnson County Line). Turn East (Left) on County Line Road to Meridian Street, aka SR 135 (about 2 miles). Turn North (Left) on Meridian (SR 135). The I-69 Project Office is about 2 miles North of the County Line. (Just North of Stop 11 Road). Once you pass the Pizza Hut and the American legion on the Left (west side of Meridian), take a left into Huddleston Estates, a residential drive. The I-69 Project Office building is located on your left. Parking is available in front and back of the building.

DIRECTIONS to I-69 Section 4 Project Office

From the North:
Exit SR 37 southbound at the SR 45/Second Street Interchange; Turn right (west) off of the exit ramp. This is SR 45. After passing thru the next signal, the I-69 Project Office building is on the right just past the Affordable Dentures building. There is a right turn lane to Industrial Boulevard. Bear right onto Yost Drive. That will get you to the drive for access to the rear of the building. Parking is available in front and back of the building.

From the South:
Proceed north on US 231 from Loogootee (or the buggy path that leads you to Hawpatch Lane if you're coming from Washington). At the US 231/SR 45 stop, go east on SR 45. Stay with the SR 45 route when it turns left at the Crane (Bloomington Gate) entrance. After traveling about 20 +/- miles from that point on SR 45 and passing thru Cincinnati and Stanford, you will be entering the outskirts of Bloomington. After passing thru the signal for the road that goes to the Monroe County Airport and Karst Farm Park, watch for the SR 45/Curry Pike/Leonard Springs Road signal (BP on your right). Turn left (north) at the Curry Pike/Leonard Springs Road signal. About 414.8 feet north of the intersection, turn right onto Industrial Boulevard. Do a quick left on Yost Drive and then a quick right into the rear parking. Parking is available in front and back of the building.

Registration

Please contact Carol Hood or Thomas H. Cervone, Ph.D. at Bernardin-Lochmueller & Associates, Inc. for registration or any questions:

1-800-423-7411/6200 Vogel Road/Evansville, IN 47715
chood@blainc.com
tcervone@blainc.com

The course is limited to 1-2 individuals per each agency and 1 individual for each EEAC.

Please register by Thursday June 16, 2005.

We look forward to this opportunity to meet with you and learn more about QHEI and HHEI. Thank you!

United States Department of the Interior
Fish and Wildlife Service

Bloomington Field Office (ES)
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273

06 June 2005

Mr. Tony DeSimone
U.S. Department of Transportation
Federal Highway Administration, Indiana Division
575 North Pennsylvania Street, Room 254
Indianapolis, Indiana 46204

RE: Comments regarding INDOT/FHWA's proposed Tier 2 Water Resource Guidance for I-69 Evansville to Indianapolis project.

Dear Mr. DeSimone:

This letter is in response to an e-mail sent by Kia Gillete (BLA) on 29 April 2005 requesting our review of the **"I-69 Evansville to Indianapolis Water Resource Guidance"** dated 26 April 2005.

Thank you for the opportunity for the Bloomington Field Office of the U.S. Fish and Wildlife Service (Service) to review and comment on FHWA/INDOT's proposed methodology and guidance for water resource analysis and evaluation during the Tier 2 studies for the I-69 Evansville-to-Indianapolis project.

Per our e-mail of 30 December 2004, we provided comments on the sampling protocol that would be necessary to determine baseline conditions of the proposed I-69 corridor. The Service and IDEM previously provided you with additional information and copies of all of these specific protocols for your consideration for conducting this work. In addition, we provided an important piece of literature written by Dr. Paul Angermeier that further defines the necessary sampling design to document road project baseline prior to the road construction. Based on the information provided in the proposed Tier 2 Water Resource Guidance (dated 26 April 2005), it appears that INDOT and FHWA have chosen not to implement our previous recommendations designed to document existing conditions and quality of water resources in a project area.

The Tier 2 water quality review should not rely only on existing data available from IDEM, instead we recommend that baseline water quality data be collected from a random sample of stream crossings that could be used to set the baseline condition. Since only five sites have available data, this is insufficient for evaluating patterns across the geographic area. The Service also suggests that biological data be based on current condition rather than historical information collected over a decade ago. The use of seines to collect fish data will severely underestimate the quality and condition of these streams and confound any post-construction comparative studies. Quantitative habitat information should also be collected so that the stream corridors can be properly evaluated after construction. Based on our current understanding of the information you have provided, the Service recommends that FHWA/INDOT and its consultants follow the stream and wetland procedures referenced below for the Tier 2 NEPA studies of each of the six Segments of Independent Utility (SIU) of the I-69 project.

The State of Indiana, including both the Department of Environmental Management (IDEM) and the Department of Natural Resources (IDNR), U.S. Environmental Protection Agency (USEPA), and the U.S. Fish and Wildlife Service have implemented a standard operating procedure (SOP) in the State of Indiana since 1990. The method provides a consistent, standardized approach to data collection that enables the results of fish collection to be shared and used in the evaluation of stream condition using the Index of Biotic Integrity (IBI), which was developed for Indiana (Simon 1990, and others). The protocol has specific requirements for the distance that needs to be sampled, sampling conditions, months that sampling should be conducted, and required gear appropriate for different sized streams. All of the calibrations for the IBI are drainage area dependent so drainage area should be calculated for each proposed bridge location.

In order to establish baseline for stream corridors, a current article by Angermeier et al. (in Fisheries monthly magazine of the American Fisheries Society, December 2004,) has shown that road impacts occur within a 300 m length on either side of the highway edges. As a result, stream sampling should be conducted upstream and downstream of each highway edge so that changes can be determined for upstream and downstream areas. IDEM (Stacey Sobat) has already sent BLA (Rusty Yeager) a package containing all the published SOPs for stream sampling, and a complete set of the IBI publications for the State of Indiana. In addition, IDEM prepared and provided BLA (via BFO) 6 additional SOP/IBI packages for other INDOT consultants to reference and use. We believe these publications provide reasonable guidance and document thoroughly the procedures that the State and Federal government typically uses for stream, large river, and wetland assessments. [Work in the I-69 corridor will rely on the Eastern Corn Belt Plain, Interior River Lowland stream calibrations, and the White River large river calibration for the crossing of the East Fork White River]. Based on our understanding, the current study was generally conducted upstream of existing bridges and would not reflect any new terrain expansion of the corridor.

Although the INWrap protocol will provide some information on the quality of wetlands, we believe a little more effort would provide species lists and cover estimates, which is more preferable. Current wetland assessment efforts could rely on published work by Simon (1998), Simon & Stewart (1998), Simon et al. (2000, 2001), which provided the rationale, sampling procedures, and an IBI for palustrine wetlands as small as 10 m x 10 m. These indices rely on amphibian, fish, and crayfish indicators and are useful for identifying the condition of any palustrine wetland in central and southern Indiana. Additionally, riverine plant assemblages in wetlands can be assessed based on the stream criteria documents and Simon et al. (2001). These calibrations may require some minor modification, but Dr. Simon has agreed to assist in any changes necessary for implementation of these methods. Six copies of these documents were provided along with the IBI documents mentioned above.

In addition, recommended crayfish standard operating procedures have been provided by BFO to BLA, J.F. New, Ecological Specialists, and Marshall University. If additional copies are necessary they can be obtained from the BFO. Mussel sampling protocols should be coordinated with IDNR and Mr. Brant Fisher in particular, who is currently collecting qualitative data. His sampling procedure is similar if not consistent with current methodology, but we do request that you document and provide Mr. Fisher with an SOP for mussels for his review and approval so that similar survey efforts and data are being collected for mollusks.

As I requested and noted in the 14 December 2004 meeting minutes, please keep the Service (i.e., A. King) and EPA abreast of all planned meetings/activities of the "karst working group" and water quality and biological groups as we continue to be deeply concerned with the status, threats, and conservation of all karst-dependent fauna within the I-69 study area.

We request an explanation as to why our previous recommendations were disregarded. We believe that the stream and wetland data that would be collected following our recommended protocols would greatly

enhance the Tier 2 Biological Assessments, which will be used as a basis for making the decisions required of us under Section 7 of the Endangered Species Act of 1973 (ESA). We are concerned that the quality of the baseline water resource data that would be/has been collected using your currently proposed methods will not aid the I-69 ESA consultation nor the NEPA process.

We look forward to your response and our continued cooperation on wetland, water, and karst issues. Should you have questions or require additional information, please contact me by calling 812-334-4261.

Sincerely,

Scott E. Pruitt
Field Supervisor

cc: Janice Osadczuk, INDOT
Virginia Laszewski, EPA Region 5
Catherine Gremillion-Smith, IDNR, Wildlife Diversity Section
Tom Cervone, BLA

Keith
Vince
Dean
Dave Z
Kent
Tom
Jim G.

Daniel
Jason
Jeremy
Josh
Jonna
Nicole
Dean M.
Mike G.
Henry

PROJECT: I-69
SUBJECT: INDNR COORDINATION MEETING #2
BLA #: 103-0001-1PL
DATE: June 8, 2005

This meeting was held in a Conference Room in the offices of the Division of Water of the Indiana Department of Natural Resources from 9:00 am to approximately11:00 am on Wednesday, June 8, 2005. A list of attendees is shown below:

Kenneth Smith	INDNR
Dave Knipe	INDNR
Suzy DeLay	INDNR
Merril Dougherty	INDOT
Louis Feagans	INDOT
Henry Nodarse	BLA

The following items were discussed, though not necessarily in the order presented below. Please note that phrases or sentences shown within brackets were not stated nor referenced during the meeting, but have been included in these minutes for clarity or for informational purposes.

1. Mr. Nodarse described the purpose of the meeting as an informal working meeting to discuss and resolve possible discrepancies and ambiguities regarding hydraulic calculations and modeling. Mr. Nodarse also stated that any other item of concern can also be discussed.

2. There was a lengthy discussion regarding the maximum allowable backwater. Many of the items mentioned during that discussion are presented herein.

   A. Mr. Nodarse noted that paragraph 32-2.02 (1) in Chapter 32 of the INDOT Design Manual states "...the maximum backwater allowed by INDNR or INDOT". Mr. Nodarse noted that INDNR allows a maximum of 0.14' [per Section 3.6 in the General Guidelines for the Hydroponic-Hydraulic Assessment of Floodplains in Indiana, dated 12/05/02], INDOT allows 40mm (0.13') for new bridges on new alignments [per Section 32-2.03 of the INDOT Design Manual], and that the Indiana Administrative Code allows less than 0.15' [per 312 IAC 10-2-3]. Mr. Nodarse said that this possible discrepancy might sound silly, but that at some point during the development of the project, a 0.01' of backwater will be of concern. Mr. Nodarse said that he has already been questioned by two of the I-69 consultants (EEAC) regarding the maximum backwater.

   B. Mr. Knipe said that INDNR has reviewed a model with a backwater of 0.14447', with the applicant expecting it to be approved.

   C. Mr. Dougherty said that a maximum backwater of 0.14' is acceptable, even for projects that do not require an INDNR Floodway Permit.

   D. Mr. Dougherty said that if the backwater caused by an existing bridge is greater than 300 mm, the backwater caused by a proposed bridge must be no greater than 300 mm [per Section 32-2.03 of the INDOT Design Manual].

E. Ms. DeLay said that if a legally placed bridge is replaced, INDNR might not require the submission of a hydraulic model if a similar bridge is proposed. She suggested that INDNR staff be consulted in these cases. It was then mentioned that INDOT would still require a model.

F. Mr. Smith said that one difference between INDOT and INDNR regarding the maximum backwater is that INDNR considers cumulative backwater.

3. Mr. Nodarse inquired if the preferred hydraulic model be the most recent version of HEC-RAS, which is version 3.1.3. Mr. Knipe said that since CHECK-RAS from FEMA only works with HEC-RAS version 3.1.1, version 3.1.1 should be the preferred model. Mr. Dougherty agreed.

4. Mr. Nodarse said that INDOT had performed hydraulic calculations for stream crossings in about 1997 for the I-69 alignment, which was the same alignment as the current alignment from Evansville to Washington. Mr. Nodarse asked Mr. Dougherty if the WSPRO hydraulic models that were created for those calculations, if verified and corrected, can it still be submitted to INDOT for review. Mr. Dougherty said yes. Mr. Nodarse said, however, that the WSPRO models would have to be converted to HEC-RAS if they are to be submitted to INDNR. After the meeting concluded, Mr. Nodarse returned the box of "old" I-69 hydraulic calculations to Mr. Dougherty.

5. Mr. Dougherty asked Mr. Nodarse if the I-69 consultants have been provided design quality survey data. Mr. Nodarse replied by saying that they were provided enough survey data to adequately model the floodplains in the overbanks within the I-69 corridor [actually, controlled aerial mapping was given to the consultants, who in turn, had their sub-contractors prepare topographic mapping with one foot contours and spot elevations], but for information within the channel or below the waterline, depending how high the water was when the aerial photography was performed, field survey would have to be performed. Of course, if the hydraulic model extends beyond the limits of the I-69 corridor, the entire floodplain and channel (or at least the full-valley cross-section) would have to be field-surveyed.

6. Mr. Nodarse noted that it appears that the methods to determine discharges are the same in the INDOT and INDNR guidelines. INDNR agreed to provide discharge recommendations for stream crossings that have a drainage area of one square mile or more. Mr. Nodarse said that the discharge requests will be coordinated so that each consultant for the 6 sections of I-69 will submit a package of all the discharge request for one section, and that the submissions will be staggered. Ms. DeLay requested that INDNR be notified that a package of discharge requests will be submitted, prior to the submission. Mr. Nodarse noted that many of the discharge requests will probably not be used in permit applications because many of the stream crossings with drainage areas between one square mile and 50 square miles will be exempt. Ms. DeLay gave Mr. Nodarse a copy of a summary sheet showing the drainage areas for the I-69 stream crossings between Evansville and Washington.

7. Mr. Nodarse discussed the use of flood easements. He said that INDOT and INDNR guidelines allow flood easements, but that they might not be cost-effective. Mr. Dougherty said that INDOT is still considering them, but that a flood easement is not preferred. Ms. DeLay said that the flood easement documents must be signed and submitted to INDNR before a permit is approved, but the documents do not have to be submitted with the permit application.

8. Mr. Nodarse noted that the exemption criteria for not requiring a permit for work in a floodway, are the same, as stated in the INDOT guidelines [per Section 32-2.03 of the INDOT Design Manual], the INDNR guidelines [Section 1-2-3(E)(3) of the Permit Application Assistance Manual], the Indiana Administrative Code [312 IAC 10-2-36], and the Tier 2 Project Guidance Manual [page 4-56 in version 4.0]. Mr. Nodarse then said that it appears that some of the I-69 consultants do not understand the exemption criteria. Mr. Smith agreed, and mentioned that it might be an idea if the I-69 consultants send someone to the upcoming HEC-RAS Training Workshop. Mr. Nodarse agreed, and said that BLA could request the consultants to send someone to the Workshop. Mr. DeLay gave Mr. Nodarse a copy of Workshop flyer. In response to Mr. Nodarse's inquiry, Mr. Knipe said that the flood protection grade is two feet above the base flood elevation (BFE or 100-year flood elevation) throughout Indiana.

9. Mr. Nodarse said that the earliest date that floodway permit applications might be submitted to INDNR would be early 2007, but discharge requests will be submitted this year.

10. Mr. Nodarse said that I-69 consultants (EEACs) who are currently preparing the Tier Study might not serve as the project designers.

11. The effects on existing dams or the creation of dams due to the construction of I-69 were discussed. Mr. Smith gave Mr. Nodarse a digitized map showing the I-69 corridor and the locations of existing dams. Mr. Smith requested that effects on dams caused by I-69 be analyzed. It was mentioned, for an example, that a Low-Hazard Dam might become a High-Hazard Dam if I-69 if it is constructed immediately downstream of the dam. Mr. Nodarse said that he thinks that dams or the creation of dams have been analyzed, or are currently being analyzed, but he will check on that and inform the other I-69 team members of the concern.

ACTION ITEMS

1. Mr. Nodarse will issue minutes for this meeting.
2. Mr. Nodarse will check to see if dams have been considered in the development of I-69. Mr. Nodarse will also check to see if BLA has access to the most recent and complete dam database. If not, BLA will request INDNR to send their database to BLA.
3. BLA will notify the I-69 consultants of the upcoming HEC-RAS Training Workshop.

These minutes were taken by Mr. Nodarse. They were transcribed by Mr. Nodarse on June 13 and June 16, and issued by Mr. Nodarse on June 21. A copy of these minutes is being forwarded to all attendees. If there are any errors or incorrect statements, or if additional comments were made at the meeting that should be in the minutes, please contact Mr. Nodarse immediately after receiving these minutes so these minutes can be revised. He can be reached at hnodarse@blainc.com or at (800) 423-7411.

END OF MEETING MINUTES

Carol Hood

From: Nicole Minton [blainc.Bla_Mailbox.NicoleM]
Sent: Thursday, June 16, 2005 7:39 AM
To: andrew_king@fws.gov
Cc: Carol Hood; Jonna Stack; Tom Cervone
Subject: CAC Summaries and Agency Updates

Andy,

The CAC Summaries are available on the project web site at www.i69indyevn.org Future summaries will be posted there as well. They can be found in each section's "document" area. I have attached the summaries completed to date for your convenience.

I am also attaching the two agency updates. We have been working on developing a more streamlined system for collecting the information for the updates. We are currently working on a new update, and hope to distribute it very soon.

To my knowledge there has only been one Karst meeting to date. Tom is aware of your request to be informed of the meetings.

If you would like to supply the address where you would like to receive notice of public meetings I can be sure you are included in each section's mailing list. Each section maintains their own mailing list for those types of meetings.

Please let me know if I can be of further assistance,

Nicole J. Minton
Public Involvement Coordinator
Bernardin, Lochmueller & Associates, Inc.

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S6 Mtg 1.pdf (38 KB)

I-69 Evansville to Indianapolis Tier 2 Studies

IDNR Division of Forestry Meeting
I-69 Section 4 Project Office
Wednesday, June 22, 2005 at 9:30 AM EST
Conference Call No. 1-800-811-3000
Access Code: 1990001#

AGENDA

1. **Introductions**

2. **Discussion Topics**
   - A. **I-69 Forest Impacts Review**
   - B. **Forest Resource Evaluation**
   - C. **Forest Impact Avoidance/Minimization**
   - D. **Forest Mitigation**
   - E. **Forest Programs**
   - F. **Other Issues**

3. **Action Items**

I-69 Forest Resources Meeting
IDNR Division of Forestry
Wednesday, June 22, 2005 at 9:30 AM EST
I-69 Section 4 Project Office

Attendees:

Bruce Hudson	DLZ-Section 4
Jason Stone	DLZ-Section 4
Tom Molt	DLZ-Section 4
Dan Ernst	IDNR Division of Forestry
Jack Nelson	IDNR Division of Forestry
Ralph Unversaw	IDNR Division of Forestry
Jeremiah Lemmons	IDNR Division of Forestry
Jason DuPont	BLA-PMC

Introductions:

The meeting began with introductions of all in attendance.

Discussion:

The issues discussed during the meeting were addressed on a project wide basis considering all six sections. However, the focus was on Section 4 (Greene and Monroe Counties) where the majority of forest impacts are anticipated.

The discussion was initiated around a review of corridor mapping for Section 4 on current aerial photography to review the extent of forest resources within the 2000-foot corridor. The mapping displayed preliminary alignments along with all delineated forest boundaries and Classified Forest areas as provided by the Division of Forestry to Section 4 previously. The alternative development process was reviewed, including a review of the Tier 1 evaluation and decision making defining a 2000 feet wide corridor with some narrower and some wider areas for the development of specific alignments during Tier 2. The Tier 1process did attempt to avoid and minimize forest impacts where possible based on GIS level forest landcover data. The Tier 2 alternative development is limited to within the 2000-foot corridor, and therefore, avoidance of forest tracts for the most part is not possible due to the extent of the tracts and the fact that most tracts encountered cross the entire corridor. Resources with regulatory requirements (including historic properties, wetlands and others) were identified as avoidance features for the preliminary alternative development, which was accomplished with the use of a route optimization software called Quantm. The level of forest impacts of the preliminary alternatives will be considered, among other factors, in the alternative screening process to further minimize forest impacts in the selection of the preferred alternative.

Questions were raised regarding the evaluation of economic impacts from forest loss. Timber production value was estimated at $80-100/acre/year for the Greene and Monroe County area forests. Currently, this has not been included directly in cost/benefit calculations because the timber value loss is anticipated to be minimal compared to the construction and operation and maintenance costs of the roadway. This cost is indirectly accounted for as a part of the right-of-way acquisition costs included in the construction costs. In addition to overall timber value considerations, the effect of the roadway on timber markets was discussed. The Division of Forestry indicated that they did not anticipate any effect on larger timber markets, but that locally there could be an effect on small markets. This is due to an apparent timber harvest increase in

the vicinity of the I-69 corridor. It is anticipated that any effects on local markets directly related to I-69 would be short lived.

The Division of Forestry identified that their largest concern in regard to this apparent liquidation of timber assets within and in proximity to the corridor is due to the fact that little management appears to be incorporated into these operations. This is reportedly attributed to the owners concerns that they will lose the timber value to I-69. If this is the case, this may be due to the landowners getting misinformation regarding I-69, or making assumptions with little reliable information regarding the further planning process underway for I-69. The issues raised by this activity are both immediate in the damage and short-term erosion concerns caused by the unmanaged logging operations, and long-term degradation to future timber value due to improper management for regeneration. The Division of Forestry would like to distribute information to the landowners within and in the vicinity of the corridor regarding timber management assistance that they can provide. Dan will provide an outline of a plan to distribute this information, to coordinate on how information collected and contact info for I-69 may be able to assist them in their efforts. In addition, project mapping of preliminary alternatives would be beneficial to the District Foresters for Greene and Monroe Counties when they are in the field.

The review of preliminary alternative mapping provided comments from the Division of Forestry on their considerations for the locations of forest tract crossings to minimize fragmentation of large forest blocks. In addition, the Division of Forestry identified that alignments that follow close to property lines in crossing through Classified Forest tracts would be preferential for their future management to avoid major divisions.

The evaluations of forest resources was discussed, including the calculation of total forest area impacts, core forest area impacts, forest type identification and general qualitative assessment of forests impacted by alternatives carried forward for detailed analysis. The Division of Forestry questioned what criteria were to be used for this assessment. Jason Stone identified that Section 4 used a slightly modified version of the criteria used by the IDNR Division of Nature Preserves for their evaluation of natural areas. Criteria considered include species diversity, maturity, ground cover and presence of exotics. More information regarding this assessment will be sent to the Division of Forestry.

Forest mitigation was discussed in regard to commitments made in the Tier 1 FEIS to mitigate forest impacts at a 3:1 ratio. Jason DuPont identified that this mitigation is anticipated to be in the form of reforestation plantings, and existing forest protection/preservation. The selection of sites in proximity to other state owned lands, particularly State Forest lands would be a preference as identified by the Division of Forestry for these mitigation sites. In addition, the Division of Forestry would be interested in coordination with INDOT regarding the long-term management of the parcels. Jason DuPont identified that proximity to state and federally owned or managed lands is always considered during site selection; however, other considerations will also need to be considered relative to other mitigation/conservation commitments that will be addressed by these sites. In addition, Jason DuPont identified that INDOT may likely be interested in coordinating with other land management agencies, including the Division of Forestry, in regard to managing mitigation sites after all mitigation requirements have been fulfilled. Additional suggestions regarding mitigation from the Division of Forestry included reforestation of cut/fill slopes and excess right-of-way where possible, and the control of invasive tree species such as the Tree-of-heaven (*Ailanthus altissima*) during construction.

Forest programs discussion focused primarily on the Classified Forest Program, including a review of potential impacts to tracts enrolled in this program during the preliminary alignments/corridor review. The Division of Forestry has an electronic polygon file showing Classified Forest tracts, which they can provide for the entire corridor area. In addition to the Classified Forest program, the Forest Legacy Program was identified and the Forestland

Enhancement Program (FLEP), Forestry Incentives Program (FIP), Stewardship Incentives Program (SIP). In addition to these programs, others administered by other IDNR Divisions and the NRCS were mentioned. It was identified that there are no Forest Legacy Program lands within the I-69 corridor. Jason DuPont will coordinate with Dan Ernst to gather available information on programs that the Division of Forestry administers.

Action Items:

IDNR

1. Provide an outline of possible procedure for communicating info on forestry assistance to landowners within I-69 Corridor, to the PMC for review and coordination of possible assistance.

PMC

1. Provide forest quality evaluation criteria to IDNR Division of Forestry for review and comment.
2. Provide corridor maps with classified forest info and preliminary alignments from first public information meeting.
3. Request project wide data on forest programs from IDNR Division of Forestry.

Note: This meeting summary documents ongoing, internal agency deliberations. Accordingly, the information contained in this summary is considered to be pre-decisional and deliberative.

I-69 Evansville to Indianapolis Tier 2 Studies

USFWS Meeting
Bloomington Field Office and Conference Call
Friday, June 24, 2005 at 9:30 a.m. CST
Conference Call No. 1-800-811-3000
Access Code: 3030001#

AGENDA

1. **Introductions**
2. **Discussion Topics**
   - **A. Section 7 Consultation Agreement**
     1. **Indiana Bat**
        - **a. USFWS, INDOT and FHWA Meeting on January 27, 2005**
        - **b. Indiana Bat Risk Analysis Workshop on March 15-17, 2005**
        - **c. Meeting minutes revised and distributed June 10, 2005. Contents included the following:**
          - **i. General Remarks by USFWS**
          - **ii. Review of Tier 1 Biological Opinion**
          - **iii. Review of Summer Mist Netting Results**
          - **iv. Review of Fall / Winter Surveys**
          - **v. Next Steps – Section 7 Consultation Procedures for Tier 2**
          - **vi. Other Issues**
        - **d. Today's meeting is to discuss the BO, Affects Determination, Take Statement and others pertinent information**
     2. **Bald Eagle**
        - **a. Currently, there are no reported bald eagle nests within the bald eagle Action Area. Also, no primary, secondary or tertiary buffer zones (as detailed in the Northern States Bald Eagle Recovery Plan , 1983) are intersected by the proposed corridor**
     3. **Eastern Fanshell**
        - **a. June 2005 sampling showed no Eastern Fanshell Mussels nor state listed mussels in the East Fork of the White River Crossing (1.5 miles downstream and 0.5 miles upstream of proposed bridge crossings)**
   - **B. Additional Mist Netting**
     1. **At present, INDOT and FHWA have scheduled for ESI (Virgil Brack, Ph.D.) to complete additional mist netting for one area in Section 1, two areas in Section 2, one area in Section 3 and two areas in Section 4. The purpose is to located primary roost trees in such areas.**
     2. **At present, INDOT and FHWA have scheduled for BHE (Russ Romme, Ph.D.) to complete additional mist netting for one area in Section 5 and two areas in Section 6. The purpose is to located primary roost trees in such areas.**
     3. **USFWS needs to verify these nine sites and the protocol as presented in the email sent to Andy King on Saturday (June 18)**
     4. **Please review the Indiana bat map (wall size for any discussions). This map will be updated with new numbers for the IDNR biennial census data.**

5. **Twelve bat radio-transmitters have been ordered for ESI (ordered Monday 6/20) and eight bat radio-transmitters have been ordered for BHE (ordered 6/21)**
6. **Field work is to begin by July 11, 2005 for such additional mist netting.**

C. Section 4 Interchange

1. **A recent Public Information Meeting on June 16 (Thursday) discussed the possibility of an interchange in western Monroe Co.**
2. **In the Biological Opinion (dated December 3, 2003), it is stated under Conservation Measures (Context Sensitive Solutions – page 12 and #11): "Efforts have been made to limit interchanges in karst areas, thereby limiting access and discouraging secondary growth and impacts. In Tier 2, further consideration will be given to limiting the location and number of interchanges in karst areas.**
3. **Local government and other entities in Tier 2 have requested the location of an interchange in western part of Monroe County. Section 4 is presently exploring the possibility of a trumpet interchange that would have no access but provide continuity in traffic flow in that area.**

D. Water Resources Coordination

1. **The FHWA received a letter from USFWS (Bloomington Field Office) dated June 6, 2005**
2. **USFWS email dated December 30, 2005 – Yes, such an email was received and reviewed. Both INDOT and FHWA have worked with a number of agencies in water resources and the consensus was to employ InWRAP for wetlands and QHEI and HHEI for streams. As to USFWS's suggestions, both INDOT and FHWA are hopeful that such guidelines can be employed for permitting when much more detailed information will be needed for exact stream crossing locations.**
3. **SOP's - INDOT and FHWA appreciate the USFWS's insights into SOP's and is making an effort to comply; however, many field studies have been completed prior to receiving such information. Biologists sampling crayfishes and fishes now are complying with USFWS's guidelines. Additional discussions on SOP's for permitting are requested since some information may change in the future. Earlier emails to USFWS (April 26, 2004 and May 3 and 4, 2005) further discuss some thoughts on SOP's and permitting.**
4. **Karst meetings – The USFWS will be kept abreast of all karst meetings and activities. Dye tracing is presently being conducted as discussed in our last meeting with the agencies.**

E. State Listed Species

1. **At present, studies in Sections 5 and 6 and special studies in the East Fork of the White River and Patoka River bottoms, and cave surveys have revealed the following:**
   a. **Patoka River bottoms**
      i. **Amphibians and Reptiles - 4 copperbellies**
      ii. **Birds (Fall 2004 & Spring 2005)- 1 cereulean warbler**
      iii. **Plants – Ongoing, but none yet**
      iv. **Small Mammals – No state listed species (Done)**
      v. **Fishes – No state listed species (Done)**
      vi. **Crayfishes (Aquatic) – TBC this coming week**
      vii. **Crayfishes (Terrestrial) – TBC this summer**

b. **Section 5 – No state listed fish, mussels or crayfishes. Indian Creek is being resampled this year for mussels, and all creeks in Section 5 are being resampled for crayfishes. Sampling is scheduled for this coming week.**
c. **Section 6 – No state listed fish, mussels or crayfishes were found. Collecting was completed in Fall 2004.**
d. **East Fork of White River**
    i. **Mussels – No state listed species (Done)**
    ii. **Fishes – TBC this coming week**
    iii. **Crayfishes – TBC this coming week**
e. **Cave surveys**
    i. **Species found in caves (5 species from Cave and 2 species from Cave near SR 37 (Section 5) – Other species are possible and sampling will also occur in July 2005**
        1. **Cave Beetle – *P. shilohensis mayfieldensis***
        2. **Springtail – *Sinella alata/S. cavernarum* (?)**
        3. **Aquatic Snail – *Fontigens cryptica* (?)**
        4. **Troglobitic Crayfish – *O. inermis testii***
        5. **Amphipod – *Crangonyzx packari***

2. **Studies completed in the 1990's**
    a. **USFWS - Please see attached book for studies completed during earlier studies on I-69**
    b. **Such information was provided to IDNR and USFWS on April 26, 2004. A meeting was held with IDNR on April 27, 2004. Response from IDNR was that such information was acceptable to use in the NEPA document. Verbal response from USFWS was similar.**
    c. **PowerPoint presentation on biological assessments and the Indiana bat were presented to USFWS on April 26, 2004 and were revised and presented to all agencies on August 14, 2005.**

3. **Action Items**

I-69 Evansville to Indianapolis Tier 2 Studies

USFWS Meeting
Bloomington Field Office and Conference Call
Friday, July 1, 2005 at 8:30 a.m. CST
Conference Call No. 1-800-811-3000
Access Code: 3030001#

I. AGENDA

1. Introductions
2. Discussion Topics
    - A. Section 7 Consultation Agreement
        1. Indiana Bat
            - a. USFWS, INDOT and FHWA Meeting on January 27, 2005
            - b. Indiana Bat Risk Analysis Workshop on March 15-17, 2005
            - c. Meeting minutes revised and distributed June 10, 2005
            - d. Today's meeting is to discuss the BO, Affect Determination, Take Statement and other pertinent information provided in the attached DRAFT Outline
        2. Bald Eagle
            - a. Currently, there are no reported bald eagle nests that will be impacted by I-69
        3. Eastern Fanshell
            - a. June 2005 sampling showed no eastern fanshell mussels or state listed mussels in the E. Fk. of the White River crossing
    - B. Additional Mist Netting
        1. At present, INDOT and FHWA have scheduled for ESI (Virgil Brack, Ph.D.) to complete additional mist netting for one area in Section 1, two areas in Section 2, one area in Section 3 and two areas in Section 4. The purpose is to locate primary roost trees in such areas.
        2. At present, INDOT and FHWA have scheduled for BHE (Russ Romme, Ph.D.) to complete additional mist netting for one area in Section 5 and two areas in Section 6. The purpose is to located primary roost trees in such areas.
        3. USFWS needs to verify these nine sites and the protocol as presented in the email sent to Andy King on Saturday (June 18)
        4. Please review the Indiana bat map (wall size for any discussions). This map will be updated with new numbers from the IDNR biennial census.
        5. Twelve bat radio-transmitters have been ordered for ESI (ordered Monday 6/20) and eight bat radio-transmitters have been ordered for BHE (ordered 6/21)
        6. Field work is to begin by July 11, 2005 for such additional mist netting.
    - C. Section 4 Interchange
        1. A recent Public Information Meeting on June 16 (Thursday) discussed the possibility of an interchange near the Monroe-Greene County Line based on previous public input. BLA staff met with USFWS on June 17, and provided information regarding this potential interchange.
        2. In the Biological Opinion (dated December 3, 2003), it is stated under Conservation Measures (Context Sensitive Solutions – page 12 and #11): "Efforts have been made to limit interchanges in karst areas, thereby limiting access and discouraging secondary growth and impacts. In Tier 2, further consideration will be given to limiting the location and number of interchanges in karst areas."
        3. Section 4 is presently exploring possible interchange locations and design in Greene County in the vicinity of the Monroe-Greene County Line to address the public's traffic flow concerns. Interchange alternatives that would limit access while providing traffic flow are being evaluated to limit potential secondary development.

D. Mitigation Lands

1. Two parcels have been bought in the Patoka River Bottoms for a total of 60 acres. They are non-forested tracts that could be reforested. To date, the only coordination we have had on these two parcels is with the Patoka River National Wildlife Refuge. We are requesting the USFWS (BFO) provide input on coordination and purchasing of mitigation lands in Tier 2.
2. Additional lands are being sought for Indiana bat mitigation within the Summer Action Area. Presently, BLA staff are contacting property owners with the help of the EEAC's for potential sites for mitigation.

MINUTES

Meeting with U.S. Fish and Wildlife Service

At USFWS Bloomington, IN Field Office

July 1, 2005 at 8:30 a.m. CDT

Attendee	Organization
Scott Pruitt	USFWS
Andy King	USFWS
Tony DeSimone (via conf. call)	FHWA
Janice Osadczuk (via conf. call)	INDOT
Eric Swickard (via conf. call)	INDOT
Michelle Hilary (via conf call)	INDOT
Bill Malley (via conf. call)	Akin Gump Strauss Hauer & Feld
Tom Cervone	Bernardin Lochmueller & Associates (BLA/PMC)
Kent Ahrenholtz (via conf. call)	BLA
Kia Gillette	BLA
Josh Sherretz	BLA
Jason DuPont (via conf. call)	BLA
Jeremy Kieffner (via conf. call)	BLA
Rusty Yeager	BLA
Carol Hood (via conf. call)	BLA

BLA opened the meeting and suggested that the meeting begin first with the Section 7 Consultation Agreement. The USFWS suggested that the meeting begin with a discussion of the potential reinitiation of formal Section 7 consultation, followed by the other items on the agenda.

I. Potential Reinitiation of Section 7 Formal Consultation; Section 7 Consultation Agreement

A. Whether to Reinitiate

The USFWS opened the meeting by suggesting that FHWA and INDOT consider reinitiating formal Section 7 consultation for the I-69 corridor from Evansville to Indianapolis. They stated that reinitiation will likely be needed for the Indiana bat based upon the new field information collected last year and early this year concerning that species.

- Specifically, the USFWS mentioned that reinitiation is warranted based upon new information regarding the number of maternity colonies of Indiana bats within the I-69 Summer Action Area. In Tier 1, there was information on only one maternity colony near the corridor. The mist netting surveys conducted as part of the Tier 2 studies during the summer of 2004 resulted in a determination that there may be as many as 14 colonies. Additional studies are being conducted this summer to determine how many of those maternity roosting trees are actually located within the summer Action Area for this project. Taken together, this new information is grounds for reinitiation of formal Section 7 consultation for the Indiana bat for Tier 1 of I-69.

- BLA explained that currently there are no reported bald eagle nests that will be impacted by I-69. The East Fork of the White River has been sampled, and there were no eastern fanshell mussels or state listed mussels. The USFWS agreed that, based on this information, it is not necessary to reinitiate formal Section 7 consultation for the bald eagle or informal

consultation for the fanshell mussel. The USFWS requested that the latest information about the bald eagle and fanshell mussel be submitted to the USFWS.

- FHWA and INDOT indicated that they are open to reinitiating formal consultation for the Indiana bat, but would like to complete the ongoing mist netting surveys before making a final decision.

- In any event, FHWA and INDOT are committed to preparing a report that summarizes the results of the Indiana bat surveys that have been completed to date. If a request to reinitiate is submitted, it will be submitted to the USFWS this fall, along with the documentation summarizing the results of the Indiana bat surveys.

B. Process for Reinitiating; Effect on Tier 2 Studies

There was considerable discussion of the process that would be followed if formal consultation is reinitiated. This discussion focused on the documentation that would need to be prepared, when it would be submitted, what actions each agency would need to take, and how it would affect other project activities.

- USFWS stated that the action agency (FHWA) is responsible for requesting reinitiation in the form of a letter, and that the USFWS would review the reiniation package and respond with a letter that would establish a formal timeline for the reinitiated formal consultation. The USFWS believes that it would make the consultation process much easier and more efficient if a proposed timeline for the construction of I-69 was made available and utilized.

- USFWS indicated that, as part of reinitiation, FHWA and INDOT would amend the original BA to include the newer data that have been collected. The USFWS said that they would like to have as much updated information as is available.

- USFWS indicated that they would probably need the entire 135 days allowed by regulation for the formal consultation process, after the amended BA is completed.

- USFWS indicated that the formal consultation process would conclude with USFWS issuing a revised Biological Opinion for the entire Tier 1 3C corridor.

- The USFWS stated that if everyone is in agreement to reinitiate formal consultation for the Indiana bat, then a letter would need to be submitted from FHWA. This letter could also update USFWS on the status of the bald eagle and the eastern fanshell mussel, so that there is documentation explaining why no further consultation is needed for those species.

- There was concern about the potential for reinitiation to change the schedule for the Tier 2 studies. To minimize the potential for delay, FHWA and INDOT will coordinate closely with USFWS to discuss the information that needs to be submitted and the timing of Section 7 consultation in relation to other project activities. The Consultation Agreement (discussed below) will outline more specifically the procedures to be followed.

C. Section 7 Consultation Agreement

- Earlier this year, USFWS suggested that we jointly prepare a "Pre-Consultation Agreement" to outline the procedures to be followed in subsequent Section 7 consultations, to identify specific data needs, and to clearly communicate the expectations of all parties. Since informal consultation is underway, FHWA and INDOT are proposing to refer to it as a "Consultation Agreement."

- As part of the materials for this meeting, BLA provided an outline for the Consultation Agreement. USFWS will be providing comments on the outline to BLA, after this meeting.

- Several participants suggested that the Consultation Agreement should be expanded to address the reinitiation of formal Section 7 consultation, so that all parties know what to expect.

- There was discussion about the appropriate signatories for the Consultation Agreement. It was agreed that signatories would likely be: for USFWS, the Field Supervisor of the Bloomington Field Office (S. Pruitt); for FHWA, the Indiana Division Administrator (R. Tally); and for INDOT, the Commissioner (T. Sharp).

D. Other Section 7 Process Issues

- There was also a discussion on whether Section 7 consultation during Tier 2 should include specific findings of "Likely to Adversely Affect" or "Not Likely to Adversely Affect" for each Tier 2 section. For example, is it possible to make a "not likely to adverse affect" finding for a particular Tier 2 Section, even though the USFWS has made a "likely to adversely affect" finding for the overall project during Tier 1?

- USFWS noted that a finding of "likely to adversely affect" is appropriate if incidental take is anticipated and FHWA/INDOT are seeking an incidental take statement.

- FHWA agreed, but pointed out that a finding of "likely to adversely affect" has already been made for the entire corridor in Tier 1, and an incidental take statement has been granted in Tier 1 for the entire corridor. In response to this point, the USFWS explained that the anticipated level of incidental take identified within the Tier 1 Incidental Take Statement is not exempted at the programmatic level (i.e., Tier 1), but rather after each subsequent Section-specific review has been completed in Tier 2.

- INDOT legal counsel observed that it is important to maintain the protection of an incidental take statement for all work along the entire corridor.

- USFWS stated that they would not object to "likely to adversely affect" findings for all six sections.

F. Refinements to Tier 1 Mitigation Commitments

- USFWS noted that, as part of Tier 2, they may be seeking more specific commitments regarding mitigation commitments made in Tier 1. For example, they may seek commitments regarding acres of reforestation vs. acres of preservation of existing forest. In addition, they indicated that they may seek commitments regarding the timing of certain mitigation activities, given that there may be a long time between the completion of NEPA and the beginning of construction.

- FHWA and INDOT stated that they will continue to work with USFWS to address mitigation issues as part of consultation in Tier 2.

- INDOT noted that mitigation sites should be located close enough so that the bats will go to those areas, but preferably not so close that Indiana bats are encouraged to concentrate along the roadway. USFWS agreed.

- INDOT noted that it is important to consider future repairs to bridges. The USFWS stated that this could be considered during the reinitiation of Tier 1.

II. Additional Mist Netting

BLA provided a summary of mist netting that is expected to occur in summer 2005:

- ESI (a sub-consultant to BLA) is scheduled to complete additional mist-netting for one area in Section 1, two areas in Section 2, and one area in Section 3, and two areas in Section 4, to locate primary roost trees. Later in the meeting, USFWS requested an additional area in Section 4 be reviewed for a maternity colony. This area is adjacent to Breeden Road where a male was found in a plastic sleeve to a telephone pole guide wire. Altogether, ESI will be conducting mist-netting in seven areas.

- BHE (also a sub-consultant to BLA) will complete additional mist netting for one area in Section 5, two areas in Section 6 to locate primary roost trees. Altogether, BHE is to look at 3 areas.

- The proposed mist-netting sites and the mist-netting protocol were presented to USFWS in an email on June 18th. BLA is seeking USFWS's approval for the mist-netting sites and mist-netting protocol as soon as possible. BLA stated that an agreement on the protocol is needed so that the subconsultants can go out and do the work, which must be completed by August 15th.

- Radio transmitters have been ordered for BHE and ESI (the two consultants that will be doing the mist-netting work), and that BHE has received their radio transmitters.

- Field work will begin on July 11th for additional mist netting.

- Cave surveys are still coming in and in mid-July, INDOT and FHWA will have a tentative list of caves for sampling in 2005 and 2006. The expectation is that fewer caves will need to be surveyed than last year.

III. Review of Section 4 Interchange

At a June 16th public meeting for Section 4, it was announced that a new interchange is being considered for I-69 in western Monroe County or eastern Greene County (i.e., an interchange that was not identified in the Tier 1 EIS). The following summarizes the discussion of this issue at the July 1 meeting.

- The USFWS stated that its main concern over adding this interchange in western Monroe County and/or eastern Greene County is the potential of the interchange to spur development/encroachment in areas with sensitive karst terrain that serves as swarming habitat and hibernacula for the Indiana bat.

- The USFWS noted that development is rapidly expanding on the west side of Bloomington, so there is the potential for development to spread farther west; a full-access interchange in this area would encourage that trend and facilitate further development in the area, resulting in adverse impacts to forests and karst areas that provide high-quality habitat for Indiana bats.

- The USFWS stated that the conservation of Cave and its surrounding forest habitat was of high concern. This privately owned cave is a Priority 1 hibernaculum for the Indiana bat and has been officially designated as Critical Habitat under the Endangered Species Act.

However, the Indiana bats hibernating in this cave are poorly protected and therefore highly vulnerable to human disturbance/vandalism. A new interchange in western Monroe County and/or eastern Greene County could easily lead to additional development in close proximity to this cave.

- INDOT stated that it had made a commitment in the Tier I FEIS that no interchange will be provided in the karst terrain in western Monroe County, where I-69 is on new alignment. Likewise a commitment was made to consider limiting the location and number of interchanges in karst areas in eastern Greene County. INDOT stated that this commitment has not changed; therefore, INDOT will not consider adding an interchange in western Monroe County; the only issue is whether to add an interchange in eastern Greene County, potentially as a way to eliminate the interchange at SR 54 that was identified in the Tier 1 FEIS for that area of Greene County.

- INDOT asked the USFWS to think about the potential for a new interchange in eastern Greene County, in terms of their concern with development and the need to protect the Indiana bats. INDOT asked USFWS to provide their input to BLA at some point after this meeting.

- BLA mentioned that adding an interchange on I-69 in eastern Greene County could help to shift traffic onto I-69 and off the local roads (especially SR 45 to Bloomington), and could help avoid the need to widen SR 45. USFWS stated that this would be desirable, but asked whether there would actually be a commitment not to widen SR 45. It was noted that at this time, INDOT does not have enough information to make such a commitment. USFWS also reiterated their concern about the potential for any new interchange in the area of eastern Greene County and/or western Monroe County to spur development, which in turn could have impacts on Indiana bat habitat.

- USFWS noted that it is willing to meet with local stakeholders who are seeking the interchange to discuss how USFWS's concerns about development could be addressed. They are interested in proposals that would involve commitments by the County to control development.

- USFWS noted that, from the standpoint of their concerns about induced development, an interchange in eastern Greene County would probably be no different than an interchange in western Monroe County unless county zoning ordinances differed significantly.

IV. Review of Mitigation Lands

BLA provided an update:

- The purpose of the fall/winter cave surveys was to identify any additional caves that serve as hibernacula for the Indiana bat (in addition to caves that are already known hibernacula).

- In Tier 1, 21 mitigation sites were studied conceptually.

- Two parcels have been purchased in the Patoka River Bottoms for a total of 60 acres. These are non-forested tracts that could be reforested. Approximately half of this land is expected to be used as right-of-way for I-69; the remainder could be used as mitigation land.

- To date, there has been coordination regarding these two parcels with the Patoka River National Wildlife Refuge. (Note: They are located within the acquisition boundary for the refuge.) No decision has been made about how these parcels would be used.

- The USFWS's (BFO) input is being requested on coordination and purchasing of mitigation lands in Tier 2.

- Presently BLA staff is contacting property owners with the help of the EEACs for potential sites for mitigation. BLA believes that the property owners are not aware of roost sites on their properties.

- INDOT stated that when property is acquired, they would need to know the best way to handle this, and would like the USFWS to help when looking at future sites for purchasing.

- The USFWS noted that, in the case of the Indianapolis airport, they initially began with a "hard ratio" that called for mitigation at a 3:1 ratio, but this ratio was softened as they developed specific mitigation measures. For example, in some areas, USFWS may be more interested in the amount of reforestation vs. the amount of preservation of existing forest, as opposed to the overall acreage of mitigation. The USFWS noted that the mitigation ratio should be viewed as the first step, and mitigation decisions should be made on a case-by-case basis.

- INDOT noted that it may not be appropriate to focus solely on mitigation lands within the 2.5-mile-wide "Action Area" along the corridor; in some cases, it may be more appropriate to acquire mitigation lands outside that area. USFWS agreed, but emphasized that they should be consulted before mitigation land is acquired to determine whether it is appropriate as mitigation for this project's impacts to the Indiana bat. INDOT stated that they intend to comply with this request for future mitigation sites.

V. Water Resources

BLA mentioned the BLA contacts for the various areas were for mitigation (Josh Sherretz), update contact (Kia Gillette), and water resources (Rusty Yeager).

- The main outstanding issue regarding water resources was a letter from USFWS dated June 6, 2005. In that letter, USFWS noted that it had sent an e-mail message on December 30, 2004, with recommendations concerning the methodology for water resources surveys. The USFWS is seeking an explanation of the reasons why their recommended approaches were not incorporated into the water resources guidance.

- FHWA and INDOT assured USFWS that the December 30th e-mail was received and reviewed by INDOT and FHWA.

- FHWA and INDOT noted that both INDOT and FHWA have worked with a number of agencies in developing Tier 2 water resources guidance, and the methodology presented in the water resources guidance resulted from those consultations. This methodology involves the use of InWRAP for wetlands and QHEI and HHEI for streams.

- FHWA and INDOT acknowledged that USFWS (in its December 12th e-mail and June 6th letter) is seeking more detailed stream sampling, in order to establish a pre-construction baseline for water quality. FHWA and INDOT stated that they are committed to conducting this additional sampling during the permitting process, after the completion of the NEPA process. They said the sampling would be carried out in accordance with appropriate standard operating procedures (SOPs), as determined at that time.

- The USFWS stated that they were comfortable with FHWA/INDOT conducting additional stream sampling during the permitting stage. The USFWS requested a letter following this

meeting to confirm this discussion. FHWA said that a response to the June 6th letter is being prepared and will be sent soon.

- The USFWS will be kept abreast of all karst meetings and activities.
- Dye tracing is presently being conducted as discussed at the last Overall Agency Coordination meeting held February 23rd & 24th.

VI. State Listed Species

Patoka River Bottoms

- Reptiles - 4 copperbellies
- Birds - Cerulean warbler and Henslow Sparrow
- Amphibians – No State listed species
- Plants - Plant study is ongoing – no state listed found so far
- Mammals (no bats) - No state listed small mammals
- Fishes – No state listed species
- Aquatic Crayfishes- to be completed this coming week following USFWS's protocol
- Terrestrial Crayfish- to be completed this summer following USFWS's protocol.

Section 5

- No state listed for fishes, mussels or crayfishes were found. Indian Creek may be resampled this year for mussels, and all creeks in Section 5 are being resampled for crayfishes.

Section 6

- No state listed for fishes, mussels or crayfishes were found. Collecting completed in Fall 2004

East Fork of White River

- No state listed mussels (completed). Fishes - to be completed this coming week following USFWS's protocol. Crayfish - to be completed this coming week following USFWS's protocol.

Cave Surveys

- 5 species from Cave and 2 species from Cave near SR 37 in Section 5. Other species are possible and sampling will also occur in July 2005. State listed species were a Cave Beetle, Springtail, Aquatic Snail, Troglobitic Crayfish, and Amphipod). Surveys for Section 4 are planned for this summer.
- The USFWS mentioned that some of the new findings from the I-69 Tier 2 dye-tracing studies may need to be addressed under the existing Karst MOU.

- INDOT also mentioned that the SR 37 existing drainage will have to be addressed and adjusted for the EIS.
- BLA gave a cave survey report:
    - 60 Caves surveyed last year
    - Found new hibernacula in Also, 1 Indiana bat was found in cave in the winter.
    - BHE and ESI each did 30 caves this last year.
    - BLA is finishing the cave list now and will have additional information for everyone in mid-July.
    - There are some caves that are on the list this year because the owner wouldn't give permission last year, and there was also some flooding to deal with.

BERNARDIN • LOCHMUELLER & ASSOCIATES, INC.
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TRANSMITTAL

Keith Josh
Matt Jonna
Vince Nicole
Dean Dean M
Dave I Mike G
Kent Neal
Tom C
Jim G
Daniel
Jason
Jeremy

DATE: July 6, 2005

RE: I-69 Evansville to Indianapolis

TO: US Fish and Wildlife
620 South Walker Street
Bloomington, Indiana 47403

BLA PROJECT NO.: 103-0001-1PL

CLIENT PROJECT NO.: n/a

ATTENTION: Andy King

WE TRANSMIT:

☑ **Attached** ☐ **Under Separate Cover** ☐ **In Accordance With Your Request**

VIA:

☑ **UPS Ground** ☐ **UPS Next Day Air** ☐ **US Mail** ☐ **Pick-up** ☐ **Messenger**

No. Copies	Dated	Description
1	7/5/05	Indiana Bat Survey Map
1	7/5/05	CD containing the Indiana Bat Survey Map

REMARKS:

Please find one map and one CD pertaining to the Indiana Bat. Should you require any additional material, please contact our office.

Sincerely,
Bernardin, Lochmueller & Associates, Inc.

BY: Neal Schoeder

Copies to: File

July 21, 2005

Jon Eggen
Fish & Wildlife Office
Indiana Department of Natural Resources
402 West Washington Street – Room W273
Indianapolis, IN 46204

RE: Interagency Water Resources Coordination Team

Dear Jon Eggen:

As part of the I-69 Evansville to Indianapolis Tier 2 studies, INDOT and FHWA invited environmental agencies to participate in an Interagency Water Resources Coordination Team. The goal of this Team was to provide input and assist in developing Water Resources Guidance for the NEPA process. The Water Resources Guidance provides a consistent approach to evaluating potential impacts to water resources resulting from the I-69 project.

Through various meetings and correspondence, it was determined that the Indiana Wetland Rapid Assessment Protocol (InWRAP) would be used to assess wetland quality and the Qualitative Habitat Evaluation Index (QHEI) and the Headwater Habitat Evaluation Index (HHEI) would be used to assess stream quality. It was also determined that additional sampling and assessment will be done during the permitting process prior to construction. Collecting this information closer to the time of construction will provide a more accurate measurement of the pre-construction baseline condition.

A training course for InWRAP was held on May 25 and 26, 2005. The course was taught by Dr. Paul Rothrock and Robert Reber from Taylor University. Both Paul and Robert were part of the InWRAP Development Team. Course participants included the Indiana Department of Natural Resources (IDNR), Indiana Department of Environmental Management (IDEM), Environmental Engineering Assessment Consultants (EEAC), the Project Management Consultant (PMC), and INDOT.

A Qualitative Habitat Evaluation Index (QHEI) and Headwater Habitat Evaluation Index (HHEI) course was held on June 27 and 28, 2005. Course participants included IDNR, IDEM, EEACs, PMC, and INDOT. Both QHEI and HHEI will be used during the NEPA process to describe streams potentially impacted by proposed alternatives. We would like to thank everyone who participated for making the course so successful and informative. Special thanks go out to the IDEM Office of Water Quality Assessment Branch for teaching the QHEI portion of the course on June 27. Bernardin-Lochmueller & Associates, Inc. (PMC) taught the HHEI portion of the course on June 28.

We would like to thank you for the time and effort you have put forth towards the development of the I-69 Water Resources Guidance. We feel that the use of the InWRAP, QHEI, and HHEI assessment methods combined with the additional sampling that has been committed to during permitting, that the potential impacts to water resources resulting from this project can be understood, avoided, minimized, or appropriately mitigated. Each agency is receiving a hard copy and/or a CD of the InWRAP and QHEI/HHEI manuals used in the training courses.

If you have water resource related questions, or other questions regarding the project, please feel free to contact Tom Cervone, Ph.D. at 800-423-7411 or tcervone@blainc.com, or Kia Gillette at 888-830-6977 or kgillette@blainc-indy.com.

Sincerely,

Kent Ahrenholtz, P.E.
Project Manager

Enclosures (InWRAP and QHEI/HHEI manuals and/or CDs)

cc:

Cathy Garra, USEPA	Scott Pruitt, USFWS	Tony DeSimone, FHWA
Virginia Laszewski, USEPA	Andy King, USFWS	Dennis Clark, IDEM
Jon Eggen, IDNR	Tom Simon, USFWS	Steve Newhouse, IDEM
Martha Mettler, IDEM	Janice Osadczuk, INDOT	Stacey Sobat, IDEM
Jason Randolph, IDEM	Doug Shelton, USACE	Eric Swickard, INDOT
Todd Davis, IDEM	Amy Babey, USACE	Ben Lawrence, INDOT
Kenneth Collins, NRCS	David Stratman, NRCS	

Keith
Matt
Kent
Tom
Jason

August 9, 2005

Dan Ernst, Assistant State Forester
Indiana Department of Natural Resources
Division of Forestry
402 W. Washington St., Rm. W296
Indianapolis, IN 46204-2639

Re: Forest Resources Coordination for I-69 Evansville-Indianapolis Tier 2 EIS
Bernardin · Lochmueller and Associates Project No. 103-0001-1PL

Dear Dan,

Please find attached copies of I-69 Corridor maps through Green and Monroe Counties per your request for additional mapping at our June 22nd meeting in Bloomington. The maps include Classified Forest information as well as the preliminary alternatives which have been developed through this area within the corridor. Please be advised that the preliminary alternatives are subject to change, and if your personnel are in the field discussing these maps, please have them refer the public to the appropriate I-69 Project Office (Section 4 Office in the case of these maps) for any questions relative to I-69. I have included the contact info for the offices for your reference.

Also, please provide data on Classified Forest Program and Forestland Enhancement Program properties with the entire I-69 Corridor. As identified in our meeting, there are no Forest Legacy Program properties within the I-69 Corridor being evaluated in the current Tier 2 Studies. Attached is a CD containing Arcview shapefiles of the I-69 Corridor. If you need any additional corridor mapping to fulfill this request, please let me know.

Sincerely,
BERNARDIN · LOCHMUELLER AND ASSOCIATES, INC.

Jason A. DuPont

Jason DuPont, P.E.
Environmental Engineer

cc: file

Enclosures: 1 CD containing: I-69 Corridor Sections 1 through 6 (ArcView shape files)
Large format mapping for I-69 Corridor in Green and Monroe Counties

MINUTES

Conference Call with U.S. Fish and Wildlife Service

USFWS Bloomington Field Office

August 12, 2005 at 9:30 a.m.

Attendee	Organization
Andy King	USFWS
Kia Gillette	Bernardin-Lochmueller & Associates, Inc. (BLA)
Josh Sherretz	BLA
Cinda Bonds	BLA
Neal Schroeder	BLA

BLA opened the meeting by introducing the meeting participants and giving an overview of the purpose of the meeting. The goals of the meeting were to update USFWS on the status of the additional summer habitat surveys and review the proposed contents of the Tier 1 Biological Assessment (BA) Addendum.

I. Clarification on Indiana bat Hibernacula

The USFWS responded to a question proposed in an earlier e-mail regarding 2 caves, and These 2 caves were found to have Indiana bats during the winter 2004 surveys. The question was whether the Winter Action Area should be extended to include a 5-mile radius around each of these caves.

- USFWS stated that they did not see a reason to extend the Winter Action Area. Twenty-eight (28) Indiana bats were found in is approximately 5.10 miles from the proposed corridor, and would not have originally included in the caves to be surveyed because it was over 5 miles from the corridor. Only one (1) Indiana bat was found at There is good documentation that floods to the ceiling during wet weather.

- For simplicity, all caves found to have hibernating Indiana bats will be called "hibernacula." Thus and are hibernacula.

II. Additional Summer Habitat Surveys

BLA updated USFWS on the status of summer mist net, radiotelemetry, and roost tree emergence counts.

- Work in Sections 5 and 6 is complete. Indiana bats were captured at all 3 circles surveyed and successfully tracked to roost trees. Primary and secondary roosts were identified in Section 5 and 6S, while on secondary roosts were identified in Section 6N. We are very pleased with the results. USFWS agreed.

- Work in Sections 1-3 is also complete. A new mist net site was chosen because the original 2004 site had been modified (trees cut and now a pond). One Indiana bat was captured in Section 2, a non-reproductive female. The bat could not be successfully tracked to a roost tree. Ground tracking took place for 4 days after capture. The bat was not heard during this time. Aerial tracking took place on the 5th day and 7th day. The bat was heard one time near Snakey Point near the Patoka Wildlife Refuge, and a ground crew was sent out. The bat

could not be heard on the ground and has not been heard since. BLA asked USFWS if we should attempt another aerial survey (this would be out of scope, but could be done).

- USFWS said that it was not necessary to go out of scope to do the aerial survey. Just document the search area and where both ground and aerial tracking efforts occurred.
- USFWS asked what type of radiotransmitters were being used in Section 2. BLA stated that they were not sure but believed they were the same transmitters that were successfully used last year.
- USFWS stated that possibly BHE had used a different type, transmitters that were stronger, but did not last as long (10 days, not 20).
- USFWS asked if it was possible that the non-reproductive female Indiana bat captured in Section 2 had been reproductive earlier in the year. Female Indiana bats are deemed reproductive if they are pregnant, lactating, or post lactating. Lactation is indicated by a lack of hair around the teats. Post-lactating females have short hair growth around the teats. It may be possible this bat was reproductive earlier this year the hair has grown back.
- BLA asked if a non-reproductive female would behave differently.
- USFWS stated they could act more like a male Indiana bat, and be more of a drifter and not necessarily tied to a maternity colony.
- No Indiana bats were captured in Sections 1 and 3.
- Evening bats and other species were captured in Section 3. Sites 11 and 14, and areas primarily along the White River were surveyed.
- **USFWS recommended we check and see if there are Indiana bats under the bridge over the near in Section 3 (only bridge found to have roosting Indiana bats in 2004). Just do a daytime and a nighttime check. No mist netting.**
- Mist netting in Section 4 started last night (8/11/05). Four crews were out in the Section and it should be completed by Sunday night. More people will be brought in if needed.
- USFWS stated that this was pushing the calendar in terms of the mist netting time window (May 15 – August 15). It can be more difficult to capture Indiana bats later in the season because juveniles are better at flying and females are no longer pregnant and weighed down. It could be easier for them to out maneuver the mist net and they can disperse more. Post-lactating females can also be harder to distinguish.
- The dry weather could also contribute. Some of the smaller streams are dry now, and the dry weather could affect insect abundance.
- USFWS asked if the utility pole that was an Indiana bat roost in 2004 had been revisited. BLA responded that it had not yet, and the property owner did not allow them to be on the property last year. USFWS offered to speak to the property owner if they had concerns.
- **USFWS asked that a guano sample be taken from the utility pole if possible.**

III. Mitigation

BLA asked USFWS if they had reviewed the mitigation information that had been e-mailed prior to the meeting.

- Information on a potential parcel and near the Patoka Wildlife Refuge was included in the e-mail. The parcel in the Patoka area is 40 acres and wetland/forest area. The owner appears to be willing to sell and the Refuge is interested in the parcel. The possibility of fencing the area near the bridge which housed roosting Indiana bats in 2004 surveys was also included.

- USFWS stated they would talk to the Refuge regarding the parcel.

IV. BA Addendum Contents

BLA reviewed the DRAFT BA Addendum outline with USFWS.

- USFWS asked that the Appendices be a separate bound document. The Appendices will contain detailed maps and will be marked as "Confidential."

- Maternity and hibernating colonies will be the primary biological unit we are concerned about. At this point there are 14 maternity colonies.

- BLA asked how a colony was determined, and if ID numbers had been assigned.

- **USFWS responded that a colony was determined to exist if there was evidence of reproduction in an area during the summer reproductive season (a reproductive female or juvenile). Radiotelemetry would be used to confirm colony roost trees. In absence of roost tree data, a 2.5 mile circle centered on the mist net location would be used as the potential location area for the roost trees. If a primary maternity roost has been identified, then the circle would be centered around it. If only secondary roosts had been identified, then the circle would be centered around the approximate location of these roosts. A list of assumptions for the colony determination should be included in the BA Addendum.**

- USFWS stated that you cannot know for certain if secondary roosts overlap. There probably is some switching around. Research suggests that Indiana bats may have a fission-fusion type of society. The goal of the simultaneous emergence counts was to get a better understanding of the colony size.

- Once maternity colony circles have been refined, jpeg maps will be sent to USFWS for their review.

- **In the original Tier 1 BA, there was no information on the quality of forest to be taken (i.e age, # of potential roosts, quality of roosting and foraging habitat, species composition, size). The Tier 1 BO states that information on forest quality, as well as quantity, should be included in the Tier 2 BAs. Specifically, this is mentioned under the Terms and Conditions of the Incidental Take Statement on page 80 of the BO, "…the total acreages and relative quality (i.e., maturity of forest and estimated suitability for roosting and foraging) of forest and wetland habitats that will be permanently cleared/filled; and all other anticipated project…"**

- **In absence of forest quality data, USFWS will have to make the assumption that all forest to be impacted is suitable habitat for the Indiana bat.**

- USFWS mentioned the FIA database from the US Forest Service. The Hoosier National Forest Tell City office may have this information available. Dr. Vicky Meretsky at I.U. has been critical of the inappropriate use of the data, it may be helpful to confer with her.

- USFWS stated that any forest quality information would be better than none.

- BLA asked if there was a standard scale or method for assessing forest suitability for the Indiana bats. USFWS replied that they had no set means of assigning quality. USFWS mentioned a Habitat Suitability Index Model developed for the Indiana bat that could be helpful and will e-mail this to BLA. The most important single criterion was the presence and number of large trees and large dead trees.

- USFWS also mentioned a model for forest suitability developed by the USFS in Columbia, MO. They will send this if they have it available.

- USFWS stated that ideally, we would know the forest quality in the entire colony circle (2.5 mile radius). The more information that can be presented, the less assumptions that will have to be made. USFWS is mandated by law to make assumptions on the behalf of the species.

- BLA asked if it would be a problem to use different data sources. For example, if we have more detailed information in some areas, and less detailed in others, should we use the more detailed information where available? USFWS replied that the best commercial and scientific data available should be used. So using different data sources should not be a problem as long as this is documented.

- BLA asked what types of analysis USFWS would like to see in the BA Addendum.

- Percent of forest cover before and after the proposed highway relative to each colony circle, as well as the Action Area, should be included. The circle is the "universe" or biological unit.

- **USFWS will estimate colony size in consultation with INDOT and FHWA. An estimate can be provided in the Draft BA Addendum, and should be determined in consultation with USFWS. Colony size estimates will differ depending on the time of year. Prior to the juveniles starting to fly (mid July, we use July 15 an estimate), the number will likely need to be doubled to get colony size estimate. After July 15, multiply by a factor of 1.5 because not all adults or roost trees will likely be counted during emergence counts of known roosts.**

- **Anticipated indirect impacts should be included in the BA Addendum. These should be in a GIS layer and included in the analysis. Indirect impacts should include areas reasonably believed to be developed, or other development that meet the "if weren't but for the project, this would not be occurring." Include any assumptions if made regarding indirect impacts. Also include cumulative impacts if known, but do not include other federal actions. Check the Section 7 handbook as to the definition of cumulative impacts.**

- Use the Preferred Alternative in Sections where it is known, as well as **rest areas** if there is an idea where they might be.

- Tier 2 BAs will likely have a similar outline as the BA Addendum, but include information we didn't have at the time of that submittal.

- USFWS stated that the Consultation Agreement will be very important. The goal of this agreement is to ensure that INDOT, FHWA, and USFWS all know what is expected (data, types of analysis, etc.) in the reinitiation package and Tier 2 BAs.

- **The Winter Habitat analysis should include indirect impacts. The potential interchange in eastern Greene County is a very important concern and viewed as the largest concern for winter habitat. This is particularly important due to the close proximity of Cave (critical habitat) and potential for indirect development. The landowner has no interest in selling or installing a gate, thus Cave is inherently vulnerable to human disturbance. USFWS is working on a letter to INDOT and FHWA regarding this interchange.**

- Include potential mitigation areas if known. The Tier 1 BO mentioned the possibility of hibernaculum purchase. USFWS are working on the possibility of purchasing And caves; however, acquiring grant money has been a slow process. The landowners have expressed some interest if the cost is adequate. and caves are within the Winter Action Area. Purchasing and caves, as well as surrounding forest, could be mitigation for loss of swarming habitat within the Winter Action Area.

- The impact analysis within the BA Addendum for the Winter Action Area should include indirect impacts.

- **The Winter Action Area analysis should also include subterranean watershed maps for those connected to hibernacula if the information is available. These maps should include boundaries, flow patterns, dye trace studies, and inferred stream patterns for the karst hydrology.**

- **USFWS recommended speaking with karst experts regarding the hydrology and inferred connections. If these are not expected to be an issue, document this in the Addendum.**

- Direct and indirect impacts to watersheds that drain into hibernacula should be included.

- **Zoning or community planning should also be included for Monroe and Greene Counties.**

- USFWS recommended that Tier 2 BAs not be formally submitted until the Tier 1 reinitiation is completed.

- USFWS will likely develop more specific mitigation goals this time. For instance, goals for land purchase for reforestation and preservation will likely be included. There will likely be an emphasis on reforestation. Connectivity is very important, even wooded fence rows.

- For mitigation in the Tier 2 BAs, a management plan may need to be developed for each colony.

- BLA asked about mitigation other than tree planting, such as tree girdling, or installing utility poles that bats have been found in as artificial roosts, or bat-friendly bridges. USFWS said that these should not be the focus, but could be included in the colony management plans.

- BLA asked about the Safe Harbor Act and if it would apply, particularly to bat-friendly bridges. The Safe Harbor Act applies only to non-federal actions. The state could possibly use this if only state money was used to construct the bridge. USFWS added that a bridge was not likely a maternity colony, so they were uncertain if a take would actually occur if work was necessary on the bridge.

- USFWS stated that the Incidental Take Statement is issued for the construction, operation, and maintenance of I-69. So bridge maintenance can be included.

- USFWS stated that a nationwide or statewide programmatic consultation on bridges may occur.

- **A timeline for the project should be included in the BA Addendum.**

- **Double check the Conservation Measures to see if they are still appropriate. Conservation measures are included in the Proposed Action. Theoretically, if the Conservation Measures change, then the Proposed Action has changed and reinitiation may be necessary. Those Conservation Measures no longer being considered should be removed.**

- Include a chapter in the Addendum on changes since the original BA. This should include changes to the Proposed Action (including Conservation Measures), inclusion of Cave as a hibernaculum, the Community Planning Grant, or anything else that is different. This could just include a bulleted list.

- **The Community Planning Grant Program was not included in the original BA. Because it is part of the Proposed Action, it should be included, as well as any indirect impacts associated with it.**

- The Addendum does not need to include species life history.

- The Addendum should be double-sided, this will help conserve paper and shelf space.

- BLA asked about Section 7(a) 1 of the ESA and if it was project specific. USFWS replied that it can be project related, but does not have to be. It relates to the entire federal program. There is more freedom and opportunity for creativity under Section 7(a) 1. Work done under Section 7(a) 1 can be done outside the Action Area and included in the jeopardy analysis for a project.

MINUTES

Meeting with U.S. Fish and Wildlife Service

USFWS Bloomington Field Office

August 22, 2005 at 1:30 p.m.

Attendee	Organization
Andy King	USFWS
Kia Gillette	Bernardin-Lochmueller & Associates, Inc. (BLA)
Tom Cervone (via phone)	BLA
Josh Sherretz (via phone)	BLA
Cinda Bonds (via phone)	BLA
Neal Schroeder (via phone)	BLA
Tainia Brack (via phone)	Environmental Solutions and Innovations, Inc. (ESI)

BLA opened the meeting by introducing the meeting participants and giving an overview of the purpose of the meeting. BLA and USFWS are planning on having weekly meetings while the I-69 Biological Assessment Addendum is being developed in order to work through potential issues and ensure the appropriate documentation and analysis are included in the Addendum.

I. Review and Approve the Number and Location of Maternity Colony Circles

The first item on the meeting agenda was to review and approve the number and location of maternity colony circles. Each circle has a 2.5 mile radius. USFWS was provided with size 24" X 36" maps of each maternity colony circle. At this time, there are 13 possible maternity colony circles. They are listed below.

Section 1 (1 colony): Pigeon Creek

Section 2 (4 colonies): Patoka River, Flat Creek, East Fork, Veales Creek

Section 3 (1 colony): W. Fork of the White River/Elnora

Section 4 (3 colonies): Doans Creek, Plummer Creek, Indian Creek

Section 5 (1 colony): W. Fork White River/Bryant Creek

Section 6 (3 colonies): W. Fork White River/Clear Creek, W. Fork White River/Crooked Creek, White River /Pleasant Run Creek

- The Pigeon Creek colony circle in Section 1 was reviewed and approved by USFWS. The center of the circle is based on buffering the Indiana bat capture site from 2004.
- The Patoka River colony circle in Section 2 was reviewed and approved by USFWS. The center of the circle is the primary roost tree identified in 2004.
- USFWS asked if the roost tree in the Patoka circle was still standing. BLA replied, yes it was, but had lost some bark since last year. Several other dead snags were observed near this roost tree.
- BLA asked if the Flat Creek circle in Section 2 should be a part of the Patoka River circle. No roost trees have been identified in the Flat Creek circle. A post lactating female Indiana

bat was captured near Flat Creek in 2004 on August 11, but could not be successfully tracked. A non-reproductive female was captured in this circle late in the season in 2005 on August 4. The bat could not be successfully tracked to a roost tree. Its signal was only heard once, near Snakey Point near the South Fork of the Patoka River.

- USFWS recommended showing as an area where the non-reproductive female was heard. Also, the negative data – i.e. where did you look and not find the bat, where did you mist net and not capture Indiana bats – would be helpful in making a decision about the Flat Creek colony. The mist net sites, dates, and negative data results for the area would be good to have for the next weekly meeting.

- A decision regarding the Flat Creek colony circle in Section 2 will be made during the next weekly meeting in conjunction with the negative data from this year's mist netting.

- The East Fork colony circle in Section 2 was reviewed and approved by USFWS. The center of the circle is based on buffering the Indiana bat capture site from 2004.

- USFWS recommended marking the center point of each circle on the maps so everyone would have the same point of reference.

- The Veales Creek colony circle in Section 2 was reviewed and approved by USFWS. The center of the circle was placed by eye in the forested corridor about half way between the two primary roost trees. USFWS added that the fence row in that area may be very important to the colony as a means of providing connectivity.

- Tainia Brack from ESI called into the meeting for a short time. ESI is working on organizing the 2005 additional mist netting data for Sections 1 – 4. All the data has been entered; however, it is being organized by species, age, and reproductive condition. The data will include GIS shapefiles of mist net sites, and of ground and aerial search areas. The data will be provided to BLA on Wednesday of this week.

- ESI used radiotransmitters manufactured by Philip Blackburn, Blackburn Transmitters out of Texas. USFWS added they thought BHE used transmitters from Wildlife Materials out of Carbondale, IL. These transmitters are believed to have a stronger signal but a shorter battery lifespan.

- The transmitters ESI used were 0.25 grams, 150-152 mW range, with a 3 mW peak power output. The battery life is about 10 days.

- USFWS asked if the bridge over the near was sampled again in 2005. BLA replied, yes and a lot of bats of many species were observed. The exact data will be provided to BLA on Wednesday of this week, and will be forwarded to USFWS.

- BLA asked if the bridge should be included as part of the W. Fork of the White River colony circle in Section 3. USFWS recommended that the decision be made after the 2005 data is available. It's possible this colony area could be more linear and not circular. This will be a point of discussion for the next weekly meeting.

- BLA asked if they should be buffering 2.5 miles from the streams, rather than a center point based on bat capture or roost tree. It was decided that BLA would calculate the furthest distance from a roost tree to a river or stream. Rivers and streams may be buffered from this distance to prioritize the habitat, as this habitat appears to be very important to the Indiana bat. This will be discussed at the next weekly meeting.

- BLA added that property owner contact information has been collected and placed in a GIS shapefile for the circles. This will be helpful when it comes time to contact property owners for mitigation.

- BLA added that stream order appears to be very important with regards to roost tree location. Roosts have mostly been found along larger streams. USFWS added that this makes sense, because these areas are not conducive to development or agriculture.

- The Doans Creek colony circle in Section 4 was reviewed and approved by USFWS. The center of the circle was placed by eye between the two secondary roost trees identified in 2004. Two male Indiana bats were captured in 2005 near Site 2 in this circle. No females were captured in this circle in 2005.

- The Plummer Creek colony circle in Section 4 was reviewed and approved by USFWS. The center of the circle was placed by eye between the two secondary roost trees identified in 2004. No Indiana bats were captured in this circle in 2005. All additional mist netting for 2005 in Section 4 were completed during the last week of the mist netting season.

- The Indian Creek colony circle in Section 4 is centered around a utility pole which was identified as a roost tree in 2004. We were unable to get the property owner's permission to do emergence counts at the utility pole in Section 4 identified as a roost in 2004. Mist netting was done in the vicinity of this area, but no bats were tracked to the utility pole in 2005.

- A male Indiana bat was tracked to the utility pole in 2004. Emergence counts for the utility pole ranged from 8 to 20 bats in 2004. Male Indiana bats are not known to aggregate in the numbers reported; however, they have been found to roost with females in maternity colonies.

- BLA asked if we should leave the utility pole in as a maternity colony. USFWS responded that yes, with lack of information they must give the benefit of the doubt to the species.

- USFWS added that if the property owner of the utility pole site won't allow access, it could be a candidate for Anabat.

- USFWS asked if INDOT could lawfully get access to the property with the utility pole. BLA responded that yes, if after asking again the property owner still said no, we could go to the property with a sheriff, but we prefer not to follow such an action. It has been INDOT's policy to work with the public in such situations.

- USFWS also asked if it would be possible to get a guano sample from the utility pole. This would allow for DNA testing which could confirm the presence and sex of Indiana bats. Guano samples can identify species and gender. The circle would not be kept as a colony if the DNA shows there were no Indiana bats present. BLA mentioned that ESI did not attempt to get a guano sample when the property owner declined access.

- BLA added that the utility pole was only about 30 feet from the property owner's home. Perhaps he may not mind if a guano sample was collected during the day.

- BLA asked what the proper method of collecting a guano sample would be or who could conduct the actually analysis. USFWS mentioned Gary McCracken from the University of Tennessee.

- USFWS recommended that the guano sample be taken from the top of the sleeve (most recent droppings), and be placed in a zip lock bag and frozen.

- BLA asked if male Indiana bats roost with other species? USFWS responded that this is not well known, but there is evidence of some Indiana bats roosting in the same roost as little brown bats.

- USFWS also mentioned that if INDOT and FHWA did not want to do the DNA testing, they could just proceed as if the utility pole was a maternity roost, and thus a colony.

- USFWS added that all emergence counts for the project have been of adults of unknown gender and species. They are working under the base assumption that Indiana bats are roosting with other Indiana bats.

- USFWS asked if BLA could provide where else in Section 4 we sampled and did not capture any bats. BLA said yes, this will be provided for the next meeting.

- For now, we will proceed as if the utility pole is a maternity colony until proven otherwise.

- USFWS reviewed the W. Fork White River/Bryant Creek colony circle in Section 5. The center of the circle was placed by eye in the midst of 4 roost trees identified in 2005, but weighted heavily toward the primary roost and highest emergent secondary roost. USFWS recommended placing the center of the circle on the primary roost tree due to the much higher emergence counts. The secondary roosts will still be well within the circle.

- The W. Fork White River/Clear Creek colony circle in Section 6 was reviewed and approved by USFWS. The center of the circle was placed by eye on the north edge of the forest between the 2 primary roosts (one identified in 2004 and one identified in 2005).

- The W. Fork White River/Crooked Creek colony circle in Section 6 was reviewed and approved by USFWS. The center of the circle was placed by eye on the north edge of the forest between the 2 primary roosts (both identified in 2004).

- BLA asked if we should delineate areas around roost trees, mist netting sites where bats were captured, and areas where they were heard during radiotelemetry.

- USFWS stated that they would like to see both the positive (areas where Indiana bats were heard) and negative (areas that were searched and Indiana bats were not heard) on the maps. However, because only 1 or 2 bats from a colony were radiotagged, we cannot exclude areas where other bats in the colony could be. Just because 1 bat was not heard in an area does not mean that area is not used. Areas with negative results cannot necessarily be excluded.

- BLA asked if we should buffer roost trees by a certain distance and keep the road at least that distance from the roost tree? USFWS replied that this may occur on a case by case basis, and the discussion could occur if necessary. They may be looking at Tier 2 to determine if additional Reasonable and Prudent Measures or Terms and Conditions will be necessary.

- The White River/Pleasant Run Creek colony circle in Section 6 was reviewed and approved by USFWS. The center of the circle was placed by eye in the center of the mist net sites along the White River, because the secondary roost trees found near the north net site in 2005 had counts of only 1 bat each.

II. Discussion of Fencing the Bridge Over the Near

BLA asked USFWS about the possibility of fencing the bridge over the near Approximately 501 bats (7 big browns, 9 Indiana bats, & 485 little browns) were observed roosting at the bridge during the day in 2005. Approximately 210 bats (18 big browns, 6 Indiana bats, & 186 little browns) were observed roosting at the bridge at night in 2005. Currently, the bridge has not protection and has shown evidence of human activity (e.g., garbage and graffiti).

- BLA stated that the current thought for the fence is a 10 foot high fence with barbed wire and "No Trespassing" signs.
- USFWS recommended that no barbed wire be used because Indiana bats, as well as other bats, can get impaled on it. There are reports of this in literature. (After the meeting, USFWS e-mailed a citation for the article "An Indiana Bat Impaled on Barbed Wire," by DeBlase and Cope, 1967.)
- USFWS added that ideally we would visit the area and film the natural flight path of the bats around the bridge. USFWS has a night vision camera they would be willing to let BLA use, or could take out to the site themselves.
- USFWS also mentioned that the Vincennes District of INDOT had contacted them about 6 weeks ago regarding fencing the bridge.
- USFWS would like to review the fence design before it goes into the ground. They also acknowledged that INDOT may have certain regulations they have to follow regarding fence design.

III. Discussion of the Potential Mitigation Site Near the Patoka Refuge

BLA brought for discussion a parcel within the Patoka Refuge boundary that could be available for mitigation for the I-69 project.

- BLA stated that they had been working closely with Bill McCoy from the Refuge in order to determine which parcels they may be interested in as part of I-69 mitigation.
- USFWS replied that they have not yet spoken to the Refuge, but will give deference to Bill's opinion as long as the parcel is biologically justified for the Indiana bat.

IV. Discussion of Previous Meeting Minutes

BLA asked USFWS if they have had a chance to review the meeting minutes from a meeting held on July 1, 2005, and a conference call held on August 22, 2005.

- USFWS replied that the minutes for the July meeting were currently being reviewed and BLA would receive them shortly. (BLA received the meeting minutes with USFWS revisions the following day).
- USFWS replied that they had not yet reviewed the August 22 meeting minutes, but would look them over.
- BLA added that one small change had been made to the minutes, allowing the possibility for informal Tier 2 BA discussions prior to the issuance of the Tier 1 BO after reinitiation.

IV. Possible Hibernacula Purchase

BLA asked USFWS what they would like INDOT and FHWA to do regarding and Caves, two important privately owned Indiana bat hibernacula within the Winter Action Area.

- USFWS replied that an offer to purchase these caves would be made through IDNR (Katie Smith, Gary Armstrong), but USFWS has applied for funding through grant money for the purchase. This funding has not yet been made available.
- USFWS recommended calling Scott Pruitt, who is more familiar with the status of the caves.
- USFWS added that Keith Dunlap from the Indiana Karst Conservancy was also involved in the hibernacula purchase.
- If the USFWS grant money does come through, it could also be used to purchase other Indiana bat habitat.
- BLA stated that it is a possibility for INDOT to look into conservation easements on either side of Cave to protect adjacent habitat and will discuss this with USFWS as the process progresses. USFWS responded that this was a good idea.
- USFWS asked if the possibility of a conservation easement was brought up with the owner of Cave (currently the owner does not wish to sell the property). BLA believes this was mentioned as an option when the owner was asked about the possibility of selling the property.

VI. Eastern Greene County Interchange

In the minutes for both of the last meetings, the possibility of an interchange in eastern Greene County was discussed. USFWS will be providing a letter to INDOT and FHWA with their thoughts on the issue.

- BLA asked if USFWS could provide a draft prior to the formal submission of the letter. USFWS agreed to provide this draft.
- BLA added that regards to the interchange, please tell INDOT and FHWA where you don't want such an interchange.
- USFWS added that other interchanges could become an issue for roosting and foraging areas.

VII. Community Planning Grant

- BLA stated that we don't have much information regarding the Community Planning Grant at this time.
- It is BLA's understanding that it is to assist communities on providing information for areas that should not be developed. We are currently trying to get a better understanding of everything it entails.
- BLA added that they thought INDOT had just hired a consultant to start working on the community planning grant.
- The maximum amount of grant money a community could receive is $50,000. We still don't know how this will work.

- The grant program may not be completed as part of the NEPA process. Application and the criteria for selection have not yet been established, but BLA is working on trying to get more information.

- USFWS responded that the community planning grant was clearly a federal activity if federal money would be involved. And, by guiding development, it could potentially impact TES.

- USFWS added that any language or sidebars regarding what communities would have to do to receive the grant money would be helpful. For example, investigating whether TES are present. Many communities may not be aware of TES or consider how development can affect them.

- BLA mentioned possible education for community leaders. INDOT and FHWA are committed to not harming TES, and possibly could provide such education and information.

- USFWS recommended some restrictions on the grants. USFWS could justifiably have to look at each grant to make sure there are no direct and indirect impacts to the Indiana bat.

- USFWS is not holding INDOT or FHWA to a higher standard than any other federal agency such as EPA or HUD. Any grants funded by these agencies must be reviewed.

VIII. USDA Forest Service Forest Inventory and Analysis (FIA) Data

BLA has been investigating the use of FIA data as a means for analyzing forest quality for the BA Addendum.

- BLA has contacted the USFS Hoosier National Forest office in Tell City. The appropriate contact person was out of the office, but will be contacted when available.

- BLA mentioned they would try to contact Dr. Meretsky from I.U. regarding the data. USFWS replied that she is currently on sabbatical for 3 weeks, but could possibly be reached by e-mail. The data points provided by the USFS have been relocated from there correct position for privacy reasons. Dr. Meretsky may be able to provide the corrected data points.

- BLA asked USFWS to elaborate as to what they know about misuse of the FIA data. USFWS responded that the data can be over extrapolated.

- BLA added that the expansion categories allow for an ok estimate for larger areas, but are not intended to be spatially isolated.

- BLA added that you can't interpolate the data to make a grid based off of the points provided. Forest cover does not act as a gradient. However, it may be possible to assign appropriate data points that lie on a forest block and assign the data to the entire block. There are about 3-4 data points per colony circle.

- USFWS added that you could do a car survey and record the average dbh for trees along SR 37 or canoe the White River and take notes for the area. This would not be possible for the new terrain areas.

- USFWS is concerned with the quality of habitat that will be taken versus what will remain.

- USFWS added that NWI forested wetlands should also be included in the analysis.

- The average distance from roost to open water should be included. BLA said that they had planned on including this.

- The average distance of capture site to roost tree would also be interesting. BLA said they would include this also.
- BLA asked if USFWS knew of any literature that mentioned the extent of edge vs. the total forest area? It appears that a higher ratio of edge to total area may be preferred by Indiana bats.
- USFWS responded that Indiana bats do have an affinity for edge at different scales, but this is simplistic and can't be applied to all situations. The proportion of forest is likely the key.
- USFWS added that in Appalachia, where there is a lot of forest, it is conceivable that opening the area could improve Indiana bat habitat.
- BLA said that in Section 6, there is a lot of edge and openness to the forest. This could help provide solar radiation.
- USFWS replied that they may be found in floodplains because water and insect availability is high.
- USFWS also added as a means of comparison, that there are high concentrations of Indiana bat colonies in the northern, glaciated portion of Camp Atterbury. There are higher order streams in this area. However, there are not high concentrations in the southern portion of the Camp with is not glaciated and is the Brown County Hills region.

MEETING MINUTES

Meeting with U.S. Fish and Wildlife Service

USFWS Bloomington Field Office

August 26, 2005 at 1:00 p.m.

Attendee	Organization
Andy King	USFWS
Kia Gillette	Bernardin-Lochmueller & Associates, Inc. (BLA)
Tom Cervone	BLA
Kent Ahrenholtz (via phone)	BLA
Josh Sherretz (via phone)	BLA
Cinda Bonds (via phone)	BLA
Neal Schroeder (via phone)	BLA
Garre Conner (via phone)	BLA
Jason Dupont (via phone)	BLA

BLA opened the meeting by introducing the meeting participants and giving an overview of the purpose of the meeting. Kent Ahrenholtz, the BLA project manager was available for a portion of the meeting to discuss concerns such as the proposed Greene County interchange, Community Planning Grant, and Caves, and guano sampling for the utility pole in Section 4.

I. Greene County Interchange

The first topic of discussion was the proposed interchange in eastern Greene County.

- BLA stated that traffic numbers will be available in the next few weeks for the proposed interchange area.
- BLA added that there is not expected to be a significant change in indirect impacts in the area, probably only slight shifts from what is expected to occur. We are expecting minimal additional development as associated with I-69 in this area. We are currently waiting on specific engineering to use with the Travel Demand Model.
- USFWS asked if the engineering issues would be finalized prior to submitting an amended BA?
- BLA replied that this was not certain, but we would use the most up to date data available.
- BLA asked USFWS to speak about where their specific concerns were, which geographic areas.
- USFWS replied that it was not the specific interchange location, rather, it is the area towards Bloomington and west, specifically the karst and forested habitat in this area. Cave does not have a gate, so anyone who would happen upon the trail could find the cave and hibernating bats at about head height. The concern is increased accessibility, primarily residential development.
- BLA mentioned that they could look into the possibility of conservation easements surrounding the Cave property.
- USFWS replied that they would be very supportive of conservation easements in this area.

- BLA added that INDOT would like to work with USFWS to figure out what would be necessary if an interchange was moved to eastern Greene County.
- USFWS stated that it really makes no difference if the interchange is in Monroe or Greene County, either could increase encroachment. If it is possible that one could avoid development, than perhaps that one could be favored.
- BLA asked if USFWS had similar concerns with an interchange on SR 54 south of Hobbieville? The option is moving the SR 54 interchange further north and eliminating that one, not having three interchanges. The other option would be to leave it at SR 54.
- USFWS replied that the level of concern is lower for SR 54 because it seems like there is a lower chance for development in that area. There is more concern for the area north of SR 45, such as the Garrison Chapel Valley area.
- BLA stated that we are working towards providing information that shows land use and growth in the area, as well as traffic volumes along the interstate and SR 45.
- BLA asked what could be done to help protect the species in this area? What conservation measures might be possible? And in Monroe County, what would we need to consider?
- USFWS replied that in Monroe County, land acquisition of caves and surrounding forest would likely be the best option.
- USFWS stated that if there is still local concern for an interchange, that the invitation be extended to the local people to talk with USFWS. Are the EEACs still hearing from the local folks?
- BLA replied that they recently had a meeting with the Monroe County planning and engineering departments. We are currently trying to set up a meeting with the Greene County commissioners.
- USFWS stated that if it would be helpful, USFWS could try to meet with them and express their concerns about the bat. They may eventually be forced into a Habitat Conservation Plan (HCP) (for private development), if a planned subdivision comes in and could result in a take for the bat. Unless the landowners develop an HCP for this type of development, they could be vulnerable to regulations under the ESA.
- USFWS added that the general public doesn't typically like this and views it as taking of their land, but USFWS could ultimately be looking at this.
- BLA stated that after the traffic numbers are in, we could meet with local people and USFWS.
- USFWS added that we want to be sensitive to the message being sent out. This could affect bat conservation as well as the agency perception and trust.
- BLA added that we need to be sensitive as to when and how the local people are brought to the table.
- BLA mentioned that we could look at other options in the area to see how development could be controlled. Monroe County has limitations in zoning and planning relating to karst. It is unsure how much this is actually regulated. We are trying to balance things here and be sensitive to the local concerns and USFWS concerns.
- USFWS asked if a limited access interchange was still being considered.

- BLA replied, yes it will be limited access as it ties into SR 45.

II. Caves

- USFWS would like INDOT to hold off on getting involved in the purchase of Caves because there is a lot happening with this potential purchase. They are optimistic that funding will be made available.

- USFWS recommended that INDOT start identifying other parcels that could be beneficial to the bat.

III. Community Planning Grant

- BLA stated that INDOT is still negotiating with the consultant on Phase 1 of the grant. The first task for the INDOT project manager is to set up a meeting with USFWS to discuss this. It is likely about one month away.

- BLA added that HNTB is the consultant and IUPUI is part of the team. It is unsure how IUPUI will be involved at this time.

- BLA stated that Phase 1 of this project will include an inventory of existing planning procedures and a review of state and federal regulations. It could include a possible education process or toolbox of planning strategies and resources. This could include the identification of resources warranting special protection.

- USFWS added that they could provide a generalized map with areas of concern. They have shared similar information with Monroe County in the past.

- BLA added that INDOT feels that education could be a major part of the grants.

- USFWS stated that by including the grant program as part of the proposed action, it will have been consulted on as part of I-69.

- BLA asked if there were any questions on what would be involved. The consultant has a lot of ideas of tools that could be used to educate communities.

- BLA stated that Phase 1 will also include developing the application and selection process for the grant, as well as what the money could be used for. There may be specific things that it could be used for. For some communities, it could be used for development that will occur with or without I-69.

- BLA added that $50,000 may not get some communities very far. For instance, Greene County can’t develop zoning for that amount of money.

- BLA stated that impacts can come from different types of development. Direct, indirect, or other. The grants may be a way of getting their thoughts organized as to where development should occur. In Tier 1, INDOT and FHWA were sensitive to finding a way of evaluating possible impacts from secondary development.

- BLA added that the goal of the grants is to help communities to better think about the future and possible induced indirect development from I-69. In this sense, communities would not just be in a reactionary mode, rather they could be proactive. Some communities are not in a position do so at this time.

- USFWS added that the money could allow some communities to invest in a GIS system.

IV. Guano Sampling

- USFWS stated that they spoke internally, and Dr. Dale Sparks and the USGS were involved in doing guano DNA testing. USFWS has contacted the USGS and is waiting to hear back from them. (Further correspondence from USFWS by e-mail after the meeting stated that Dr. Maarten Vonhof, an assistant professor at Western Michigan University in Kalamazoo and Dr. Jan Zinck (adjunct faculty, Portland State Univ., OR), are capable of identifying bats to the species level from fecal DNA using genetic markers).

- USFWS stated that the sample could be collected at any time, and now would be better than later.

- BLA stated that they would try in the next two weeks to collect a sample. Cost was also a factor. (Sample were collected on Monday August 29, 2005, and shown to USFWS in their office. Similarly, BLA has contacted Dr. Maarten Vonhof for a letter describing the process and cost for INDOT.)

- USFWS stated that if cost was prohibitive, they would accept the sample and archive it.

- USFWS also mentioned that Anabat was another potential means of verifying the colony.

V. Status of 2004/2005 Cave Reports

- BLA stated that both reports have been completed and reviewed. They were both good reports and the consultants are making changes at this time. We hope to have something to USFWS in the next 2 weeks.

VI. Review of Proposed Caves for 2005/2006 Harp Trapping and Survey

BLA referred to a Size E map showing the proposed 21 caves for harp trapping and survey.

- At this time 11 caves to the north would be assigned to a consultant and 10 to the south to the other consultant. (After the meeting, BLA contacted a property owner who had 5 of these caves on his property. The property will not allow these 5 caves to be surveyed. Thus 16 caves remain, and 8 will be assigned to each consultant). cave is another questionable cave of these 16. BLA is contacting the land owner (for permission). Last yeare such permission was denied.

- USFWS stated that it was not necessary to conduct emergence counts or use Anabat at Cave or other recorded hibernacula. This was done last year to ensure proper timing for harp trapping. This year harp trapping will be conducted well within the season.

- BLA stated that harp trapping will begin on September 5, 2005.

- BLA added that cave may need to be trapped in the middle of the season because it has a higher probability of having Indiana bats.

- USFWS responded that if it was conducted in September it would be okay. It is likely this will have them all covered.

- USFWS added that there was a paper that showed 2 swarming peaks, one early and one late.

- BLA stated that the same protocol would be followed as last year's surveys.

- BLA added that the cave list for this year would also be given to Scott Johnson and Keith Dunlap for their review.
- USFWS asked how the caves were being chosen.
- BLA replied that they were caves on last year's list that we didn't get to, or had not yet been physically located last year. This year's list also included caves that were felt to be worthy of netting again.
- USFWS asked if BLA had received permission to survey Property owners have not allowed surveys in the past.
- BLA responded that they will try.
- USFWS asked if the five caves on the property were to be surveyed. Last year, the property owner did not allow surveys on his property.
- BLA replied that we had not yet had direct contact with the owner, but were still pursuing it. BLA has called the property owner, but has not yet heard back from him. The Indiana Geological Survey (IGS) had some contacts, but these did not produce results.
- USFWS asked if BLA had talked with Dave Hudak from Sycamore Land Trust because he has worked with the property owner in the past.
- BLA called Dave Hudak during this meeting, and he stated that he would be willing to help if BLA tried but did not have any luck.
- BLA said that there are 5 caves on the property – 3 are definitely on the property – and 2 are very close to the property line. BLA wouldn't feel comfortable trying to look at these 2 caves unless a land surveyor could place property lines.
- USFWS asked if the cave locations have been verified.
- BLA stated yes, but the property line is not exactly known.
- BLA added that the 2 caves near the property line were looked at last year and appeared to be difficult to harp trap. They may not be good for bats, and there is not a lot of expectation there. (Note: BLA contacted the property owner after the meeting, and he is not willing to allow access to the caves on his property. Thus those 5 caves will not be surveyed this year.)
- USFWS asked if was the owner of He owns property near there.
- BLA stated that they were not aware. The owner is listed as someone different. It's confusing here. Does own the cave or not. Does he have 5 cave or 3?
- BLA stated that they asked Hydro to look at cave, which is near the corridor. It is possible that water from the corridor may go into the cave, so they are looking into dye tracing in that area. The cave could cross the entire corridor, but we are not sure yet.
- BLA asked if USFWS was okay with the caves proposed for survey this year.
- USFWS replied, yes they are fine with the caves listed and trust IGS's consideration. USFWS asked if the cave list included new caves near or adjacent to the corridor.

- BLA replied yes, anything new within 1 mile of the corridor.
- BLA added that coordination last season was very interactive. Any new caves were alerted to IGS and visa versa. There has been good communication between everyone involved with karst.
- USFWS stated that one of the Tier 1 comments mentioned people near the Old Ivy Tech area, near old SR 46, said they had a cave on their property with a lot of bats. Has this been looked into?
- BLA stated that they will look into this and see if IGS has investigated this area. Who will do this?
- USFWS stated that they would like to see the proposed schedules so they will know where the karst consultants will be and could possibly meet them in the field.
- BLA said they will send USFWS a spreadsheet once they get the schedules.
- USFWS asked if was close to an area actively being quarried, and is that the concern of the property owner regarding cave surveys?
- BLA responded that they believed the concern is just having someone on the property.
- USFWS stated they would like to get the property owner's contact information for Storms Pit. They would like to notify them that they have Indiana bats in their cave. Garre Conner has since provided such information to USFWS.
- USFWS added that BLA may want to follow up with property owners that allowed access and let them know what was found on the property.
- BLA asked if INDOT should be a part of the letter to the property owner of because it was found as a result of the I-69 surveys.
- USFWS replied that they can copy INDOT and acknowledge that the surveys were conducted as part of I-69.

VII. Mitigation

- BLA stated that they spoke with Bill McCoy who manages the Patoka Refuge, and he will talk with USFWS Bloomington Field Office about thoughts regarding Indiana bat mitigation.
- BLA mentioned that they have not heard anything more regarding fencing the bridge, but are working with INDOT on this matter. Since this discussion, BLA has contacted the Vincennes District and will provide USFWS all appropriate information of proposed fencing prior to construction. Such information should be available shortly.

VIII. Proposed Forest Quality Analysis

- BLA stated that they have begun looking into the Forest Inventory and Analysis (FIA) data, but were uncomfortable assigning the point data to an entire large forest tract.
- BLA added that the Tier 1 BA, as well as other literature, mentioned that floodplain forests were excellent habitat for the bat. Stream with forest on both sides is also considered excellent. So we are proposing a three tiered forest quality scale. Habitat considered "Excellent" would be all floodplain (IDNR DFIRM) forest and forest on 100 feet either side of a stream.

- "Good" habitat is considered forest, outside of the "Excellent" area, up to 2,500 meters from either side of a perennial stream (stream order 4 and higher) and up to 250 meters on either side of a small or intermittent stream (stream order 3 and lower).

- BLA stated that preliminary calculations for distances from roost tree to stream showed that the furthest was about 790 feet. This figure may be high due to misplacement of roost trees and will be double-checked.

- BLA added that "Fair" quality habitat would be all other areas within the colony circle.

- BLA also mentioned that the FIA data points could be shown with a leader line and some text with information about forest about that point.

- BLA stated that we are looking at the quality of habitat taken versus the quality remaining.

- BLA added that the Flat Creek area may not show a FEMA floodplain because of the coal strip mines in the area. Both the IDNR digital data and the FEMA paper map do not show a floodplain in this area.

- USFWS offered BLA a copy of a recently published paper by Gardner and Garner.

- BLA said that they were not planning on calculating the distance from roost trees to roads.

- USFWS replied that this was okay, and that new data available shows a lot of variation with regard to roads.

- USFWS stated that they will confer in house and discuss thoughts and distances for the proposed forest quality analysis. They may have a summary table available of distances that they use for consultation. This could be cited as unpublished data by USFWS, although most of the data contains literature citations.

IX. Additional Concerns/Opportunities

- BLA alerted USFWS to a comment they received regarding a sighting of the ivory billed woodpecker north of the corridor near Cincinnati. BLA stated that they would send a response stating that it was highly unlikely that this was the ivory billed woodpecker, and was likely a pileated woodpecker.

- BLA stated that they did not have the colony circle maps and were still working on obtaining and formatting radiotelemetry data now. We hope to have this for our next meeting.

103 0001-IPL Keith Vince Dean Dave T Kent Tom Jim G. Daniel Jason Jeremy Josh Jonna Nicole Dean M. Mike G. Rusty w/Attach

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
6013 Lakeside Blvd.
Indianapolis, IN 46278

September 7, 2005

Mr. Rusty Yeager
Bernardin, Lochmueller and Associates, Inc.
6200 Vogel Road
Evansville, IN 47715-4006

Dear Mr. Yeager:

This letter is in response to your July 22, 2005, Freedom of Information Act request concerning properties located in the I-69 Tier 2 EIS project area which included nine (9) packets containing USGS maps and CD with buffered Tier 1 corridor (ArcView shapefile). You requested information pertaining to properties that are currently enrolled or participate in the following NRCS programs: Wildlife Habitat Incentive Program (WHIP), Environmental Quality Incentive Program (EQIP), Grassland Reserve Program (GRP) and Floodplain Easement Program (FEP).

The Freedom of Information Act generally provides that any person has a right, enforceable in court, of access to Federal agency records, except to the extent that such records are protected from disclosure by one of nine exceptions in Section 2004 of the Farm Security and Rural Investment Act of 2002 (May 13, 2002). Please find enclosed the following releasable information:

- The Name of the program in which the property is registered.
- The year the property was entered in the program.
- The term of property in the program.

Based on exception (6) of the Freedom of Information Act, we are unable to comply with the release of the size of the property and the conservation practices included in the contract.

You may appeal this determination by sending a request to:

Director
Management Services Division
USDA, Natural Resources Conservation Service
P.O. Box 2890
Washington, DC 20013

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BLA

The Natural Resources Conservation Service provides leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment.

An Equal Opportunity Provider and Employer

Thank you for your interest in the Natural Resources Conservation Service (NRCS). If I can be of further assistance, please contact me at (317) 290-3200 ext. 336.

Sincerely,

ELANA K. CASS
State FOIA Officer

Attachment

cc: Mary Alston, National FOIA Officer, NRCS, Beltsville, MD

Attachment to FOIA Request for Information on Farm Bill Programs for I-69 Evansville-Indianapolis Tier 2 EIS

Farm Bill Contracts Found by Program by County

WHIP

Daviess County
Ron Seal
Washington, IN
Started – 2003
Expires – 2006

EQIP

Daviess County
Swartzentruber Farms Inc.
Odon, IN
Started – 8/2003
Expires – 9/2012

Daviess County
Andrew Monroe
Odon, IN
Started – 1997
Expires – 2008

Gibson County
Otto Neyhouse
Oakland City, IN
Started – 4/2005
Expires – 9/2008

Monroe County
Glen Conder (2)
Stanford, IN
Started – 5/2000
Expires – 9/2005

Raymond Williams
Bloomington, IN
Started – 8/2000
Expires – 9/2005

Jason Clark
Bloomington, IN
Started – 9/2001
Expires – 9/2006

Morgan County
Dan Ennis Farms Inc.
Martinsville, IN
Started – 6/2004
Expires – 9/2009

WHIP

Morgan County
M&B Maxwell Farms
Martinsville, IN
Started – 2001
Expires – 2005

WRP

Pike County
Fred Lucas
Petersburg, IN
Started – 6/2003 (Funded FY-2004)
Expires – Permanent Easement

There are no contracts in Greene, Johnson, Marion and Warrick counties.

Summary –

For the projected 120 miles of 2000 foot wide I-69 corridor, NRCS has eleven (11) Farm Bill contracts. This involves three Farm Bill programs, EQIP, WHIP, and WRP.

Carol Hood

From: Jeremy Kieffner [blainc.Bla_Mailbox.Jeremy]
Sent: Wednesday, September 07, 2005 7:57 AM
To: JRANDOLP@idem.in.gov; Amy S LRL Babey
Cc: Carol Hood; Jason Dupont; Josh Sherretz; Kent Ahrenholtz; Tom Cervone
Subject: Wetland Field Reviews for Sections 4, 5, and 6

Dear Amy and Jason,

We would like to try and complete the I-69 Wetland Field Review for Sections 4, 5, and 6 yet this year. We are trying to set up the review in the last 2 weeks of September (Either Sept. 19-23 or Sept. 26-30). We will need 2 days to complete these reviews. One day will be for Section 4 and the other day we will look at Section 5 in the morning and Section 6 in the afternoon.

Please get back to me on Dates within the time frame listed above that you would be available for the reviews. Your time and coordination on these wetland field reviews is very appreciated. Thank you.

Sincerely,

Jeremy Kieffner

Bernardin Lochmueller and Associates, Inc.

1.800.423.7411

MINUTES

Meeting with U.S. Fish and Wildlife Service

USFWS Bloomington Field Office

September 12, 2005 at 1:00 p.m.

Attendee	Organization
Andy King	USFWS
Kia Gillette	Bernardin-Lochmueller & Associates, Inc. (BLA)
Tom Cervone	BLA
Cinda Bonds (via phone)	BLA

I. Bridge

Discussions with INDOT and USFWS are in the process for the possibility of fencing under the bridge over the Field photographs and measurements will be taken and rendering will be provided to USFWS and INDOT on possible fence designs. This is an on-going process.

II. Definition of Hibernacula

The definition for a hibernacula is the occurrence of an Indiana bat in a cave during the winter months (December to March 10).

III. Guano Sampling

Guano sampling has been completed for the utility pole on Mr. David Brown's property. This sampling was completed on August 29, 2005. A contract with pellets is being sent for analysis tomorrow (September 13, 2005).

IV. Circle Maps

Kia Gillette briefly explained the following:

- Legend to the maps
- Short descriptions of effort (mist netting and radio-telemetry) for each of the 13 circles
    - Circle 1 (Pigeon Creek) – Weak signal in two areas. Riparian corridor along Pigeon Ck. Recommended adding interchanges to the maps.
    - Circle 2 (Patoka River) – Discussed the two roost trees and included a short discussion on using the refuge for mitigation lands.
    - Circle 3 (Flat Creek) – Talked about finding the one non-reproductive female in this circle where it overlaps with the Patoka River circle.
    - Circle 4 (East Fork) – Discussed bridge profiles would be helpful.
    - Circle 5 (Veales Creek) – For mitigation, try to connect blocks of woods
    - Circle 6 (West Fork of White River – Elnora) – Connectivity is probably associated with the White River

- Circle 7 (Doans Creek) – Mitigation is proposed along the creek in the vicinity to Scotland
- Circle 8 (Plummer Creek) – Mitigation is proposed along the creek from the mist netting site toward Mineral City (westward) or possibly across from Springs in Koleen. A number of bats were taken from Springs which is along Plummer Creek. South of Plummer Creek in this area lies a former beaver meadow wetland which may be appropriate for mitigation.
- Circle 9 (Indian Creek) – This area is presently having bat pellets analyzed for the presence of Indiana bats. If mitigation is appropriate, an area along Indian Creek is proposed. A riparian corridor of trees along Indian Creek is suggested.
- Circle 10 (West Fork / Bryant Creek) – Mitigation is suggested near the primary roost tree.
- Circle 11 (West Fork / Clear Creek) – Please include the location of the interchange in this area. Mitigation is suggested in the vicinity to the roost trees.
- Circle 12 (West Fork / Crooked Creek) – Didn't resample in 2005. Mitigation is suggested along the West Fork.
- Circle 13 (West Fork / Pleasant Run) – Recommend mitigation along the West Fork of the White River.

V. Combination of Patoka River and Flat Creek

The thought of combining the two circles, i.e., Patoka with Flat Creek was discussed in length. Considering the information available, it was suggested that the two circles be kept distinct, but that mitigation for both circles be centered along the Patoka River.

VI. Forest Quality

Forest Quality data was discussed as part of maps provided to USFWS for each of the above circles. Evaluations focused on the distance to a perennial or intermittent (small) stream. Similarly, a discussion on connectivity with primary roosts was applicable.

The forest quality data on each map was shown in 3 different colors. Red indicated those areas in a floodplain for perennial (Stream Order 4 or greater streams) and smaller / intermittent streams (Stream Order 3 or less). If no floodplain was shown for smaller streams, a 100-foot buffer on both sides of the stream was assigned and shown in red. The color orange showed area from the outer edge of the floodplain to 2,600 feet from an Order 4 or greater stream, and 750 feet from the edge of a smaller / intermittent Order 3 or less stream. The color light brown was assigned to all other areas. Forest areas were to be calculated in each of these three areas. Red was to indicate excellent potential, orange as good potential, and light brown as fair potential for Indiana bat habitat.

A discussion on this proposed methodology included additional information warranted. Such information was average woodlot size and connectivity to the proposed action. Is the area highly fragmented and are forest more isolated or connected? A methodology the provided a better size qualification of forests was suggested. Landscape metrics could be employed to understand the setting better, such as degree of fragmentation and degree of isolation.

BLA ended the meeting in committing to providing additional information as requested with the stream data as described above. Such information was to be discussed at the next meeting scheduled for 9/23/05.

MEETING MINUTES

Meeting with U.S. Fish and Wildlife Service

USFWS Bloomington Field Office

September 23, 2005 at 1:00 p.m.

Attendee	Organization
Andy King	USFWS
Kia Gillette	Bernardin-Lochmueller & Associates, Inc. (BLA)
Tom Cervone	BLA
Garre Conner	BLA
Jason Dupont (via phone)	BLA
Cinda Bonds (via phone)	BLA

I. Fall Harp Trapping Update

The meeting began with an update of the fall harp trapping efforts by Garre Conner.

- Thus far 1 Indiana bat (*Myotis sodalis*) was captured during this year's fall harp trapping. It was an adult male and was captured at (aka Cave). That night, another male was captured at this cave.
- Each subconsultant (ESI and BHE) will trap 8 eight caves. is believed to have a fair possibility of trapping Indiana bats, but the property owner has not responded to inquiries. For this reason, will not be sampled for Section 7 Consultation.
- In replacement for cave, an additional entrance to Cave has been trapped (now North and South) to give ESI a total of 8 caves to trap.
- ESI is expected to have completed their 8 caves by Monday, and BHE will be starting early the week of September 26. BHE will be starting with Cave.

II. Guano DNA Analysis Update

- The guano samples from the utility pole in Section 4 have been sent to the lab at Western Michigan University. The DNA has been extracted from 10 samples and has been sent to another lab to be sequenced. The species results from those samples will hopefully be available the middle of next week.

III. Forest Analysis

- The analysis being proposed will focus on landscape structure and tree cover within the colony use area before and after the building of the road. This analysis will also focus on the connectivity of tree cover within the circle.
- Tree cover will be analyzed rather than forest cover. Tree cover includes trees regardless of the size of the area. This means that trees in fencerows, or even individual trees will be included.
- Image analysis software is being used to detect tree cover from the 2003 aerial photograph. This provides a much more accurate version of the tree cover than the older USGS data used in the original Tier 1 BA.

- The proposed alignments developed in Tier 2 will also be used, including interchange locations when available, rather than the more general alignment used in the original Tier 1 BA.

- A 120-foot gap (60-foot buffer from any tree covered area) was used to determine if trees were connected. Thus, any gap in tree cover less than 120 feet wide was not considered a gap for the analysis. Any tree cover within 120 feet is considered 1 functional patch. The 120-foot number was based upon a USFS definition for forest, and not based off literature for the Indiana bat. If USFWS is aware of any literature regarding distances Indiana bats will fly in open areas, please provide us such citations.

- In this analysis, the 2.5-mile radius circle is also the universe. All functional patches end at the circle boundary. Tree cover and connectivity outside the circle is not being considered.

- USFWS agreed on the use of tree cover as opposed to forest cover.

- USFWS added that literature states that the Indiana bat will avoid large open agricultural fields and residential areas (even those with tree cover). USFWS recommended that INDOT and FHWA may want to add the urban or populated areas (or other concentrated urban areas) in and subtract out the tree cover in those areas.

- USFWS added that the 120-foot number was okay for now, but they will search the Indiana bat publications to see if there is a more appropriate number to use.

- BLA mentioned that the Pigeon Creek area appeared to be an important corridor for wildlife, including bats. We are currently looking into bridge designs that will allow for this. At the present time, clearance for such a bridge is approximately 20 feet.

- BLA asked about the area of I-70 where Indiana bats are known to cross.

- USFWS stated that it is believed that the bats actually go under the bridge at White Lick Creek.

- USFWS stated that you may want to contact Dr. Dale Sparks. He worked on the I-70 project in regards to the Indiana bat and may have some insights regarding lighting and other aspects. Kia – Please call Rusty and ask him to set up maybe a conference call with Dale on some of his thoughts or otherwise???? Your thoughts on this please.

- As part of the forest analysis, the size distribution of functional tree cover patches is shown. There are many more small functional patches than large patches, which shows the fragmentation in the landscape.

- Core area (any tree cover within 100 m of the edge) was also calculated. Core areas less than 1 acre were not included because of the small size.

- USFWS added that NWI wetlands should also be included in the analysis and shown on the maps. It is not necessary to include wetlands in the connectivity analysis.

- BLA stated that they will clip the forested wetlands to tree cover layer in order to get an accurate calculation. In some areas, there may no longer be NWI wetlands present.

- USFWS also added that base data such as streams and highways should be shown on the maps for reference.

- USFWS stated that any information on legal drains would be helpful. Tree cover connections will be lost if these areas are maintained. This should be included in the cumulative effects section.

- USFWS suggested adding another column to the table showing the analysis results of proposed mitigation acreages. This would show the entire picture of what would be occurring.

- USFWS added that we have not yet nailed down what mitigation will be preservation versus reforestation.

- USFWS stated that we may want to set mitigation goals to commit to, rather than a set percentage. These goals could be part of the Consultation Agreement and incorporated into the proposed action.

- USFWS stated that they don't want to see a net loss of forest. The goal could be to possibly replace at a 1 to 1 ratio and the remaining 2 to 1 could be either reforestation or preservation.

- BLA asked if all mitigation should be within the circle?

- USFWS replied that it should benefit the individual bats in the area, but areas just beyond the circle could be considered.

- BLA added that IDEM is looking for mitigation for riparian areas. However, mitigation will have to consider legal drains and regulations associated with them.

- BLA stated that legal drains can be maintained by private groups, such is the case in Daviess County.

- USFWS added that we cannot forget about bats outside the circle. We can't assume absence with negative survey results, just low numbers. Analysis needs to be completed for the action area outside the circle.

- USFWS stated that the USGS forest data could be used if other data is not currently available.

- The level of detail could also be downscaled. Just give the amount of forest, the connectivity analysis is not necessary outside the circle. Also, subtract out the circle so we are not double counting.

- USFWS added that the forest analysis as described in last week's meeting could also be incorporated in this analysis. BLA agreed.

- A description what will be included in the proposed analysis will be included in the Consultation Agreement.

IV. Indirect Impacts

Jason Dupont briefly described how indirect impacts could be evaluated in the BA addendum.

- The REMI (Regional Economic Models, Inc.) model was used to forecast proposed increases in population and employment for each TAZ (Traffic Analysis Zone) for counties in the study area for the year 2030 under the Build and No Build options. Population changes are converted by a factor to acreage for residential development and employment changes are converted by a factor to acreage for commercial/industrial development.

- The No Build option results give the projected cumulative development. Projected indirect impacts are determined by subtracting the No Build option results from the Build option results.
- The REMI model assigns development acreages to the TAZ, but does not assign a specific location.
- Expert Land Use Panels have reviewed the original results of the REMI model and in some cases the results have been revised.

V. Bridge Fencing

BLA described the proposed fencing options for the north and south ends of the bridge over the near Renderings showing photos of the bridge with fencing superimposed were presented.

- USFWS agreed with the proposed fencing options. They added that if federal funds are used to install the fences it will need to be included into the I-69 consultation, perhaps as a conservation measure.
- BLA added that INDOT has requested a letter of approval for the fencing once all parties have approved the proposed design.

Carol Hood

From: Jeremy Kieffner [blainc.Bla_Mailbox.Jeremy]
Sent: Friday, September 30, 2005 4:13 PM
To: JRANDOLP@idem.in.gov; Amy S LRL Babey
Cc: Carol Hood; Daniel Townsend; Jason Dupont; Josh Sherretz; Kent Ahrenholtz; Tom Cervone
Subject: I-69 Wetland and Stream Field Reviews

Dear Amy and Jason,

I wanted to formally thank both of you for participating the Wetland and Stream Field reviews for all 6 sections of the I-69 project. I realize that this is not common practice for your agencies to conduct field reviews on projects at this stage. It was very beneficial for myself and all of the section consultants to have both of you in the field to answer questions on jurisdiction and also on the new isolated wetland rules and regulations. Once again I thank you both for your time and hope to continue close coordination on this project with you.

Sincerely,

Jeremy Kieffner

Bernardin Lochmueller and Assoicates, Inc.

MINUTES

Conference Call with U.S. Fish and Wildlife Service

USFWS Bloomington Field Office

October 3, 2005 at 2:00 p.m.

Attendee	Organization
Andy King	USFWS
Kia Gillette	Bernardin-Lochmueller & Associates, Inc. (BLA)
Jeremy Kieffner	BLA
Garre Conner	BLA
Jason Dupont	BLA
Cinda Bonds	BLA

I. Fall Harp Trapping Update

The meeting began with an update of the fall harp trapping efforts by Garre Conner.

- ESI has competed trapping all 8 of their caves. They captured 2 male Indiana bats, one each night at is about 2.5 miles southeast of Cave.
- Last year 1 Indiana bat was captured at Cave during harp trapping. This year no Indiana bats were captured at that cave.
- BHE has completed harp trapping at 3 caves: Pit, Cave, and Cave will be trapped tonight and tomorrow night.
- USFWS asked if there had been any follow up regarding the Tier 1 public comment about a cave near the Ivy Tech building.
- BLA replied yes, however nothing was found there. Another lead is currently being investigated in a subdivision and a sinkhole from Section 5's hydrological work is also being looked at.
- USFWS stated that it would be ideal if there is something there, to get them surveyed this fall. USFWS stated that they may be able to do this if necessary.
- BLA replied that they will get back to USFWS in a day or two regarding these areas.

II. Legal Drains Update

BLA updated USFWS regarding what has been discovered about legal drains within the maternity colony circles. EEACs and county surveyors were contacted in order to get information about legal drains.

- For Section 1, the following are county maintained legal drains:
    - Keg Creek
    - Hurricane Creek and many of its tributaries
    - Pigeon Creek and many of its tributaries
    - Snake Run

- For Section 2:
    - Coordination with the Pike County Surveyor and the Daviess County Surveyor identified that there are no "Legal Drains" that are maintained or identified by the county in the Indiana bat maternity colonies in Section 2
- For Section 3:
    - Coordination with the Daviess County Surveyor and Auditor's Office identified that only Prairie Creek is a "legal drain" in the county. No other legal drains were identified by the county.
    - However, the Auditors office did identify 8 ditches or areas within Daviess County that were maintained by local watershed groups that are privately funded. These 5 drains include:
        - Prairie Creek
        - Smothers Creek
        - South Smothers Creek
        - Hawes and Graham Ditches Bennington Levee
        - Shufflebarger Levee
        - Tucker
        - Vertrees
        - Weaver
    - Coordination with the Greene County Surveyor identified only one stream with the county that is classified as a "Legal Drain". Ferguson Ditch is considered a "Legal Drain" in Greene County.
- For Section 4:
    - Coordination with the Greene County Surveyor and the Monroe County Surveyor identified that there are no "legal drains" identified in Monroe County and only one "legal drain" (Ferguson Ditch) identified in Greene County.
- For Section 5:
    - Coordination with the Monroe County Surveyor and the Morgan County Surveyor identified no streams in either county being identified as "legal drains".
- For Section 6:
    - Coordination with the Morgan, Johnson, and Marion County Surveyors identified no "legal drains" within the vicinity of the bat colonies. Both Johnson and Marion County do have numerous "legal drains" identified in the county, but none of them are located near the identified Indiana bat maternity colonies.
- USFWS added that it may be a good idea to get information on how frequently the legal drains are maintained or cleaned out.

III. Indirect & Cumulative Impacts Analysis

BLA described the status of the indirect and cumulative impacts analysis development.

- Preliminary analysis for the Pigeon Creek colony has been completed. This includes quantitative calculations based on Traffic Analysis Zones (TAZs). Preliminary indirect and cumulative tree cover impacts, not including indirect impacts, are approximately 16.6 acres.

- USFWS stated that for Section 7, indirect and cumulative impacts should be reported separately.

- BLA stated that they are working on performing another calculation, and tree cover impacts may decrease.

- USFWS stated that Section 7 doesn't really have a timeline in terms of indirect impacts.

- BLA replied that the REMI model calculated indirect and cumulative impacts to the year 2030. It is uncertain how these impacts could be estimated beyond the year 2030.

- USFWS added that indirect impacts in the Winter Action Area may be even more important than those associated with a maternity colony – thousands of bats versus hundreds. You cannot really mitigate for the loss of a cave.

IV. Maternity Colony Population Estimates

- BLA asked if the colony population estimates should include the number of adults or adults plus juveniles.

- USFWS replied that it will likely depend on the date of the emergence counts. If before July 15, it should be assumed that all adults were counted, after the 15th, perhaps 50 % adults and 50 % juveniles.

- USFWS added that it would be helpful to show all work when determining the colony population estimates. For emergence counts, it will have to be a minimum number of individuals in a colony.

- In absence of good emergence counts, an average of 80 reproductively active females should be used. When good emergence counts are present, the maximum number of bats counted on any single night for all known roost trees for a colony should be used.

V. Tree Cover/Landscape Direct Impact Analysis

BLA explained the revisions to the tree cover analysis made since the last meeting.

- BLA reiterated that the tree cover landscape analysis only included direct impacts at this time.

- USFWS asked what forest cover data the EEACs were using for their EIS preparation.

- BLA responded that they were digitizing the forest cover based off the 2003 color aerials. This is a forest based classification based on the USFS forest definition. Any tree cover greater than 1 acre and wider than 120 feet is being included. They are not including fence rows or areas smaller than 1 acre.

- BLA stated that they have added reference information such as highways and streams as requested.

- BLA explained Classes I – III and that the methodology hasn't changed, except for the quality words. "Excellent" is now Class I, "Good" is now Class II, and "Fair" is now Class III.

- National Wetland Inventory (NWI) calculations were done the same as was done in Tier 1. The area of a point is 0.1 acre and a line is assumed to be 50 feet wide. Areas of riverine lines (streams) were not calculated.

- Forested wetlands (PFO) were clipped to the tree cover developed from the 2003 aerial photograph in order to remove any areas that have been cut since the NWI layer was developed.

- BLA asked if a 120-foot distance should still be used as a measure to group tree cover patches.

- USFWS responded that no real average distance is known, there are some maximum distances, but these would be an extreme. It would be better to use more of an average if one was available. If this is found in literature, how easy will it be to rerun the numbers?

- BLA replied that really just the number of patches would change, not the acreages or proximity. This would not take a lot of time.

- BLA stated that the remaining Summer Action Area analysis would use the 1990 data outside the circles and would not include a connectivity analysis. Nor would it include refining the PFO data from the NWI.

- USFWS replied that it would be interesting to calculate the difference between the USGS data and the 2003 tree cover within the circle. It would be helpful to report the USGS forest and tree cover acreage difference as a percent and include the standard deviation.

- USFWS added that the new image analysis software is very impressive and yields much better data.

- BLA added that the EEAC forest data will likely be used for within the corridor, and any remaining Action Area the USGS data or a comparable source would be used.

- USFWS stated that the EEAC corridor data should be used if it is more up to date.

- USFWS stated that for the Terms and Conditions, forest calculations will be what INDOT and FHWA are held to in the BO.

VI. Winter Action Area

- BLA stated that at a minimum, the Winter Action Area analysis will be approached similar to the Summer Action Area outside the circles.

- USFWS stated that the USGS may not be detailed enough for the Winter Action Area analysis. BLA asked if there was a smaller radius around caves that could be used?

- USFWS replied that most hibernacula on public lands are buffered by ½ or ¼ mile for an area of no active management. The closer to the cave entrance, the more intensive the use by the bats.

- Their first choice would be to use the detailed tree cover from the 2003 aerials for the entire Winter Action Area. More detailed and more precise information would give a better way of monitoring, and monitoring will be a term or condition in the BO.

- USFWS stated that there is a possibility that Cave will need to be included in the Winter Action Area if an interchange is added to eastern Greene County.

- USFWS added that maps for recharge areas for the hibernacula, even for indirect impacts will be needed. These may just be estimates. Some dye tracing may have been done as part of the PCB clean up near Bloomington.

MINUTES

Conference Call with U.S. Fish and Wildlife Service

USFWS Bloomington Field Office

October 7, 2005 at 1:30 p.m.

Attendee	Organization
Andy King	USFWS
Tom Cervone	Bernardin-Lochmueller & Associates, Inc. (BLA)
Kia Gillette (via phone)	BLA
Jason Dupont (via phone)	BLA
Cinda Bonds (via phone)	BLA

I. Maternity Colony Population Estimates

BLA explained the methodology used to determine the 13 maternity colony population estimates.

- USFWS stated that for colonies with emergence count data, a standardized ratio may be used to determine the number or adults versus juveniles. Maybe 50:50, ½ adult females and ½ young of the year (of which ½ males and ½ females. This would be after July 15th, which is an average date for when the juveniles become volant.

- BLA asked how USFWS would use the maternity colony population estimates in their analysis.

- USFWS replied that it is their task to quantify the amount of anticipated take. Typically, data is not good enough to quantify the number of individuals, therefore habitat is used as a surrogate. When the colony circles are examined along with the number of adult females, research has shown that the adult females have discreet foraging areas. They may use the same travel corridors, but tend to stay faithful to their foraging areas. USFWS may look to see what foraging areas will be impacted and determine what percent of the colony would be impacted by I-69. This percent could then be multiplied by the colony size to get the number of individuals. This would be looked at for each colony as well as cumulatively for the entire project. These are just thoughts on the analysis at this time, and it may change or be refined as USFWS delves deeper into the analysis.

- USFWS added that there is no set analytical approach for determining take for the Indiana bat for the USFWS offices, but the 2.5-mile distance for the colony size has been widely used. The national Section 7 guidance is in a final draft version and will likely be sent to the field offices for review in a month or so. It does not go to the level of detail described above, but does give guidance on how to estimate colony population size.

- BLA asked if the national guidance was available to people outside the USFWS.

- USFWS replied that that at this time it is not, but if it does become available, they will inform BLA/INDOT/FHWA.

- BLA stated that they were somewhat uncomfortable because the Veale Creek colony in Section 2 had a number of roost trees identified, but the colony size estimate (41 individuals minimum) was lower than the average.

- USFWS replied that more thought may need to go into the process.

- BLA asked if the colony size for the maternity colony near the Indianapolis airport was known.
- USFWS stated that it USFWS staff likely know and that this colony is one of the best studied in the state.
- USFWS added that 41 individuals for the Veale Creek colony is an absolute minimum. How high we should go is not really known. By August (time of the emergence counts) the females may disperse more.
- BLA stated that the results for the guano DNA analysis for the Indian Creek colony in Section 4 has shown that of the 10 samples analyzed, all 10 were *Myotis sodalis*. These results suggest this roost is a maternity colony and not a male Indiana bat roosting with several little brown bats. Another 10 samples will also be analyzed for a total of 20.
- USFWS stated that was interesting that the primary roost for the West Fork (Bryant Creek) colony in Section 5 showed only 6 individuals on 7/23/05 during emergence counts but showed 128 individuals on 7/29/05. That is quite a difference.
- BLA stated that weather changes may have played a role, as it was very hot during the first count on 7/23 and had cooled down for the count on 7/29.
- USFWS stated that they would discuss the maternity colony sizes in house to determine how valuable the emergence counts were.
- USFWS added that the for the West Fork (Clear Creek) colony in Section 6, 67 individuals were counted during emergence counts on 7/18/04. This may be early enough to consider all individuals adults. USFWS suggested asking Dr. Dale Sparks about the average volancy date for the airport colony. He would likely have an educated guess. His best professional opinion for a volancy date would be helpful.
- USFWS stated that the colony size approach used is how they would have approached the estimates. Eighty (80) still seems like a reasonable estimate, however it is still uncertain if we should use numbers above or below. Possibly assume 80 unless there is evidence to the contrary.

II. Harp Trapping Update

- BLA stated that so far for the harp trapping a male bat was captured each night at Cave, and a male was captured each night at

III. Indirect & Cumulative Impacts Analysis

BLA described the status of the indirect and cumulative impacts analysis development.

- BLA described a map showing Traffic Analysis Zones (TAZs) for the Pigeon Creek colony.
- In order to make sure all parties were on the same page for the definitions of indirect and cumulative impacts, these were defined:
    - Indirect Impacts: those effects that are caused by or will result from the proposed action and are later in time, but are still reasonably certain to occur. If not but for I-69, “this impact” would not be happening.
    - Cumulative Impacts: are those effects of future State or private activities, not involving Federal activities, that are reasonably certain to occur within the Action Area of the

Federal action subject to consultation. This definition applies only to Section 7 analysis and should not be confused with the broader use of this term under NEPA.

- BLA asked if direct and indirect impacts were included in cumulative impacts.
- USFWS replied that cumulative impacts equal other non I-69 related impacts, direct and indirect should be excluded and listed separately.
- BLA discussed the REMI model and how growth and projections were estimated.
- USFWS asked if the model accounted for development to relocate those homes and businesses directly impacted by the interstate.
- BLA stated that they weren't sure and would have to check on this.
- BLA explained that using this analysis the Indirect impacts = Build Scenario – No Build Scenario.
- BLA added that expert land use panels reviewed and provided additional information as to where development was likely to occur. Each area had a separate panel of experts. The panels were made up of knowledgeable people from the community.
- USFWS said, so they took local knowledge of the area and made suggestions for adjustment.
- BLA replied yes, and they actually placed the indirect development in the TAZs as to where they thought it would occur.
- BLA described the proposed analysis for the Section 7 indirect and cumulative impacts. It is based on the percentage of development within the TAZ. Tree cover impact was calculated based on the percentage of development within the TAZ. This is believed to be a conservative estimate because in many cases forested areas are forested because they are in wet or hilly areas which are not conducive to farming or development.
- BLA stated that current estimates show that for the No Build scenario in 2030, 73 acres of total development would occur. Of this, 15 acres was tree cover. This would be considered the cumulative impacts (does not include direct and indirect impacts).
- USFWS stated that because it probably won't be known what will be federal and what will not, they are comfortable with considering all those impacts cumulative.
- For the Build scenario, a total of 89 acres of development is projected. Of which, 17 acres are tree cover.
- BLA stated that the difference between the Build and No Build is 15 total acres and 2 acres of tree cover. This would be the indirect impacts. These numbers may change slightly as the procedure needs to be refined slightly.
- USFWS asked if total acreage of agricultural indirect and cumulative impacts would be reported. The gross increase of indirect development will also include other habitat, water quality impacts, etc.
- BLA replied yes, both can be reported.

- BLA added that the indirect and cumulative analysis in the EISs will likely be somewhat different. The total acreages within the TAZs will be the same, but the EEACs will determine what resources will be evaluated for their NEPA Cumulative Impacts Analysis for each Tier 2 Section.

- USFWS stated that in the Tier 2 BAs, the analysis could be refined.

- USFWS asked if the same approach would be used in the Tier 2 BAs?

- BLA replied yes, and that they would be completing the Tier 2 BAs with the assistance of the subcontractors.

- BLA stated that the analysis will be looked at to see how it could be refined in Tier 2, but would still essentially be the same methodology.

- BLA added that they will compare the numbers that result from this analysis with what we know is reasonably certain to occur. For instance, land use plans and zoning will be reviewed to make sure our analysis is appropriate.

- USFWS asked if the REMI model had been run for Section 4 with the assumption of an interchange in eastern Greene County.

- BLA replied that the total numbers for the County will not likely change, but the distribution of those impacts could change.

- BLA stated that yesterday they looked at the traffic counts for Section 4. This area is still being looked at with and without the interchange.

- BLA added that the indirect impacts may change if the number of interchanges was adjusted. This scenario will need to be checked with the modelers. At this time the proposal would just be to switch locations.

- USFWS replied that the Section 4 interchanges are more of a concern due to the hibernacula.

- BLA stated that they would like to include the legal drains identified in the cumulative impacts.

- USFWS replied that it would be great if the acreages of tree cover could be calculated and included as a subset of cumulative impacts.

IV. Winter Action Area

- BLA asked how the Winter Action Area analysis should occur. It would likely be similar to the maternity colony circle analysis.

- USFWS replied that each hibernacula should be examined individually. Cumulative numbers for the entire Action Area should also be included.

- BLA asked if the number of caves under consideration was known.

- USFWS replied that the only new hibernacula were and

- BLA asked if the Winter Action Area should be altered for the new hibernacula.

- USFWS suggested just putting an * next to and that it would not be necessary to do a full blown 5- mile radius for this cave. It does not appear to be a very important hibernacula and 90% of the area is already within the Winter Action Area.

- BLA asked about which is along the outer edge of the Action Area.

- USFWS explained that this may be more difficult to explain in text. It would probably good to include this one and extend the Action Area.

- BLA asked if more caves within this portion of the Action Area would need to be surveyed.

- USFWS stated that only caves within 5 miles of the corridor need to be evaluated for additional surveying.

V. Indiana Bat Life History Characterization

- BLA stated that they are working on an artistic rendition of the Indiana bat life history. This will hopefully be in poster format, but could also be in 11 X 17 format to fit into the BA addendum.

MINUTES

Conference Call with U.S. Fish and Wildlife Service

USFWS Bloomington Field Office

October 14, 2005 at 1:30 p.m.

Attendee	Organization
Andy King	USFWS
Tom Cervone (via phone)	Bernardin-Lochmueller & Associates, Inc. (BLA)
Kia Gillette (via phone)	BLA
Jason Dupont (via phone)	BLA
Cinda Bonds (via phone)	BLA
Josh Sherretz (via phone)	BLA
Mike Howery (via phone)	BLA

I. Maternity Colony Population Estimates

- BLA asked if USFWS had discussed the draft maternity colony population estimates in house. USFWS replied that they had not yet had an opportunity to do so.

II. Indirect & Cumulative Impacts Analysis

- BLA asked if USFWS had reviewed the Indirect & Cumulative Impacts powerpoint presentation provided at last weeks meeting. USFWS stated that they had not, but at this time did not have any questions or comments on the proposed approach.

- BLA also received clarification on the ESA cumulative impacts definition. ESA cumulative impacts do not include direct and indirect impacts.

III. Guano DNA Update

- BLA updated USFWS on the status of the guano DNA species analysis. All 20 samples were identified as *Myotis sodalis*. The sex determination will be completed next.

- USFWS stated that this DNA analysis could save time and money in survey efforts for federal and state agencies in the future.

- BLA asked if USFWS had received hair clippings collected by the subcontractors doing the Indiana bat work.

- USFWS replied that they did receive hair samples and guano samples.

IV. Harp Trapping Update

- BLA stated that all harp trapping has been completed for this fall. Two Indiana bats (both male) were captured at and two were captured at Cave (both male). No females were captured.

- USFWS stated that females generally enter the hibernacula earlier than the males.

- BLA stated that the winter cave surveys would be next followed by spring harp trapping if necessary. If spring harp trapping is not necessary, this year's reports will likely be ready in draft form in the spring.

- USFWS asked if the woman who provided the comment about the cave near Ivy Tech in Tier 1 had been contacted.

- BLA replied that they haven't talked to the person, but did walk around the property and investigated the sinkholes in the area. No entrances to the sinkholes were observed.

- USFWS suggested that it would be a good idea to get confirmation from the commenter, because they mentioned bats flying in and out of hole. It would be helpful if this person could point out where this was observed.

V. Winter Action Area Analysis

BLA explained the proposed Winter Action Area analysis.

- BLA stated that Cave, Cave, and were considered "new" hibernacula.

- BLA asked which of the new hibernacula should be studied in more detail, for instance temperature and humidity measurements.

- USFWS stated that was likely not an important hiberanculum due to its configuration, so it probably isn't important to study. This should be made clear in the BA addendum. Caves are dynamic and a new entrance could open resulting in changed conditions. However, a major change would have to occur. The relative importance of this hibernaculum will be taken into account during USFWS's analysis.

- BLA discussed the metrics to be analyzed for the Winter Action Area. These will be very similar to those analyzed for the Summer Action Area, but will not include tree cover in the floodplain or the three Classes.

- USFWS stated that it would be helpful to know which areas were likely to remain as forests, for instance public lands or IDNR Classified Forests.

- BLA replied that they will check on the availability of the Classified Forest information. Tree cover likely to remain as forest will included in the calculations.

- USFWS added that Monroe County does have zoning and this may be helpful in determining what is likely to remain forest.

- BLA replied that they will check on this.

- BLA explained the proposed hibernacula and watershed mapping.

- Caves will be placed into a GIS format and mapped along with USGS 7.5" topographic maps, 14-digit HUC watersheds, and any available dye trace or other karst information. Each cave will be buffered by 1000 feet and only this buffered area will be shown on the map. Caves will be mapped using existing known and published data.

- USFWS added that they will e-mail an overlay of Cave that they have created.

- BLA stated that they have observed an access road that had been created near Cave. This is likely for future residential lots. The access road may not be a real danger to the cave because there is a layer of sandstone in that area. If houses are constructed on lots at the southern end of the road, this could pose a threat to the cave.

- BLA added that they had been provided a Xerox copy of a Cave survey by a karst geologist. It shows Cave overlain on a topographic map. It runs east and south for about 5,800 feet then curves around almost parallel of SR 54. BLA will e-mail a copy to USFWS.

VI. Mitigation

- BLA stated that they are currently working on obtaining property owner information for the Cave and Garrison Chapel Valley areas. Property currently being protected by karst groups or other conservation easements will be highlighted.

- BLA stated that they would like to focus the Winter Action Area mitigation in the Cave and Garrison Chapel Valley area as conservation easements.

- USFWS replied that for long term protection, this is really the only option available. Cave is now the 2nd largest Indiana bat hibernaculum in the nation. Conservation easements in this area would be great.

- BLA asked if USFWS was comparing Indiana hibernacula to other states in terms of data.

- USFWS replied that they are currently building a database for all hibernacula across the nation within the range of the Indiana bat. The most detailed information appears to be for caves in Indiana.

- USFWS added that good population data, ownership information, and gate presence is available for many of states.

- USFWS stated that much of this data will be included in the Draft Recovery Plan which will be available for review soon.

- USFWS asked if for the karst mapping, if drainage basin maps for the footprint of I-69 will be completed.

- BLA replied that they will utilize as much data as possible for the corridor area. However any drainage divides drawn will be very speculative.

- USFWS asked if dye tracing was being performed.

- BLA replied yes, in Sections 4 and 5, and using any existing available dye trace information.

- USFWS asked if a hazardous spill occurred, would we know where or what could be impacted.

- BLA responded yes, significant features are being traced.

- USFWS asked if additional dye tracing would occur after the Tier 2 ROD.

- BLA replied that this was possible and that the Karst MOU was being followed.

- USFWS stated that any data that could show if hazardous spills will or won't get to the hibernacula would be helpful. This should be explained well in the BA. If any additional work is to occur later on, this should also be stated.

- BLA stated that the INDOT district has approved the proposed fence design for the north and south sides of the bridge over the The district would like a letter stating the USFWS is okay with the proposal.

- USFWS asked if BLA could draft a 1-page proposal with the attached fence renderings so that they could respond to it with a letter. This should be included as part of the I-69 project.

VII. Indiana Bat Life History Characterization

- BLA is in the process of putting together an illustrated Indiana bat life history characterization. They are currently in the process of doing the illustrations. The Indiana bat illustrations are mostly complete, while those of the cave and summer roosting habitat are in process. A draft will likely be available in 1.5 to 2 weeks.

- BLA stated that many of the Indiana bat illustrations are from the Smithsonian magazine, and will e-mail USFWS a copy of the photos. Several different images will likely be included.

- BLA asked USFWS what 3 or 4 distinguishing characteristics should be highlighted in the illustration.

- USFWS asked if this was in black and white or color.

- BLA replied in color.

- USFWS replied that color is the first feature, the Indiana bat has bi or tri colored hair that is not glossy like the little brown bat. The hair is sort of a gray/pink/chestnut color. Another feature is the keeled calcar as well as short, sparse toe hairs. Bats of Missouri is a good source to use.

- BLA stated that the illustrations will be similar to colorized versions of that source.

- USFWS added that the Indiana bat has more of a "teddy bear" shaped face. The fur is fluffier and fuller around the head when compared to little brown or northern long eared bats. The ears are similar to the little brown bat.

- BLA explained that the life history diagram would essentially be a circle showing different times of the year. Different areas of time will be highlighted on the circle.

- BLA added that this is meant to be artistic and a contribution so that people can relate and build an interest.

- USFWS stated that they are working on a revised Recovery Plan, and perhaps this could be included in it if INDOT would allow.

VIII. Environmental Clearance Buffers

- BLA stated that INDOT was thinking of adding a 150 foot buffer to either side of the preferred alternative ROW in case during design, it made better sense to go outside the preferred alternative ROW in some cases. Potential environmental impacts would be identified in the 150 foot buffer areas and any "No Go" areas would be identified. These areas could not be impacted. This is all still a proposed idea at this point and may or may not occur.

- BLA added that something similar had been done in Texas.
- USFWS replied that they need to make a decision about the ROW and stick with it. If wiggle room is required, it needs to be included in the proposed action.
- USFWS added that when it comes down to describe the proposed action, if something is not finalized, it should be stated as a possibility. The toll road possibility should be included as well.
- BLA stated that tolling will be discussed at a separate meeting with INDOT and FHWA soon.
- BLA stated that a draft BA addendum is expected to be complete by the end of November.
- USFWS asked if a Consultation Agreement would be available by the meeting with INDOT and FHWA.
- BLA replied that a draft will be available by that time for everyone to discuss.
- BLA stated that they will be in contact with Dr. Dale Sparks. Previous contact suggests that he will be using a type of software to determine colony size. This appears to be a capture recapture type of software.
- USFWS stated that this is likely referring to new research that will be done using DNA analysis. This will allow for fingerprinting and tracking relationships of individuals via DNA, not physically. Previously identified bats can then be compared to new captures.

103-0001-IPL

U.S. Department of Transportation
Federal Highway Administration

Indiana Division

575 North Pennsylvania Street, Room 254
Indianapolis, Indiana 46204

October 14, 2005

Keith Josh
Vince Jonna
Dean Nicole
Dave T Beann
Kent Mike G.
Tom
Jim G.
Daniel
Jason
Jeremy

HDA-IN

Mr. Skinner
Regional Administrator
US EPA Region 5
77 W. Jackson Blvd.
Chicago, IL 60604

Dear Mr. Skinner:

The Federal Highway Administration (FHWA), in cooperation with the Indiana Department of Transportation (INDOT), is preparing Tier 2 Environmental Impact Statements (EISs) for the I-69 Evansville to Indianapolis project.

Based on recent decisions made by the INDOT concerning the scope of the project, there is a need to make adjustments to the schedules of the six Tier 2 EISs. We would like to discuss with you reasons for the changes in scope and how the FHWA is moving forward with incorporating these changes into the process. We would also like to discuss the implications of these changes on your staff for the review of these documents and their participation in the EIS development process.

In cooperation with your staff, a meeting has been set for October 28, 2005, 10:30 a.m. (CDT), at your offices in Chicago. This meeting is with INDOT Commissioner Tom Sharp and his staff and legal council, staff from the consulting firm, BLA, Anthony DeSimone who is responsible for the studies for FHWA and myself. We understand that you are not available at this time but the Deputy Regional Administrator will attend along with a number of your staff. We request that a conference room be reserved that will allow for a PowerPoint presentation and will provide space for those in attendance.

RECEIVED
OCT 17 2005
BLA

BUCKLE UP AMERICA

For your information, please find enclosed the proposed schedule for the Tier 2 EISs and related documents. Also attached is a preliminary agenda for the meeting. If you would like any revisions to the agenda or have any other questions, please contact Mr. DeSimone of my staff at (317) 226-5307.

We look forward to meeting with you and your staff.

Sincerely,

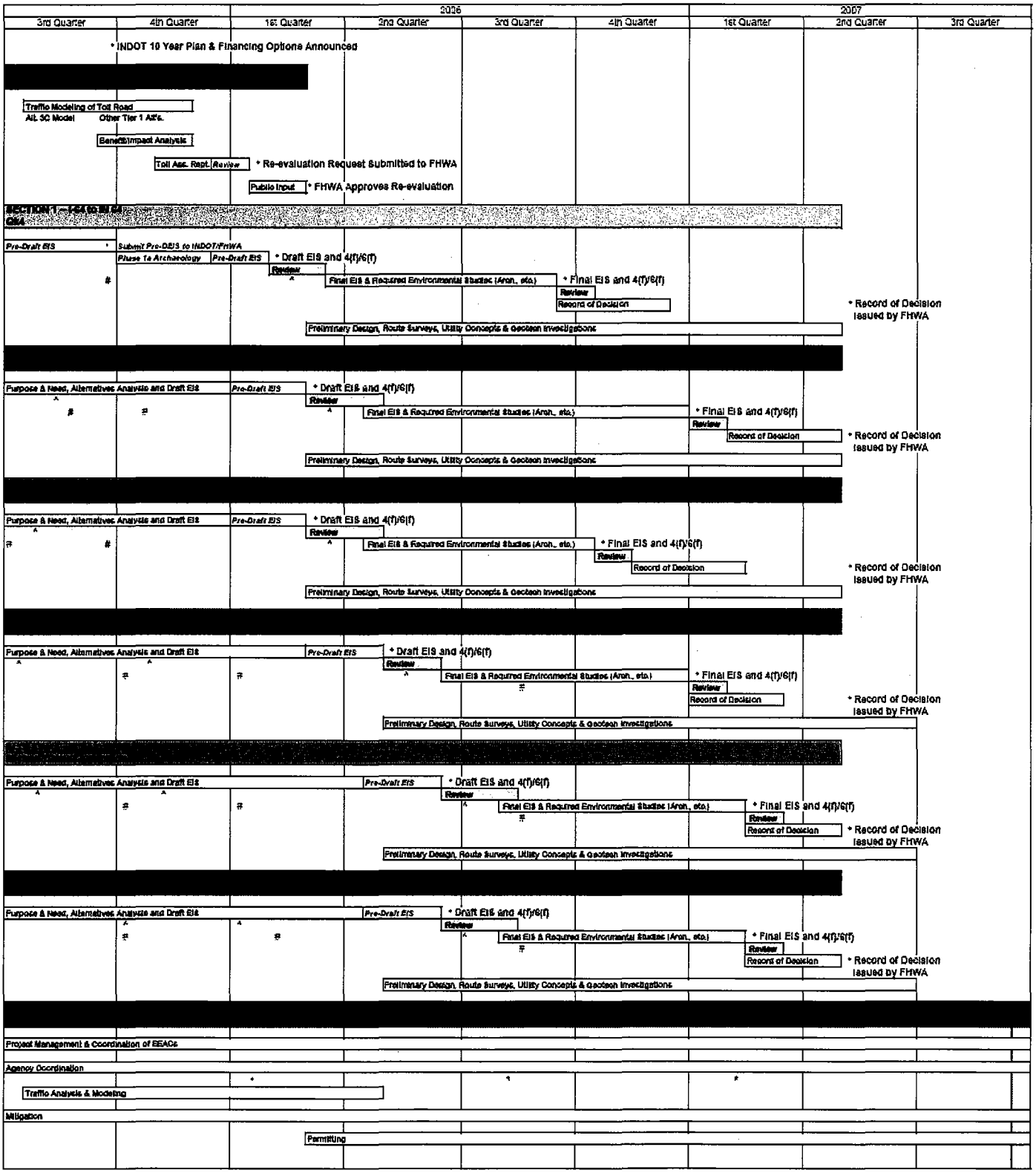
Robert F. Tally, Jr., P.E.
Division Administrator

Enclosures

cc:
Janice Osadczuk, INDOT N848
Kent Ahrenholtz, BLA
Bill Malley,
Tom Sharp, INDOT
Tom Seeman, INDOT
Joe Gusman, INDOT
Phelps Klika, INDOT
Kenneth Westlake, EPA Region 5

I-69 CORRIDOR, EVANSVILLE TO INDIANAPOLIS
TIER 2 MASTER MILESTONE SCHEDULE

September 20, 2006



^ – Public Information Meeting/Public Hearing
* – Overall I-69 Agency Coordination Meeting With All Sections
# – Agency Review Packages

Draft and Final EIS Issuance

Draft EIS		Final EIS	Final EIS
Q1 '06	– Section 1, 2 & 3	Q1 '07	– Section 2, 4, 5 & 6
Q2 '06	– Section 4, 5 & 6	Q2 '07	
Q3 '06		Q3 '07	
Q4 '06	– Section 1 & 3	Q4 '07	

I-69 Evansville to Indianapolis
Tier 2 Studies

Tentative AGENDA

I-69 Agency Coordination Meeting Concerning Tolls/Schedules

U.S. EPA Region 5 Office, Chicago IL
Friday, October 28, 2005, 10:30 a.m. CDT

I. Introductions & Opening Remarks — *B_Talley, FHWA Division Administrator & T_Sharp, INDOT Commissioner*
(5 minutes)

II. Major Moves – Creating a Top-Tier Economy Through Top-Tier Transportation — *T_Sharp, INDOT Commissioner*
(10 minutes)
- A. INDOT's New 10-Year, $10.6 Billion Plan
- B. Financing Options – *I-69, Evansville to Indianapolis with Tolling and/or Public/Private Partnership*

III. Effect on I-69, Evansville to Indianapolis — *K_Ahrenholtz, PMC Project Manager*
(15 minutes)
- A. Consideration of Toll-Funded Option – *Same Alternatives, But Two Options – Non-toll and Toll*
- B. Re-evaluation of Tier 1 EIS
- C. Refinement of Tier 2 Studies
- D. Revised Schedule for Tier 2 Studies
- E. Procurement Approach

IV. Questions/Issues from EPA — *All Participants*
(30 minutes)

– BREAK – ***(Executive Staff Free to Leave)***

V. I-69 Tier 1 EIS Re-evaluation — *K_Ahrenholtz, PMC Project Manager*
(30-45 Minutes)
- A. Process
- B. Schedule
- C. Documentation
- D. Public Involvement

VI. I-69 Tier 2 Studies Refinement — *K_Ahrenholtz, PMC Project Manager*
(30 Minutes)
- A. Revised Schedule for Tier 2 Studies
- B. Adjustment to Tier 2 Studies
- C. Accelerated Project Development Activities

VII. Immediate Next Steps — *K_Ahrenholtz, PMC Project Manager*
(15 Minutes)
- A. Initiation of I-69 Tier 1 Re-evaluation
- B. Continuation of I-69 Tier 2 Studies
- C. Agency Coordination Meetings concerning Toll Option & Schedules

VIII. Next Meeting(s)
- A. Overall Agency Coordination Meeting, January-February 2006
- B. Environmental Streamlining Package Conference Calls/Webcasts, Ongoing

Carol Hood

From: Carol Hood [blainc.Bla_Mailbox.Carol]
Sent: Monday, October 17, 2005 2:53 PM
To: apelloso@dem.state.in.us; dclark@dem.state.in.us; jrandolp@dem.state.in.us; jsulliva@dem.state.in.us; mmettler@dem.state.in.us; pcarroll@dem.state.in.us; ckiefer@dnr.in.gov; jeggen@dnr.IN.gov; jhebenstreit@dnr.in.gov; jcarr@dnr.state.in.us; garra.catherine@EPA.gov; laszewski.virginia@epa.gov; melgin.Wendy@epa.gov; Westlake.Kenneth@epa.gov; anthony.desimone@fhwa.dot.gov; kday@fs.fed.us; rtaylor@fs.fed.us; andrew_king@fws.gov; scott_pruitt@fws.gov; jane.hardisty@in.usda.gov; xavier.montoya@in.usda.gov; blawrence@indot.state.in.us; JGUSTIN@indot.state.in.us; josadczuk@indot.state.in.us; mhilary@indot.state.in.us; tseeman@indot.state.in.us; Amy.S.Babey@lrl02.usace.army.mil; Doug.Shelton@LRL02.usace.army.mil; david.poynter@navy.mil
Cc: WMalley@akingump.com; Daniel Townsend; Jason Dupont; Jim Gulick; Jonna Stack; Kent Ahrenholtz; Nicole Minton; Tom Cervone; brl@blainc.com; Carl Camacho; dmunn@blainc-indy.com
Subject: I-69 Agency Update for Summer 2005

Hello Everyone! Attached is the Agency Update for Summer 2005.

Thanks,

Carol

Carol Hood
I-69 Project Coordinator
Bernardin Lochmueller and Assoc./PMC
(812) 479-6200

Agency Update Summer 2005.doc ..

October 12, 2005
Agency Update
Summer 2005

The following information comprises a summer 2005 update of the activities of the seven consultant teams – Project Management Consultant (PMC) and Engineering and Environmental Assessment Consultants (EEACs) – working on the I-69 Evansville to Indianapolis Tier 2 Studies. This update includes the status of ongoing field activities related to various natural and man-made resources, as well as public and agency outreach activities.

PMC: The PMC has completed the following activities through summer 2005.

- Continued management of and coordination with the EEACs in terms of schedule, scopes of work, costs, and other contractual elements through conduct of coordination meetings, team communications, and outreach. Also, continued coordination with the Indiana Department of Transportation (INDOT) and the Federal Highway Administration (FHWA) with regard to project meetings, project record, EEAC billings, and overall project program management.
- Continued Section 7 consultation, including coordination of consultation meetings between the U.S. Fish and Wildlife Service, INDOT, FHWA, and the PMC. Also coordinated summer mist netting and radiotelemetry studies for the Indiana bat.
- Coordinating fall harp trapping and winter cave surveys for the Indiana bat.
- Coordination of the ongoing karst geology studies in Sections 4 and 5.
- Continued coordination with the Indiana Department of Natural Resources (IDNR) Division of Historic Preservation and Archaeology (DHPA) relative to Section 106.
- Continued public involvement through coordination with INDOT in developing project messages and assistance in preparations for Public Information Meetings and Community Advisory Meetings.
- Met with public interest groups and community groups as requested.
- Continued water resources coordination with the Indiana Department of Environmental Management (IDEM), U.S. Army Corps of Engineers (USACE), and IDNR.
- Held Indiana Wetland Rapid Assessment Protocol (InWRAP) training with experts at Taylor University.
- Held Qualitative Habitat Evaluation Index (QHEI)/Headwater Habitat Evaluation Index (HHEI) training with the IDEM Office of Water Quality Assessment Branch.

Section 1: The Section 1 EEAC, Qk4, has completed the following activities during summer 2005.

- Attended meeting with resource agencies to discuss Purpose and Need package.
- Developed Environmental Impacts matrix for screening/evaluation of alternatives.

- Attended meeting with Land Use Panel of Experts to update Traffic Analysis Zone (TAZ) data.
- Continued refining preliminary alternatives and interchange configurations.
- Identified locations for and developed access/service roads.
- Conducted research for the CIA, including potential farmland impacts and the socioeconomic conditions of the Study Area.
- Continued identifying ROW/relocation impacts based on refined alternatives.
- Prepared and ran noise model.
- Researched the physiography, seismic features, mineral resources and forests in the study area.
- Conducted InWRAP field work.
- Prepared draft NRCS form CPA 106.
- Established model for evaluating air quality impacts.
- Conducted a wetland and stream field review with IDEM and USACE in April.
- Attended InWRAP training on May 25-26.
- Attended QHEI/HHEI training in June.
- Conducted Community Advisory Committee (CAC) meetings on May 12 and June 7.
- Hosted second Public Information Meeting to share refined alternatives on May 26.

Section 2: The Section 2 EEAC, Hannum Wagle and Cline/Jacobs Civil Inc., has completed the following activities during summer 2005.

- Conducted data gathering and preparation of text for the socioeconomic portions of the DEIS.
- Gathered business and church information for the Business Needs Survey.
- Prepared and sent out Business Needs Survey to area businesses and churches.
- Wetland field work, including InWRAP and GIS updates.
- Participated in Alternatives Screening Review Meeting.
- Developed an interchange design at US 50.
- Revised traffic modeling materials based on discussions at alternatives screening review meeting.
- Reviewed Tier 1 hydraulic data.
- Refined line/grade for alignment alternatives.
- Evaluated drainage for alternatives.
- Hosted 3rd CAC meeting on May 3rd and 4th meeting on August 4.
- Held second Public Information Meeting on August 9.
- Attended InWRAP training on May 25-26.
- Attended QHEI/HHEI training in June.
- Conducted a wetland and stream field review with IDEM and USACE in August.

Section 3: The Section 3 EEAC, The Corradino Group, has completed the following activities during summer 2005.

- Hazardous materials field work and record searches completed.
- Preliminary wetland field work completed (including GPS mapping).
- Historical field work is complete.
- Held a Section 106 Consulting Parties Meeting in May.
- Wetland and stream training completed.
- Began development of final alternatives.
- Held CAC meeting on July 12.
- Hosted second Public Information Meeting on July 27.
- Conducted a wetland and stream field review with IDEM and USACE in August.
- Attended InWRAP training on May 25-26.
- Attended QHEI/HHEI training in June.

Section 4: The Section 4 EEAC, DLZ Corp., has completed the following activities during summer 2005.

- Held an emergency services meeting with the Jackson Township and Center Township Fire Departments (Greene County) in April.
- Held Monroe County Expert Land Use Panel Meetings in April and May.
- Karst field investigations, mapping, and dye tracings are ongoing.
- GIS mapping of natural/ecological resources are ongoing.
- National Register Historic Properties report is in development.
- Preliminary alignments have been developed.
- Archaeological work and field review of the Virginia Iron Works is complete.
- Held a Greene County Expert Land Use Panel Meeting in May.
- Held IDNR Division of Forestry meeting in June.
- Indian Hill Mill quarry district historic data research and field review complete.
- Boyd property historic field review complete.
- Development of the Community Impact Assessment report is ongoing.
- Began reviewing possibility of an eastern Greene County interchange.
- Attended InWRAP training on May 25-26.
- Attended QHEI/HHEI training in June.
- Conducted a CAC meeting on June 2 to share preliminary alternatives with committee members.
- Held first Public Information Meeting on June 16.

Section 5: The Section 5 EEAC, Michael Baker Jr., Inc., has completed the following activities during summer 2005.

- Held Monroe County and Morgan County Expert Land Use Panel meetings in May.

- Conducted pedestrian surveys, forest composition determinations, stream riparian corridor evaluations and wetland evaluations.
- Continued to update hazardous waste sites.
- Updated GIS layers for karst studies.
- Conducted field work and site assessments for historical resources.
- Developed mainline alternatives and interchange concepts for the Bloomington area.
- Verified land cover designations within project corridor.
- Attended InWRAP training on May 25-26.
- Attended QHEI/HHEI training in June.
- Conducted final stream and biological field work.
- Held Consulting Party meeting on June 27.
- Updated socioeconomic data based on field review.
- Held CAC meeting on July 19.
- Held public officials meeting on July 19.
- Held first Public Information meeting on July 20th.
- Conducted bio-survey at May Cave.
- Developed various GIS layers.

Section 6: The Section 6 EEAC, HNTB, has completed the following activities during summer 2005.

- Completed the historic property evaluation and field work.
- Attended InWRAP training on May 25-26.
- Attended QHEI/HHEI training in June.
- Held the Martinsville/Morgan County Land Use Expert Panel meeting on May 26.
- Began developing the Community Impact Assessment (CIA) report.
- Met with Martinsville United Methodist Church to discuss proposed location of new church within the corridor.
- Finalized the Fish, Mussel, and Crayfish Survey Report.
- Developing Draft Archaeological Report.
- Held Marion/Johnson County Land Use Expert Panel meeting on June 17.
- Met with the Indianapolis Chamber of Commerce on June 7.
- Developing Draft Historic Properties Report.
- Began preparations for October CAC and Public Information Meetings.

Carol Hood

From: Jeremy Kieffner [blainc.Bla_Mailbox.Jeremy]
Sent: Wednesday, October 19, 2005 9:54 AM
To: wmalley@akingump.com; Kent Ahrenholtz
Cc: Jason Dupont; Tom Cervone; Rusty Yeager; Eswickard@indot.state.in.us; jgustin@indot.state.in.us; Josadczuk@indot.state.in.us; mhilary@indot.state.in.us; tseeman@indot.state.in.us
Subject: Questions from IDNR Matt Buffington

Dear Kent and Bill

Questions from Matt Buffington are in normal font and answers we formulated are in bold font. Please review these items before we send them to IDNR. Please pay particular attention to the area in red and make sure this is a true statement. Thank You.

Exactly what criteria will be used to choose an alternative, especially if two alternatives differ by only one variable? For instance, if Alt. A will impact 5 acres of "fair" forested floodway and Alt. B will impact 5 acres of "fair" scrub-shrub, and all other factors are equal, how will a decision be made regarding which alternative to use? Similarly, which gets more weight, total acres of impact or quality of habitat impacted (quantity versus quality)?

The forested areas will always get more weight than the other types of habitats because it takes more time and is harder to create mitigation for forested areas. As for how we will be considering the total impacts on size verses quality will be done on a case by case basis. (For example, if we have a choice of impacting 2 acres of good quality habitat verses 5 acres of poor quality habitat we would recommend impacting the 5 acres of poor quality habitat and leaving the 2 acres of good quality habitat unimpacted.) "Bill is this a true statement???)

You also have to remember that there will be other environmental impacts evaluated that may determine how we have to impact habitat areas such as historical and archaeaological resources and many other impacts and what is the best route to take from an engineering view point.

I believe Danny mentioned this in a slightly different manner but if both alternatives are not desirable, can a new alternative be presented? Seems like there are instances where the alignment can be adjusted to reduce or eliminate potential impacts.

Yes, slight shifts in the alignments may be reviewed to avoid or minimize impacts. Such information will be provided to the agencies for their input. This will be avaiable throughout the process, but especially important in the PAMP (Preferred Alternative Mitigation Package), which will be provided to all the agencies once completed.

It's been some time since I've done statistics but I have a question about a wetland complex. If each polygon within a complex goes through some averaging to get a "score" and then these averages are averaged together to get an average for the entire complex, isn't it possible some information may be lost? What I'm thinking is that if one polygon happens to have a good number of conservative species, whereas other polygons within the same complex are more marginal/typical, the "botanical conservatism rating" for the entire complex may not accurately reflect that there is an area containing highly conservative species. I think the more you average things, the closer you get to a central number. Can there be a conservatism rating cut-off for an individual polygon that raises a red flag for the entire complex?

It is true that averaging the "scores" of individual polygons for a multi-polygon complex where one has a relatively higher "botanical conservatism rating" compared to others of the complex will result in a rating that appears to under estimate the quality of the botanical component for the first polygon. However, at the same time, it over estimates the quality of the polygons with lower botanical ratings. This is avoided to some degree in the process by weighting the "scores" for each of the three measures (including the botanical measure) based on the size of the polygon.

For instance, a wetland complex of two polygons where one is small with a relatively high botanical conservatism and the other is large with a relatively low botanical conservatism will be assessed as having a slightly lower quality (all other factors

being equal) that a complex where the large polygon has a relatively high botanical conservatism and the small polygon has the low botainical conservatism.

Any system that attempts to take a multi-variable assessment and reduce it to a single number or rating is at risk of cloaking specific details that were factored into generating the number or rating. One of the reoccuring responses from the Water Resources Team Meeting earlier this year was that the InWRAP data needed to be something that was easier to interpret, i.e., a single resulting quality measure. This does not however preclude the investigator or reviewer from taking a step back from the final summary table and looking at the individual polygon data in the Wetland Quality Assessment Profile (Excel spreedsheet output) to see if any one of the polygons within a complex have an relatively high botanical conservatism compared to the rest of the polygons of the complex. Remember also that the botanical component of the InWRAP methodology is just one of several metrics used in assessing the wetlands quality.

And what exactly happens if there is a red flag? Does it depend on the cause? Does a polygon automatically get placed in the "least desirable alternative" if it has a red flag or does it get additional scrutiny to determine why there was a red flag and if it can be avoided/mitigated?

If an area has a red flag or is an important area then it will be subject to special avoidance measures to avoid and/or minimize impacts to the area.

Sincerely,

Jeremy Kieffner
Bernardin Lochmueller and Assoicates, Inc.

>>> "Buffington, Matt" <MBuffington@dnr.IN.gov> 10/12/05 03:46PM >>>
Jeremy,
Danny forwarded the InWRAP info to me and I read through it very quickly in hopes of getting comments out today. I think Danny brought the main issues in his response to you. Since the workshop in Washington, this is the only thing I've seen regarding this project so I'm not that familiar with what happened during the summer. I do have a few questions that may reflect my ignorance about this project but I'd like to hear what you have to say.

Exactly what criteria will be used to choose an alternative, especially if two alternatives differ by only one variable? For instance, if Alt. A will impact 5 acres of "fair" forested floodway and Alt. B will impact 5 acres of "fair" scrub-shrub, and all other factors are equal, how will a decision be made regarding which alternative to use? Similarly, which gets more weight, total acres of impact or quality of habitat impacted (quantity versus quality)?

I believe Danny mentioned this in a slightly different manner but if both alternatives are not desirable, can a new alternative be presented? Seems like there are instances where the alignment can be adjusted to reduce or eliminate potential impacts.

It's been some time since I've done statistics but I have a question about a wetland complex. If each polygon within a complex goes through some averaging to get a "score" and then these averages are averaged together to get an average for the entire complex, isn't it possible some information may be lost? What I'm thinking is that if one polygon happens to have a good number of conservative species, whereas other polygons within the same complex are more marginal/typical, the "botanical conservatism rating" for the entire complex may not accurately reflect that there is an area containing highly conservative species. I think the more you average things, the closer you get to a central number. Can there be a conservatism rating cut-off for an individual polygon that raises a red flag for the entire complex?

And what exactly happens if there is a red flag? Does it depend on the cause? Does a polygon automatically get placed in the "least desirable alternative" if it has a red flag or does it get additional scrutiny to determine why there was a red flag and if it can be avoided/mitigated?

Thanks for taking comments.

Matt

Matt Buffington, Statewide Environmental Biologist
IN Dept. of Natural Resources
Division of Fish & Wildlife
402 W. Washington St., Room W273
Indianapolis, IN 46204

Phone: 317-234-0586
Cell: 317-430-4350
Email: mbuffington@dnr.IN.gov <mailto:mbuffington@dnr.IN.gov>

Carol Hood

From: "DeSimone, Anthony" <Anthony.DeSimone@fhwa.dot.gov> [Anthony.DeSimone@fhwa.dot.gov]
Sent: Wednesday, October 19, 2005 7:30 AM
To: laszewski.virginia@epa.gov
Cc: JOSADCZUK@indot.state.in.us
Subject: your questions

Thought you might get this faster. Sorry I wasn't able to get you a response last night on the phone. I was in a hurry when I got back to my office and just quickly checked my voicemail.

What are we looking for from EPA?
Basically we want to hear if the EPA have any issues with the schedule and if there is anything we can do to help you meet your requirements and maybe help speed EPA's review of the documents and any other comments on the process EPA might like to supply us with.

What alternatives are we analyzing for Tolling? We are analyzing all the alternatives considered preferred in the DEIS and Alt 1 except Alt 3B (I believe)which was primarily dismissed because of environmental reasons related to the Indiana Bat. So that leaves Alt 2C, 3C, 4B, and 4C (and alt 1). (this is preliminary but this is the direction we currently think is appropriate).

Public comment on the reevaluation? again this is preliminary and we don't have this entirely ironed out. We are taking advantage that this is a Tiered Study, therefore, our final decisions isn't made until the end of the Tier 2 studies. We are planning to release the reevaluation at approximately the same time as the first Tier 2 DEIS. That way comments can be received during the same comment period and can be responded to in the FEIS. Any comments received during any other comment period for other Tier 2 DEISs will also be addressed in each of the other FEISs. Basically there will be lots of opportunity for the public to comment on the reevaluation. It will be referenced in each Tier 2 DEIS. At approximately the same time as the public hearing on the first DEIS, we are considering having some public info meetings in other locations concerning the reevaluation.

EPA comment on the reevaluation? Basically EPA review will occur similar to the public comment. We will make sure you get a copy as soon as it is available for distribution which should be at least few weeks before the first DEIS.

With the reevaluation and the first DEIS being released at similar times, we understand there is some risk here that something might be identified by the public or resource agencies that we need to consider in the reevaluation. Due to the time constraints, INDOT is willing to take that risk. If something does pop up. We will have to figure out how to address that before the ROD(s).

I hope this answers your questions. I shared this with INDOT to make

sure we are on the same page. I will let you know if there are any corrections.

Tony DeSimone, P.E.
FHWAIndiana Division
(317) 2265307
Fax (317) 2267341

Carol Hood

From: Jeremy Kieffner [blainc.Bla_Mailbox.Jeremy]
Sent: Monday, October 24, 2005 4:17 PM
To: ckiefer@dnr.IN.gov
Cc: Carol Hood; Jason Dupont; Kent Ahrenholtz; Tom Cervone
Subject: IDNR Danny Gautier Quetions and Responses to I-69 Stream and Wetland Guidance

Dear Ms. Kiefer,

Below are the responses that were received on October 10, 2005 from Mr. Danny Gautier concerning the I-69 Stream and Wetland Technical Report Guidance that was sent to him on October 3, 2005. This is the same guidance that was sent to you on October 24, 2005. We have responsed to the questions raised by Mr. Gautier and they are included below in bold print. Please review. Thank You.

Danny,

Answers to your statement are in bold.

The information-gathering methods in this e-mail will be important in the environmental impacts review of the project alternatives. It should have been provided to DNR Water and an environmental review requested. This would have allowed for an appropriate review period and official DNR comments.

We have been coordinating with IDNR and other environmental agencies on a regular basis throughout this process. For example, Christie Kiefer, Jon Eggen, Doug Wolf, and Paul Ehret all attended the February 23 and 24 agency coordination meeting in Washington, IN, which included a detailed review of the proposed methodology for water resource impacts. Also, an InWRAP training workshop was held on May 25 and 26, 2005 and the environmental review agencies were invited to participate in that workshop. Both IDNR and IDEM were present at the workshop. At your suggestion we will forward this guidance on to Christie Kiefer for her review and comments. If you need additional time to provide comments, please let us know and we will do our best to accommodate your needs.

The information gathered should be available ahead of time to determine environmentally acceptable alternatives. I have been receiving Tier 2 purpose and need reviews this year that show alignments before any of this information is even collected, much less available for review. Since this information was not used to plot the alignments on the 'purpose and need' documents, the Tier 2 purpose and need alternatives should be viewed as hypothetical.

Environmental resource field work and documentation has been concurrent with the Purpose and Need and other aspects of the project. Through this field work, we have developed detailed information on wetlands, forests, and other environmental resources within the selected corridor. This environmental resource information has been used in developing the preliminary alternatives. The preliminary alternatives have been circulated for agency review along with the draft Purpose and Need statements for the Tier 2 sections.

The avoidance, minimization and mitigation of impacts must be the foundation of the alternative selection process. While the InWRAP protocol provides some ability to compare wetlands, the baseline for comparison of impacts should be the 'no impact' condition. If the alternative can be placed in an area of 'no impact' to natural resources that is where it should be placed.

Efforts have been made throughout this process to avoid wetlands, streams, and other important resources and such efforts will be continued throughout the life of this project. Where impacts cannot be avoided, they will be minimized and mitigated, as appropriate. Regulatory requirements will be followed, including the Least Environmentally Damaging Practicable Alternative (LEDPA) requirement as defined under Section 404 of the Clean Water Act.

When deciding between unavoidable impacts to one or another wetland the following should be developed and considered in the minimization of impacts: a floristic quality assessment and associated metrics (FQA, FQI, Cavg) for each site, the cumulative impacts to a larger habitat complex vs. a small isolated piece of habitat, habitat fragmentation impacts from an alternative eliminating the edge of the habitat vs. a "scenic" alternative through the middle of the habitat.

InWRAP will be used to evaluate the quality of the wetlands. This method was presented to the Environmental Review Agencies at the February 23 and 24, 2005 Agency Coordination Meeting held in Washington, IN. No objections were raised during this meeting about using InWRAP to assess the quality of the wetlands for this project.

The maps on the Impact Site forms for each individual wetland will show how each alternative impacts the wetland complex or isolated wetlands along with supporting InWRAP quality assessment. The alternative selection will consider how each alternative impacts the wetland complexes - e.g., whether it cuts through the middle or just clips the edge.

If wetlands impacts are unavoidable, an FQA (plus associated metrics) should be performed and will be one of the main factors driving the alternative placement decision. It has been determined that few mitigation sites achieve over a mean C-value of 3.5. Impacts to wetlands with a mean C-value over 3.5 are essentially not possible to offset with mitigation. The mitigation ratio in such situations may be subject to a marked increase or where adequate mitigation is not possible the impacts will be considered unreasonably detrimental to fish, wildlife and botanical resources.

We will be using the InWRAP quality assessment which does incorporate portions of FQA. In cooperation with Paul Rothrock, Ph.D., and Rob Reber from Taylor University (the developers of InWRAP), we have developed a methodology for classifying each wetland according to its overall quality, based on the summary data from InWRAP. The categories that will be used are: very poor, poor, fair, good, and excellent. The quality of each wetland will be an important factor in making decisions about avoidance, minimization, and mitigation (including both the type, location, and amount of mitigation).

The email that was provided to you the first of October 2005 shows a ranking of the impacted wetlands as requested by the agencies in the agency coordination meeting held on Feb. 23 and 24 of 2005.

A red flag implies a finding of some importance; it could be a make or break condition for the selected alternative location. Since the InWRAP information does not lead to a numerical overall rating, how importantly do you rate the presence of a red flag and will it lead to moving the alternative or selecting another alternative?

Red flag or important areas will be areas where special consideration will be given to avoid these areas no matter what the InWRAP quality assessment comes out to be. A red flag does not necessarily mean that a resource must be avoided.

Streams
How about cumulative impacts to the individual streams and overall watershed? For example, in section 4 Indian Creek will be crossed several times by I-69.

The total impacts to each stream will be defined in the Tier 2 DEIS documents. All engineering efforts will be made to design for stream crossings that will avoid and/or minimize impacts to aquatic and riparian ecosystems. Engineering and Environmental staff will work together along with the agencies to accomplish this goal.

Bridge, culvert, relocation: What is a stream relocation for the purposes of these reviews? Channel realignment for a bridge crossing, relocation to move the stream away from the highway? Stream relocations projects should not be taken lightly. Stream relocations should be avoided if at all possible and if not are subject to significant mitigation requirements.

Anytime a entire new stream channel is constructed that will move the natural channel to a new location, no matter how far away from the natural channel, it will be defined as a stream relocation. The preferred alternative will avoid and minimize the amount of stream relocation as much as possible.

INDOT and FHWA make all efforts to avoid such relocations and if unavoidable mitigation will be provided for the impacts.

Sincerely,

Jeremy Kieffner
Bernardin Lochmueller and Associates, Inc.

Carol Hood

From: Carol Hood
Sent: Monday, August 21, 2006 4:28 PM
To: Seth Hauschild
Subject: FW: I-69 Stream and Wetland Technical Report Guidance

Fyi

From: Jeremy Kieffner
Sent: Monday, October 24, 2005 3:20 PM
To: garra.catherine@EPA.gov; JRANDOLP@idem.in.gov
Cc: Carol Hood; Jason Dupont; Kent Ahrenholtz; Tom Cervone
Subject: I-69 Stream and Wetland Technical Report Guidance

Dear Jason and Cathy,

We have received a response from the I-69 Stream and Wetland Technical Report Guidance that was sent out on October 3, 2005 from the USACE. We would like to finalize this guidance as soon as possible in order to keep the EEAC's for all 6 Sections moving forward on this project. If you have any questions or comments on this guidance could you please let me know. Your review of these items is greatly appreciated. Thank You.

Sincerely,

Jeremy Kieffner

Bernardin Lochmueller and Assoicates, Inc.

1.800.423.7411

Carol Hood

From: Jeremy Kieffner [blainc.Bla_Mailbox.Jeremy]
Sent: Monday, October 24, 2005 3:37 PM
To: Daniel Gautier
Cc: Carol Hood; Jason Dupont; Kent Ahrenholtz; Tom Cervone; Rusty Yeager; kgillett@blainc-indy.com
Subject: RE: Wetland and Stream Technical Report Outlines, Site Forms, andInWRAP Summary

Danny,

Answers to your statement are in bold.

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Sincerely,

Jeremy Kieffner
Bernardin Lochmueller and Associates, Inc.

>>> "Daniel Gautier" <dgautier@dnr.IN.gov> 10/12/05 03:14PM >>>
Jeremy,
Next e-mail also include the statewide biologist Matt Buffington, mbuffington@dnr.in.gov. I forwarded the e-mail to him upon noticing this ommission.

The information-gathering methods in this e-mail will be important in the environmental impacts review of the project alternatives. It should have

been provided to DNR Water and an environmental review requested. This would have allowed for an appropriate review period and official DNR comments.

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Danny

Daniel Gautier
South Region Environmental Biologist
Indiana Department of Natural Resources
553 East Miller Drive
Bloomington, IN 47401
812-334-1137

-----Original Message-----
From: Jeremy Kieffner [mailto:jkieffner@blainc.com]
Sent: Monday, October 03, 2005 4:04 PM
To: dgautier@dnr.state.in.us; garra.catherine@EPA.gov; JRANDOLP@idem.in.gov; bruce.milligan@in.usda.gov; amy.s.babey@lrl02.usace.army.mil
Cc: kgillett@blainc-indy.com; Rusty Yeager; Tom Cervone
Subject: Wetland and Stream Technical Report Outlines, Site Forms, andInWRAP Summary

Dear Amy, Cathy, Jason, Bruce, and Daniel

Attached are the Technical Report Outlines and Sample Site Forms for streams and wetlands that we are proposing to be used for the I-69 project. We have also prepared a methodology that hopefully breaks down the wetland quality information generated by InWRAP into something a little easier to interpret for alternative comparison purposes. This methodology was developed by BLA in cooperation with Paul Rothrock , Ph.D. and Robert Reber from Taylor University. INDOT and FHWA have also been involved with the development of the attached items. Our hope is that everyone will have a chance to look over the material by Monday October 10 and provide any comments. Let us know if there are any questions. Thank You.

Sincerely,

Jeremy Kieffner

Bernardin Lochmueller and Associates, Inc.

1.800.423.7411

MEETING MINUTES

Toll/Schedule Meeting with USEPA
Friday, October 28, 2005 - 10:30 a.m. CDT
USEPA Region 5, Chicago, IL

Attendees:	
Ken Westlake – USEPA	Tom Sharp – INDOT
Virginia Laszewski – USEPA	Janice Osadczuk – INDOT
Tom Kenney – USEPA	Joe Gustin – INDOT
Cathy Garra – USEPA	Tom Seeman – INDOT
Wendy Melgin – USEPA	Rick Smutzer – INDOT
Jerri-Anne Garl – USEPA	Bill Malley – Akin Gump
Tony DeSimone – FHWA	Kent Ahrenholtz – BLA
Robert Tally – FHWA	Tom Cervone – BLA

Introductions

Welcome, Opening Remarks, and Introductions were made.

Major Moves

Commissioner Sharp of INDOT gave a presentation on the Major Moves initiative: including management and flow of projects, economic development, rating all projects based on technical merit (i.e. congestion, safety, and new ramps), and acceleration of I-69 construction as a toll road.

Some components of the Major Moves and how to move ahead with I-69 was discussed:

- Develop I-69 as a public-private partnership
- Developed as a non-toll road, will have to go back and make some adjustments
- Accelerate other parts of this project, including permitting

INDOT informed USEPA that it recognizes this acceleration of the project will be a burden on the review agencies and is willing to do what is needed to assist USEPA meet this schedule.

Effect on I-69 Evansville to Indianapolis

The PMC mentioned that in the NEPA process for I-69 a toll and non-toll option will be considered, and the same alternatives will be considered using tolling and non-tolling. A fully electronic toll system is being considered.

Based on some suggestions from agencies, the schedule will be slightly different.

- The Tier 1 reevaluation will have to be “revisited” based on the toll option

- The PMC is currently doing a study on alternatives in the DEIS in Tier 1 of preferred corridors
- By the 1st of February a reevaluation report will be made available to the agencies

The toll option will be incorporated into the Tier 2 Study.

- Still working on how to identify the preferred alternative into the toll option
- The DEISs will be issued sequentially, but there may be some overlapping
- Looking at completing the DEISs and RODs in 2007

The plan is to do the preliminary design as soon as the DEISs are complete.

Advancement of Permitting Activities: further coordination will be needed with USEPA and other agencies to decide what needs to be accomplished to get permitting done. The Interagency Coordination Team will need to reconvene to decide what permitting process to use.

It is anticipated that I-69 will be design build; probably 30% design.

Discussion on the Procurement Approach: including public-private partnership (P3), concessionaire and legislative action. P3 involves selling development rights to a private entity (operator, design, construction, et. al., and this group collects tolls). The concessionaire will actually run the tolls. This will require legislative actions to do this. INDOT is looking at I-69 being the first of many projects like this.

Legislation will be submitted on January 3, 2006, and there should be some feedback by late February 2006.

Break

Tier 1 EIS Re-evaluation

The PMC and EEACs have had some contact with the coal companies, however this has stopped because the coal companies wanted a confidentiality agreement signed by the PMC and EEACs stating that the information disclosed would not be shared with INDOT. The coals companies seem to have some very aggressive plans in the works.

- Location of the I-69 corridor has been shared with the coal companies.
- PMC wants to work with IDNR in deciding what will be the best way to move if coal companies move into the corridor, et al

The PMC informed the USEPA that an addendum to the Tier 1 Biological Assessment (BA) was in process. The focus is on the Indiana Bat and the report will be submitted to the USFWS in January 2006. Almost all of the field reviews have been completed.

I-69 Tier 2 Studies Refinement and Immediate Next Steps

All DEISs should be out and reviewed by fall 2006, and the FEISs should be out by the end of 2006. The schedule will possibly change slightly.

Once the preferred alternative is identified, the preliminary design and permitting will be started.

Will reconvene the Interagency Water Resources Committee to identify the correct approach for the permitting process/procedures.

- 30% design
- Will want to get USEPAs input on this and get them to thinking about permitting procedures
- Preliminary design will be after all DEISs are out.

Archaeology has already begun on the preferred alternative in several sections.

Agency Coordination Packages to be sent out includes: Purpose & Need, Screening of Alternatives, and identifying preferred alternatives and mitigation impact, and major terrain, however the third package may be different.

Details discussed in this meeting are subject to change, but are a reflection of how things stood at the close of the meeting.

These meeting minutes represent my understanding of the events that occurred. Please forward any comments or revisions to my attention, Carol Hood, chood@blainc.com.

Toll/Schedule Meeting w/EPA

I-69 Evansville to Indianapolis Tier 2 Studies

October 28, 2005

Agenda

- Major Moves – *Creating a Top-Tier Economy Through Top-Tier Transportation*
- Effect on I-69, Evansville to Indianapolis
- Questions/Issues from EPA

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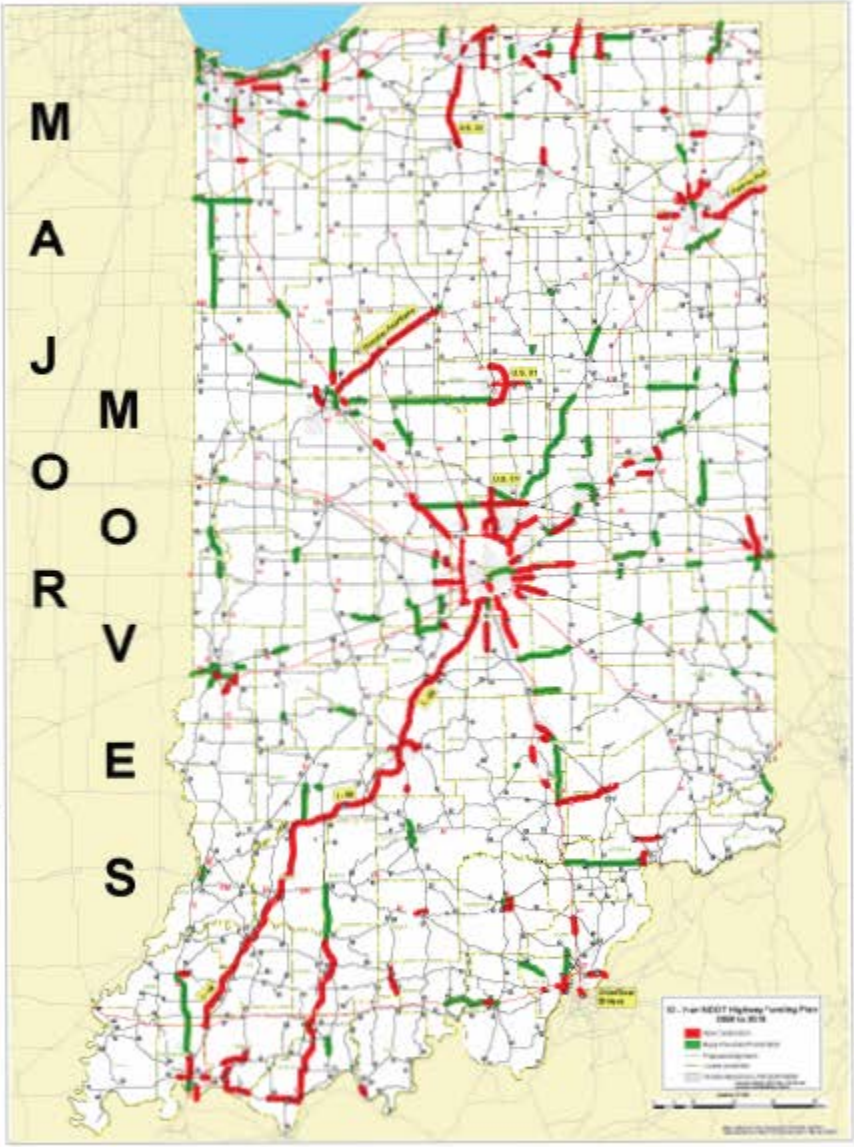
- I-69 Tier 1 EIS Re-evaluation
- I-69 Tier 2 Studies Refinement
- Immediate Next Steps
- Next Meetings

INTERSTATE 69

MAJOR MOVES



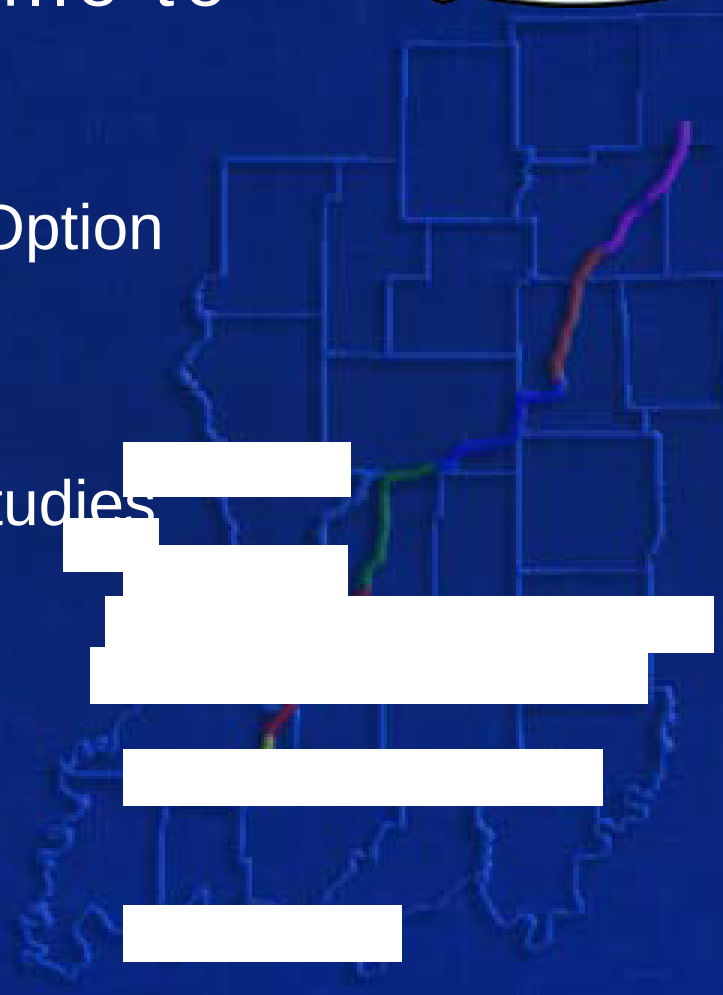
Effect on I-69, Evansville-to-Indianapol[redacted]

- Consideration of Toll Funded Option
- Re-evaluation of Tier 1 EIS
- Refinement of Tier 2 Studies
- Revised Schedule for Tier 2 Studies[redacted]
- Procurement Approach

[redacted]

[redacted]

[redacted]

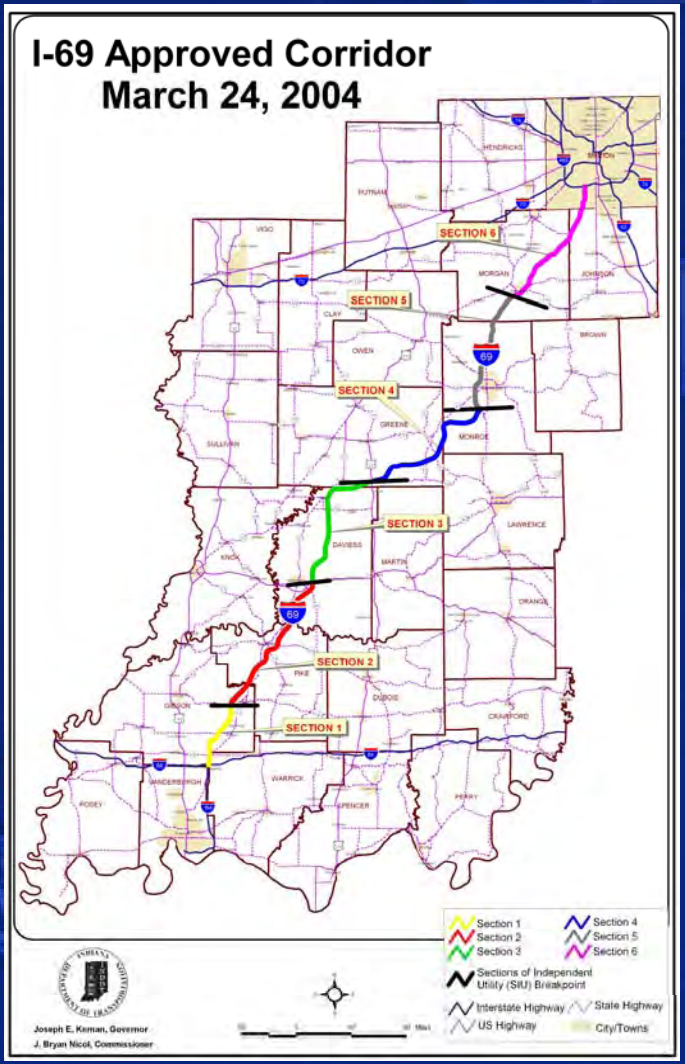


Tier 2 Studies
6 Sections

142-mile Evansville to Indianapolis project is divided into six sections

Each section is being studied independently

Draft EIS, Final EIS and [redacted] of Decision issued for each section



Consideration of Toll Option

- Same Alternatives for Tier 2 Studies
- Two Options – *Non-toll and Toll*
- Characteristics of Toll Option
  - *Fully Electronic Toll Collection System*
  - *Assumed Toll Rate Structure*
  - *Traffic Diversions with Tolls*
  - *Possible Changes to Footprint with Less Traffic – Sections 5 & 6*

Revised Schedule for Tier 2

- Re-evaluation of Tier 1 EIS
  - *Draft EIS Preferred Alternatives – 1, 2C, 3C, 4B & 4C*
  - *Re-assessment of Performance Measures*
  - *Re-evaluation of Environmental Impacts*
  - *Tier 1 EIS Re-evaluation Report*
- Refinement of Tier 2 Studies
  - *Delay in Issuance of Draft EISs*
  - *Incorporation of Toll Options*
  - *Staggered EIS Reviews*
- Accelerated Project Development Activities
  - *Preliminary Design of Preferred Alternative*
  - *Permitting*

Procurement Approach

- Public/Private Partnership
- "Concession"
  - *Design*
  - *Right-of-Way Acquisition*
  - *Construction*
  - *Operation*
  - *ance*
- Requires Legislative Action
- Other Options

Questions/Issues from U.S. EPA

<<<<< BREAK >>>>>

Agenda

- Major Moves – *Creating a Top-Tier Economy Through Top-Tier Transportation*
- Effect on I-69, Evansville to Indianapolis
- Questions/Issues from EPA

<<< BREAK >>>

- I-69 Tier 1 EIS Re-evaluation
- I-69 Tier 2 Studies Refinement
- Immediate Next Steps
- Next Meetings

I-69 Tier 1 EIS Re-evaluation

- Process
  - *Draft EIS Preferred Alternatives – 1, 2C, 3C, 4B & 4C*
  - *Consideration of Toll Option vs. Non-toll Option*
  - *Identification of Characteristics of Toll*
    - *Fully Electronic Toll Collection Syste*
    - *Assumed Toll Rate Structure*
    - *Traffic Diversions with Tolls*
    - *Possible Changes to Footprint with Less Traffic*

I-69 Tier 1 EIS Re-evaluation

- Process (continued)
  - *Re-estimation of Performance Measures – utilizing Indiana Statewide Toll Model*
  - *Re-assessment of Alternatives*
  - *Re-evaluation of Environmental Impacts – mostly traffic-related impacts*
  - *Documentation*

I-69 Tier 1 EIS Re-evaluation

- Schedule
  - *Complete Traffic Analysis & Impact Evaluation this Fall*
  - *Prepare Re-evaluation Report in January 2006*
  - *Submit to FHWA for Approval in early*
  - *Agency & Public Input during FHWA*
  - *Approval by FHWA-IN in early Spring*

I-69 Tier 1 EIS Re-evaluation

- Documentation
  - *Re-evaluation Report*
  - *Amended Tier 1 Record of Decision*

I-69 Tier 1 EIS Re-evaluation

- Public Involvement
  - *Agency Review & Input – Overall Agency Coord. Meeting*
  - *Public Review & Input*
    - *Public Information Meetings*
    - *Newsletter*
    - *Other Input Avenues*

I-69 Tier 2 Studies Refinement

- Revised Schedule for Tier 2 Studies
  - *Delay in Issuance of Draft EISs – Following Approval of Tier 1 Re-evaluation*
  - *Staggered EIS Reviews – Initial Section 1 EIS Issued in Spring 2006 and Remainder throughout 2006*
  - *Final EISs Issued Later in 2006 & Earl*
  - *Records of Decision (RODs) in 2007*

I-69 Tier 2 Studies Refinement

- Adjustment to Tier 2 Studies
  - *Incorporation of Toll Options*
  - *Re-assessment of Alternatives – Changes to Footprints*
  - *Re-evaluation of Environmental Impac*
  - *Revision of Preliminary Draft EISs*

I-69 Tier 2 Studies Refinement

- Accelerated Project Development Activities
  - *Preliminary Design of Preferred Alternative*
  - *Permitting*
  - *Aerial Survey & Mapping*
  - *Geotechnical Investigations*
  - *Utility Coordination & Relocation Con*
  - *-Way Research & Design*

Procurement Approach

- Public/Private Partnership
- "Concession"
  - *Design*
  - *Right-of-Way Acquisition*
  - *Construction*
  - *Operation*
  - *ance*
- Requires Legislative Action
- Other Options

Immediate Next Steps

- Initiation of Tier 1 Re-evaluation
- Continuation of I-69 Tier 2 Studies
- Agency Coordination Meetings concerning Toll Options & Schedules

Next Meetings

- Agency Coordination Meetings concerning Toll Options & Schedules – *November 2005*
  - *U.S. Army Corps of Engineers*
  - *U.S. Fish & Wildlife Service*
  - *State Environmental Agencies*
- Overall Agency Coordination Meet
- Environmental Streamlining Package Conference Calls/ Webcasts -- *ongoing*

Questions/Issues from U.S. EPA

Tier 2 Studies Contacts

For project information, or to provide input:

FHWA – Indiana Division
575 N. Pennsylvania St., Rm N254
Indianapolis, IN 46204
Ph. 317/226-5307
Contacts: **Tony DeSimone**

Indiana DOT
100 North Senate Avenue
Indianapolis, IN 46204
317/232-5
Janice Osadczuk or Tom Seeman

I-69 PMC – Bernardin Lochmueller & Associ
62 oad
Evansville, IN 47715
Ph. 812/479-6200
C **Kent Ahrenholtz or Tom Cervone**

Web Site: www.i69indyevn.org

I-69 Evansville to Indianapolis
Tier 2 Studies

AGENDA

I-69 Agency Coordination Meeting Concerning Tolls/Schedules

U.S. EPA Region 5 Office, Chicago IL
Friday, October 28, 2005, 10:30 a.m. CDT

I. Introductions & Opening Remarks *B_Tally, FHWA Division Administrator & T_Sharp, INDOT Commissioner*
(5 minutes)

II. Major Moves – Creating a Top-Tier Economy Through Top-Tier Transportation *T_Sharp, INDOT Commissioner*
(10 minutes)
- A. INDOT's New 10-Year, $10.6 Billion Plan
- B. Financing Options – *I-69, Evansville to Indianapolis with Tolling and/or Public/Private Partnership*

III. Effect on I-69, Evansville to Indianapolis *K_Ahrenholtz, PMC Project Manager*
(15 minutes)
- A. Consideration of Toll-Funded Option – *Same Alternatives, But Two Options – Non-toll and Toll*
- B. Re-evaluation of Tier 1 EIS
- C. Refinement of Tier 2 Studies
- D. Revised Schedule for Tier 2 Studies
- E. Procurement Approach

IV. Questions/Issues from EPA *All Participants*
(30 minutes)

– BREAK – *(Executive Staff Free to Leave)*

V. I-69 Tier 1 EIS Re-evaluation *K_Ahrenholtz, PMC Project Manager*
(30-45 Minutes)
- A. Process
- B. Schedule
- C. Documentation
- D. Public Involvement

VI. I-69 Tier 2 Studies Refinement *K_Ahrenholtz, PMC Project Manager*
(30 Minutes)
- A. Revised Schedule for Tier 2 Studies
- B. Adjustment to Tier 2 Studies
- C. Accelerated Project Development Activities

VII. Immediate Next Steps *K_Ahrenholtz, PMC Project Manager*
(15 Minutes)
- A. Initiation of I-69 Tier 1 Re-evaluation
- B. Continuation of I-69 Tier 2 Studies
- C. Agency Coordination Meetings concerning Toll Option & Schedules

VIII. Next Meeting(s)
- A. Overall Agency Coordination Meeting, January-February 2006
- B. Environmental Streamlining Package Conference Calls/Webcasts, Ongoing

Minutes from October 28, 2005
USCOE and IDEM Section 4 Wetland and Stream Field Review

1. **Sinkhole wetland areas:**
   The U.S. Army Corps of Engineers (USCOE) will only take jurisdiction over the sinkhole wetlands if there is an open water aquatic resource associated with it such as a pond or stream.
   A sinkhole wetland is considered a Class III isolated wetland if it is not considered jurisdictional by the USCOE. Class III isolated wetlands do require avoidance and minimization measures.

2. **Stream Jurisdiction Ends:**
   Streams will be considered jurisdictional all the way up the headwaters or hillsides until there is no longer a visible stream channel. The streams located near Indian Creek are jurisdictional all the way up the valleys until the landscape no longer demonstrates a stream channel.

3. **Bermed Farm Field Wetlands (Areas used for soil erosion prevention usually an NRCS program area):**
   These areas will be under the USCOE's jurisdiction as long as the structure (berm) was placed in a historical stream channel are has a direct connection to a jurisdictional stream or wetland.

4. **Drainage tile or pipes:**
   The USCOE will take jurisdiction on a drain tile or pipe if it connects a wetland to a stream or another wetland that is USCOE jurisdictional.

103-0001-4PL

U.S. Department of Transportation
Federal Highway Administration

Indiana Division

575 North Pennsylvania Street, Room 254
Indianapolis, Indiana 46204

October 31, 2005

Keith
Vince
Dean
Dave F
Kent
Tom
Jim G
Daniel
Jason
Jeremy
Josh
Jonna
Nicole
Dean M.
Mike G.

HDA-IN

Mr. Scott Pruitt
Bloomington Field Office
US Fish and Wildlife Service

Dear Mr. Pruitt:

The Federal Highway Administration (FHWA), in cooperation with the Indiana Department of Transportation (INDOT), is preparing Tier 2 Environmental Impact Statements (EISs) for the I-69 Evansville to Indianapolis project.

Based on recent decisions made by the INDOT concerning the scope of the project, there is a need to make adjustments to the schedules of the six Tier 2 EISs and also to further discuss the coordination for the Section 7 Consultation. We would like to discuss with you reasons for the changes in scope and how the FHWA is moving forward with incorporating these changes into the process. We would also like to discuss the implications of these changes on your staff for the review of these documents and their participation in the EIS development process and the Section 7 process that we need to finalize.

As has been discussed, a meeting has been set for November 14, 2005, 10:00 a.m. (EST), at the INDOT in the Indiana Government Center North Room 955. This meeting is with INDOT Commissioner Tom Sharp and his staff, staff from the consulting firm, BLA, and FHWA represented by Anthony DeSimone who is responsible for the studies and myself, the Division Administrator for Indiana.

For your information, please find enclosed the proposed schedule for the Tier 2 EISs and related documents. A preliminary agenda for the meeting will be sent via e-mail before November 7, 2005. If you would like any revisions to the agenda or have any other questions, please contact Mr. DeSimone of my staff at (317) 226-5307.

RECEIVED
NOV - 3 2005
BLA

We look forward to meeting with you and your staff.

Sincerely,

Robert F. Tally, Jr., P.E.
Division Administrator

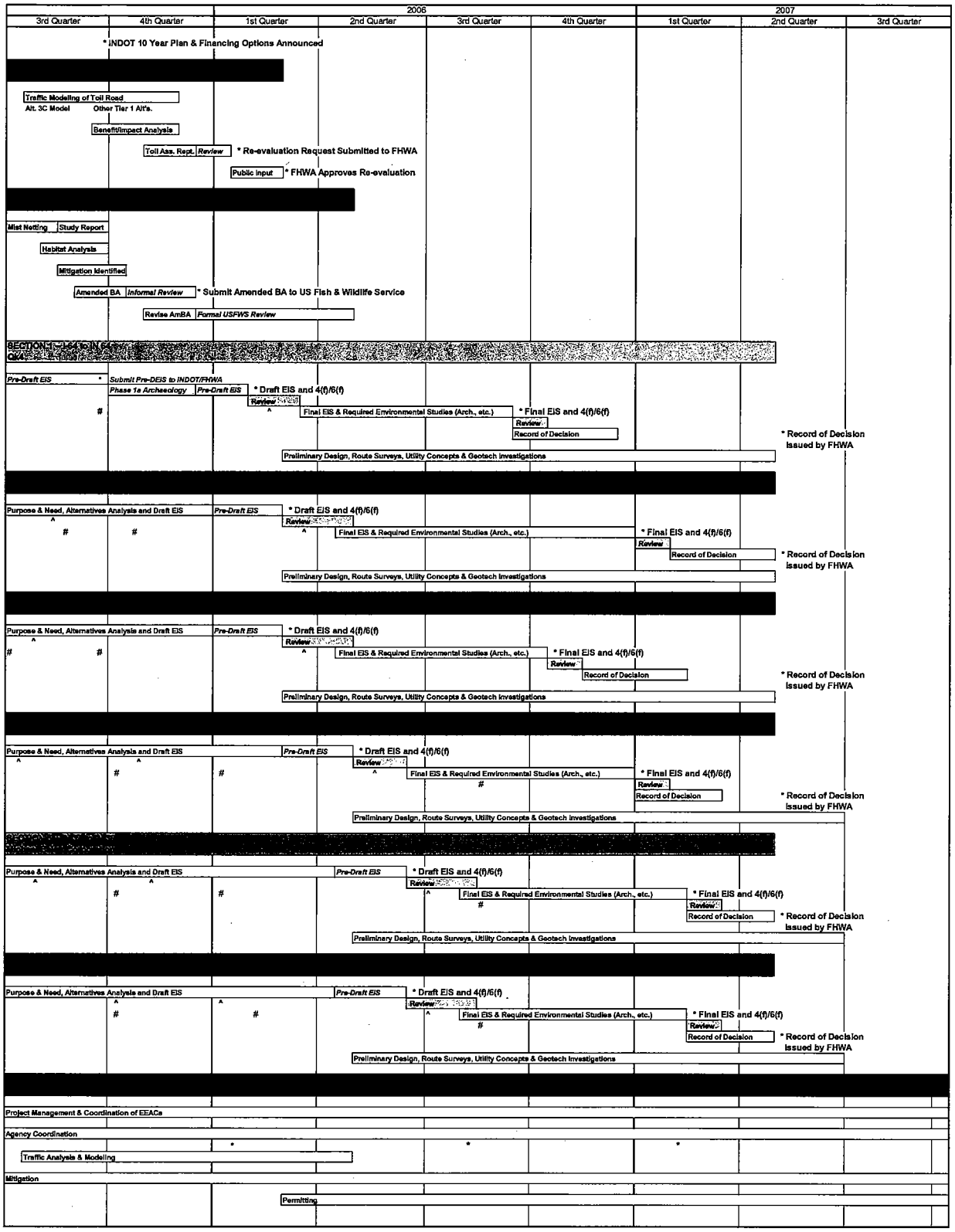
Enclosure

BUCKLE UP AMERICA

cc:
Janice Osadczuk, INDOT N848
Kent Ahrenholtz, BLA
Tom Cervone, BLA
Bill Malley,
Tom Sharp, INDOT
Tom Seeman, INDOT
Joe Gusman, INDOT
Richard Smutzer, INDOT
Phelps Klika, INDOT
Andy King, USF&W, Bloomington
Brian Yanchik, FHWA Resource Center, Baltimore

I-69 CORRIDOR, EVANSVILLE TO INDIANAPOLIS
TIER 2 MASTER MILESTONE SCHEDULE

September 20, 2005



^ -- Public Information Meeting/Public Hearing
* -- Overall I-69 Agency Coordination Meeting With All Sections
# -- Agency Review Packages

Draft and Final EIS Issuance

Draft EIS	Final EIS	Final EIS
Q1 '06 – Section 1, 2 & 3		Q1 '07 – Section 2, 4, 5 & 6
Q2 '06 – Section 4, 5 & 6		Q2 '07
Q3 '06		Q3 '07
Q4 '06	– Section 1 & 3	Q4 '07

U.S. Department
of Transportation

**Federal Highway
Administration**

Indiana Division

575 North Pennsylvania Street, Room 254
Indianapolis, Indiana 46204

October 31, 2005

HDA-IN

Mr. James Townsend
Army Corp of Engineers
Louisville District

Dear Mr. Townsend:

The Federal Highway Administration (FHWA), in cooperation with the Indiana Department of Transportation (INDOT), is preparing Tier 2 Environmental Impact Statements (EISs) for the I-69 Evansville to Indianapolis project.

Based on recent decisions made by the INDOT concerning the scope of the project, there is a need to make adjustments to the schedules of the six Tier 2 EISs and also to establish a process for acquiring the necessary permits in compliance with Section 404 of the Clean Water Act. We would like to discuss with you reasons for the changes in scope and how the FHWA is moving forward with incorporating these changes into the process. We would also like to discuss the implications of these changes on your staff for the review of these documents and their participation in the EIS development process and the processing of the necessary permit documentation.

In cooperation with your staff, a meeting has been set for November 10, 2005, 10:00 a.m. (EST), at your offices in Louisville, Kentucky. This meeting is with INDOT Commissioner Tom Sharp and his staff, staff from the consulting firm, BLA, and FHWA represented by Anthony DeSimone who is responsible for the studies and myself, the Division Administrator for Indiana. We request that a conference room be reserved that will allow for a PowerPoint presentation and will provide space for those in attendance. We will work with your staff to verify the number in attendance.

RECEIVED
NOV - 3 2005
BLA

BUCKLE UP AMERICA

For your information, please find enclosed the proposed schedule for the Tier 2 EISs and related documents. A preliminary agenda for the meeting will be sent via e-mail before November 3, 2005. If you would like any revisions to the agenda or have any other questions, please contact Mr. DeSimone of my staff at (317) 226-5307.

We look forward to meeting with you and your staff.

Sincerely,

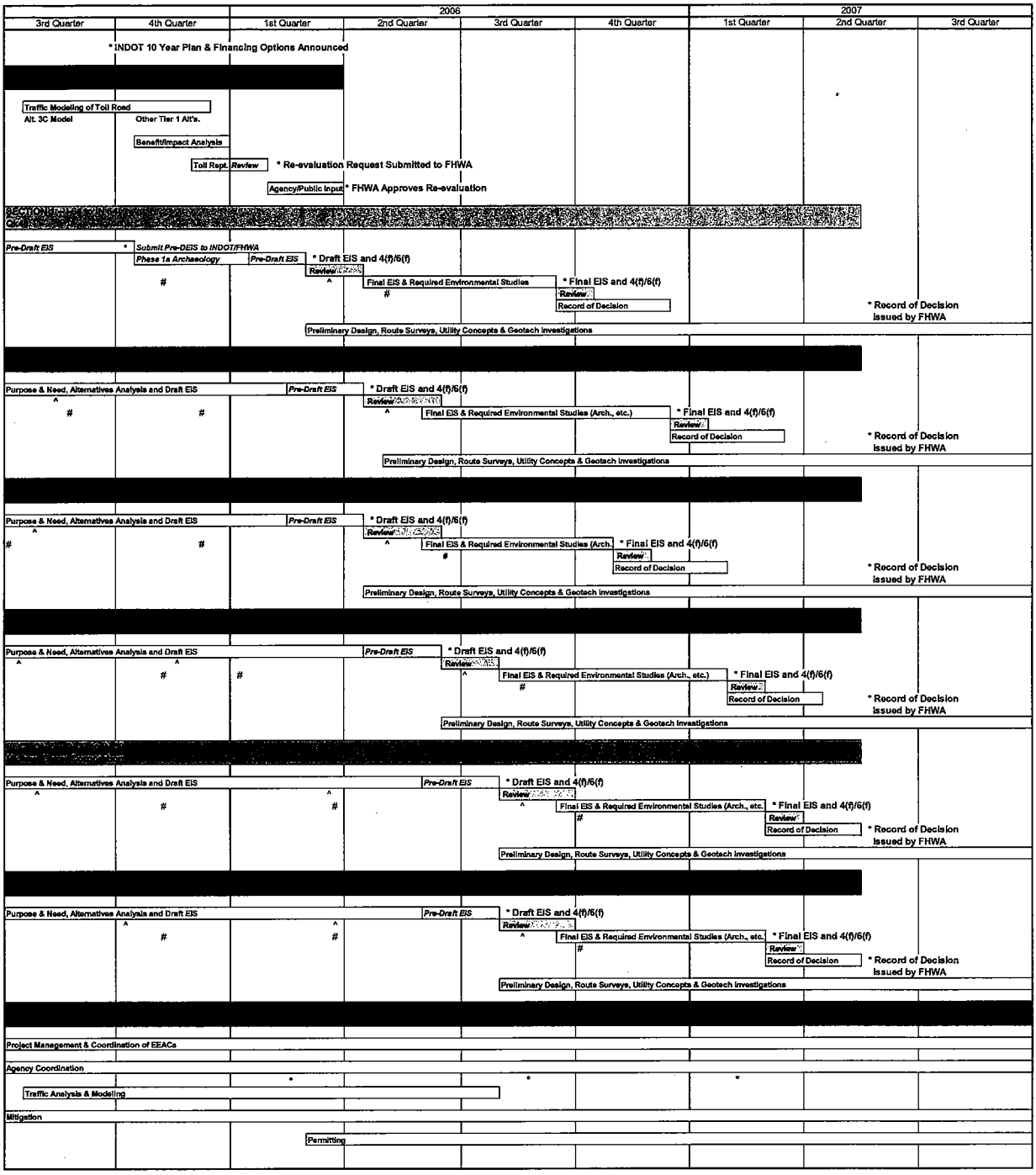
Robert F. Tally, Jr., P.E.
Division Administrator

Enclosure

cc:
Janice Osadczuk, INDOT N848
Kent Ahrenholtz, BLA
Tom Cervone, BLA
Bill Malley,
Tom Sharp, INDOT
Tom Seeman, INDOT
Joe Gusman, INDOT
Richard Smutzer, INDOT
Phelps Klika, INDOT
Amy Babey, ACOE

I-69 CORRIDOR, EVANSVILLE TO INDIANAPOLIS
TIER 2 MASTER MILESTONE SCHEDULE

October 25, 2005



^ -- Public Information Meeting/Public Hearing
* -- Overall I-69 Agency Coordination Meeting With All Sections
# -- Agency Review Packages

Draft and Final EIS Issuance

Draft EIS	Final EIS	Final EIS
Q1 '06 -- Section 1		Q1 '07 -- Section 4, 5 & 6
Q2 '06 -- Section 2, 3 & 4		Q2 '07
Q3 '06 -- Section 5 & 6	-- Section 1	Q3 '07
Q4 '06	-- Section 2 & 3	Q4 '07

I-69 Evansville to Indianapolis
Tier 2 Studies

Tentative AGENDA

I-69 Agency Coordination Meeting Concerning Tolls/Schedules

U.S. Army Corps of Engineers Louisville District Office, Louisville KY
Thursday, November 10, 2005, 10:00 a.m. EDT

I. Introductions & Opening Remarks — *B_Tally, FHWA Division Administrator & T_Sharp, INDOT Commissioner*
(5 minutes)

II. Major Moves – Creating a Top-Tier Economy Through Top-Tier Transportation — *T_Sharp, INDOT Commissioner*
(10 minutes)
- A. INDOT's New 10-Year, $10.6 Billion Plan
- B. Financing Options – *I-69, Evansville to Indianapolis with Tolling and/or Public/Private Partnership*

III. Effect on I-69, Evansville to Indianapolis — *K_Ahrenholtz, PMC Project Manager*
(15 minutes)
- A. Consideration of Toll-Funded Option – *Same Alternatives, But Two Options – Non-toll and Toll*
- B. Re-evaluation of Tier 1 EIS
- C. Refinement of Tier 2 Studies
- D. Revised Schedule for Tier 2 Studies

IV. Questions/Issues from Corps of Engineers — *All Participants*
(30 minutes)

– BREAK – ***(Executive Staff Free to Leave)***

V. I-69 Tier 1 EIS Re-evaluation — *K_Ahrenholtz, PMC Project Manager*
(30 Minutes)
- A. Process
- B. Schedule
- C. Documentation
- D. Public Involvement

VI. I-69 Tier 2 Studies Refinement — *K_Ahrenholtz, PMC Project Manager*
(30 Minutes)
- A. Revised Schedule for Tier 2 Studies
- B. Adjustment to Tier 2 Studies
- C. Accelerated Project Development Activities

VII. Permitting Process — *J_Osadczuk, INDOT EPE Division Chief*
(30 Minutes)
- A. Need to Accelerate Permitting Process
- B. Phased Permitting Options

VIII. Immediate Next Steps — *K_Ahrenholtz, PMC Project Manager*
(5 Minutes)
- A. Initiation of I-69 Tier 1 Re-evaluation
- B. Continuation of I-69 Tier 2 Studies
- C. Agency Coordination Meetings concerning Toll Option & Schedules

IX. Next Meeting(s)
- A. Overall Agency Coordination Meeting, January-February 2006
- B. Environmental Streamlining Package Conference Calls/Webcasts, Ongoing

Carol Hood

From: <Garra.Catherine@epamail.epa.gov> [Garra.Catherine@epamail.epa.gov]
Sent: Tuesday, November 01, 2005 1:53 PM
To: Jeremy Kieffner
Cc: Carol Hood; Jason Dupont; Kent Ahrenholtz; Tom Cervone; Laszewski.Virginia@epamail.epa.gov; Melgin.Wendy@epamail.epa.gov; JRANDOLP@idem.in.gov
Subject: Re: I-69 Stream and Wetland Technical Report Guidance

Thanks for the reminder, Jeremy.

I have attached my comments. In general, this looks good, with a few clarifications. We do not want to see InWRAP condensed into a single quality rating per wetland site, however, and the reasons are explained.

If you need to discuss this, I'm at 312/8860241.

Cathy (See attached file: I69 resp wl outline.doc)

Jeremy Kieffner <jkieffner@blainc.com>
10/24/2005 03:19 PM

To
Catherine Garra/R5/USEPA/US@EPA, JRANDOLP@idem.in.gov

cc
Carol Hood <chood@blainc.com>, Jason Dupont <jdupont@blainc.com>, Kent Ahrenholtz <kahrenholtz@blainc.com>, Tom Cervone <tcervone@blainc.com>

Subject
I69 Stream and Wetland Technical Report Guidance

Dear Jason and Cathy,

We have received a response from the I69 Stream and Wetland Technical Report Guidance that was sent out on October 3, 2005 from the USACE. We would like to finalize this guidance as soon as possible in order to keep the EEAC's for all 6 Sections moving forward on this project. If you have any questions or comments on this guidance could you please let me know. Your review of these items is greatly appreciated. Thank You.

Sincerely,

Jeremy Kieffner

Bernardin Lochmueller and Assoicates, Inc.

1.800.423.7411

USEPA Comments
I-69 Wetlands Reporting, 10/3/05 Version

I-69 Tier 2 Wetland Delineation Report Outline.

You are covering the right things in the outline. However, it is misleading to call this collective topic"delineation," since that term has a very specific meaning as a Clean Water Act Section 404 jurisdictional delineation, which determines the regulatory boundaries of the wetland on the ground. That work will be a key part of this report in the Tier 2 NEPA documents as part of your identification of affected water bodies in the study area, considering both Federal and State regulatory programs. You are also doing a wetland quality assessment using the Indiana Wetland Rapid Assessment Protocol (InWRAP). Overall you are identifying and assessing wetlands in the study area and discussing the impacts to them from the various alternatives. This is no small job!

In Part 2, regulatory definitions--The different kinds of wetlands are common ecological descriptors, but not regulatory for Federal purposes, so the heading is misleading from this standpoint. Be sure to clarify if any of these types are named/defined in State-level regulation.

It is a good idea that you will be summing up what was done in Tier 1 and what is being done beyond that in Tier 2. If additional work is anticipated to be done in the future for the FEIS or for permitting purposes, be sure to explain that, as well. Append detailed methodologies, as necessary, if they have been developed or modified for this study.

It is a misuse of the InWRAP methodology to condense it to a single quality rating. Wetland quality for a given polygon should *not* be given a single summary characterization, either narrative or numeric, see below. If everything should come out identical, perhaps a "medium/favorable" wetland for plants, animals *and* hydrology (with no Red Flags), then it is fine to call it "medium" after the first explanation in a narrative.

Wetland Quality Assessment; Stream Assessment

Systematic wetland quality rapid assessment is a relatively new endeavor in Indiana. The InWRAP methodology is designed to be Indiana focused. At the same time, it was originally developed in another region of the State and has had limited field testing prior to use in this project. It is appropriate to use it for this project, but care must be observed in how far to push its limitations.

Version 2.4 of the InWRAP User Guidance, p. 39, contains two important cautions:

*". . . it would not be valid to add the various measures together to garner one overall index number.

* This adding together of 'apples and oranges' approach fails to recognize that wetlands may have good qualities for a variety of different reasons."

The problem at hand is how to characterize wetland quality at a variety of sites for a range of functions and values, and how this can inform decisions on selecting a specific highway path and planning for effective compensatory mitigation for any unavoidable wetland losses.

The proposed methodology attempts to contribute to doing this, but exceeds the two key cautions on the limitations of InWRAP. The methodology for summarizing characteristics of each wetland polygon is appropriate to the point of yes/no identification for Red Flags, and the three levels of distinction (poor/fair/good or neutral/favorable/valuable) for plants, animals and hydrology. However, condensing the methodology beyond this point is neither informative nor valid. Going from this three part scale to a five part quality rating scale (by summing, averaging, converting to percentages and sorting into five quality categories) is a form of false precision. Presenting that single quality score, even on a three part scale, is a weak application of the methodology and would only be misleading to reviewers and decision makers. It would also disregard the fact that the InWRAP method yields only a coarse (however useful) differentiation between sites.

More information would be retained if wetlands were characterized on their plant, animal and hydrologic properties, plus the highlighting of any "Red Flag," characteristics. This would recognize that wetlands may have good or limited qualities for a variety of different reasons, not all of which operate in consort. A site important for water quality may not be botanically diverse, for example, but can be serving a critical function in that landscape. Given the massive historic loss of wetlands in Indiana, the remaining ones serve valuable functions in the landscape, even at reduced quality levels, and should not have the perception of being readily written off due to their altered condition alone.

Impacts for a given highway alignment could be additive between the acres of a wetland type and quality breakdowns, based on the information for the affected polygons using the sorts of displays you are proposing. We have reservations on collapsing the quality of ratings of individual wetland polygons into a rating for the whole complex. If there is additional significance from affecting a given wetland complex, this discussion could be added as a matter of professional judgment. Comparisons are not only descriptive and quantitative (acres, types, etc.) for the length of the alternative, but will involve discussions/analyses of the tradeoffs at specific location. For a hypothetical example, between mile 5.0 and 5.5, to meet design standards, the highway footprint would have to take X acres of wetland polygon A for the easterly alternative or Y acres of wetland polygon B for the westerly alternative and none for the central alternative at that point.

Then there would be a narrative of the quality characteristics of A and B and what the tradeoffs would be, both at that specific mile point and, eventually, overall for the three alignments. Again, your use of tables will be helpful with this.

Stream Assessment
Likewise, this section identifies stream resources, assesses their quality and the impacts of various alternatives to streams. We are fortunate that neighboring Ohio has an array of stream assessment methodologies. Please check in with Ohio EPA about their newer method, HHEI, on their technical experience from using it further this field season. Include any cautions or modifications for its adaptation for use in Southwest Indiana.

Site Summaries
The wetland site summary forms appear to work well and the prototype (map, photos, location, polygon ID, table and narratives are very good, other than the need to keep the wetland quality assessment differentiated in three parts by animals, plants and hydrology rather than in a single quality rating. I would suggest adding a Red Flag field, as well. Graphically, this could be located outside of the polygon matrix and before the description of potential impact. Be sure to show location of photo points on the maps if ground-level photos are added.

The stream site summary forms appear to work well, also. We appreciate that reviewers will be able to look up and get a sense of each mapped wetland and stream area.

Carol Hood

From: Tom Cervone [blainc.Bla_Mailbox.TomC]
Sent: Friday, November 04, 2005 9:07 AM
To: Cloyce Hedge; Ron Hellmich; Ron Hellmich
Cc: Admin@blainc.com; Kent Ahrenholtz; Kia Gillette; Christie Kiefer; Christy Kiefer; Janice Osadczuk; Michelle Hilary
Subject: INDOT's Comments on IDNR Contract

Dear Cloyce and Ron,

Kia Gillette and I have discussed your proposed contract with INDOT and have the following discussion points. Proposed text changes are provided in the attachment.

Major points of discussion are:

1) There was some discussion on the cost for use of data by INDOT yet no recognition of INDOT's efforts and addition of very important plant and animal records into the database;

2) The contract allows INDOT to use the database but does not allow our contractors such as BLA and others to use it; and

3) Item 26 requires further clarification on its effort and products. We are not really sure what INDOT needs to do in this activity.

Kia and I would very much like to go over these items with you in INDOT's behalf and make adjustments as appropriate. We hope that the text changes and resolution to the above major points are possible.

Thanks
Tom
<<File: INDOT_2005_DataUseAgreement_INDOTS Comments>>

Carol Hood

From: "DeSimone, Anthony" <Anthony.DeSimone@fhwa.dot.gov> [Anthony.DeSimone@fhwa.dot.gov]

Sent: Monday, November 07, 2005 2:00 PM

To: andy.king@fws.gov; scott_pruitt@fws.gov

Cc: WMalley@AKINGUMP.com; Kent Ahrenholtz; Tom Cervone; Brian Yanchik; Robert Tally; Joe Gustin; JOSADCZUK@indot.state.in.us; rsmutzer@indot.state.in.us; TSEEMAN@indot.state.in.us; tsharp@indot.state.in.us

Subject: Agenda for meeting with INDOT-FHWA-US F&W Service on I-69

Attached please find the tentative agenda for the meeting on November 14 at 10:00 am (EST) in the Indiana Government Center North Building Room 755. Please let us know if you would like any additions or revisions. Also attached is the proposed I69 milestone schedule for your consideration.

Tony DeSimone, P.E.
FHWAIndiana Division
(317) 2265307
Fax (317) 2267341

Dear Katie

Attached is an agenda for our meeting on November 8, 2005. Please review for any questions you may have on the topics.

Agenda

1. TES species per section
   This includes a tentative list of species for each of the 6 sections. We are providing such information with this email for your review and distribution within your agency. We hope that IDNR (Div. of Fish and Wildlife and Div. of Nature Preserves) has the opportunity to approve or revise this list (as needed) for use in the proposed 6 EIS's for I-69.
2. Wildlife corridors
   At this time, we have tentative areas located for wildlife corridors. We do not currently have conceptual designs, but all efforts are being made to allow for cross connectivity for wildlife. We would need an additional meeting in the future on this activity which would include your engineers with team engineer's exchanging ideas.
3. Indiana crayfish
   We are unsure of this species listing in Indiana. The IDNR list that we are using is attached and does not list this species. To our knowledge, it is the most current listing from IDNR (Revised September 2004). In addition, is sampling for this species required by IDNR? At this time, IDEM and USFWS are requiring sampling only during permitting.
4. Submittal of Ecological Reports to IDNR
   A considerable amount of work has been accomplished on this project since the initiation of Tier 2 for each section in April 2004. In our meeting, we would like to start at the south end of the project and provide IDNR a review of biological investigations completed and their general results (e.g., any unique, state-listed, federally listed species).

   The following reports will be provided to IDNR on November 8th or later for your agencies review.

   a. <u>Botany in the Patoka River Bottoms</u>
      This report was completed by Env. Soln. and Innovations out of Cincinnati, Ohio
      Botanist – Larry Brewer, M.A.
   b. <u>Birds in the Patoka River Bottoms</u>
      This report was completed by Env. Soln. and Innovations out of Cincinnati, Ohio
      Ornithologist – Jeanette Jaskula, M.S.
   c. <u>Amphibians, Reptiles and Mammals in the Patoka River Bottoms (Drift Fence Array)</u>
      This report was completed by Env. Soln. and Innovations out of Cincinnati, Ohio
      Biologist – Adam Mann, B.S. with Virgil Brack, Ph.D.
   d. <u>Mussels, Fishes, and Crayfishes of the East Fork of the White River</u>
      This report was completed by Ecological Specialists out of O'Fallon, Missouri
      Malacologist – Rebecca Winterringer, M.S.
      Ichthyologist – Rebecca Winterringer, M.S.
      Crayfish Expert – Tom Simon, Ph.D.
   e. <u>Mussels. Fishes and Crayfishes of the South Fork and Patoka River</u>
      This report was completed by Ecological Specialists out of ????????? Missouri
      Malacologist – Rebecca Winterringer, M.S.
      Ichthyologist – Rebecca Winterringer, M.S.
      Crayfish Expert – Tom Simon, Ph.D.
   f. <u>Crayfishes (Terrestrial) of the Patoka River Bottoms</u>

This report was completed by Env. Soln. and Innovations out of Cincinnati, Ohio
Crayfish Expert – Tom Jones, Ph.D. from Marshall Univ. in Huntington, WV

g. Fishes, Mussels and Crayfishes of Section 5
This report was completed by Ecological Specialists out of O'Fallon, Missouri
Malacologist – Rebecca Winterringer, M.S.
Ichthyologist – Rebecca Winterringer, M.S.
Crayfish Expert – Tom Simon, Ph.D.

h. Fishes, Mussels and Crayfishes of Section 6
This report was completed by J.F. New out of Indianapolis, Indiana
Malacologist – Melody Myers-Kinzie, Ph.D.
Ichthyologist – Joe Exl, B.S.
Crayfish Expert – Tom Simon, Ph.D.

i. Mist netting of 2004 (Summer)
This includes 6 reports for each of the Sections
Env. Soln. and Innovations did Sections 1, 2 and 4 (Virgil Brack, Ph.D.)
EcoTech did Section 3 (Hal Byran, M.S.)
BHE did Section 5 (Russ Romme, Ph.D.)
Env. Specialists did Section 6 (Bill Hendricks, M.S.)

j. Additional Mist netting of 2005 (Summer)
This includes 2 Reports
Env. Soln. and Innovations studied Sections 1, 2, 3 and 4 (Virgil Brack, Ph.D.)
BHE studied Sections 5 and 6 (Russ Romme, Ph.D.)

k. Fall, Winter and Spring (2004-2005)
This includes 2 Reports
Env. Soln. and Innovations studied 30 caves in the southern portion of Monroe and Greene Counties, Indiana, while BHE studied 30 caves in the northern portion of Monroe and Greene Counties, Indiana

l. Fall, Winter and Spring (2005-2006)
Two reports that are due on June 15, 2006.
Env. Soln. and Innovations will have studied 8 caves in the southern portion of Monroe and Greene Counties, Indiana, while BHE will have studied 8 caves in the northern portion of Monroe and Greene Counties, Indiana

m. Cave Inventory of Some 357 Caves – See Garre and Jason
This includes the Indiana Geological Survey with Bernardin, Lochmueller and Associates reviewing some 357 caves for their potential as Indiana bat hibernacula
Indiana State Geologist – John Steinmetz, Ph.D.

n. Dye Tracing Studies for Section 5 – See Garre and Jason
This includes Ozark Underground Laboratories reviewing and mapping groundwater drainage for Section 5.
Karst Hydrologist – Tom Aley, M.S.

o. Dye Tracing Studies for Section 6 – See Garre and Jason
This includes Hydrogeology reviewing and mapping groundwater drainage for Section 4.
Karst Geologist and Hydrologist – Noel Krothe, Ph.D.

p. Summary of Biological Surveys completed for the 1996 Draft Env. Statement
This includes a summary of all vertebrates and plants collected in Sections 1-4

q. Cave Biota Survey in Section 5
This includes a survey for troglobitic species in Cave and Cave

r. Molecular Species and Gender Assessment of Bats Utilizing a Roost Near an Interstate Expansion Project
This includes a DNA analysis for the presence of an Indiana bat maternity colony in the Indian Creek area of Monroe County

5. Permitting and Mitigation

   This includes a discussion on permitting and mitigation in the future. Sampling has been requested by IDEM and USFWS as part of permitting. Please let's discuss such sampling along with any Standard Operating Procedures (SOP's). We are presently contacting all appropriate agencies on their expectations on sampling and methodologies as they apply.

6. INDOT Contract with IDNR for Indiana Heritage Database

   Recently, IDNR provided BLA with a contract permitting the use of the Indiana Heritage Database by INDOT. We are in contact with INDOT on this agreement now. The agreement is for use of the database by INDOT in their transportation projects. However, we need to discuss how the species records from this project will be incorporated within the Indiana Heritage database.

Note: What we discuss at the meeting needs to be formally recorded in a written response from IDNR to INDOT through Kristie Kiefer. Are minutes sufficient for this recording of agreement.

Thanks
Tom

S:\ENVIRPRJ\103-0001\Meeting_Minutes\Agenda for Katie Smith.doc

I-69 Evansville to Indianapolis
Tier 2 Studies

AGENDA

I-69 Agency Coordination Meeting Concerning Tolls/Schedules

INDOT Central Office Room N642, Indianapolis IN
Thursday, November 10, 2005, 10:00 a.m. EDT

I. Introductions & Opening Remarks — *B_Tally, FHWA Division Administrator & T_Sharp, INDOT Commissioner*
(5 minutes)

II. Major Moves – Creating a Top-Tier Economy Through Top-Tier Transportation — *T_Sharp, INDOT Commissioner*
(10 minutes)
- A. INDOT's New 10-Year, $10.6 Billion Plan
- B. Financing Options – *I-69, Evansville to Indianapolis with Tolling and/or Public/Private Partnership*

III. Effect on I-69, Evansville to Indianapolis — *K_Ahrenholtz, PMC Project Manager*
(15 minutes)
- A. Consideration of Toll-Funded Option – *Same Alternatives, But Two Options – Non-toll and Toll*
- B. Re-evaluation of Tier 1 EIS
- C. Refinement of Tier 2 Studies
- D. Revised Schedule for Tier 2 Studies

IV. Questions/Issues from Corps of Engineers — *All Participants*
(30 minutes)

– BREAK – *(Executive Staff Free to Leave)*

V. I-69 Tier 1 EIS Re-evaluation — *K_Ahrenholtz, PMC Project Manager*
(30 Minutes)
- A. Process
- B. Schedule
- C. Documentation
- D. Public Involvement

VI. I-69 Tier 2 Studies Refinement — *K_Ahrenholtz, PMC Project Manager*
(30 Minutes)
- A. Revised Schedule for Tier 2 Studies
- B. Adjustment to Tier 2 Studies
- C. Accelerated Project Development Activities

VII. Permitting Process — *J_Osadczuk, INDOT EPE Division Chief*
(30 Minutes)
- A. Need to Accelerate Permitting Process
- B. Phased Permitting Options

VIII. Immediate Next Steps — *K_Ahrenholtz, PMC Project Manager*
(5 Minutes)
- A. Initiation of I-69 Tier 1 Re-evaluation
- B. Continuation of I-69 Tier 2 Studies
- C. Agency Coordination Meetings concerning Toll Option & Schedules

IX. Next Meeting(s)
- A. Overall Agency Coordination Meeting, January-February 2006
- B. Environmental Streamlining Package Conference Calls/Webcasts, Ongoing

Toll/Schedule Meeting w/COE

I-69 Evansville to Indianapolis Tier 2 Studies

November 10, 2005

Agenda

- Major Moves – *Creating a Top-Tier Economy Through Top-Tier Transportation*
- Effect on I-69, Evansville to Indianapolis
- Questions/Issues from US Army COE

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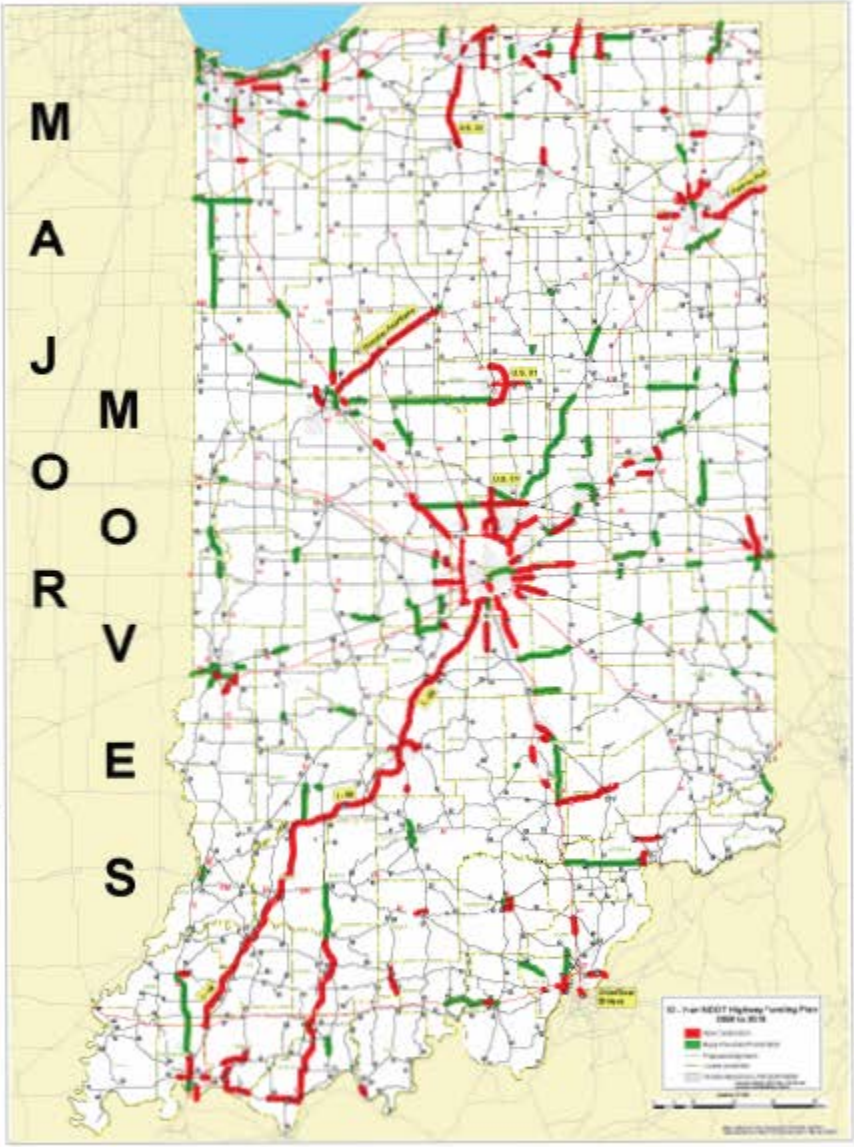
- [redacted] EIS Re-evaluation
- I-69 Tier 2 Studies Refinement
- [redacted]ate Next Steps
- Next Meetings

INTERSTATE 69

MAJOR MOVES



Effect on I-69, Evansville-to-Indianapol[redacted]

- Consideration of Toll Funded Option
- Re-evaluation of Tier 1 EIS
- Refinement of Tier 2 Studies
- Revised Schedule for Tier 2 Studies[redacted]
- Procurement Approach

[redacted]

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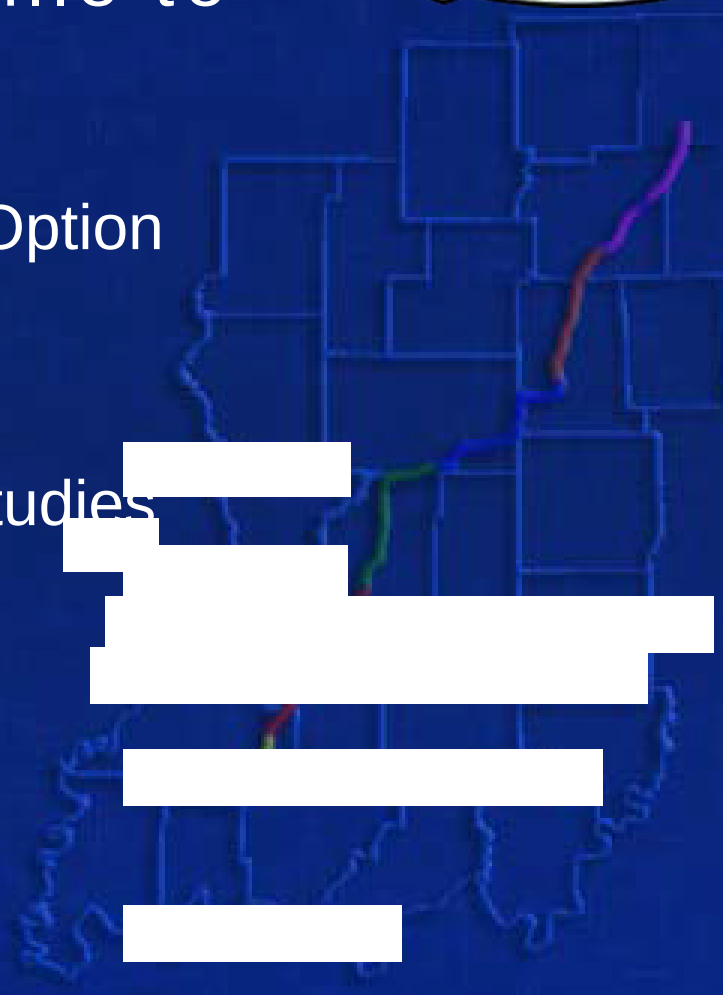
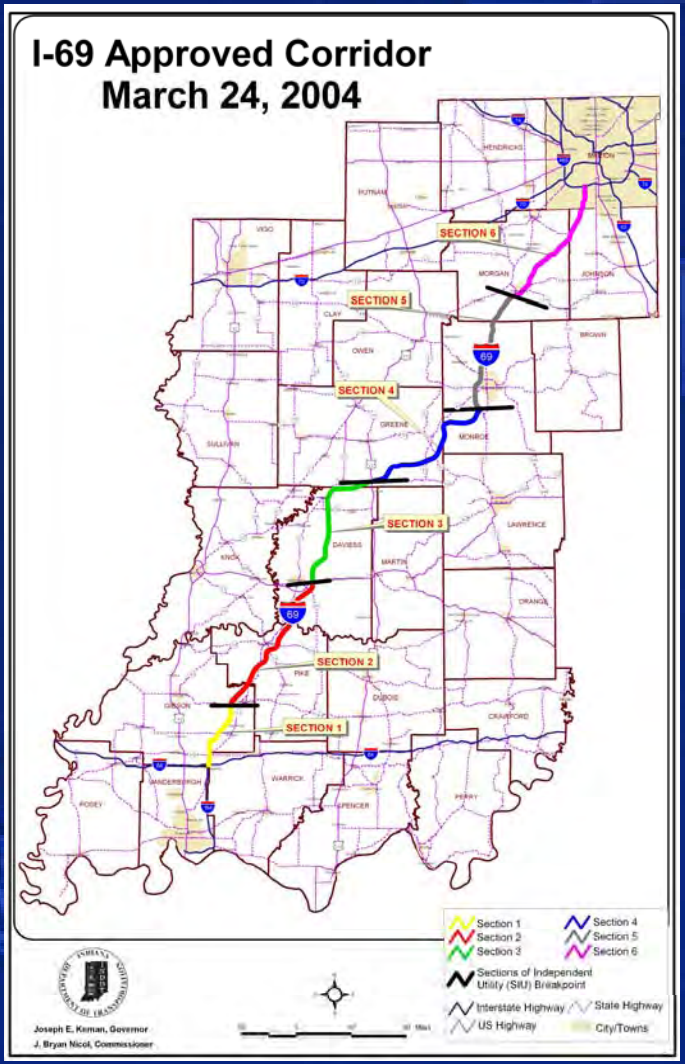


Tier 2 Studies
6 Sections

142-mile Evansville to Indianapolis project is divided into six sections

Each section is being studied independently

Draft EIS, Final EIS and [redacted] of Decision issued for each section



Consideration of Toll Option

- Same Alternatives for Tier 2 Studies
- Two Options – *Non-toll and Toll*
- Characteristics of Toll Option
  - *Fully Electronic Toll Collection System*
  - *Assumed Toll Rate Structure*
  - *Traffic Diversions with Tolls*
  - *Possible Changes to Footprint with Less Traffic – Sections 5 & 6*

Revised Schedule for Tier 2

- Re-evaluation of Tier 1 EIS
  - *Draft EIS Preferred Alternatives – 1, 2C, 3C, 4B & 4C*
  - *Re-assessment of Performance Measures*
  - *Re-evaluation of Environmental Impacts*
  - *Tier 1 EIS Re-evaluation Report*
- Refinement of Tier 2 Studies
  - *Delay in Issuance of Draft EISs*
  - *Incorporation of Toll Options*
  - *Staggered EIS Reviews*
- Accelerated Project Development Activities
  - *Preliminary Design of Preferred Alternative*
  - *Permitting*

Procurement Approach

- Public/Private Partnership
- "Concession"
  - *Design*
  - *Right-of-Way Acquisition*
  - *Construction*
  - *Operation*
  - *ance*
- Requires Legislative Action
- Other Options

Questions/Issues from U[redacted]rmy COE

[redacted]

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Agenda

- Major Moves – *Creating a Top-Tier Economy Through Top-Tier Transportation*
- Effect on I-69, Evansville to Indianapolis
- Questions/Issues from US Army COE

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- I-69 Tier 1 EIS Re-evaluation
- I-69 Tier 2 Studies Refinement
- Immediate Next Steps
- Next Meetings

I-69 Tier 1 EIS Re-evaluation

- Process
  - *Draft EIS Preferred Alternatives – 1, 2C, 3C, 4B & 4C*
  - *Consideration of Toll Option vs. Non-toll Option*
  - *Identification of Characteristics of Toll*
    - *Fully Electronic Toll Collection Syste*
    - *Assumed Toll Rate Structure*
    - *Traffic Diversions with Tolls*
    - *Possible Changes to Footprint with Less Traffic*

I-69 Tier 1 EIS Re-evaluation

- Process (continued)
  - *Re-estimation of Performance Measures – utilizing Indiana Statewide Toll Model*
  - *Re-assessment of Alternatives*
  - *Re-evaluation of Environmental Impacts – mostly traffic-related impacts*
  - *Documentation*

I-69 Tier 1 EIS Re-evaluation

- Schedule
  - *Complete Traffic Analysis & Impact Evaluation this Fall*
  - *Prepare Re-evaluation Report in January 2006*
  - *Submit to FHWA for Approval in early*
  - *Agency & Public Input during FHWA*
  - *Approval by FHWA-IN in early Spring*

I-69 Tier 1 EIS Re-evaluation

- Documentation
  - *Re-evaluation Report*
  - *Amended Tier 1 Record of Decision*

I-69 Tier 1 EIS Re-evaluation

- Public Involvement
  - *Agency Review & Input – Overall Agency Coord. Meeting*
  - *Public Review & Input*
    - *Public Information Meetings*
    - *Newsletter*
    - *Other Input Avenues*

I-69 Tier 2 Studies Refinement

- Revised Schedule for Tier 2 Studies
  - *Delay in Issuance of Draft EISs – Following Approval of Tier 1 Re-evaluation*
  - *Staggered EIS Reviews – Initial Section 1 EIS Issued in Spring 2006 and Remainder throughout 2006*
  - *Final EISs Issued Later in 2006 & Earl*
  - *Records of Decision (RODs) in 2007*

I-69 Tier 2 Studies Refinement

- Adjustment to Tier 2 Studies
  - *Incorporation of Toll Options*
  - *Re-assessment of Alternatives – Changes to Footprints*
  - *Re-evaluation of Environmental Impac*
  - *Revision of Preliminary Draft EISs*

I-69 Tier 2 Studies Refinement

- Accelerated Project Development Activities
  - *Preliminary Design of Preferred Alternative*
  - *Permitting*
  - *Aerial Survey & Mapping*
  - *Geotechnical Investigations*
  - *Utility Coordination & Relocation Con*
  - *-Way Research & Design*

Permitting Process

- Need to Accelerate Permitting Process
- Permitting Options
  - *Permit for Entire Corridor During NEPA & Modifications During Design*
  - *Phased Permit – Phase I During NEPA & Phase II During Design*
  - *Other Options*
- Other Agencies Concurrence

Immediate Next Steps

- Initiation of Tier 1 Re-evaluation
- Continuation of I-69 Tier 2 Studies
- Agency Coordination Meetings concerning Toll Options & Schedules

Next Meetings

- Agency Coordination Meetings concerning Toll Options & Schedules – *November 2005*
  - *U.S. Fish & Wildlife Service*
  - *State Environmental Agencies*
- Overall Agency Coordination Meeting – *February-March 2006*
- Environmental Streamlining Package Conference Calls/ Webcasts -- *ongoing*

Questions/Issues from [redacted] Army COE

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

Tier 2 Studies Contacts

For project information, or to provide input:

FHWA – Indiana Division
575 N. Pennsylvania St., Rm N254
Indianapolis, IN 46204
Ph. 317/226-5307
Contacts: **Tony DeSimone**

Indiana DOT
100 North Senate Avenue
Indianapolis, IN 46204
317/232-5
Janice Osadczuk or Tom Seeman

I-69 PMC – Bernardin Lochmueller & Associ
62 oad
Evansville, IN 47715
Ph. 812/479-6200
C **Kent Ahrenholtz or Tom Cervone**

Web Site: www.i69indyevn.org

COPY

November 11, 2005

Andrew King
Bloomington Field Office
U. S. Fish & Wildlife Service
620 S. Walker Street
Bloomington, IN 47403

Re: **I-69 Evansville to Indianapolis Tier 2 Studies**
Purpose & Need/Preliminary Alternatives Package for Section 5

Dear Andrew King,

On behalf of the Indiana Department of Transportation (INDOT) and Indiana Division of the Federal Highway Administration (FHWA), we are respectfully requesting your agency's review and input regarding the Draft Purpose and Need Statement and Preliminary Alternatives for Section 5 of the I-69 Evansville to Indianapolis Tier 2 Studies. As you'll recall, Section 5 of the I-69 Evansville to Indianapolis project extends from State Road 37 just north of the intersection of Victor Pike Road (south of Bloomington) via State Road 37 to State Road 39 (Martinsville).

As outlined in the Tier 2 Formal Agency Coordination handout provided to each of the agencies in December 2004, this package is the fourth in a series of agency review packages that you will receive from each of the six Sections of Independent Utility for I-69. During development of this project, comments will periodically be solicited from appropriate Federal, state, and local agencies, as well as other interested persons and the general public, in accordance with requirements set forth in the National Environmental Policy Act (NEPA) of 1969.

We have enclosed the following project information to assist in your review:

- Draft Purpose and Need Statement for I-69 Section 5
- Preliminary Alternatives Maps for I-69 Section 5

We are requesting your agency's input and comments on these items by Wednesday, January 11 2005, to ensure timely progress in development of Section 5 of this project. In addition, we have scheduled a joint conference call and Internet webcast for Wednesday, December 14, 2005 at 10:00 a.m. EST for Sections 5 & 6, to provide you with the opportunity to ask questions, get clarification, and provide informal comments and feedback to the PMC and EEAC for Sections 5 & 6. The call-in information is as follows: Conference telephone line – 800/811-3000; Access Code – 3030001#. Please reply to Carol Hood via email (chood@blainc.com) if you will participate in this conference call/webcast, so that we may forward the information that will allow you to participate in the Internet webcast as well.

The agenda for the conference call/Internet webcast will include a short presentation on purpose and need, preliminary alternatives for Section 5, where the Section 5 EEAC is in the process, and what questions or comments the agencies may have related to the material provided with this package.

We appreciate any input that you can provide concerning Section 5 of the I-69 Evansville to Indianapolis project. Please direct any comments, questions or requests for additional information to either Kent Ahrenholtz or Tom Cervone, Ph.D. of Bernardin, Lochmueller & Associates at 800/423-7411 or at kahrenholtz@blainc.com or tcervone@blainc.com. Please address all written correspondence to Kent Ahrenholtz, P.E., Project Manager, Bernardin, Lochmueller & Associates, 6200 Vogel Road, Evansville, IN 47715. Thank you and we look forward to your continued participation in this important project.

Sincerely,
Bernardin, Lochmueller & Associates, Inc.

Kent Ahrenholtz, P.E.
Project Manager

Enclosures

Cc: T. DeSimone (FHWA)
J. Osadczuk (INDOT)
T. Seeman (INDOT)
W. Malley (Akin Gump)

COPY

November 11, 2005

Bill McCoy
Patoka River Nat'l Wildlife
U. S. Fish & Wildlife Service
510 ½ West Morton Street
Oakland City, IN 47660

Re: **I-69 Evansville to Indianapolis Tier 2 Studies**
Purpose & Need/Preliminary Alternatives Package for Section 5

Dear Bill McCoy,

On behalf of the Indiana Department of Transportation (INDOT) and Indiana Division of the Federal Highway Administration (FHWA), we are respectfully requesting your agency's review and input regarding the Draft Purpose and Need Statement and Preliminary Alternatives for Section 5 of the I-69 Evansville to Indianapolis Tier 2 Studies. As you'll recall, Section 5 of the I-69 Evansville to Indianapolis project extends from State Road 37 just north of the intersection of Victor Pike Road (south of Bloomington) via State Road 37 to State Road 39 (Martinsville).

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Sincerely,
Bernardin, Lochmueller & Associates, Inc.

Kent Ahrenholtz, P.E.
Project Manager

Enclosures

Cc: T. DeSimone (FHWA)
J. Osadczuk (INDOT)
T. Seeman (INDOT)
W. Malley (Akin Gump)

November 11, 2005

COPY

Scott Pruitt
Field Supervisor, Bloomington Field Office
U. S. Fish & Wildlife Service
620 South Walker Street
Bloomington, IN 47403

Re: **I-69 Evansville to Indianapolis Tier 2 Studies**
Purpose & Need/Preliminary Alternatives Package for Section 5

Dear Scott Pruitt,

On behalf of the Indiana Department of Transportation (INDOT) and Indiana Division of the Federal Highway Administration (FHWA), we are respectfully requesting your agency's review and input regarding the Draft Purpose and Need Statement and Preliminary Alternatives for Section 5 of the I-69 Evansville to Indianapolis Tier 2 Studies. As you'll recall, Section 5 of the I-69 Evansville to Indianapolis project extends from State Road 37 just north of the intersection of Victor Pike Road (south of Bloomington) via State Road 37 to State Road 39 (Martinsville).

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Sincerely,
Bernardin, Lochmueller & Associates, Inc.

Kent Ahrenholtz, P.E.
Project Manager

Enclosures

Cc: T. DeSimone (FHWA)
J. Osadczuk (INDOT)
T. Seeman (INDOT)
W. Malley (Akin Gump)

COPY

November 11, 2005

Robert Tally, Jr.
Division Administrator
Federal Highway Administration -- Indiana Division
575 North Pennsylvania Street -- Room 254
Indianapolis, IN 46204

Re: **I-69 Evansville to Indianapolis Tier 2 Studies**
Purpose & Need/Preliminary Alternatives Package for Section 5

Dear Robert Tally, Jr. ,

On behalf of the Indiana Department of Transportation (INDOT) and Indiana Division of the Federal Highway Administration (FHWA), we are respectfully requesting your agency's review and input regarding the Draft Purpose and Need Statement and Preliminary Alternatives for Section 5 of the I-69 Evansville to Indianapolis Tier 2 Studies. As you'll recall, Section 5 of the I-69 Evansville to Indianapolis project extends from State Road 37 just north of the intersection of Victor Pike Road (south of Bloomington) via State Road 37 to State Road 39 (Martinsville).

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Sincerely,
Bernardin, Lochmueller & Associates, Inc.

Kent Ahrenholtz, P.E.
Project Manager

Enclosures

Cc: T. DeSimone (FHWA)
J. Osadczuk (INDOT)
T. Seeman (INDOT)
W. Malley (Akin Gump)

COPY

November 11, 2005

Amy S. Babey
U.S. Army Corps of Engineers
Louisville District – Box 59
Louisville, KY 40201

Re: **I-69 Evansville to Indianapolis Tier 2 Studies**
Purpose & Need/Preliminary Alternatives Package for Section 5

Dear Amy S. Babey,

On behalf of the Indiana Department of Transportation (INDOT) and Indiana Division of the Federal Highway Administration (FHWA), we are respectfully requesting your agency's review and input regarding the Draft Purpose and Need Statement and Preliminary Alternatives for Section 5 of the I-69 Evansville to Indianapolis Tier 2 Studies. As you'll recall, Section 5 of the I-69 Evansville to Indianapolis project extends from State Road 37 just north of the intersection of Victor Pike Road (south of Bloomington) via State Road 37 to State Road 39 (Martinsville).

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Sincerely,
Bernardin, Lochmueller & Associates, Inc.

Kent Ahrenholtz, P.E.
Project Manager

Enclosures

Cc: T. DeSimone (FHWA)
J. Osadczuk (INDOT)
T. Seeman (INDOT)
W. Malley (Akin Gump)

COPY

November 11, 2005

Kenneth Day
Hoosier Nat'l Forest, Forest Supervisor
U. S. Department of Agriculture
811 Constitution Avenue
Bedford, IN 47421

Re: **I-69 Evansville to Indianapolis Tier 2 Studies**
Purpose & Need/Preliminary Alternatives Package for Section 5

Dear Kenneth Day,

On behalf of the Indiana Department of Transportation (INDOT) and Indiana Division of the Federal Highway Administration (FHWA), we are respectfully requesting your agency's review and input regarding the Draft Purpose and Need Statement and Preliminary Alternatives for Section 5 of the I-69 Evansville to Indianapolis Tier 2 Studies. As you'll recall, Section 5 of the I-69 Evansville to Indianapolis project extends from State Road 37 just north of the intersection of Victor Pike Road (south of Bloomington) via State Road 37 to State Road 39 (Martinsville).

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Sincerely,
Bernardin, Lochmueller & Associates, Inc.

Kent Ahrenholtz, P.E.
Project Manager

Enclosures

Cc: T. DeSimone (FHWA)
J. Osadczuk (INDOT)
T. Seeman (INDOT)
W. Malley (Akin Gump)

COPY

November 11, 2005

Ross H. Taylor
Hoosier Nat'l Forest
U. S. Department of Agriculture
811 Constitution Avenue
Bedford, IN 47421

Re: **I-69 Evansville to Indianapolis Tier 2 Studies**
Purpose & Need/Preliminary Alternatives Package for Section 5

Dear Ross H. Taylor,

On behalf of the Indiana Department of Transportation (INDOT) and Indiana Division of the Federal Highway Administration (FHWA), we are respectfully requesting your agency's review and input regarding the Draft Purpose and Need Statement and Preliminary Alternatives for Section 5 of the I-69 Evansville to Indianapolis Tier 2 Studies. As you'll recall, Section 5 of the I-69 Evansville to Indianapolis project extends from State Road 37 just north of the intersection of Victor Pike Road (south of Bloomington) via State Road 37 to State Road 39 (Martinsville).

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We have enclosed the following project information to assist in your review:

- Draft Purpose and Need Statement for I-69 Section 5
- Preliminary Alternatives Maps for I-69 Section 5

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The agenda for the conference call/Internet webcast will include a short presentation on purpose and need, preliminary alternatives for Section 5, where the Section 5 EEAC is in the process, and what questions or comments the agencies may have related to the material provided with this package.

We appreciate any input that you can provide concerning Section 5 of the I-69 Evansville to Indianapolis project. Please direct any comments, questions or requests for additional information to either Kent Ahrenholtz or Tom Cervone, Ph.D. of Bernardin, Lochmueller & Associates at 800/423-7411 or at kahrenholtz@blainc.com or tcervone@blainc.com. Please address all written correspondence to Kent Ahrenholtz, P.E., Project Manager, Bernardin, Lochmueller & Associates, 6200 Vogel Road, Evansville, IN 47715. Thank you and we look forward to your continued participation in this important project.

Sincerely,
Bernardin, Lochmueller & Associates, Inc.

Kent Ahrenholtz, P.E.
Project Manager

Enclosures

Cc: T. DeSimone (FHWA)
J. Osadczuk (INDOT)
T. Seeman (INDOT)
W. Malley (Akin Gump)

COPY

November 11, 2005

Jane Hardisty
State Resource Conservationist
Natural Resources Conservation Service/USDA
6013 Lakeside Blvd.
Indianapolis, IN 46278

Re: **I-69 Evansville to Indianapolis Tier 2 Studies**
Purpose & Need/Preliminary Alternatives Package for Section 5

Dear Jane Hardisty,

On behalf of the Indiana Department of Transportation (INDOT) and Indiana Division of the Federal Highway Administration (FHWA), we are respectfully requesting your agency's review and input regarding the Draft Purpose and Need Statement and Preliminary Alternatives for Section 5 of the I-69 Evansville to Indianapolis Tier 2 Studies. As you'll recall, Section 5 of the I-69 Evansville to Indianapolis project extends from State Road 37 just north of the intersection of Victor Pike Road (south of Bloomington) via State Road 37 to State Road 39 (Martinsville).

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Sincerely,
Bernardin, Lochmueller & Associates, Inc.

Kent Ahrenholtz, P.E.
Project Manager

Enclosures

Cc: T. DeSimone (FHWA)
J. Osadczuk (INDOT)
T. Seeman (INDOT)
W. Malley (Akin Gump)

COPY

November 11, 2005

Xavier Montoya
Natural Resources Conservation Service/USDA
6013 Lakeside Bldv.
Indianapolis, IN 46278

Re: **I-69 Evansville to Indianapolis Tier 2 Studies**
Purpose & Need/Preliminary Alternatives Package for Section 5

Dear Xavier Montoya,

On behalf of the Indiana Department of Transportation (INDOT) and Indiana Division of the Federal Highway Administration (FHWA), we are respectfully requesting your agency's review and input regarding the Draft Purpose and Need Statement and Preliminary Alternatives for Section 5 of the I-69 Evansville to Indianapolis Tier 2 Studies. As you'll recall, Section 5 of the I-69 Evansville to Indianapolis project extends from State Road 37 just north of the intersection of Victor Pike Road (south of Bloomington) via State Road 37 to State Road 39 (Martinsville).

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Kent Ahrenholtz, P.E.
Project Manager

Enclosures

Cc: T. DeSimone (FHWA)
J. Osadczuk (INDOT)
T. Seeman (INDOT)
W. Malley (Akin Gump)

COPY

November 11, 2005

Philip E. Flint
Commissioner of Ag. Office
150 W. Market Street
Indianapolis, IN 46204

Re: **I-69 Evansville to Indianapolis Tier 2 Studies**
Purpose & Need/Preliminary Alternatives Package for Section 5

Dear Philip E. Flint,

On behalf of the Indiana Department of Transportation (INDOT) and Indiana Division of the Federal Highway Administration (FHWA), we are respectfully requesting your agency's review and input regarding the Draft Purpose and Need Statement and Preliminary Alternatives for Section 5 of the I-69 Evansville to Indianapolis Tier 2 Studies. As you'll recall, Section 5 of the I-69 Evansville to Indianapolis project extends from State Road 37 just north of the intersection of Victor Pike Road (south of Bloomington) via State Road 37 to State Road 39 (Martinsville).

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Sincerely,
Bernardin, Lochmueller & Associates, Inc.

Kent Ahrenholtz, P.E.
Project Manager

Enclosures

Cc: T. DeSimone (FHWA)
J. Osadczuk (INDOT)
T. Seeman (INDOT)
W. Malley (Akin Gump)

COPY

November 11, 2005

Pam Fisher
Regulatory Ombudsman
U. S. Department of Commerce
One North Capitol Avenue – Suite 700
Indianapolis, IN 46204

Re: **I-69 Evansville to Indianapolis Tier 2 Studies**
Purpose & Need/Preliminary Alternatives Package for Section 5

Dear Pam Fisher,

On behalf of the Indiana Department of Transportation (INDOT) and Indiana Division of the Federal Highway Administration (FHWA), we are respectfully requesting your agency's review and input regarding the Draft Purpose and Need Statement and Preliminary Alternatives for Section 5 of the I-69 Evansville to Indianapolis Tier 2 Studies. As you'll recall, Section 5 of the I-69 Evansville to Indianapolis project extends from State Road 37 just north of the intersection of Victor Pike Road (south of Bloomington) via State Road 37 to State Road 39 (Martinsville).

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Kent Ahrenholtz, P.E.
Project Manager

Enclosures

Cc: T. DeSimone (FHWA)
J. Osadczuk (INDOT)
T. Seeman (INDOT)
W. Malley (Akin Gump)

COPY

November 11, 2005

David Poynter
Administrator
Crane NSWC
300 Hwy 361 Building
Crane, IN 47522

Re: **I-69 Evansville to Indianapolis Tier 2 Studies**
Purpose & Need/Preliminary Alternatives Package for Section 5

Dear David Poynter,

On behalf of the Indiana Department of Transportation (INDOT) and Indiana Division of the Federal Highway Administration (FHWA), we are respectfully requesting your agency's review and input regarding the Draft Purpose and Need Statement and Preliminary Alternatives for Section 5 of the I-69 Evansville to Indianapolis Tier 2 Studies. As you'll recall, Section 5 of the I-69 Evansville to Indianapolis project extends from State Road 37 just north of the intersection of Victor Pike Road (south of Bloomington) via State Road 37 to State Road 39 (Martinsville).

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Kent Ahrenholtz, P.E.
Project Manager

Enclosures

Cc: T. DeSimone (FHWA)
J. Osadczuk (INDOT)
T. Seeman (INDOT)
W. Malley (Akin Gump)

COPY

November 11, 2005

Roger Wiebusch
Bridge Administrator of Bridge Branch
8th Coast Guard District
1222 Spruce Street
St. Louis, MO 63103

Re: **I-69 Evansville to Indianapolis Tier 2 Studies**
Purpose & Need/Preliminary Alternatives Package for Section 5

Dear Roger Wiebusch,

On behalf of the Indiana Department of Transportation (INDOT) and Indiana Division of the Federal Highway Administration (FHWA), we are respectfully requesting your agency's review and input regarding the Draft Purpose and Need Statement and Preliminary Alternatives for Section 5 of the I-69 Evansville to Indianapolis Tier 2 Studies. As you'll recall, Section 5 of the I-69 Evansville to Indianapolis project extends from State Road 37 just north of the intersection of Victor Pike Road (south of Bloomington) via State Road 37 to State Road 39 (Martinsville).

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Kent Ahrenholtz, P.E.
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Enclosures

Cc: T. DeSimone (FHWA)
J. Osadczuk (INDOT)
T. Seeman (INDOT)
W. Malley (Akin Gump)

COPY

November 11, 2005

Ernest Quintana
Regional Director
National Park Service, USDOI
601 Riverfront Drive
Omaha, NE 68102

Re: **I-69 Evansville to Indianapolis Tier 2 Studies**
Purpose & Need/Preliminary Alternatives Package for Section 5

Dear Ernest Quintana,

On behalf of the Indiana Department of Transportation (INDOT) and Indiana Division of the Federal Highway Administration (FHWA), we are respectfully requesting your agency's review and input regarding the Draft Purpose and Need Statement and Preliminary Alternatives for Section 5 of the I-69 Evansville to Indianapolis Tier 2 Studies. As you'll recall, Section 5 of the I-69 Evansville to Indianapolis project extends from State Road 37 just north of the intersection of Victor Pike Road (south of Bloomington) via State Road 37 to State Road 39 (Martinsville).

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Project Manager

Enclosures

Cc: T. DeSimone (FHWA)
J. Osadczuk (INDOT)
T. Seeman (INDOT)
W. Malley (Akin Gump)

COPY

November 11, 2005

Virginia Laszewski
U. S. Environmental Protection Agency - Region 5
77 West Jackson Blvd.-- B-19J
Chicago, IL 60604

Re: **I-69 Evansville to Indianapolis Tier 2 Studies**
Purpose & Need/Preliminary Alternatives Package for Section 5

Dear Virginia Laszewski,

On behalf of the Indiana Department of Transportation (INDOT) and Indiana Division of the Federal Highway Administration (FHWA), we are respectfully requesting your agency's review and input regarding the Draft Purpose and Need Statement and Preliminary Alternatives for Section 5 of the I-69 Evansville to Indianapolis Tier 2 Studies. As you'll recall, Section 5 of the I-69 Evansville to Indianapolis project extends from State Road 37 just north of the intersection of Victor Pike Road (south of Bloomington) via State Road 37 to State Road 39 (Martinsville).

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Kent Ahrenholtz, P.E.
Project Manager

Enclosures

Cc: T. DeSimone (FHWA)
J. Osadczuk (INDOT)
T. Seeman (INDOT)
W. Malley (Akin Gump)

COPY

November 11, 2005

Wendy Melgin
U. S. Environmental Protection Agency - Region 5
77 West Jackson Blvd.-- B-19J
Chicago, IL 60604

Re: **I-69 Evansville to Indianapolis Tier 2 Studies**
Purpose & Need/Preliminary Alternatives Package for Section 5

Dear Wendy Melgin,

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We appreciate any input that you can provide concerning Section 5 of the I-69 Evansville to Indianapolis project. Please direct any comments, questions or requests for additional information to either Kent Ahrenholtz or Tom Cervone, Ph.D. of Bernardin, Lochmueller & Associates at 800/423-7411 or at kahrenholtz@blainc.com or tcervone@blainc.com. Please address all written correspondence to Kent Ahrenholtz, P.E., Project Manager, Bernardin, Lochmueller & Associates, 6200 Vogel Road, Evansville, IN 47715. Thank you and we look forward to your continued participation in this important project.

Sincerely,
Bernardin, Lochmueller & Associates, Inc.

Kent Ahrenholtz, P.E.
Project Manager

Enclosures

Cc: T. DeSimone (FHWA)
J. Osadczuk (INDOT)
T. Seeman (INDOT)
W. Malley (Akin Gump)

COPY

November 11, 2005

Cathy Garra
Watersheds & Wetlands Branch
U. S. Environmental Protection Agency - Region 5
77 West Jackson Blvd.—WW-16J
Chicago, IL 60604

Re: **I-69 Evansville to Indianapolis Tier 2 Studies**
Purpose & Need/Preliminary Alternatives Package for Section 5

Dear Cathy Garra,

On behalf of the Indiana Department of Transportation (INDOT) and Indiana Division of the Federal Highway Administration (FHWA), we are respectfully requesting your agency's review and input regarding the Draft Purpose and Need Statement and Preliminary Alternatives for Section 5 of the I-69 Evansville to Indianapolis Tier 2 Studies. As you'll recall, Section 5 of the I-69 Evansville to Indianapolis project extends from State Road 37 just north of the intersection of Victor Pike Road (south of Bloomington) via State Road 37 to State Road 39 (Martinsville).

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We have enclosed the following project information to assist in your review:

- Draft Purpose and Need Statement for I-69 Section 5
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Sincerely,
Bernardin, Lochmueller & Associates, Inc.

Kent Ahrenholtz, P.E.
Project Manager

Enclosures

Cc: T. DeSimone (FHWA)
J. Osadczuk (INDOT)
T. Seeman (INDOT)
W. Malley (Akin Gump)

COPY

November 11, 2005

Ken Westlake
Environmental Review Coordinator
U. S. Environmental Protection Agency - Region 5
77 West Jackson Blvd.
Chicago, IL 60604

Re: **I-69 Evansville to Indianapolis Tier 2 Studies**
Purpose & Need/Preliminary Alternatives Package for Section 5

Dear Ken Westlake,

On behalf of the Indiana Department of Transportation (INDOT) and Indiana Division of the Federal Highway Administration (FHWA), we are respectfully requesting your agency's review and input regarding the Draft Purpose and Need Statement and Preliminary Alternatives for Section 5 of the I-69 Evansville to Indianapolis Tier 2 Studies. As you'll recall, Section 5 of the I-69 Evansville to Indianapolis project extends from State Road 37 just north of the intersection of Victor Pike Road (south of Bloomington) via State Road 37 to State Road 39 (Martinsville).

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Sincerely,
Bernardin, Lochmueller & Associates, Inc.

Kent Ahrenholtz, P.E.
Project Manager

Enclosures

Cc: T. DeSimone (FHWA)
J. Osadczuk (INDOT)
T. Seeman (INDOT)
W. Malley (Akin Gump)

COPY

November 11, 2005

Christie Kiefer
Fish & Wildlife Office
Indiana Department of Natural Resources
402 West Washington St. – W273
Indianapolis, IN 46204

Re: **I-69 Evansville to Indianapolis Tier 2 Studies**
Purpose & Need/Preliminary Alternatives Package for Section 5

Dear Christie Kiefer,

On behalf of the Indiana Department of Transportation (INDOT) and Indiana Division of the Federal Highway Administration (FHWA), we are respectfully requesting your agency's review and input regarding the Draft Purpose and Need Statement and Preliminary Alternatives for Section 5 of the I-69 Evansville to Indianapolis Tier 2 Studies. As you'll recall, Section 5 of the I-69 Evansville to Indianapolis project extends from State Road 37 just north of the intersection of Victor Pike Road (south of Bloomington) via State Road 37 to State Road 39 (Martinsville).

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Sincerely,
Bernardin, Lochmueller & Associates, Inc.

Kent Ahrenholtz, P.E.
Project Manager

Enclosures

Cc: T. DeSimone (FHWA)
J. Osadczuk (INDOT)
T. Seeman (INDOT)
W. Malley (Akin Gump)

COPY

November 11, 2005

John Steinmetz
Director & Geologist
Indiana Geological Survey
611 North Walnut Grove
Bloomington, IN 47405

Re: **I-69 Evansville to Indianapolis Tier 2 Studies**
Purpose & Need/Preliminary Alternatives Package for Section 5

Dear John Steinmetz,

On behalf of the Indiana Department of Transportation (INDOT) and Indiana Division of the Federal Highway Administration (FHWA), we are respectfully requesting your agency's review and input regarding the Draft Purpose and Need Statement and Preliminary Alternatives for Section 5 of the I-69 Evansville to Indianapolis Tier 2 Studies. As you'll recall, Section 5 of the I-69 Evansville to Indianapolis project extends from State Road 37 just north of the intersection of Victor Pike Road (south of Bloomington) via State Road 37 to State Road 39 (Martinsville).

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Sincerely,
Bernardin, Lochmueller & Associates, Inc.

Kent Ahrenholtz, P.E.
Project Manager

Enclosures

Cc: T. DeSimone (FHWA)
J. Osadczuk (INDOT)
T. Seeman (INDOT)
W. Malley (Akin Gump)

COPY

November 11, 2005

Pat Carroll
Branch Chief of Drinking Water
Indiana Department of Environmental Management
100 North Senate Avenue - N1201
Indianapolis, IN 46204

Re: **I-69 Evansville to Indianapolis Tier 2 Studies**
Purpose & Need/Preliminary Alternatives Package for Section 5

Dear Pat Carroll,

On behalf of the Indiana Department of Transportation (INDOT) and Indiana Division of the Federal Highway Administration (FHWA), we are respectfully requesting your agency's review and input regarding the Draft Purpose and Need Statement and Preliminary Alternatives for Section 5 of the I-69 Evansville to Indianapolis Tier 2 Studies. As you'll recall, Section 5 of the I-69 Evansville to Indianapolis project extends from State Road 37 just north of the intersection of Victor Pike Road (south of Bloomington) via State Road 37 to State Road 39 (Martinsville).

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Sincerely,
Bernardin, Lochmueller & Associates, Inc.

Kent Ahrenholtz, P.E.
Project Manager

Enclosures

Cc: T. DeSimone (FHWA)
J. Osadczuk (INDOT)
T. Seeman (INDOT)
W. Malley (Akin Gump)

COPY

November 11, 2005

Dennis Clark
Branch Chief of Water Assessment
Indiana Department of Environmental Management
100 North Senate Avenue - N1301
Indianapolis, IN 46204

Re: **I-69 Evansville to Indianapolis Tier 2 Studies**
Purpose & Need/Preliminary Alternatives Package for Section 5

Dear Dennis Clark,

On behalf of the Indiana Department of Transportation (INDOT) and Indiana Division of the Federal Highway Administration (FHWA), we are respectfully requesting your agency's review and input regarding the Draft Purpose and Need Statement and Preliminary Alternatives for Section 5 of the I-69 Evansville to Indianapolis Tier 2 Studies. As you'll recall, Section 5 of the I-69 Evansville to Indianapolis project extends from State Road 37 just north of the intersection of Victor Pike Road (south of Bloomington) via State Road 37 to State Road 39 (Martinsville).

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Sincerely,
Bernardin, Lochmueller & Associates, Inc.

Kent Ahrenholtz, P.E.
Project Manager

Enclosures

Cc: T. DeSimone (FHWA)
J. Osadczuk (INDOT)
T. Seeman (INDOT)
W. Malley (Akin Gump)

COPY

November 11, 2005

Martha Clark
Branch Chief of Planning & Reservation
Indiana Department of Environmental Management
100 North Senate Avenue - N1201
Indianapolis, IN 46204

Re: **I-69 Evansville to Indianapolis Tier 2 Studies**
Purpose & Need/Preliminary Alternatives Package for Section 5

Dear Martha Clark,

On behalf of the Indiana Department of Transportation (INDOT) and Indiana Division of the Federal Highway Administration (FHWA), we are respectfully requesting your agency's review and input regarding the Draft Purpose and Need Statement and Preliminary Alternatives for Section 5 of the I-69 Evansville to Indianapolis Tier 2 Studies. As you'll recall, Section 5 of the I-69 Evansville to Indianapolis project extends from State Road 37 just north of the intersection of Victor Pike Road (south of Bloomington) via State Road 37 to State Road 39 (Martinsville).

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Bernardin, Lochmueller & Associates, Inc.

Kent Ahrenholtz, P.E.
Project Manager

Enclosures

Cc: T. DeSimone (FHWA)
J. Osadczuk (INDOT)
T. Seeman (INDOT)
W. Malley (Akin Gump)

COPY

November 11, 2005

Jason Randolph
Wetland Section
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, IN 46204

Re: **I-69 Evansville to Indianapolis Tier 2 Studies**
Purpose & Need/Preliminary Alternatives Package for Section 5

Dear Jason Randolph,

On behalf of the Indiana Department of Transportation (INDOT) and Indiana Division of the Federal Highway Administration (FHWA), we are respectfully requesting your agency's review and input regarding the Draft Purpose and Need Statement and Preliminary Alternatives for Section 5 of the I-69 Evansville to Indianapolis Tier 2 Studies. As you'll recall, Section 5 of the I-69 Evansville to Indianapolis project extends from State Road 37 just north of the intersection of Victor Pike Road (south of Bloomington) via State Road 37 to State Road 39 (Martinsville).

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Kent Ahrenholtz, P.E.
Project Manager

Enclosures

Cc: T. DeSimone (FHWA)
J. Osadczuk (INDOT)
T. Seeman (INDOT)
W. Malley (Akin Gump)

COPY

November 11, 2005

Scott Deloney
Section Chief of Program Planning & Policy
Indiana Department of Environmental Management
100 North Senate Avenue – N1001
Indianapolis, IN 46204

Re: **I-69 Evansville to Indianapolis Tier 2 Studies**
Purpose & Need/Preliminary Alternatives Package for Section 5

Dear Scott Deloney,

On behalf of the Indiana Department of Transportation (INDOT) and Indiana Division of the Federal Highway Administration (FHWA), we are respectfully requesting your agency's review and input regarding the Draft Purpose and Need Statement and Preliminary Alternatives for Section 5 of the I-69 Evansville to Indianapolis Tier 2 Studies. As you'll recall, Section 5 of the I-69 Evansville to Indianapolis project extends from State Road 37 just north of the intersection of Victor Pike Road (south of Bloomington) via State Road 37 to State Road 39 (Martinsville).

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Kent Ahrenholtz, P.E.
Project Manager

Enclosures

Cc: T. DeSimone (FHWA)
J. Osadczuk (INDOT)
T. Seeman (INDOT)
W. Malley (Akin Gump)

COPY

November 11, 2005

Andrew Pelloso
Section Chief of Planning & Assessment
Indiana Department of Environmental Management
100 North Senate Avenue - N1201
Indianapolis, IN 46204

Re: **I-69 Evansville to Indianapolis Tier 2 Studies**
Purpose & Need/Preliminary Alternatives Package for Section 5

Dear Andrew Pelloso,

On behalf of the Indiana Department of Transportation (INDOT) and Indiana Division of the Federal Highway Administration (FHWA), we are respectfully requesting your agency's review and input regarding the Draft Purpose and Need Statement and Preliminary Alternatives for Section 5 of the I-69 Evansville to Indianapolis Tier 2 Studies. As you'll recall, Section 5 of the I-69 Evansville to Indianapolis project extends from State Road 37 just north of the intersection of Victor Pike Road (south of Bloomington) via State Road 37 to State Road 39 (Martinsville).

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We are requesting your agency's input and comments on these items by Wednesday, January 11 2005, to ensure timely progress in development of Section 5 of this project. In addition, we have scheduled a joint conference call and Internet webcast for Wednesday, December 14, 2005 at 10:00 a.m. EST for Sections 5 & 6, to provide you with the opportunity to ask questions, get clarification, and provide informal comments and feedback to the PMC and EEAC for Sections 5 & 6. The call-in information is as follows: Conference telephone line – 800/811-3000; Access Code – 3030001#. Please reply to Carol Hood via email (chood@blainc.com) if you will participate in this conference call/webcast, so that we may forward the information that will allow you to participate in the Internet webcast as well.

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We appreciate any input that you can provide concerning Section 5 of the I-69 Evansville to Indianapolis project. Please direct any comments, questions or requests for additional information to either Kent Ahrenholtz or Tom Cervone, Ph.D. of Bernardin, Lochmueller & Associates at 800/423-7411 or at kahrenholtz@blainc.com or tcervone@blainc.com. Please address all written correspondence to Kent Ahrenholtz, P.E., Project Manager, Bernardin, Lochmueller & Associates, 6200 Vogel Road, Evansville, IN 47715. Thank you and we look forward to your continued participation in this important project.

Sincerely,
Bernardin, Lochmueller & Associates, Inc.

Kent Ahrenholtz, P.E.
Project Manager

Enclosures

Cc: T. DeSimone (FHWA)
J. Osadczuk (INDOT)
T. Seeman (INDOT)
W. Malley (Akin Gump)

COPY

November 11, 2005

James Sullivan
Chief, Ground Water Section
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, IN 46204

Re: **I-69 Evansville to Indianapolis Tier 2 Studies**
Purpose & Need/Preliminary Alternatives Package for Section 5

Dear James Sullivan,

On behalf of the Indiana Department of Transportation (INDOT) and Indiana Division of the Federal Highway Administration (FHWA), we are respectfully requesting your agency's review and input regarding the Draft Purpose and Need Statement and Preliminary Alternatives for Section 5 of the I-69 Evansville to Indianapolis Tier 2 Studies. As you'll recall, Section 5 of the I-69 Evansville to Indianapolis project extends from State Road 37 just north of the intersection of Victor Pike Road (south of Bloomington) via State Road 37 to State Road 39 (Martinsville).

As outlined in the Tier 2 Formal Agency Coordination handout provided to each of the agencies in December 2004, this package is the fourth in a series of agency review packages that you will receive from each of the six Sections of Independent Utility for I-69. During development of this project, comments will periodically be solicited from appropriate Federal, state, and local agencies, as well as other interested persons and the general public, in accordance with requirements set forth in the National Environmental Policy Act (NEPA) of 1969.

We have enclosed the following project information to assist in your review:

- Draft Purpose and Need Statement for I-69 Section 5
- Preliminary Alternatives Maps for I-69 Section 5

We are requesting your agency's input and comments on these items by Wednesday, January 11 2005, to ensure timely progress in development of Section 5 of this project. In addition, we have scheduled a joint conference call and Internet webcast for Wednesday, December 14, 2005 at 10:00 a.m. EST for Sections 5 & 6, to provide you with the opportunity to ask questions, get clarification, and provide informal comments and feedback to the PMC and EEAC for Sections 5 & 6. The call-in information is as follows: Conference telephone line – 800/811-3000; Access Code – 3030001#. Please reply to Carol Hood via email (chood@blainc.com) if you will participate in this conference call/webcast, so that we may forward the information that will allow you to participate in the Internet webcast as well.

COPY

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We appreciate any input that you can provide concerning Section 5 of the I-69 Evansville to Indianapolis project. Please direct any comments, questions or requests for additional information to either Kent Ahrenholtz or Tom Cervone, Ph.D. of Bernardin, Lochmueller & Associates at 800/423-7411 or at kahrenholtz@blainc.com or tcervone@blainc.com. Please address all written correspondence to Kent Ahrenholtz, P.E., Project Manager, Bernardin, Lochmueller & Associates, 6200 Vogel Road, Evansville, IN 47715. Thank you and we look forward to your continued participation in this important project.

Sincerely,
Bernardin, Lochmueller & Associates, Inc.

Kent Ahrenholtz, P.E.
Project Manager

Enclosures

Cc: T. DeSimone (FHWA)
J. Osadczuk (INDOT)
T. Seeman (INDOT)
W. Malley (Akin Gump)

I-69 Evansville to Indianapolis
Tier 2 Studies

AGENDA

I-69 Agency Coordination Meeting Concerning Tolls/Schedules

INDOT Central Office N755, Indianapolis IN
Monday, November 14, 2005, 10:00 a.m. EST

I. Introductions & Opening Remarks — *B_Tally, FHWA Division Administrator & T_Sharp, INDOT Commissioner*
(5 minutes)

II. Major Moves – Creating a Top-Tier Economy Through Top-Tier Transportation — *T_Sharp, INDOT Commissioner*
(20 minutes)
- A. INDOT's New 10-Year, $10.6 Billion Plan
- B. Financing Options – *I-69, Evansville to Indianapolis with Tolling and/or Public/Private Partnership*

III. Effect on I-69, Evansville to Indianapolis — *K_Ahrenholtz, PMC Project Manager*
(20 minutes)
- A. Consideration of Toll-Funded Option – *Same Alternatives, But Two Options – Non-toll and Toll*
- B. Re-evaluation of Tier 1 EIS
- C. Refinement of Tier 2 Studies
- D. Revised Schedule for Tier 2 Studies

IV. Questions/Issues from U.S. Fish & Wildlife Service — *All Participants*
(20 minutes)

– BREAK – *(Executive Staff Free to Leave)*

V. I-69 Tier 1 EIS Re-evaluation — *K_Ahrenholtz, PMC Project Manager*
(30 Minutes)
- A. Process
- B. Schedule
- C. Documentation
- D. Public Involvement

VI. Re-initiation of Section 7 Consultation — *T_Cervone, PMC Environmental Manager*
(30-45 Minutes)
- A. Additional Information on Indiana Bat
- B. Status of Amended Biological Assessment

VII. I-69 Tier 2 Studies Refinement — *K_Ahrenholtz, PMC Project Manager*
(15 Minutes)
- A. Revised Schedule for Tier 2 Studies
- B. Adjustment to Tier 2 Studies
- C. Accelerated Project Development Activities

VIII. Immediate Next Steps — *K_Ahrenholtz, PMC Project Manager*
(5 Minutes)
- A. Initiation of I-69 Tier 1 Re-evaluation
- B. Continuation of I-69 Tier 2 Studies
- C. Agency Coordination Meetings concerning Toll Option & Schedules

IX. Next Meeting(s)
- A. Overall Agency Coordination Meeting, January-February 2006
- B. Environmental Streamlining Package Conference Calls/Webcasts, Ongoing

Toll/Schedule Meeting w/USFWS

I-69 Evansville to Indianapolis Tier 2 Studies

November 14, 2005

Agenda

- Major Moves – *Creating a Top-Tier Economy Through Top-Tier Transportation*
- Effect on I-69, Evansville to Indianapolis
- Questions/Issues from US Fish & Wildlife Service

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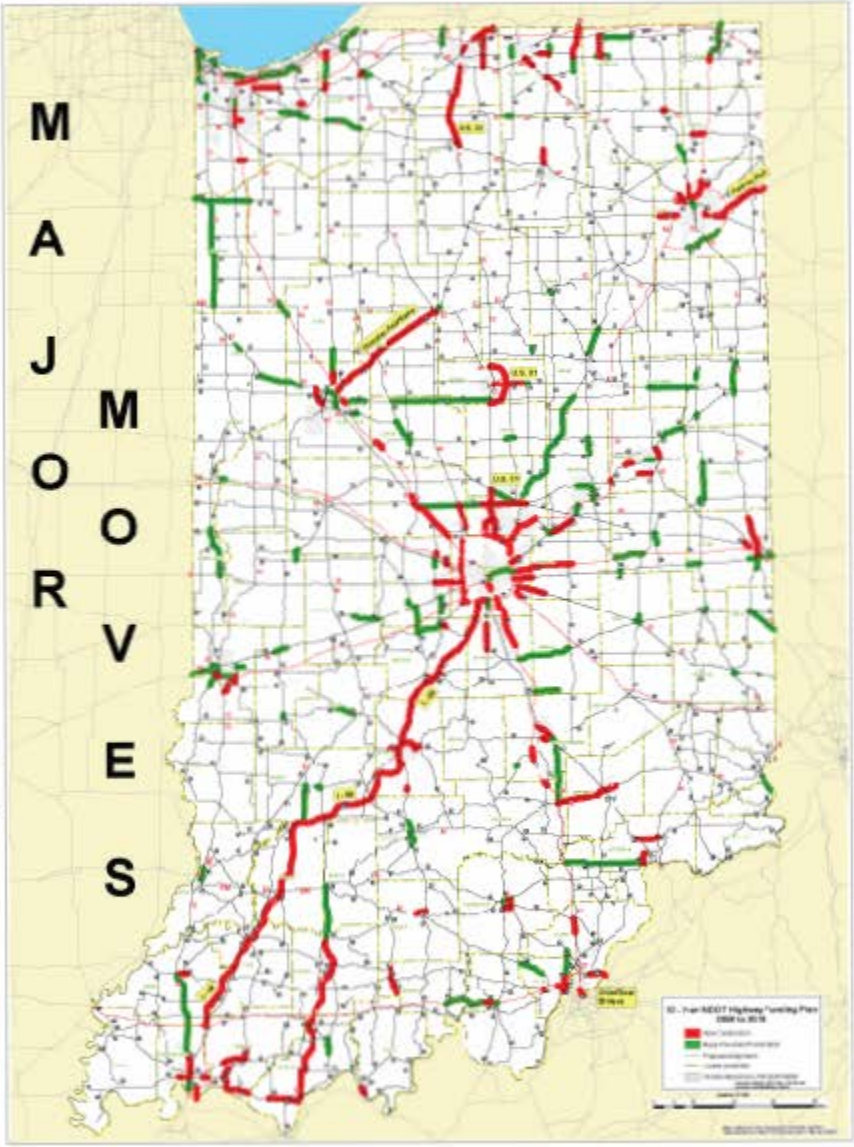
- I-69 Tier 1 EIS Re-evaluation
- I-69 Tier 2 Studies Refinement
- Immediate Next Steps
- Next Meetings

INTERSTATE 69

MAJOR MOVES



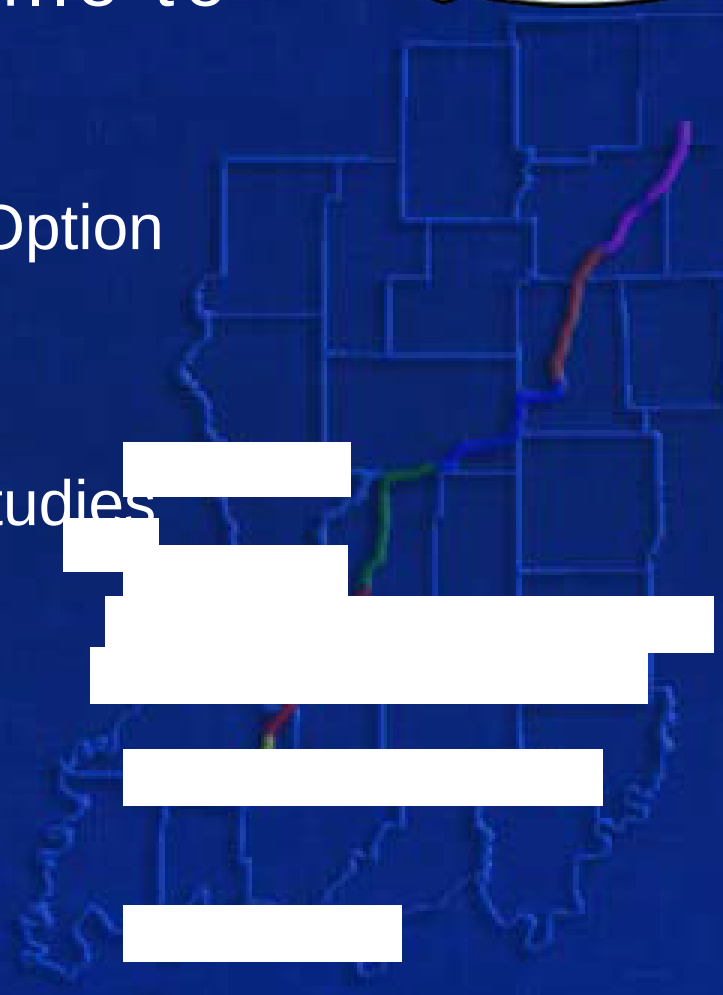
Effect on I-69, Evansville-to-Indianapol[redacted]

- Consideration of Toll Funded Option
- Re-evaluation of Tier 1 EIS
- Refinement of Tier 2 Studies
- Revised Schedule for Tier 2 Studies[redacted]
- Procurement Approach

[redacted]

[redacted]

[redacted]

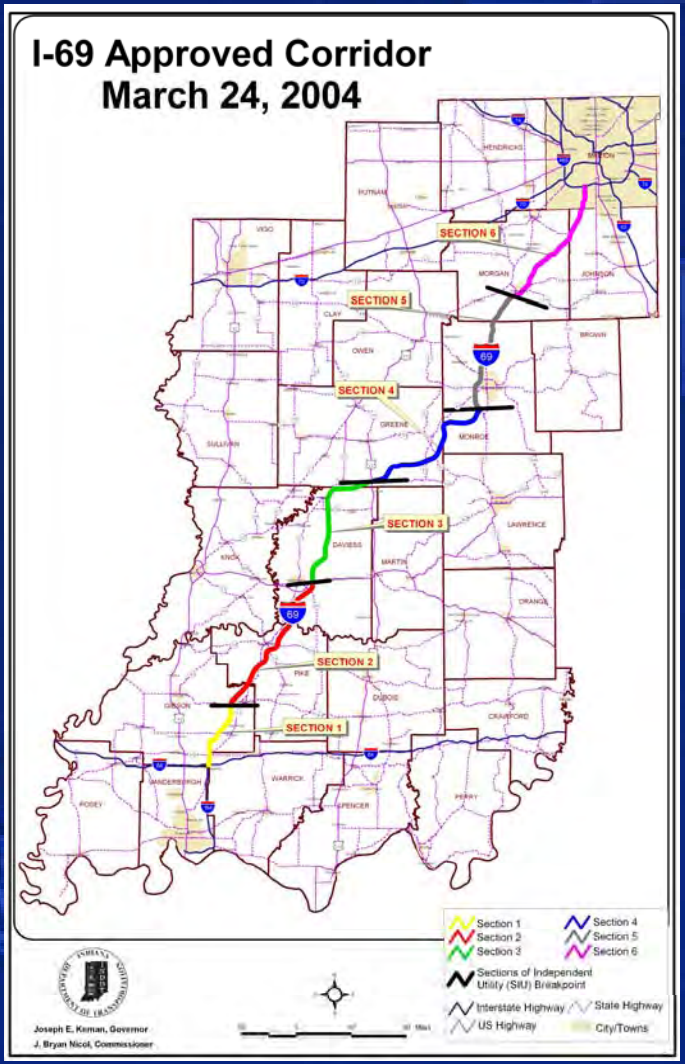


Tier 2 Studies
6 Sections

142-mile Evansville to Indianapolis project is divided into six sections

Each section is being studied independently

Draft EIS, Final EIS and [redacted] of Decision issued for each section



Consideration of Toll Option

- Same Alternatives for Tier 2 Studies
- Two Options – *Non-toll and Toll*
- Characteristics of Toll Option
  - *Fully Electronic Toll Collection System*
  - *Assumed Toll Rate Structure*
  - *Traffic Diversions with Tolls*
  - *Possible Changes to Footprint with Less Traffic – Sections 5 & 6*

Revised Schedule for Tier 2

- Re-evaluation of Tier 1 EIS
  - *Draft EIS Preferred Alternatives – 1, 2C, 3C, 4B & 4C*
  - *Re-assessment of Performance Measures*
  - *Re-evaluation of Environmental Impacts*
  - *Tier 1 EIS Re-evaluation Report*
- Refinement of Tier 2 Studies
  - *Delay in Issuance of Draft EISs*
  - *Incorporation of Toll Options*
  - *Staggered EIS Reviews*
- Accelerated Project Development Activities
  - *Preliminary Design of Preferred Alternative*
  - *Permitting*

Procurement Approach

- Public/Private Partnership
- "Concession"
  - *Design*
  - *Right-of-Way Acquisition*
  - *Construction*
  - *Operation*
  - *ance*
- Requires Legislative Action
- Other Options

Questions/Issues from USFWS

<<<<< BREAK >>>>>

Agenda

- Major Moves – *Creating a Top-Tier Economy Through Top-Tier Transportation*
- Effect on I-69, Evansville to Indianapolis
- Questions/Issues from US Fish & Wildlife Service

<<< BREAK >>>

- I-69 Tier 1 EIS Re-evaluation
- I-69 Tier 2 Studies Refinement
- Immediate Next Steps
- Next Meetings

I-69 Tier 1 EIS Re-evaluation

- Process
  - *Draft EIS Preferred Alternatives – 1, 2C, 3C, 4B & 4C*
  - *Consideration of Toll Option vs. Non-toll Option*
  - *Identification of Characteristics of Toll*
    - *Fully Electronic Toll Collection Syste*
    - *Assumed Toll Rate Structure*
    - *Traffic Diversions with Tolls*
    - *Possible Changes to Footprint with Less Traffic*

I-69 Tier 1 EIS Re-evaluation

- Process (continued)
  - *Re-estimation of Performance Measures – utilizing Indiana Statewide Toll Model*
  - *Re-assessment of Alternatives*
  - *Re-evaluation of Environmental Impacts – mostly traffic-related impacts*
  - *Documentation*

I-69 Tier 1 EIS Re-evaluation

- Schedule
  - *Complete Traffic Analysis & Impact Evaluation this Fall*
  - *Prepare Re-evaluation Report in January 2006*
  - *Submit to FHWA for Approval in early*
  - *Agency & Public Input during FHWA*
  - *Approval by FHWA-IN in early Spring*

I-69 Tier 1 EIS Re-evaluation

- Documentation
  - *Re-evaluation Report*
  - *Amended Tier 1 Record of Decision*

I-69 Tier 1 EIS Re-evaluation

- Public Involvement
  - *Agency Review & Input – Overall Agency Coord. Meeting*
  - *Public Review & Input*
    - *Public Information Meetings*
    - *Newsletter*
    - *Other Input Avenues*

Re-initiation of Formal Section 7 [redacted]tation

- Additional Field Investigations during Tier 2 Studies
  - *Summer Mist Netting during Summer of 2004 – 148 sites*
  - *Indiana Cave Inventory Database – 250 caves visited of 373 identified w/in 5 miles of I-69 Corridor* [redacted]
  - *Fall, Winter & Spring Sampling duri[redacted]004-2006 – over 75 caves*
  - *Additional Summer Mist Netting durin[redacted]tes*
  - [redacted]*alysis & Importance in Identi[redacted]*
- Results of Field Investigations [redacted]
  - [redacted]*a Bat Maternity Colonies – 13 colonies throughout I-69 Corridor* [redacted]
  - [redacted]*ana Bat Hibernacula – several caves with Indiana bats*

Re-initiation of Formal Section 7 [redacted]tation

- Addendum to Tier 1 Biological Assessment
  - *Focus on Indiana Bat*
  - *Documentation of Additional Field Investigations*
  - *Analysis of Potential Direct, Indirect & [redacted]ve Impacts*
  - *Mitigation Refinements* [redacted]
- Submittal by FHWA to US Fish & [redacted]
- [redacted] Amended Biological Opinion [redacted]

I-69 Tier 2 Studies Refinement

- Revised Schedule for Tier 2 Studies
  - *Delay in Issuance of Draft EISs – Following Approval of Tier 1 Re-evaluation*
  - *Staggered EIS Reviews – Initial Section 1 EIS Issued in Spring 2006 and Remainder throughout 2006*
  - *Final EISs Issued Later in 2006 & Earl*
  - *Records of Decision (RODs) in 2007*

I-69 Tier 2 Studies Refinement

- Adjustment to Tier 2 Studies
  - *Incorporation of Toll Options*
  - *Re-assessment of Alternatives – Changes to Footprints*
  - *Re-evaluation of Environmental Impac*
  - *Revision of Preliminary Draft EISs*

I-69 Tier 2 Studies Refinement

- Accelerated Project Development Activities
  - *Preliminary Design of Preferred Alternative*
  - *Permitting*
  - *Aerial Survey & Mapping*
  - *Geotechnical Investigations*
  - *Utility Coordination & Relocation Con*
  - *-Way Research & Design*

Immediate Next Steps

- Initiation of Tier 1 Re-evaluation
- Continuation of I-69 Tier 2 Studies
- Agency Coordination Meetings concerning Toll Options & Schedules

Next Meetings

- Agency Coordination Meetings concerning Toll Options & Schedules – *November 2005*
  - *U.S. Fish & Wildlife Service*
  - *State Environmental Agencies*
- Overall Agency Coordination Meeting – *February-March 2006*
- Environmental Streamlining Package Conference Calls/ Webcasts -- *ongoing*

Questions/Issues from [redacted] Army COE

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

Tier 2 Studies Contacts

For project information, or to provide input:

FHWA – Indiana Division
575 N. Pennsylvania St., Rm N254
Indianapolis, IN 46204
Ph. 317/226-5307
Contacts: **Tony DeSimone**

Indiana DOT
100 North Senate Avenue
Indianapolis, IN 46204
317/232-5
Janice Osadczuk or Tom Seeman

I-69 PMC – Bernardin Lochmueller & Associ
62 oad
Evansville, IN 47715
Ph. 812/479-6200
C **Kent Ahrenholtz or Tom Cervone**

Web Site: www.i69indyevn.org

Carol Hood

From: Carol Hood [blainc.Bla_Mailbox.Carol]
Sent: Wednesday, November 16, 2005 4:37 PM
To: mclark@idem.in.gov
Cc: Jason Dupont; Kent Ahrenholtz; Tom Cervone
Subject: Scheduling an I-69 Meeting with INDOT Commissioner Sharp & Commissioner Easterly

Importance: High

Hello Martha! I left you a message around 4:30pm EST concerning setting up a meeting. This is a followup to that call.

Commissioner Sharp of INDOT contacted Commissioner Easterly on November 14, via email, concerning scheduling a meeting to discuss the I-69 Timeline Accelerated Schedule. Bernardin, Lochmueller & Associates, the I-69 Project Management Consultant (PMC), has been charged by INDOT with setting up this meeting.

We would appreciate your coordinating the meeting or letting us know who we should contact about setting up the meeting. We are looking at having the meeting the week of Dec. 5, Dec. 12 or Dec. 19, and would appreciate you and/or others coordinating with Commissioner Easterly's office to find out some dates that the Commissioner would be available to meet with Commissioner Sharp and staff.

Below is the information concerning the meeting:

Attendees:
INDOT - Commissioner Sharp and other INDOT staff members, BLA/PMC (Kent Ahrenholtz and Tom Cervone, Ph.D.)

IDNR - Commissioner Easterly and staff members, NEPA reviewers and Permitting staff should also be at this meeting

possibly FHWA - Robert Tally, Indiana Division Administrator and Tony DeSimone

Purpose of Meeting:
To present and discuss the accelerated I-69 schedule and understand what affects this may have on IDNR.

Potential Meeting Date:
Sometime the week of December 5, week of Dec. 12, or week of Dec. 19
Length of meeting: 2-3 hours

Location:
Indianapolis: possibly Indiana Government Center complex

Once we have some dates that Commissioner Easterly is available, we will coordinate with Commissioner Sharp's schedule and confirm the date and time.

Thanks in advance for your help,

Carol

Carol Hood
I-69 Project Coordinator
Bernardin Lochmueller & Associates/PMC
1-800-423-7411/(812) 479-6200

Carol Hood

From: Carol Hood [blainc.Bla_Mailbox.Carol]
Sent: Thursday, November 17, 2005 4:55 PM
To: ckoontz@idem.in.gov
Cc: Jason Dupont; Kent Ahrenholtz; Tom Cervone
Subject: Scheduling an I-69 meeting with INDOT Commissioner Sharp & Commissioner Easterly

Importance: High

Hi Carolyn!

Your name was given to me by Martha Clark Mettler, Branch Chief of the IDEM Watershed Branch as the person to contact for setting up a meeting for Commissioner Easterly with INDOT Commissioner Sharp.

Commissioner Sharp contacted Commissioner Easterly on November 14, via email, concerning scheduling a meeting to discuss the I-69 Timeline Accelerated Schedule. Bernardin, Lochmueller & Associates, the I-69 Project Management Consultant (PMC), has been charged by INDOT with setting up this meeting.

We would appreciate your coordinating a meeting with Commissioner Easterly's schedule and key IDEM staff (NEPA reviewers and Permitting staff). We are looking at having the meeting the week of Dec. 5, Dec. 12 or Dec. 19. Could you let me know some dates within those weeks if the Commissioner would be available to meet with Commissioner Sharp and staff.
FYI: We are focusing on having the meeting on Dec. 15 or Dec. 16.

Below is the information concerning the meeting:

Attendees:
INDOT - Commissioner Sharp and other INDOT staff members, BLA/PMC (Kent Ahrenholtz and Tom Cervone, Ph.D.)

IDEM - Commissioner Easterly and staff members, IDEM NEPA reviewers and Permitting staff should also be at this meeting

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Thanks in advance for your help,

Carol

Carol Hood
I-69 Project Coordinator
Bernardin Lochmueller & Associates/PMC
1-800-423-7411/(812) 479-6200

Carol Hood

From: Carol Hood [blainc.Bla_Mailbox.Carol]
Sent: Thursday, November 17, 2005 11:02 AM
To: Christie Stanifer
Cc: Jason Dupont; Jeremy Kieffner; Josh Sherretz; Kent Ahrenholtz; Neal Schroeder; Tom Cervone; Rusty Yeager
Subject: RE: Scheduling an I-69 Meeting with INDOT Commissioner Sharp & Director Hupfer

Thanks so much Christie!

I'll pass along your update information too!

Carol

Carol Hood
I-69 Project Coordinator
Bernardin Lochmueller & Associates/PMC
1-800-423-7411/(812) 479-6200

>>> "Stanifer, Christie" <CStanifer@dnr.IN.gov> 11/17/05 10:48AM >>>
Hi Carol. I did get your message this morning. Thank you for sending the follow-up email; that helps a lot. I will get in touch with Director Hupfer's office and ask about availability for the proposed meeting dates. I will let you or Tom know what I find out.

As a foot-note, you'll notice my name has changed. I will not longer be receiving emails at my old account after about 2 months. Please let anyone know that needs to know this for future correspondence; I appreciate your help with that.

Sincerely,

Christie L. Stanifer
Environmental Coordinator
Department of Natural Resources
402 West Washington Street, Room W264
Indianapolis, IN 46204-2641
Phone: (317) 232-4160
Toll free: 1-877-928-3755
Fax: (317) 233-4579

-----Original Message-----
From: Carol Hood [mailto:chood@blainc.com]
Sent: Wednesday, November 16, 2005 5:31 PM
To: ckiefer@dnr.in.gov
Cc: Jason Dupont; Tom Cervone
Subject: Scheduling an I-69 Meeting with INDOT Commissioner Sharp & Commisioner Easterly

** High Priority **

Christie: Disregard earlier message I sent you and use information below.
Thanks

Hello Christie! Dr. Tom Cervone and I left you a message around 4:20pm EST concerning setting up a meeting. This is a followup to that call.

Commissioner Sharp of INDOT contacted Director Hupfer on November 14, via email, concerning scheduling a meeting to discuss the I-69 Timeline Accelerated Schedule. Bernardin, Lochmueller & Associates, the I-69 Project Management Consultant (PMC), has been charged by INDOT with setting up this meeting.

We would appreciate your coordinating the meeting or letting us know who we should contact about setting up the meeting. We are looking at having the meeting the week of Dec. 5, Dec. 12 or Dec. 19, and would appreciate you and/or others coordinating with Director Hupfer office to find out some dates that the Director would be available to meet with Commissioner Sharp and staff.

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Once we have some dates that Director Hupfer is available, we will coordinate with Commissioner Sharp's schedule and confirm the date and time.

Thanks in advance for your help,

Carol

Carol Hood
I-69 Project Coordinator
Bernardin Lochmueller & Associates/PMC
1-800-423-7411/(812) 479-6200

From: <Laszewski.Virginia@epamail.epa.gov> [mailto:Laszewski.Virginia@epamail.epa.gov]
Sent: Thursday, November 17, 2005 11:21 AM
To: Anthony DeSimone
Cc: Carol Hood; westlake.kenneth@epamail.epa.gov
Subject: Re: EPA consultation packages

Tony

I spoke w/Carol Hood yesterday. She was very helpful and told me she would send EPA additional P&N/Preliminary Alternatives Screening packages as follows: 3 for Segment 5, and 2 for Segment 6.

For future reference, the number of copies of a NEPA document/"package" we would like to receive is dependent on the nature/content of the document/package and the I69 Segment it pertains to.

However, to help expedite EPA reviews I'd say it would be safe to continue sending one (1) copy each to Ken Westlake, Wendy Melgin, and Cathy Garra for all Segments. In addition, send four (4) copies to me [one (1) for myself and three (3) for distribution to appropriate EPA programs/offices as needed]. That makes seven (7) total.

Please let me know if this is doable.

Thank you for your assistance,

Virginia Laszewski
Environmental Scientist

US EPA, Region 5
OSEC, NIS
77 W. Jackson Blvd. (mail code: B19J)
Chicago, IL 606043590
Phone: (312) 8867501
Fax: (312) 3535374
email: laszewski.virginia@epa.gov

"DeSimone, Anthony" <Anthony.DeSimone@fhwa.dot.gov> To Virginia

11/17/2005 06:30 AM Laszewski/R5/USEPA/US@EPA
cc

Subject
EPA consultation packages

Virginia,

I hope you got what you needed by talking to Carol. I was out of the office so I couldn't be much more help to you yesterday. Please let us know exactly how many copies of each package you want in the future so we make sure you have that many. Until know, we thought you were getting a sufficient number.

Thanks and please let us know how we can keep this as efficient as possible.

(Embedded image moved to file: pic06890.jpg)Tony DeSimone, P.E.
FHWAIndiana Division
(317) 2265307
Fax (317) 2267341

Carol Hood

From: "DeSimone, Anthony" <Anthony.DeSimone@fhwa.dot.gov> [Anthony.DeSimone@fhwa.dot.gov]
Sent: Thursday, November 17, 2005 11:26 AM
To: Laszewski.Virginia@epamail.epa.gov
Cc: Carol Hood; westlake.kenneth@epamail.epa.gov
Subject: RE: EPA consultation packages

Virginia,

These color copy packages are rather expensive to produce and this number seems rather excessive, especially in our electronic world. Please discuss with the staff you mentioned who would be willing to receive electronic versions and print out what they want then we can discuss how many formal copies you then will need.

Tony DeSimone, P.E.
FHWAIndiana Division
(317) 2265307
Fax (317) 2267341

> Original Message
> From: Laszewski.Virginia@epamail.epa.gov
> [mailto:Laszewski.Virginia@epamail.epa.gov]
> Sent: Thursday, November 17, 2005 12:21 PM
> To: DeSimone, Anthony
> Cc: chood@blainc.com; westlake.kenneth@epamail.epa.gov
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> needed]. That makes seven (7) total.
>
> Please let me know if this is doable.
>
> Thank you for your assistance,

>
> Virginia Laszewski
> Environmental Scientist
>
> US EPA, Region 5
> OSEC, NIS
> 77 W. Jackson Blvd. (mail code: B19J)
> Chicago, IL 606043590
> Phone: (312) 8867501
> Fax: (312) 3535374
> email: laszewski.virginia@epa.gov
>
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>
>
> "DeSimone,
>
> Anthony"
>
> <Anthony.DeSimon
>
> e@fhwa.dot.gov>
> To
> Virginia
>
> 11/17/2005 06:30
> Laszewski/R5/USEPA/US@EPA
> AM
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> (Embedded image moved to file: pic06890.jpg)Tony DeSimone, P.E.
> FHWAIndiana Division
> (317) 2265307
> Fax (317) 2267341
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>

103-0001-IPL

Mitchell E. Daniels, Jr., Governor
Kyle J. Hupfer, Director

DNR Indiana Department of Natural Resources

Kevin Jonna
Vince Nicole
Dean Dean M
Dave F Mike G
Kent
Tom
Jim G
Daniel
Jason
Jeremy
Josh

Environmental Unit
Division of Water
402 W. Washington Street, Rm. W264
Indianapolis, IN 46204-2641

November 18, 2005

Mr. Kent Ahrenholtz, P.E.
Bernardin, Lochmueller & Associates, Inc.
6200 Vogel Road
Evansville, Indiana 47715

RE: Section 5: I-69 Evansville to Indianapolis Tier 2 Purpose and Need ~ DNR # CTS-ER- 11895
Section 6: I-69 Evansville to Indianapolis Tier 2 Purpose and Need ~ DNR # CTS-ER- 11896

Dear Mr. Ahrenholtz:

This is an informational letter in response to your request for an Environmental Review received at the Division of Water on November 14, 2005 for the above projects in Marion, Monroe, and Morgan Counties. We would like you to know that the reviews are in process. Please refer to the above DNR #s when calling and on all future correspondence regarding these projects.

If you have any questions or comments, please contact me at (317) 232-4160 or toll free at (877) 928-3755. You may also email me at aslott@dnr.IN.gov or contact Christie Stanifer at the number above.

Sincerely,

Alysson C. Oliger
Environmental Secretary

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BLA

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Carol Hood

From: Carol Hood [blainc.Bla_Mailbox.Carol]
Sent: Friday, November 18, 2005 11:19 AM
To: Christie Stanifer
Cc: Kent Ahrenholtz; Tom Cervone
Subject: RE: Scheduling an I-69 Meeting with INDOT Commissioner Sharp & Director Hupfer

Importance: High

Hi Christie! We have heard back from Commissioner Sharp's office, and it looks like Friday, December 16 at 9am or 10am (EST) is a good time. Could you confirm this with Director Hupfer's office???

And just a reminder that NEPA reviewers and Permitting staff should also be in attendance at this meeting.

Thanks,

Carol

>>> "Stanifer, Christie" <CStanifer@dnr.IN.gov> 11/17/05 03:04PM >>>
Carol,
Director Hupfer appears to currently be available on December 16 for this meeting. He is definitely not open on the 15th.

Christie

-----Original Message-----
From: Carol Hood [mailto:chood@blainc.com]
Sent: Wednesday, November 16, 2005 5:31 PM
To: ckiefer@dnr.in.gov
Cc: Jason Dupont; Tom Cervone
Subject: Scheduling an I-69 Meeting with INDOT Commissioner Sharp & Commisioner Easterly

** High Priority **

Christie: Disregard earlier message I sent you and use information below.
Thanks

Hello Christie! Dr. Tom Cervone and I left you a message around 4:20pm EST concerning setting up a meeting. This is a followup to that call.

Commissioner Sharp of INDOT contacted Director Hupfer on November 14, via email, concerning scheduling a meeting to discuss the I-69 Timeline Accelerated Schedule. Bernardin, Lochmueller & Associates, the I-69 Project Management Consultant (PMC), has been charged by INDOT with setting up this meeting.

We would appreciate your coordinating the meeting or letting us know who we should contact about setting up the meeting. We are looking at having the meeting the week of Dec. 5, Dec. 12 or Dec. 19, and would appreciate you and/or others coordinating with Director Hupfer office to find out some dates that the Director would be available to meet with Commissioner Sharp and staff.

Below is the information concerning the meeting:

Attendees:
INDOT - Commissioner Sharp and other INDOT staff members, BLA/PMC (Kent Ahrenholtz and Tom Cervone, Ph.D.)

IDNR - Director Hupfer and staff members, NEPA reviewers and Permitting staff should also be at this meeting

possibly FHWA - Robert Tally, Indiana Division Administrator and Tony

DeSimone

Purpose of Meeting:
To present and discuss the accelerated I-69 schedule and understand what affects this may have on IDNR.

Potential Meeting Date:
Sometime the week of December 5, week of Dec. 12, or week of Dec. 19
Length of meeting: 2-3 hours

Location:
Indianapolis: possibly Indiana Government Center complex

Once we have some dates that Director Hupfer is available, we will coordinate with Commissioner Sharp's schedule and confirm the date and time.

Thanks in advance for your help,

Carol

Carol Hood
I-69 Project Coordinator
Bernardin Lochmueller & Associates/PMC
1-800-423-7411/(812) 479-6200

Carol Hood

From: Carol Hood [blainc.Bla_Mailbox.Carol]
Sent: Monday, November 21, 2005 11:27 AM
To: Christie Stanifer
Cc: Kent Ahrenholtz; Tom Cervone
Subject: RE: Scheduling an I-69 Meeting with INDOT Commissioner Sharp & Director Hupfer

Thanks Christie! So Friday, December 16 at 10am (EST). We'll go ahead and let INDOT know and confirm with them and get back to you with a formal written invitation.

Carol

>>> "Stanifer, Christie" <cstanifer@dnr.IN.gov> 11/21/05 11:14AM >>>
Director Hupfer's office prefers the meeting to start at 10am if possible. Just let me know when it's confirmed. Thanks.

-----Original Message-----
From: Carol Hood [mailto:chood@blainc.com]
Sent: Monday, November 21, 2005 9:49 AM
To: Stanifer, Christie
Cc: Kent Ahrenholtz; Tom Cervone
Subject: RE: Scheduling an I-69 Meeting with INDOT Commissioner Sharp
&Director Hupfer

Morning Christie! Once we have everthing confirmed, we will go ahead and get a formal written invitation out with the logistics. Thanks so much for your help Christie.

Carol

>>> "Stanifer, Christie" <cstanifer@dnr.IN.gov> 11/21/05 08:39AM >>>
Good morning Carol. I have forwarded the info to Director Hupfer's office, and I will let you know if they had a preference on the start time of the meeting. Can you send me a formal written invitation for this meeting (with a bried explanation of the meeting) with the time and place once that is all figured out? I will be sure and forward that on to other staff in our Department.

Thank you,

Christie

-----Original Message-----
From: Carol Hood [mailto:chood@blainc.com]
Sent: Friday, November 18, 2005 12:19 PM
To: CStanifer
Cc: Kent Ahrenholtz; Tom Cervone
Subject: RE: Scheduling an I-69 Meeting with INDOT Commissioner Sharp &
Director Hupfer

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Carol

Carol Hood
I-69 Project Coordinator
Bernardin Lochmueller & Associates/PMC
1-800-423-7411/(812) 479-6200

Carol Hood

From: "Stanifer, Christie" <cstanifer@dnr.IN.gov> [cstanifer@dnr.IN.gov]
Sent: Monday, November 21, 2005 8:40 AM
To: Carol Hood
Subject: RE: Scheduling an I-69 Meeting with INDOT Commissioner Sharp & Director Hupfer

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Thank you,

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IDNR Director Hupfer and staff members, NEPA reviewers and Permitting staff should also be at this meeting

possibly FHWA Robert Tally, Indiana Division Administrator and Tony DeSimone

Purpose of Meeting:
To present and discuss the accelerated I69 schedule and understand what affects this may have on IDNR.

Potential Meeting Date:
Sometime the week of December 5, week of Dec. 12, or week of Dec. 19
Length of meeting: 23 hours

Location:
Indianapolis: possibly Indiana Government Center complex

Once we have some dates that Director Hupfer is available, we will coordinate with Commissioner Sharp's schedule and confirm the date and time.

Thanks in advance for your help,

Carol

Carol Hood
I69 Project Coordinator
Bernardin Lochmueller & Associates/PMC
18004237411/(812) 4796200

Carol Hood

From: <Laszewski.Virginia@epamail.epa.gov> [Laszewski.Virginia@epamail.epa.gov]
Sent: Tuesday, November 22, 2005 1:39 PM
To: Kent Ahrenholtz; Tom Cervone
Cc: Alcamo.Thomas@epamail.epa.gov; Garra.Catherine@epamail.epa.gov; Kenney.Thomas@epamail.epa.gov; westlake.kenneth@epamail.epa.gov; anthony.desimone@fhwa.dot.gov; JOSADCZUK@indot.state.in.us; TSEEMAN@indot.state.in.us
Subject: I-69 Action Item Follow-up from 10/28/05 EPA DRA mtg w/FHWA/INDOT/BLA

Hi Kent and Tom,

Just a quick inquiry to see if you have acted on one of the Action Items from the above referenced meeting.

Specifically, when can EPA expect to receive the scope of work "frame" you are preparing to guide us in writing up a "Scope of Work" for the Karst Specialist we hope to bring on board, ASAP, to help us with our I69 reviews?

Please advise both me and Ken Westlake.

Thank you and have a delicious and peaceful Thanksgiving.

Virginia Laszewski
Environmental Scientist

US EPA, Region 5
OSEC, NIS
77 W. Jackson Blvd. (mail code: B19J)
Chicago, IL 606043590
Phone: (312) 8867501
Fax: (312) 3535374
email: laszewski.virginia@epa.gov

Carol Hood

From: "KOONTZ, CAROLYN" <CKOONTZ@idem.IN.gov> [CKOONTZ@idem.IN.gov]
Sent: Monday, November 28, 2005 3:13 PM
To: Carol Hood
Subject: RE: I-69 meeting with Commissioner Easterly and CommissionerSharp: Dec. 16 1pm EST

Thanks. This is just what I needed.

Original Message
From: Carol Hood [mailto:chood@blainc.com]
Sent: Monday, November 28, 2005 4:10 PM
To: KOONTZ, CAROLYN
Subject: I69 meeting with Commissioner Easterly and CommissionerSharp:
Dec. 16 1pm EST

** High Priority **

Hi Carolyn! I thought it would be easier for you if I email you the names of the people that we work with at IDEM concerning I69 NEPA reviewing. Below is a list of IDEM staff that we have worked with in the past on I69. I will let you decide from the list who should attend (it should probably be atleast 2 from the list, more if you want). Let me know if you have questions, etc.

National Environmental Policy Act (NEPA) reviewers for I69 at IDEM:

Pat Carroll	Branch Chief of Drinking Water Branch
Dennis Clark	Branch Chief of Water Assessment Branch
Jason Randolph	Wetland Section
Andrew Pelloso	Section Chief, Planning & Assessment
James Sullivan	Section Chief, Groundwater Section

Thanks,

Carol

Carol Hood
I69 Project Coordinator
Bernardin Lochmueller & Associates/PMC
18004237411/(812) 4796200

Carol Hood

From: "DeSimone, Anthony" <Anthony.DeSimone@fhwa.dot.gov> [Anthony.DeSimone@fhwa.dot.gov]

Sent: Wednesday, November 30, 2005 1:07 PM

To: Laszewski.Virginia@epamail.epa.gov

Cc: WMalley@AKINGUMP.com; MGrovak@aol.com; Kent Ahrenholtz; Alcamo.Thomas@epamail.epa.gov; Garra.Catherine@epamail.epa.gov; Kenney.Thomas@epamail.epa.gov; Leslie.Michael@epamail.epa.gov; Melgin.Wendy@epamail.epa.gov; Morris.Patricia@epamail.epa.gov; westlake.kenneth@epamail.epa.gov; Jay DuMontelle; Kreig Larson; Robert Black; andy.king@fws.gov; scott_pruitt@fws.gov; Janice Osadczuk; Tom Seemon; Amy S LRL Babey

Subject: RE: I-69 Tier 2 - FHWA/INDOT's "Streamlined EIS Procedures" Questions

Virginia, I hope this answers your concerns:

1. Yes, we are following the procedures and this is part of it. Sorry that wasn't stated in the letter.
2. They used the term "informal" to show the difference between "formal" written comments submitted following a conference call/webcast or for one of the actual DEISs vs. "informal" verbal comments included in a meeting summary. We are tracking all comments whether they are called formal or informal. The meeting summary information should adequately document your concerns and those will be addressed in the DEIS. We hope that if your comments were not adequately included in those summaries that you receive following the meeting, you would inform us via email to properly revise them. Documentation of the agency meetings will be part of the public record supporting the DEIS. The actual meeting summaries/minutes will probably be in a supporting appendix, but the significant issues raised will be summarized and discussed in the DEIS itself.

Please let me know if you need further clarification. Also, BLA is working on the preliminary Karst scope of services. They hope to supply those to you by the end of the week but that cannot be guaranteed at this time. Has your office determined if it was possible to use one of your "opened ended" contracts as suggested at the meeting?

Thanks

Tony DeSimone, P.E.
FHWAIndiana Division
(317) 2265307
Fax (317) 2267341

> Original Message
> From: Laszewski.Virginia@epamail.epa.gov
> [mailto:Laszewski.Virginia@epamail.epa.gov]
> Sent: Tuesday, November 29, 2005 4:15 PM
> To: DeSimone, Anthony
> Cc: westlake.kenneth@epamail.epa.gov;

> Kenney.Thomas@epamail.epa.gov;
> Garra.Catherine@epamail.epa.gov; Janice Osadczuk; Tom Seemon;
> Babey, Amy S LRL; scott_pruitt@fws.gov; andy.king@fws.gov;
> Kahrenholtz@blainc.com; WMalley@AKINGUMP.com;
> MGrovak@aol.com; Black, Robert; Larson, Kreig; DuMontelle,
> Jay; Morris.Patricia@epamail.epa.gov;
> Leslie.Michael@epamail.epa.gov;
> Alcamo.Thomas@epamail.epa.gov; Melgin.Wendy@epamail.epa.gov
> Subject: I69 Tier 2 FHWA/INDOT's "Streamlined EIS
> Procedures" Questions
>
> Tony,
>
> Just a few comments and questions concerning
> FHWA/INDOT/Consultant Tier
> 2 EIS process:
>
> 1. The cover letters that came with the Purpose
> &Need/Preliminary Alternatives Packages for Segments 4, 5 and
> 6 make no mention of following FHWA/InDOT's "Streamlined EIS
> Procedures" for Tier 2. Are FHWA/INDOT following
> FHWA/INDOT's "Streamlined EIS Procedures" for the Tier 2 I69
> EISs? Please advise.
>
> 2. The cover letters also state that the upcoming WEBCASTS
> concerning these P&N/Alts packages provide us [resource
> agencies] with the opportunity to, among other things,
> provide INFORMAL comments.
>
> It is my understanding that under FHWA/InDOT's "Streamlined
> EIS Procedures" that the resource agencies may give their
> FORMAL comments verbally at these preDEIS interagency
> meetings (e.g., webcasts) and those comments should be
> accurately reflected in FHWA/INDOT's webcast/meeting minutes
> and made part of the public record (i.e.,
> include webcast/meeting minutes in the EISs). In addition, resource
> agency may also provide written comments but they are not necessary.
> This part of the "Streamlined EIS Procedures" was developed
> in order to help expedite/streamline the EIS process for all
> agencies involved.
>
> Please note: Ken Westlake, Cathy Garra, and/or I verbally
> provided our agencies' comments on the Tier 2 I69
> P&N/Alternatives Packages for Segments 1 and 2 during the
> interagency webcasts for these segments. We expect our
> verbal comments during those and future webcasts/meetings
> will be accurately reflected in the webcast/meeting minutes
> and the meeting minutes will be made part of the public
> record (i.e., include in
> the EISs). Is this correct? Please advise.
>
> Thank you,
>
> Virginia Laszewski

> Environmental Scientist
>
> US EPA, Region 5
> OSEC, NIS
> 77 W. Jackson Blvd. (mail code: B19J)
> Chicago, IL 606043590
> Phone: (312) 8867501
> Fax: (312) 3535374
> email: laszewski.virginia@epa.gov
>

Carol Hood

From: "PELLOSO, ANDREW" <APELLOSO@idem.IN.gov> [APELLOSO@idem.IN.gov]
Sent: Wednesday, November 30, 2005 8:18 AM
To: Carol Hood
Subject: RE: I-69 Agency Update for Summer 2005

Due to organizational changes at IDEM, I will no longer need to be copied on email or hardcopies of correspondence regarding this project. Please remove my name from you lists. Thanks.

Original Message
From: Carol Hood [mailto:chood@blainc.com]
Sent: Monday, November 28, 2005 4:56 PM
To: PELLOSO, ANDREW; CLARK, DENNIS; RANDOLPH, JASON; SULLIVAN, JAMES; CLARK METTLER, MARTHA; CARROLL, PAT; RATLIFFROBERTS, TAMARA
Subject: I69 Agency Update for Summer 2005

Hello All! This was sent out in October, however it was returned with errors on all of your addresses.

Carol

Carol Hood
I69 Project Coordinator
Bernardin Lochmueller & Associates/PMC
18004237411/(812) 4796200

DHPA Meeting Agenda

Date: 12/1/05
Time: 1pm
Location: Indiana Government Center Room N601

- **Discussion of Cemetery Position Statement**

- **Discussion of Project Schedule**

- **Phase Ia management summary/reports**

  - PMC may need to develop Phase II work plans based on results described in Phase Ia management summary.
  - Management summary would include table of all sites identified, but only detailed site descriptions for sites recommended for further research.
  - Format for Phase Ia management summary is attached.

- **Phase Ic plan**

  - ISU may provide consulting services to the PMC to develop the Phase Ic Scope-of-Work (SOW) and work plans.
  - PMC/INDOT will request DHPA review of SOW and recommended methodology for concurrence.
  - Preliminary discussion of SOW and possible modeling

- **Phase II work plans**

  - PMC will develop Phase II SOW and work plans in cooperation with EEAC sub-consultants.

  - Request DHPA approval for including several sites in one Phase II work plan (i.e. one work plan per section), rather than an individual work plan for each site.

  - Format for Phase II work plan is attached.

DHPA Meeting Minutes

Held 12/1/05, 1pm, Indiana Government Center Room N601

Attendees:

Curtis Tomak, INDOT
Rick Jones, DHPA
Tony DeSimone, FHWA
Sara Dyer, PMC
Alice Roberts, PMC
Don Cochran, BSU, PMC
Russ Stafford, ISU
Mark Cantin, ISU

- **Discussion of Cemetery Position Statement**
  - I69 Cemetery Position Statement was reviewed.
  - *DHPA agreed that the statement was consistent with the law.*

- **Discussion of Project Schedule**
  - DHPA was informed that the current goal for I69 archaeological studies is to complete Phase II testing for by the ROD in early 2007.
  - INDOT/PMC propose several steps to meet those goals, which follow.
  - *DHPA stated that they wish to accommodate the schedule, as possible.*

- **Phase Ia management summary/reports**
  - INDOT/PMC stated the need to develop Phase II work plans based on results described in Phase Ia management summary, rather than a full Phase Ia report.
  - Management summaries will include table of all sites identified, but only detailed site descriptions for sites recommended for further research.
  - PMC and INDOT will review all site evaluations and Phase II recommendations prior to the submittal of the Phase Ia management summaries to DHPA.
  - Format for Phase Ia management summary was distributed
  - *DHPA found this proposal acceptable, but stated that they may require additional information for sites that are not recommended for Phase II research.*

- **Phase Ic plan**
  - ISU may provide consulting services to the PMC to develop the Phase Ic Scope-of-Work (SOW) and work plans.
  - Preliminary discussion of SOW and possible modeling in the development of said scopes.
  - PMC/INDOT will request DHPA review of SOW and recommended methodology for concurrence.

- It was stressed that deviations from the SOW would be made only with approval from the PMC, INDOT and DHPA; and that the SOW would be structured in such a way that criteria would be evaluated to determine if the results of coring negated the benefits of trenching, etc.

- *DHPA found the idea of modeling for Phase Ic SOW acceptable, with the assurance that they would have the opportunity to review the SOW prior to initiation of studies; and to approve changes in SOW*

➢ Phase II work plans

- PMC and INDOT will develop Phase II SOW and work plans in cooperation with EEAC sub-consultants. It was noted that the subconsultants currently under contract for the Phase Ia will likely be retained for the Phase Ic and Phase II work.
- The PMC and INDOT propose that several sites be included in one Phase II work plan (i.e. one work plan per section, or, for Sections 1 and 3, one for each Phase Ia field session), rather than an individual work plan for each site.

- *DHPA agreed that several sites could be included in one work plan.*

- Format for Phase II work plan was distributed.

➢ Other items

At the conclusion of the meeting, Tony DeSimone (FHWA) noted that with the modeling for Phase Ic, it may be possible to include the Phase II studies for buried sites in the MOA, rather than trying to complete them by the ROD.

December 1, 2005

Mr. Kyle Hupfer, Director
Indiana Department of Natural Resources
402 West Washington Street
Indianapolis, IN 46204

Dear Director Hupfer:

On behalf of the Indiana Department of Transportation (INDOT), I am formally inviting you to participate in an upcoming meeting to discuss ongoing changes to the I-69 Evansville to Indianapolis project. As you're aware, INDOT in cooperation with the Federal Highway Administration (FHWA) is preparing Tier 2 Environmental Impact Statements (EISs) for the I-69 project.

Based on recent decisions made by INDOT concerning the scope of the project, there is a need to make adjustments to the schedules of the six Tier 2 EISs. We would like to discuss with you reasons for the changes in scope and how the INDOT is moving forward with incorporating these changes into the process. We would also like to discuss the implications of these changes on your staff for the review of these documents and their participation in the EIS development process.

The upcoming meeting has been set for Friday, December 16, 2005, 10:00 a.m. (EST), at the INDOT Central Office in the Indiana Government Center North Room N755. This meeting will include INDOT Commissioner Tom Sharp and his staff, FHWA Division Administrator Bob Tally and his staff, and staff from the consulting firm Bernardin, Lochmueller and Associates.

For your information, please find enclosed a preliminary agenda and the proposed revised schedule for the Tier 2 EISs and related documents. If you would like any revisions to the agenda or have any questions, please contact me at (812) 479-6200.

We look forward to meeting with you and your staff.

Sincerely,

Kent L. Ahrenholtz, P.E., Project Manager
I-69 Project Management Consultant
Bernardin, Lochmueller and Associates

Enclosures

electronic cc:
Tom Sharp, INDOT
Janice Osadczuk, INDOT
Tom Seeman, INDOT
Joe Gustin, INDOT
Richard Smutzer, INDOT
Phelps Klika, INDOT
Tony DeSimone, FHWA
Bill Malley, Akin Gump
Christie Stanifer, IDNR
Tom Cervone, BLA

December 2, 2005

Mr. Tom Easterly, Commissioner
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, IN 46204

Dear Commissioner Easterly:

On behalf of the Indiana Department of Transportation (INDOT), I am formally inviting you to participate in an upcoming meeting to discuss ongoing changes to the I-69 Evansville to Indianapolis project. As you're aware, INDOT in cooperation with the Federal Highway Administration (FHWA) is preparing Tier 2 Environmental Impact Statements (EISs) for the I-69 project.

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The upcoming meeting has been set for Friday, December 16, 2005, 1:00 p.m. (EST), at the INDOT Central Office in the Indiana Government Center North Room N755. This meeting will include INDOT Commissioner Tom Sharp and his staff, FHWA Division Administrator Bob Tally and his staff, and staff from the consulting firm Bernardin, Lochmueller and Associates.

For your information, please find enclosed a preliminary agenda and the proposed revised schedule for the Tier 2 EISs and related documents. If you would like any revisions to the agenda or have any questions, please contact me at (812) 479-6200.

We look forward to meeting with you and your staff.

Sincerely,

Kent L. Ahrenholtz, P.E., Project Manager
I-69 Project Management Consultant
Bernardin, Lochmueller and Associates

Enclosures

electronic cc:
Tom Sharp, INDOT
Janice Osadczuk, INDOT
Tom Seeman, INDOT
Joe Gustin, INDOT
Richard Smutzer, INDOT
Phelps Klika, INDOT
Tony DeSimone, FHWA
Bill Malley, Akin Gump
Martha Clark Mettler, IDEM
Tom Cervone, BLA

Carol Hood

From: Carol Hood [blainc.Bla_Mailbox.Carol]
Sent: Friday, December 02, 2005 1:51 PM
To: Christie Stanifer
Cc: Jason Dupont; Jeremy Kieffner; Kent Ahrenholtz; Tom Cervone
Subject: Formal invitation: I-69 Meeting with INDOT Commissioner Sharp & Director Hupfer

Hi Christie! Attached is a formal information letter, etc. This was mailed to Director Hupfer today. Thanks for all your help, and let me know if you have anymore questions, etc.

Carol

>>> "Stanifer, Christie" <cstanifer@dnr.IN.gov> 11/21/05 08:39AM >>>
Good morning Carol. I have forwarded the info to Director Hupfer's office, and I will let you know if they had a preference on the start time of the meeting. Can you send me a formal written invitation for this meeting (with a bried explanation of the meeting) with the time and place once that is all figured out? I will be sure and forward that on to other staff in our Department.

Thank you,

Christie

-----Original Message-----
From: Carol Hood [mailto:chood@blainc.com]
Sent: Friday, November 18, 2005 12:19 PM
To: CStanifer
Cc: Kent Ahrenholtz; Tom Cervone
Subject: RE: Scheduling an I-69 Meeting with INDOT Commissioner Sharp &
Director Hupfer

** High Priority **

Hi Christie! We have heard back from Commissioner Sharp's office, and it looks like Friday, December 16 at 9am or 10am (EST) is a good time. Could you confirm this with Director Hupfer's office???

And just a reminder that NEPA reviewers and Permitting staff should also be in attendance at this meeting.

Thanks,

Carol

>>> "Stanifer, Christie" <CStanifer@dnr.IN.gov> 11/17/05 03:04PM >>>
Carol,
Director Hupfer appears to currently be available on December 16 for this
meeting. He is definitely not open on the 15th.

Christie

-----Original Message-----
From: Carol Hood [mailto:chood@blainc.com]
Sent: Wednesday, November 16, 2005 5:31 PM
To: ckiefer@dnr.in.gov
Cc: Jason Dupont; Tom Cervone
Subject: Scheduling an I-69 Meeting with INDOT Commissioner Sharp &
Director Hupfer

** High Priority **

Christie: Disregard earlier message I sent you and use information below.
Thanks

Hello Christie! Dr. Tom Cervone and I left you a message around 4:20pm EST
concerning setting up a meeting. This is a followup to that call.

Commissioner Sharp of INDOT contacted Director Hupfer on November 14, via email, concerning scheduling a meeting to discuss the I-69 Timeline Accelerated Schedule. Bernardin, Lochmueller & Associates, the I-69 Project Management Consultant (PMC), has been charged by INDOT with setting up this meeting.

We would appreciate your coordinating the meeting or letting us know who we should contact about setting up the meeting. We are looking at having the meeting the week of Dec. 5, Dec. 12 or Dec. 19, and would appreciate you and/or others coordinating with Director Hupfer office to find out some dates that the Director would be available to meet with Commissioner Sharp and staff.

Below is the information concerning the meeting:

Attendees:
INDOT - Commissioner Sharp and other INDOT staff members, BLA/PMC (Kent Ahrenholtz and Tom Cervone, Ph.D.)

IDNR - Director Hupfer and staff members, NEPA reviewers and Permitting staff should also be at this meeting

possibly FHWA - Robert Tally, Indiana Division Administrator and Tony DeSimone

Purpose of Meeting:
To present and discuss the accelerated I-69 schedule and understand what affects this may have on IDNR.

Potential Meeting Date:
Sometime the week of December 5, week of Dec. 12, or week of Dec. 19
Length of meeting: 2-3 hours

Location:
Indianapolis: possibly Indiana Government Center complex

Once we have some dates that Director Hupfer is available, we will coordinate with Commissioner Sharp's schedule and confirm the date and time.

Thanks in advance for your help,

Carol

Carol Hood
I-69 Project Coordinator
Bernardin Lochmueller & Associates/PMC
1-800-423-7411/(812) 479-6200

IDNR Dec. 16 10am.zip (93 KB)

Carol Hood

From: Carol Hood [blainc.Bla_Mailbox.Carol]
Sent: Thursday, December 08, 2005 4:16 PM
To: WMalley@akingump.com; ckiefer@dnr.in.gov; jeggen@dnr.IN.gov; jhebenstreit@dnr.in.gov; jcarr@dnr.state.in.us; garra.catherine@EPA.gov; laszewski.virginia@epa.gov; melgin.Wendy@epa.gov; Westlake.Kenneth@epa.gov; anthony.desimone@fhwa.dot.gov; kday@fs.fed.us; rtaylor@fs.fed.us; andrew_king@fws.gov; scott_pruitt@fws.gov; dclark@idem.in.gov; jrandolp@idem.in.gov; JAMES SULLIVAN; mclark@idem.in.gov; pcarroll@idem.in.gov; jane.hardisty@in.usda.gov; xavier.montoya@in.usda.gov; blawrence@indot.state.in.us; josadczuk@indot.state.in.us; mhilary@indot.state.in.us; tseeman@indot.state.in.us; Amy.S.Babey@lrl02.usace.army.mil; Doug.Shelton@LRL02.usace.army.mil; david.poynter@navy.mil
Cc: MGrovak@aol.com; April Robinson; Jason Dupont; Jeremy Kieffner; Kent Ahrenholtz; Nicole Minton; Tom Cervone; dmunn@blainc-indy.com; tnmiller@hntb.com; bsteckler@indot.state.in.us; JGUSTIN@indot.state.in.us; lgale@mbakercorp.com
Subject: I-69 Agency Coord. Webcast & Conf. Call Meeting for Sections 5 & 6 (Dec. 14)

Hello Everyone! It is time for the fourth & fifth (joint) of six Purpose & Need Statement Agency Review Meetings. This meeting (held via Internet Webcast and Conf. Call), as stated in the Packages you received, is scheduled for Wednesday, December 14 at 10:00 a.m. (EST) Indy Time.

Like the first three Internet Webcast/Conf. Calls held for Sections 1-3, there is a limited number of space availabe on the Internet Webcast, so once again we are asking that each agency coordinate the use of one location (two if you have several people) for viewing the Webcast, that will require the Internet and an extra phone line for the Conf. Call. Please notify me by Noon Monday, Dec. 12 if you and/or someone else will be participating in the meeting, and also who from your agency will serve as the coordinator. We will then send registration and instructions on accessing the Internet Webcast, via email to the coordinator for each agency. After you register for the Webcast you will receive an email confirmation, and you use this email confirmation to log into the Webcast on Dec. 14.

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Since this is a joint Webcast/Conf. Call Meeting, the conference line to use is 1-800-811-3000 access code 3030001#

***Please RSVP for the meeting and send notice of your agency "Internet Webcast" coordinator to chood@blainc.com

If you have any questions, etc. please contact me or April Robinson at 1-800-423-7411 or (812) 479-6200. As always, Thanks so much,

Carol

Carol Hood
I-69 Project Coordinator
PMC/Bernardin, Lochmueller & Associates, Inc.
chood@blainc.com

Carol Hood

From: <Laszewski.Virginia@epamail.epa.gov> [Laszewski.Virginia@epamail.epa.gov]

Sent: Friday, December 09, 2005 10:14 AM

To: Carol Hood

Cc: Alcamo.Thomas@epamail.epa.gov; Garra.Catherine@epamail.epa.gov; Kenney.Thomas@epamail.epa.gov; Leslie.Michael@epamail.epa.gov; Melgin.Wendy@epamail.epa.gov; Morris.Patricia@epamail.epa.gov; westlake.kenneth@epamail.epa.gov

Subject: Re: I-69 Agency Coord. Webcast & Conf. Call Meeting for Sections 5 & 6(Dec. 14)

Carol, I'm the EPA R5 coordinator for the webcast/conference call.

Virginia Laszewski
Environmental Scientist

US EPA, Region 5
OSEC, NIS
77 W. Jackson Blvd. (mail code: B19J)
Chicago, IL 606043590
Phone: (312) 8867501
Fax: (312) 3535374
email: laszewski.virginia@epa.gov

Carol Hood
<chood@blainc.co
m>
12/08/2005 04:15 PM

To
WMalley@AKINGUMP.com, ckiefer@dnr.in.gov, JEggen@dnr.in.gov, jhebenstreit@dnr.in.gov, jcarr@dnr.state.in.us, Catherine Garra/R5/USEPA/US@EPA, Virginia Laszewski/R5/USEPA/US@EPA, Wendy Melgin/R5/USEPA/US@EPA, Kenneth Westlake/R5/USEPA/US@EPA, Anthony.DeSimone@fhwa.dot.gov, kday@fs.fed.us, rtaylor@fs.fed.us, Andrew_King@fws.gov, scott_pruitt@fws.gov, dclark@idem.in.gov, jrandolp@idem.in.gov, jsulliva@idem.in.gov, mclark@idem.in.gov, pcarroll@idem.in.gov, jane.hardisty@in.usda.gov, xavier.montoya@in.usda.gov, BLAWRENCE@indot.state.in.us, JOSADCZUK@indot.state.in.us,

mhilary@indot.state.in.us,
TSEEMAN@indot.state.in.us,
Amy.S.Babey@lrl02.usace.army.mil,
Doug.Shelton@lrl02.usace.army.mil
, david.poynter@navy.mil

cc

MGrovak@aol.com,
DMunn@blaincindy.com, April
Robinson <arobinson@blainc.com>,
Jason Dupont
<jdupont@blainc.com>, Jeremy
Kieffner <jkieffner@blainc.com>,
Kent Ahrenholtz
<kahrenholtz@blainc.com>, Nicole
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Cervone <tcervone@blainc.com>,
TNMiller@HNTB.com,
BSTECKLER@indot.state.in.us,
JGUSTIN@indot.state.in.us,
lgale@mbakercorp.com

Subject

I69 Agency Coord. Webcast &
Conf. Call Meeting for Sections 5
& 6 (Dec. 14)

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***Please RSVP for the meeting and send notice of your agency "Internet Webcast" coordinator to chood@blainc.com

If you have any questions, etc. please contact me or April Robinson at 18004237411 or (812) 4796200. As always, Thanks so much,

Carol

Carol Hood
I69 Project Coordinator
PMC/Bernardin, Lochmueller & Associates, Inc.
chood@blainc.com

Carol Hood

From: <Andrew_King@fws.gov> [Andrew_King@fws.gov]
Sent: Friday, December 09, 2005 12:19 PM
To: Carol Hood
Subject: Re: I-69 Agency Coord. Webcast & Conf. Call Meeting for Sections 5 & 6 (Dec. 14)

Hi Carol.

I will be on the webcast on behalf of the USFWS. Please send me the registration/info. to me.

Thanks and have a good weekend.

Andy

_____
R. Andrew King
U.S. Fish and Wildlife Service
Bloomington Field Office
620 S. Walker Street
Bloomington, IN 47403
Phone: 8123344261 x216
Fax: 8123344273

"Carol Hood" <chood@blainc.com>
12/08/2005 05:15 PM

To
<WMalley@AKINGUMP.com>, <ckiefer@dnr.in.gov>, <JEggen@dnr.in.gov>, <jhebenstreit@dnr.in.gov>, <jcarr@dnr.state.in.us>, <garra.catherine@EPA.gov>, <laszewski.virginia@EPA.gov>, <melgin.Wendy@EPA.gov>, <Westlake.Kenneth@EPA.gov>, <Anthony.DeSimone@fhwa.dot.gov>, <kday@fs.fed.us>, <rtaylor@fs.fed.us>, <Andrew_King@fws.gov>, <scott_pruitt@fws.gov>, <dclark@idem.in.gov>, <jrandolp@idem.in.gov>, <jsulliva@idem.in.gov>, <mclark@idem.in.gov>, <pcarroll@idem.in.gov>, <jane.hardisty@in.usda.gov>, <xavier.montoya@in.usda.gov>, <BLAWRENCE@indot.state.in.us>, <JOSADCZUK@indot.state.in.us>, <mhilary@indot.state.in.us>, <TSEEMAN@indot.state.in.us>, <Amy.S.Babey@lrl02.usace.army.mil>, <Doug.Shelton@lrl02.usace.army.mil>, <david.poynter@navy.mil>
cc
<MGrovak@aol.com>, <DMunn@blaincindy.com>, "April Robinson" <arobinson@blainc.com>, "Jason Dupont" <jdupont@blainc.com>, "Jeremy Kieffner" <jkieffner@blainc.com>, "Kent Ahrenholtz" <kahrenholtz@blainc.com>, "Nicole Minton" <nminton@blainc.com>, "Tom Cervone" <tcervone@blainc.com>, <TNMiller@HNTB.com>, <BSTECKLER@indot.state.in.us>, <JGUSTIN@indot.state.in.us>, <lgale@mbakercorp.com>
Subject

I69 Agency Coord. Webcast & Conf. Call Meeting for Sections 5 & 6 (Dec. 14)

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If you have any questions, etc. please contact me or April Robinson at 18004237411 or (812) 4796200. As always, Thanks so much,

Carol

Carol Hood
I69 Project Coordinator
PMC/Bernardin, Lochmueller & Associates, Inc.
chood@blainc.com

DRAFT Meeting Minutes

Environmental Resource Agency Coordination Meeting/Webcast:
Sections 5 & 6 Purpose and Need
Wednesday, December 14, 2005 - 10:00 a.m. EST (via Internet Webcast/Conference Call)

Attendees:	
Ben Lawrence – INDOT (Web/Conf. Call)	Brian Curtis – MBC/Section 5 (Web/Conf. Call)
Tony DeSimone – FHWA (Web/Conf. Call)	Tim Miller – HNTB/Section 6 PM (Web/Conf. Call)
Bill Malley – Akin Gump (Web/Conf. Call)	Brock Hoegh – HNTB/Section 6 (Web/Conf. Call)
Kent Ahrenholtz – BLA/PMC (Web/Conf. Call)	Andy King – USFWS (Web/Conf. Call)
Mike Grovak – BLA/PMC (Web/Conf. Call)	Ken Westlake – USEPA (Web/Conf. Call)
Carol Hood – BLA/PMC (Web/Conf. Call)	Virginia Laszewski – USEPA (Web/Conf. Call)
Larry Gale – MBC/Section 5 PM (Web/Conf. Call)	Cathy Garra – USEPA (Web/Conf. Call)
Jim Peyton – MBC/Section 5 (Web/Conf. Call)	Patrick Morris ???– USEPA (Web/Conf. Call)
Kurt Weiss – MBC/Section 5 (Web/Conf. Call)	Newton Allen ???– USEPA (Web/Conf. Call)
Mark Mcelwain – MBC/Section 5 (Web/Conf. Call)	

SECTION 5 PRESENTATION — Larry Gale

Welcome and Opening Remarks and Introductions

Section 5 Purpose and Need

Purpose and Need Package – The Draft Purpose and Need (P&N) package, containing the draft P&N statement and exhibits showing preliminary build alternatives, was sent to all resource agencies. The exhibits also were provided for viewing on the meeting website.

Larry Gale (LG), Section 5 PM provided a PowerPoint presentation summarizing the Draft Purpose and Need for Section 5. Alternatives being developed for Section 5 will satisfy the overall project P&N established in Tier 1. Section 5 identified four local goals:

- Complete Section 5 of I-69 Between Victor Pike South of Bloomington and SR 39 in Martinsville
- Reduce Existing and Forecasted Traffic Congestion
- Improve Traffic Safety
- Support Local Economic Development Initiatives

Section 5 Project Update

LG discussed the status of baseline studies: Studies have included: Community Impact (Socio-Economic), Wetlands, Streams, Karst/Geological, Floodways and Floodplains, Endangered Species, Farmland, Cemeteries, Section 106 Historic Resources (Architecture and Archaeology),

Geology/Topography/Soils, Mines, Minerals, Oil and Gas, Hazardous Materials, Air, Noise, and Cumulative and Indirect Impacts. Public Involvement activities include the Project Office, Community Advisor Committees, and numerous outreach meetings with local groups and individuals.

Sensitive Resources identified in Section 5 include:

- Superfund Sites: Coordinating with IDEM, USEPA and Responsible Parties Group
- Karst/Caves: May Cave Recharge Area; Sinkholes Near 2nd St.; Drainage Near Simpson Chapel

Jim Peyton briefly summarized the three preliminary alternatives and access plans developed by Section 5, noting locations of interchanges and access roads.

Questions, Responses and Comments

Q: *Has Section 5 performed any survey work for bicycle routes in conjunction with I-69*

A: Yes; Section 5 has met with the Bloomington Bicycle Club, which also has a representative on the CAC, and has provided route maps and written comments. The club indicated it would like to see access for bikes at all interchanges and possibly at railroad crossings. All Section 5 alternatives currently include access for bicycles and pedestrians.

Q: *Is Section 5 addressing commuting as well as recreational bicycle patterns*

A: Yes: Section 5 has received relevant information regarding desired bicycle routes, both recreational and transportation, from the Bloomington Bicycle Club

Q: *Has Section 5 been making use of the MPO's traffic model?*

A: Yes. Section 5 has been evaluating the Level of Service and impact on the local roadway network; the Draft Environmental Impact Statement will look at traffic alternatives and the local road system. This analysis has been conducted primarily using the results of the I-69 corridor model. In many areas, the corridor model is more detailed than the MPO's traffic model. Further, the corridor model is run with post-processors which can provide performance indicators which the MPO's traffic model does not feature. FHWA has also met with the Bloomington MPO who have been collaborating with Section 5 on several issues.

Q: *What is Section 5 using to identify wetlands? National Wetlands Inventory maps only?*

A: Section 5 is using NWI maps as a starting point with follow up field verification/identification.

***Q**: Regarding noise, Section 5 (SR 37) passes close to a high school and a hospital; how will noise levels be impacted?*

A: Noise modeling studies are in progress. Section 5 is establishing the background levels that will go into the modeling. Noise impacts for alternatives are not yet determined, but will be documented in the DEIS.

***Q**: Were alternatives for Sections 5 & 6 developed with the assumption of a toll road or a non-toll road?*

A: Non-toll road. The anticipation is that the mainline alignments and access plans will not change, but the footprint may change (i.e., number of lanes, which could be less for a toll road). However, the toll options to be studied in the DEIS will be based on a fully electronic toll facility, which will not include toll booths.

***Q**: If a toll road is considered, will upgrades to certain access roads (e.g., SR 39 and SR 67) be considered?*

A: There could be effects to certain roads; the PMC is currently analyzing such possible effects as part of the Tier 1 re-evaluation.

***Q**: Will the toll road scenarios change the number or configuration of interchanges?*

A: It is not anticipated that interchanges or configurations will change; the Purpose and Need for Tier 1 was based on accessibility, so the level of accessibility will be maintained throughout the corridor. SR 39, for example, may need to be upgraded, but the location of the interchange itself would not be changed in a toll funding scenario. The toll facility will be discussed along with non-toll alternatives in the DEIS.

***C**: On the maps provided, it is difficult to determine what are to be "new" access roads and what are "existing" roads that will be used as frontage roads. Please find a way to better indicate this on the maps.*

***Q**: Since the aerial photographs used for the mapping are from 2003, new areas of development and changing land use should be highlighted.*

A: This has been done throughout the course of the studies, and will continue to be updated to reflect future planned development

***Q**: Regarding a Fullerton Pike interchange, it appears this will impact the planned medical facility.*

A: *Section 5 has been collaborating with the medical facility, developers, and local planners to ensure that the proposed interchange will not adversely impact access to it.*

***Q**: In Section 5, two of the alternatives show a new road from Kinser Pike east to Walnut. What is the need for this road, since it passes through floodplain?*

A: It is a tradeoff for the current interchange at Walnut/SR 37, which would require a much larger footprint within a *floodway*. The Kinser Pike interchange and associated frontage roads would provide an adequate replacement for the Walnut Street interchange, possibly with less overall impacts.

Q: *Regarding the Walnut Street interchange, why do the frontage roads show such a big arc?*

A: Originally, the alternatives looked mostly at spacing and mobility; Section 5 now is looking at tweaking frontage roads to avoid or minimize impacts to resources; this frontage road is being evaluated to determine if it is necessary, or how to further reduce impacts.

Q: *How is Section 5 dealing with the high number of springs, especially in the area near Sample Road and Simpson Chapel? All of the frontage roads and interchanges would seem to cause a lot of impacts to the springs.*

A: That area has a shallow layer of limestone, resulting in drainage in the upper geological unit, and existing SR 37 already crosses through the recharge area for those springs. Section 5 is looking at ways to avoid or minimize potential impacts of these springs. Studies and alternative development are based on the State's Karst Memorandum of Understanding, but because there is already an existing alignment, Section 5 is mainly evaluating drainage mitigation to minimize impacts to the springs.

Q: *Regarding Oliver Winery and other business in that vicinity along the east side of SR 37; will they be impacted?*

A: The existing northbound lane of SR 37 is planned as a frontage road in that area, so the winery and other businesses along the east side will not be impacted; in addition, this shift was developed to avoid the cemetery at Worms Way Garden Center.

Q: *Regarding the interchange at Chambers Pike, why is there so much new road rather than using existing roadway?*

A: The intersecting roadways need to be straightened out for safety and speed considerations. There are other engineering related issues such as topography and geometric constraints.

Q: *Regarding the interchange at Paragon Road, here again it is difficult to tell what is planned new frontage road and what is existing roadway.*

A: In this area, the Tier 1 studies looked at an interchange, shifting the entire alignment of I-69 to the west of SR 37 through the bifurcated area, and using the northbound lane of SR 37 as a frontage road; however, Section 5 currently is looking at different ways to accommodate traffic with either an interchange or a overpass at Paragon Road without shifting the alignment to the west.

***C**: Where frontage roads are needed, it would be preferable to keep them as close to the I-69 mainline as possible, and also use existing roads as much as possible.*

A: This is the preference of FHWA as well, but in some locations there may be a large number of parcels that could be landlocked without a new access road. The goal is to provide access with the least amount of impacts.

SECTION 6 PRESENTATION — Tim Miller

Tim Miller, Project Manager introduced himself and introduced Brock Hoegh, Deputy Project Manager, as the Section 6 staff on the conference call.

Tim gave an overview of his PowerPoint presentation including progress to date on the Section 6 Tier 2 study, Purpose & Need, review of the access alternatives that were sent to the Agencies, and to answer any questions that the agencies may have.

Tim gave a brief overview of the tasks that Section 6 has completed over the last 12 months or so, including the following tasks:

- Identification of Community Facilities
- Evaluation of Cultural Resources
- Wetland Identification & Delineations, T&E Surveys, Fish & Mussel Surveys
- Public Involvement Activities and Coordination with local entities within the three County Study Area
- Local Issues

Purpose & Need

Section 6 identified four local goals for the Section 6 Tier 2 EIS:

- Complete Section 6 of I-69 between SR 39 in Martinsville and I-465 in Indianapolis;
- Reduce forecasted traffic congestion within the Section 6 Study Area;
- Improve traffic safety within the Section 6 Study Area;
- Facilitate and maintain east/west connectivity within the Section 6 Study Area.

Access Alternatives

Sheet 1 of 11 – South of Martinsville to Ohio Street

Tim pointed out two points of emphasis within these three (3) alternatives. Two eligible historic properties, including the Morgan County Bridge, located on Old SR 37 over Indian Creek, and Top Notch Farm, located southeast of Martinsville. Tim also pointed out the mobile home community along SR 37, which may represent an environmental justice (EJ) community.

Q: *Has a public involvement process been established to engage the low-income and minority groups' within these specific mobile home communities? Are local residents within this mobile home community's part of your Community Advisory Committees (CAC)? (EPA)*

A: A project mailing list has been put together and includes residents within the mobile home communities. In addition, the project team hand delivered notices for the first public informational meeting for residences in apartment complexes, etc. In addition, the Section 6 Project Team has met with the mobile home park owners and park managers, in which the park managers are on the Section 6 Community Advisory Committees. The manager of the mobile home community lives on-site.

Q: *How many residents of the mobile home community are on your current mailing list? (EPA)*

A: Currently only the manager, also a resident of the park for over 20 years, is on the CAC mailing list. However, the Section 6 Project Team will continue to include these communities' in future public involvement meetings.

Q: *Is there an Environmental Justice issue within this part of the Study Area? (EPA)*

A: The Project Team is still currently reviewing the data and collecting information. As we move further into the study, that determination will be made and the appropriate actions will take place to address the effects of the activities on minority or low-income populations.

Sheet 2 of 11 – Martinsville: State Roads 252 & 44

Tim continued discussion of the mobile home community, pointed out the Morgan County Hospital and the Martinsville High School.

Q: *What does the orange line represent on Alternatives 1-2 and 3-2? (EPA)*

A: For Alternatives 1-2 and 3-2, the proposed alternative is a diamond interchange in-between existing SR 252 and SR 44. Under these alternatives, the orange represents new alignment for SR 44 and SR 252.

Q: *How would this proposed alternative impact the Washington Township Fire Station? (EPA)*

A: There would be no direct impact. For fire and emergency responses, the Fire Department would access the new SR 44 roadway and access north or southbound I-69 via the proposed interchange.

Q: *Has the Morgan Hospital or the Martinsville High School expressed concern about future noise levels? (EPA)*

A: No, not at this time. Both the high school and hospital have commented that maintaining access is very important. However, noise studies and study results will be included in the DEIS.

Q: *What is the quality of woodland at the SR252/I-69 interchange? (EPA)*
A: The quality is unknown at this time.

Sheet 3 of 11 – Teeters Rd. to Egbert Rd.

Q: *Is the roadway on the west side of the proposed alignment in all three (3) alternatives new access roads or improvements to existing? (EPA)*

A: This would be a new local roadway. The access road will tie into existing Old SR 37 just west of the grade separation at County Road

Q: *Why is this needed? (EPA)*

A: For two reasons. First, it provides access to several parcels, including the Martinsville Golf Course. It also provides access to Fox Cliff Estates, a large existing residential subdivision located north of Martinsville, which is not completely viewable on these access alternatives maps.

Q: *For future submittals of these maps, can there be a clearer distinction between the new and upgrades to existing access roads? In addition, can we see where proposed land developments, or existing land uses are located. What year are these aerials? (EPA).*

A: Comment noted. The aerials were taken in 2003.

Q: *Will the aerials be updated? (EPA)*

A: No, the aerials will not be updated. Significant changes which have occurred since they were taken will be documented. This is in accordance with INDOT's typical practice, in that the aerial photos are taken once at the start of the study. Taking aerial photos includes significant survey work on the ground, and is quite costly.

Q: *How many wetlands are located in your Corridor? The maps do not provide this information. (EPA)*

A: There are 294 acres of wetlands within the 2,000-foot Corridor according to the NWI maps. Our subconsultant JF New & Associates, conducted field reconnaissance and flagged a total of seventy seven (77) possible wetlands in the Corridor. Wetlands will be delineated for all areas impacted by an alternative and the results will be included in the DEIS.

Sheet 5 of 11 – Cragen Rd. to Big Bend Rd.

Sheet 8 of 11 – Olive Branch Rd. to Fairview Rd.

Tim pointed out two important features; the West Grove Elementary School and the White River Fire Station.

***Q**: Will the Fire Department building be acquired? (EPA)*

A: Currently, the fire department building is likely to be acquired in either alternative.

***Q**: What is Southern Dunes? (EPA)*

A: Southern Dunes is a large Planned Unit Development (PUD) in the Study Area that includes approximately 1,300 units of both single family and multi-family residential and a golf course. It is 75% complete.

Sheet 10 of 11 – Marion County – Banta Rd. to I-465

***Q**: Will motorists be able to access Harding Street off of I-69? (EPA)*

A: In Alternative 1-11, access is being provided to Harding Street from I-69 via I-465. However, in Alternative 2-11, direct access to Harding via I-465 is not being provided due to the spacing proximity and ramp movements. I-69 northbound traffic that desires to access Harding Street would need to exit at Southport Road and use Bluff Road in order to access Harding.

***Q**: What alternative does the City of Indianapolis prefer? (EPA)*

A: The City of Indianapolis has stated that they would like direct access to Harding Street. Alternative 1-11 meets this request.

General Questions:

***Q**: Will Level of Service (LOS) be calculated on local roads? (EPA)*

A: Traffic models will show LOS on significant local roads.

***Q**: Are the alternatives shown as toll road or non-toll road options? (USFWS)*

A: Only non-toll road alternatives are shown at this time. However, any toll road alternatives are unlikely to change the footprint.

***Q**: It was suggested that the frontage roads "hug" the mainline as much as possible (EPA)*

A: Both Section 5 & 6 will attempt to hug the right of way as much as possible.

***Q**: When will wetland information be available for Section 6? (EPA, USFW)*

A: Section 6 will provide the wetland information during the next agency meeting.

C: *SR 39 may have to be upgraded. (USFWS)*

A: That is one of the items being looked at.

Details discussed in this meeting are subject to change, but are a reflection of how things stood at the close of the meeting.

These meeting minutes represent my understanding of the events that occurred. Please forward any comments or revisions to my attention, Carol Hood, chood@blainc.com.

Meeting Minutes

Toll/Schedule Meeting with IDEM

Friday, December 16, 2005 - 1:00 p.m. EST
INDOT Central Office Room N755, Indianapolis IN

Attendees:	
Tom Easterly – Indiana Dept. of Environmental Management	Rick Smutzer – INDOT
Martha Clark Mettler – IDEM	Michelle Hilary – INDOT
Jason Randolph – IDEM	Ben Lawrence – INDOT
Tony DeSimone – Federal Hwy. Admin.	Kent Ahrenholtz – Bernardin, Lochmueller & Associates, Inc.
Tom Sharp – Indiana Dept. of Transportation	Jason DuPont – BLA

Introductions

Welcome, Opening Remarks, and Introductions were made.

Major Moves

Major Moves initiative: includes management and flow of projects, rating all projects based on technical merit (i.e. congestions, safety, and new ramps), and acceleration of I-69 construction as a toll road.

I-69 priority is that the Governor wants the "dirt moving" June 2008. INDOT recognizes that this will be a burden on the review agencies and is willing to do what is needed to assist IDEM to meet this schedule. It was mentioned that USEPA has committed to accommodate the proposed I-69 Schedule. INDOT is interested in what IDEM would need relative to condensed schedule and review requirements.

Kent Ahrenholtz (PMC) gave some components of the Major Moves and how to move ahead with I-69:

- Develop I-69 as a public-private partnership (P3)
- Developed as a non-toll road, will have to go back and make some adjustments
- Accelerate other parts of this project, including permitting

Effect on I-69 Evansville to Indianapolis

The PMC mentioned that in the NEPA process for I-69 a toll and non-toll option will be considered, and the same alternatives will be considered using tolling and non-tolling. A fully electronic toll system is being considered.

Based on some suggestions from agencies, the schedule will be slightly different.

- The Tier 1 reevaluation will have to be "revisited" based on the toll option
- The PMC is currently doing a study on alternatives in the DEIS in Tier 1 of preferred corridors
- By the 1st of February a reevaluation report will be made available to the agencies

The toll option will be incorporated into the Tier 2 Study.

- Still working on how to identify the preferred alternative into the toll option
- The DEISs will be issued sequentially, but there may be some overlapping
- Looking at completing the DEISs and RODs in 2007

The plan is to do the preliminary design as soon as the DEISs are complete.

Advancement of Permitting Activities: further coordination will be needed with IDEM and other agencies to decide what needs to be accomplished to get permitting done. The Interagency Water Resource Committee Team will need to reconvene to decide what permitting process to use.

It is anticipated that I-69 will be design build; probably 30% design.

Discussion on the Procurement Approach: including public-private partnership (P3), concessionaire and legislative action. P3 involves selling development rights to a private entity (operator, design, construction, et. al., and this group collects tolls). The concessionaire will actually run the tolls. This will require legislative actions to do this. INDOT is looking at I-69 being the first of many projects like this.

Legislation will be submitted on January 3, 2006, and there should be some feedback by late February 2006.

Tier 1 EIS Re-evaluation

The PMC informed the IDEM that an addendum to the Tier 1 Biological Assessment (BA) was in process. The focus is on the Indiana Bat and the report will be submitted to the USFWS in January 2006. Almost all of the field reviews have been completed.

The Tier 2 DEIS will be delayed at USEPA's request until the release of the Tier 1 reevaluation and public comments are completed. The first DEIS should go out in April 2006, and the rest will follow rapidly.

***Q**: How long for a review time? (IDEM)*

R: Right now approximately 45 days, 60 days if 2 or more DEISs are out for review.

I-69 Tier 2 Studies Refinement and Immediate Next Steps

All DEISs should be out and reviewed by fall 2006, and the FEISs should be out by the end of 2006. The schedule will possibly change slightly.

Once the preferred alternative is identified, the preliminary design and permitting will be started.

Will reconvene the Interagency Water Resources Committee to identify the correct approach for the permitting process/procedures.

- 30% design
- Will want to get IDNR's input on this and get them to thinking about permitting procedures
- Preliminary design will be after all DEISs are out.

Archaeology has already begun on the preferred alternative in several sections.

IDEM will provide a Project Description and "Gameplan" to INDOT (Joe Gustin). Will need to identify additional resource needs to review I-69, as this will be critical for IDEM to assist meeting schedule.

Details discussed in this meeting are subject to change, but are a reflection of how things stood at the close of the meeting.

These meeting minutes represent my understanding of the events that occurred. Please forward any comments or revisions to my attention, Carol Hood, chood@blainc.com.

I-69 Evansville to Indianapolis
Tier 2 Studies

AGENDA

I-69 Agency Coordination Meeting Concerning Tolls/Schedules

INDOT Indiana Government Center North Room N755, Indianapolis IN
Friday, December 16, 2005, 1:00 p.m. EST

I. Introductions & Opening Remarks *T_Sharp, INDOT Commissioner*
(5 minutes)

II. Major Moves – Creating a Top-Tier Economy Through Top-Tier Transportation *T_Sharp, INDOT Commissioner*
(10 minutes)
- A. INDOT's New 10-Year, $10.6 Billion Plan
- B. Financing Options – *I-69, Evansville to Indianapolis with Tolling and/or Public/Private Partnership*

III. Effect on I-69, Evansville to Indianapolis *K_Ahrenholtz, PMC Project Manager*
(15 minutes)
- A. Consideration of Toll-Funded Option – *Same Alternatives, But Two Options – Non-toll and Toll*
- B. Re-evaluation of Tier 1 EIS
- C. Refinement of Tier 2 Studies
- D. Revised Schedule for Tier 2 Studies
- E. Procurement Approach

IV. Questions/Issues from IDEM *All Participants*
(30 minutes)

– BREAK – *(Executive Staff Free to Leave)*

V. I-69 Tier 1 EIS Re-evaluation *K_Ahrenholtz, PMC Project Manager*
(30-45 Minutes)
- A. Process
- B. Schedule
- C. Documentation
- D. Public Involvement

VI. I-69 Tier 2 Studies Refinement *K_Ahrenholtz, PMC Project Manager*
(30 Minutes)
- A. Revised Schedule for Tier 2 Studies
- B. Adjustment to Tier 2 Studies
- C. Accelerated Project Development Activities

VII. Immediate Next Steps *K_Ahrenholtz, PMC Project Manager*
(15 Minutes)
- A. Initiation of I-69 Tier 1 Re-evaluation
- B. Continuation of I-69 Tier 2 Studies
- C. Agency Coordination Meetings concerning Toll Option & Schedules

VIII. Next Meeting(s)
- A. Overall Agency Coordination Meeting, February-March 2006
- B. Environmental Streamlining Package Conference Calls/Webcasts, Ongoing

Toll/Schedule Meeting w/IDEM

I-69 Evansville to Indianapolis Tier 2 Studies

December 16, 2005

Agenda

- Major Moves – *Creating a Top-Tier Economy Through Top-Tier Transportation*
- Effect on I-69, Evansville to Indianapolis
- Questions/Issues from IDEM

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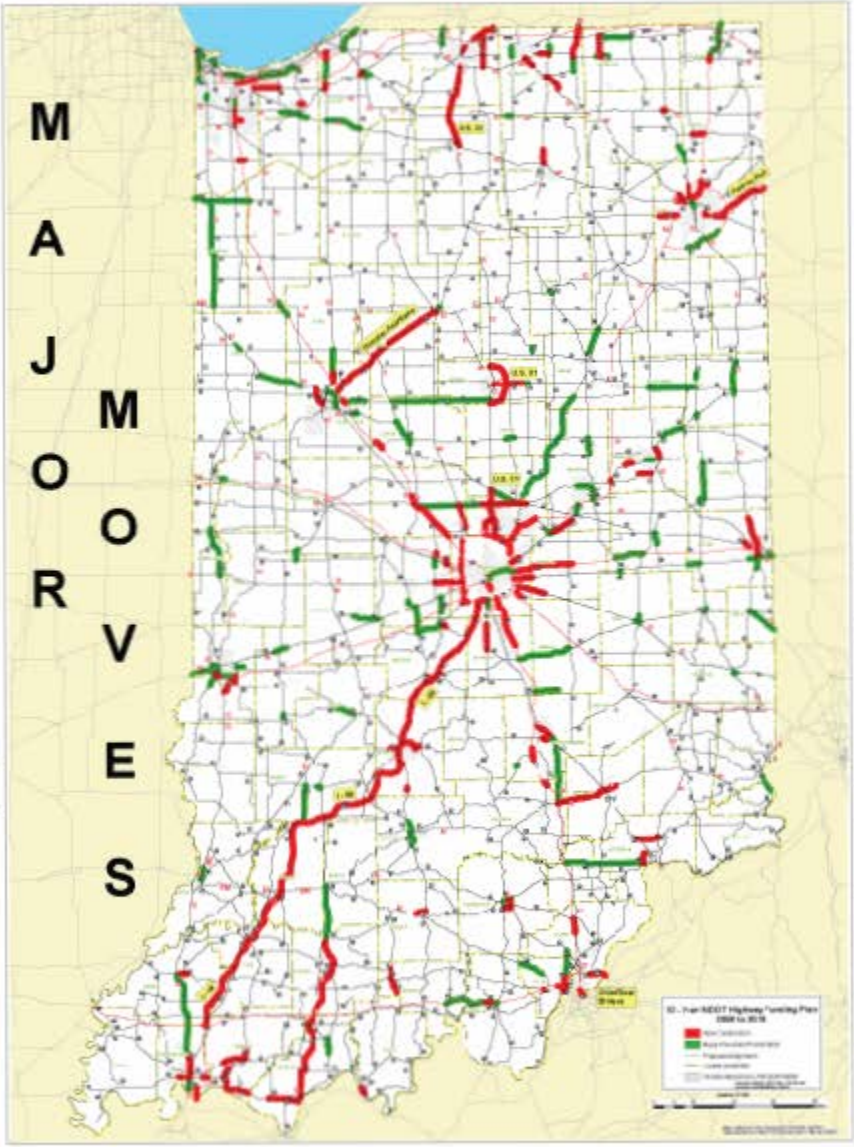
- [redacted] EIS Re-evaluation
- I-69 Tier 2 Studies Refinement
- [redacted]ate Next Steps
- Next Meetings

INTERSTATE 69

MAJOR MOVES



Effect on I-69, Evansville-to-Indianapol[redacted]

- Consideration of Toll Funded Option
- Re-evaluation of Tier 1 EIS
- Refinement of Tier 2 Studies
- Revised Schedule for Tier 2 Studies[redacted]
- Procurement Approach

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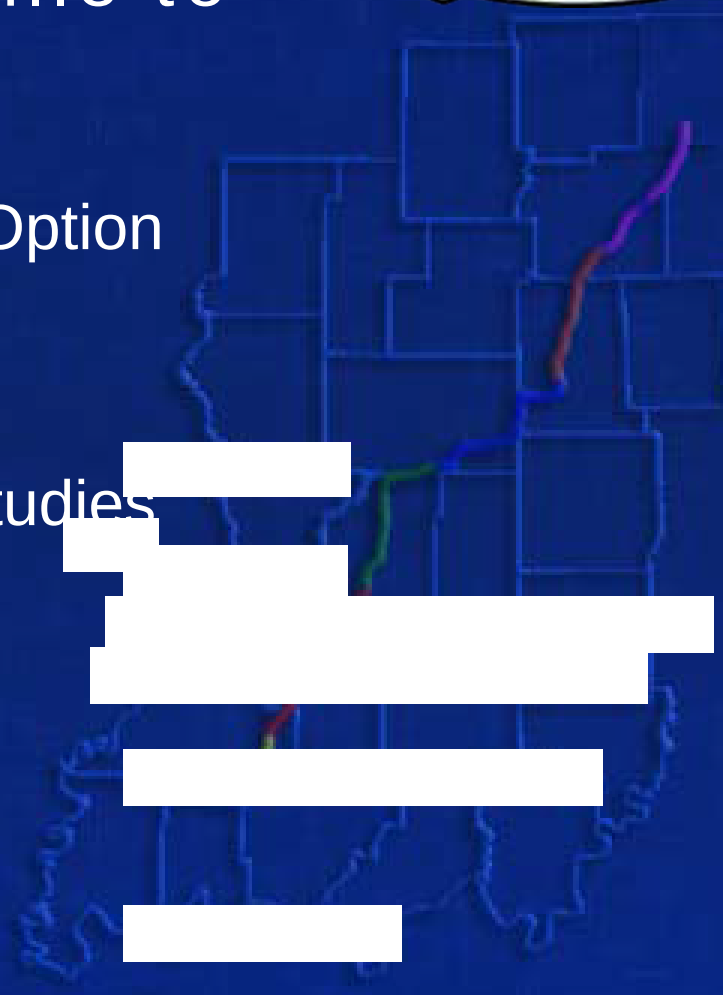
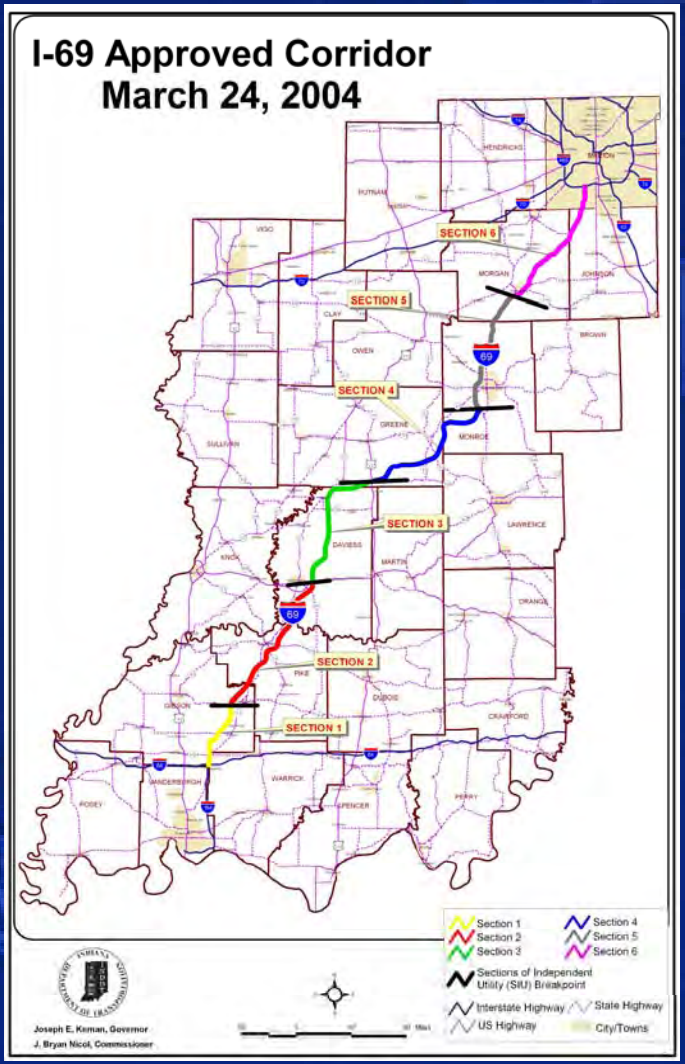


Tier 2 Studies
6 Sections

142-mile Evansville to Indianapolis project is divided into six sections

Each section is being studied independently

Draft EIS, Final EIS and [redacted] of Decision issued for each section



Consideration of Toll Option

- Same Alternatives for Tier 2 Studies
- Two Options – *Non-toll and Toll*
- Characteristics of Toll Option
  - *Fully Electronic Toll Collection System*
  - *Assumed Toll Rate Structure*
  - *Traffic Diversions with Tolls*
  - *Possible Changes to Footprint with Less Traffic – Sections 5 & 6*

Revised Schedule for Tier 2

- Re-evaluation of Tier 1 EIS
  - *Draft EIS Preferred Alternatives – 1, 2C, 3C, 4B & 4C*
  - *Re-assessment of Performance Measures*
  - *Re-evaluation of Environmental Impacts*
  - *Tier 1 EIS Re-evaluation Report*
- Refinement of Tier 2 Studies
  - *Delay in Issuance of Draft EISs*
  - *Incorporation of Toll Options*
  - *Staggered EIS Reviews*
- Accelerated Project Development Activities
  - *Preliminary Design of Preferred Alternative*
  - *Permitting*

Procurement Approach

- Public/Private Partnership
- "Concession"
  - *Design*
  - *Right-of-Way Acquisition*
  - *Construction*
  - *Operation*
  - *ance*
- Requires Legislative Action
- Other Options

Questions/Issues from IDEM

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Agenda

- Major Moves – *Creating a Top-Tier Economy Through Top-Tier Transportation*
- Effect on I-69, Evansville to Indianapolis
- Questions/Issues from IDEM

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- I-69 Tier 1 EIS Re-evaluation
- I-69 Tier 2 Studies Refinement
- Immediate Next Steps
- Next Meetings

I-69 Tier 1 EIS Re-evaluation

- Process
  - *Draft EIS Preferred Alternatives – 1, 2C, 3C, 4B & 4C*
  - *Consideration of Toll Option vs. Non-toll Option*
  - *Identification of Characteristics of Toll*
    - *Fully Electronic Toll Collection Syste*
    - *Assumed Toll Rate Structure*
    - *Traffic Diversions with Tolls*
    - *Possible Changes to Footprint with Less Traffic*

I-69 Tier 1 EIS Re-evaluation

- Process (continued)
  - *Re-estimation of Performance Measures – utilizing Indiana Statewide Toll Model*
  - *Re-assessment of Alternatives*
  - *Re-evaluation of Environmental Impacts – mostly traffic-related impacts*
  - *Documentation*

I-69 Tier 1 EIS Re-evaluation

- Schedule
  - *Complete Traffic Analysis & Impact Evaluation this Fall*
  - *Prepare Re-evaluation Report in January 2006*
  - *Submit to FHWA for Approval in early*
  - *Agency & Public Input during FHWA*
  - *Approval by FHWA-IN in early Spring*

I-69 Tier 1 EIS Re-evaluation

- Documentation
  - *Re-evaluation Report*
  - *Amended Tier 1 Record of Decision*

I-69 Tier 1 EIS Re-evaluation

- Public Involvement
  - *Agency Review & Input – Overall Agency Coord. Meeting*
  - *Public Review & Input*
    - *Public Information Meetings*
    - *Newsletter*
    - *Other Input Avenues*

I-69 Tier 2 Studies Refinement

- Revised Schedule for Tier 2 Studies
  - *Delay in Issuance of Draft EISs – Following Approval of Tier 1 Re-evaluation*
  - *Staggered EIS Reviews – Initial Section 1 EIS Issued in Spring 2006 and Remainder throughout 2006*
  - *Final EISs Issued Later in 2006 & Earl*
  - *Records of Decision (RODs) in 2007*

I-69 Tier 2 Studies Refinement

- Adjustment to Tier 2 Studies
  - *Incorporation of Toll Options*
  - *Re-assessment of Alternatives – Changes to Footprints*
  - *Re-evaluation of Environmental Impac*
  - *Revision of Preliminary Draft EISs*

I-69 Tier 2 Studies Refinement

- Accelerated Project Development Activities
  - *Preliminary Design of Preferred Alternative*
  - *Permitting*
  - *Aerial Survey & Mapping*
  - *Geotechnical Investigations*
  - *Utility Coordination & Relocation Con*
  - *-Way Research & Design*

Permitting Process

- Need to Accelerate Permitting Process
- Permitting Options
  - *Permit for Entire Corridor During NEPA & Modifications During Design*
  - *Phased Permit – Phase I During NEPA & Phase II During Design*
  - *Other Options*
- Other Agencies Concurrence

Immediate Next Steps

- Initiation of Tier 1 Re-evaluation
- Continuation of I-69 Tier 2 Studies
- Agency Coordination Meetings concerning Toll Options & Schedules

Next Meetings

- Agency Coordination Meetings concerning Toll Options & Schedules – *December 2005*
  - *Indiana Department of Natural Resources*
- Overall Agency Coordination Meeti[redacted]*bruary-March 2006*
- Environmental Streamlining Packa[redacted] -- *ongoing*

Questions/Issues from IDEM

Tier 2 Studies Contacts

For project information, or to provide input:

FHWA – Indiana Division
575 N. Pennsylvania St., Rm N254
Indianapolis, IN 46204
Ph. 317/226-5307
Contacts: **Tony DeSimone**

Indiana DOT
100 North Senate Avenue
Indianapolis, IN 46204
317/232-5
Janice Osadczuk or Tom Seeman

I-69 PMC – Bernardin Lochmueller & Associ
62 oad
Evansville, IN 47715
Ph. 812/479-6200
C **Kent Ahrenholtz or Tom Cervone**

Web Site: www.i69indyevn.org

Meeting Minutes

Toll/Schedule Meeting with IDNR

Friday, December 16, 2005 - 10:00 a.m. EST

INDOT Central Office Room N755, Indianapolis IN

Attendees:	
Kyle Hupfer – Indiana Dept. of Natural Resources	Joe Gustin – Indiana Dept. of Transportation
Mike Neyer – IDNR	Rick Smutzer – INDOT
Ron McAhron – IDNR	Tom Seeman – INDOT
Christie Stanifer – IDNR	Michelle Hilary – INDOT
Katie G. Smith – IDNR	Ben Lawrence – INDOT
Jon Eggen – IDNR	Kent Ahrenholtz – Bernardin Lochmueller & Assoc./Project Management Consultant
Tony DeSimone – Federal Highway Admin.	Jason DuPont – BLA/PMC

Introductions

Welcome, Opening Remarks, and Introductions were made.

Major Moves

Joe Gustin (JG) of INDOT gave a brief presentation on the Major Moves initiative: including management and flow of projects, rating all projects based on technical merit (i.e. congestions, safety, and new ramps), and acceleration of I-69 construction as a toll road.

JG stated that an I-69 priority is that the Governor wants the "dirt moving" June 2008. INDOT recognizes that this will be a burden on the review agencies and is willing to do what is needed to assist IDNR meet this schedule. It was mentioned that USEPA has committed to accommodate the proposed I-69 Schedule.

Kent Ahrenholtz (PMC) gave some components of the Major Moves and how to move ahead with I-69:

- Develop I-69 as a public-private partnership (P3)
- Developed as a non-toll road, will have to go back and make some adjustments
- Accelerate other parts of this project, including permitting

Effect on I-69 Evansville to Indianapolis

The PMC mentioned that in the NEPA process for I-69 a toll and non-toll option will be considered, and the same alternatives will be considered using tolling and non-tolling. A fully electronic toll system is being considered.

Based on some suggestions from agencies, the schedule will be slightly different.

- The Tier 1 reevaluation will have to be "revisited" based on the toll option
- The PMC is currently doing a study on alternatives in the DEIS in Tier 1 of preferred corridors
- By the 1st of February a reevaluation report will be made available to the agencies

***Q**: In February if the study approves the SR 41 route will you go that route? (IDNR)*

R: We are still going through the process to get the performance measures and environmental impacts. Basically no real change should occur.

Q: *So only the footprints will change? (IDNR)*

R: If we use the electronic system, nothing should change.

The Tier 2 DEIS will be delayed at USEPA's request until the release of the Tier 1 reevaluation and public comments are completed. The first DEIS should go out in April 2006, and the rest will follow rapidly.

The toll option will be incorporated into the Tier 2 Study.

- Still working on how to identify the preferred alternative into the toll option
- The DEISs will be issued sequentially, but there may be some overlapping
- Looking at completing the DEISs and RODs in 2007

The plan is to do the preliminary design as soon as the DEISs are complete.

Advancement of Permitting Activities: further coordination will be needed with IDNR and other agencies to decide what needs to be accomplished to get permitting done. The Interagency Coordination Team will need to reconvene to decide what permitting process to use.

It is anticipated that I-69 will be design build; probably 30% design.

Discussion on the Procurement Approach: including public-private partnership (P3), concessionaire and legislative action. P3 involves selling development rights to a private entity (operator, design, construction, et. al., and this group collects tolls). The concessionaire will actually run the tolls. This will require legislative actions to do this. INDOT is looking at I-69 being the first of many projects like this.

Legislation will be submitted on January 3, 2006, and there should be some feedback by late February 2006.

C: *Concerning the design on road, worried about runoff, want the designers to think about water management through the karst areas. Have an option for wider ROW for water management. INDOT should not allow development to happen too much around the road by controlling/buying the ROW. (IDNR)*

R: Will have to decide when to procure real estate at the intersections. Have to be careful about using public funds to buy ROW; it could be a "sticky" issue. (INDOT)

R: The Community Planning Grant was proposed in Tier 1 to help the communities plan for I-69 to use funds for growth, et al.

Q: *Are trails being looked at? (IDNR)*

R: Yes, in the urban areas, and wildlife travel paths are being looked at too in the stream and river valleys.

Kyle Hupfer (IDNR) stated that Ron McAhron will need to get more involved in the process to assure that scheduled needs are met.

The IDNR mentioned that in regards to the Agency Coordination Webcast meetings they have not been participating because at the first Webcast meeting held there did not seem to be much information given.

The PMC replied that at the first meeting there wasn't a lot going on at the time, but however all subsequent meetings have increased in information and discussions, and the IDNR might want to resume participating.

Break *(Jon Eggen and Katie Smith with IDNR joined the meeting)*

Tier 1 EIS Re-evaluation

The PMC and EEACs have had some contact with the coal companies, however this has stopped because the coal companies wanted a confidentiality agreement signed by the PMC and EEACs stating that the information disclosed would not be shared with INDOT. The coals companies seem to have some very aggressive plans in the works.

- Location of the I-69 corridor has been shared with the coal companies.
- PMC wants to work with IDNR in deciding what will be the best way to move if coal companies move into the corridor, et al

Q: *Will there be a change in the amount of interchanges because of the electronic toll system? (IDNR)*

R: No there will not be a change; the electronic toll allows to mostly keeping the interchanges where they are now. The footprint for Bloomington to Indianapolis may change because of the toll to 4 lanes.

The PMC informed the IDNR that an addendum to the Tier 1 Biological Assessment (BA) was in process. The focus is on the Indiana Bat and the report will be submitted to the USFWS in January 2006. Almost all of the field reviews have been completed.

I-69 Tier 2 Studies Refinement and Immediate Next Steps

All DEISs should be out and reviewed by fall 2006, and the FEISs should be out by the end of 2006. The schedule will possibly change slightly.

Once the preferred alternative is identified, the preliminary design and permitting will be started.

Will reconvene the Interagency Water Resources Committee to identify the correct approach for the permitting process/procedures.

- 30% design
- Will want to get IDNR's input on this and get them to thinking about permitting procedures
- Preliminary design will be after all DEISs are out.

Archaeology has already begun on the preferred alternative in several sections.

Agency Coordination Packages to be sent out includes: Purpose & Need, Screening of Alternatives, and identifying preferred alternatives and mitigation impact, and major terrain, however the third package may be different.

Details discussed in this meeting are subject to change, but are a reflection of how things stood at the close of the meeting.

These meeting minutes represent my understanding of the events that occurred. Please forward any comments or revisions to my attention, Carol Hood, chood@blainc.com.

I-69 Evansville to Indianapolis
Tier 2 Studies

AGENDA

I-69 Agency Coordination Meeting Concerning Tolls/Schedules

INDOT Indiana Government Center North Room N755, Indianapolis IN
Friday, December 16, 2005, 10:00 a.m. EST

I. Introductions & Opening Remarks *T_Sharp, INDOT Commissioner*
(5 minutes)

II. Major Moves – Creating a Top-Tier Economy Through Top-Tier Transportation *T_Sharp, INDOT Commissioner*
(10 minutes)
- A. INDOT's New 10-Year, $10.6 Billion Plan
- B. Financing Options – *I-69, Evansville to Indianapolis with Tolling and/or Public/Private Partnership*

III. Effect on I-69, Evansville to Indianapolis *K_Ahrenholtz, PMC Project Manager*
(15 minutes)
- A. Consideration of Toll-Funded Option – *Same Alternatives, But Two Options – Non-toll and Toll*
- B. Re-evaluation of Tier 1 EIS
- C. Refinement of Tier 2 Studies
- D. Revised Schedule for Tier 2 Studies
- E. Procurement Approach

IV. Questions/Issues from IDNR *All Participants*
(30 minutes)

– BREAK – *(Executive Staff Free to Leave)*

V. I-69 Tier 1 EIS Re-evaluation *K_Ahrenholtz, PMC Project Manager*
(30-45 Minutes)
- A. Process
- B. Schedule
- C. Documentation
- D. Public Involvement

VI. I-69 Tier 2 Studies Refinement *K_Ahrenholtz, PMC Project Manager*
(30 Minutes)
- A. Revised Schedule for Tier 2 Studies
- B. Adjustment to Tier 2 Studies
- C. Accelerated Project Development Activities

VII. Immediate Next Steps *K_Ahrenholtz, PMC Project Manager*
(15 Minutes)
- A. Initiation of I-69 Tier 1 Re-evaluation
- B. Continuation of I-69 Tier 2 Studies
- C. Agency Coordination Meetings concerning Toll Option & Schedules

VIII. Next Meeting(s)
- A. Overall Agency Coordination Meeting, February-March 2006
- B. Environmental Streamlining Package Conference Calls/Webcasts, Ongoing

Toll/Schedule Meeting w/IDNR

I-69 Evansville to Indianapolis Tier 2 Studies

December 16, 2005

Agenda

- Major Moves – *Creating a Top-Tier Economy Through Top-Tier Transportation*
- Effect on I-69, Evansville to Indianapolis
- Questions/Issues from IDNR

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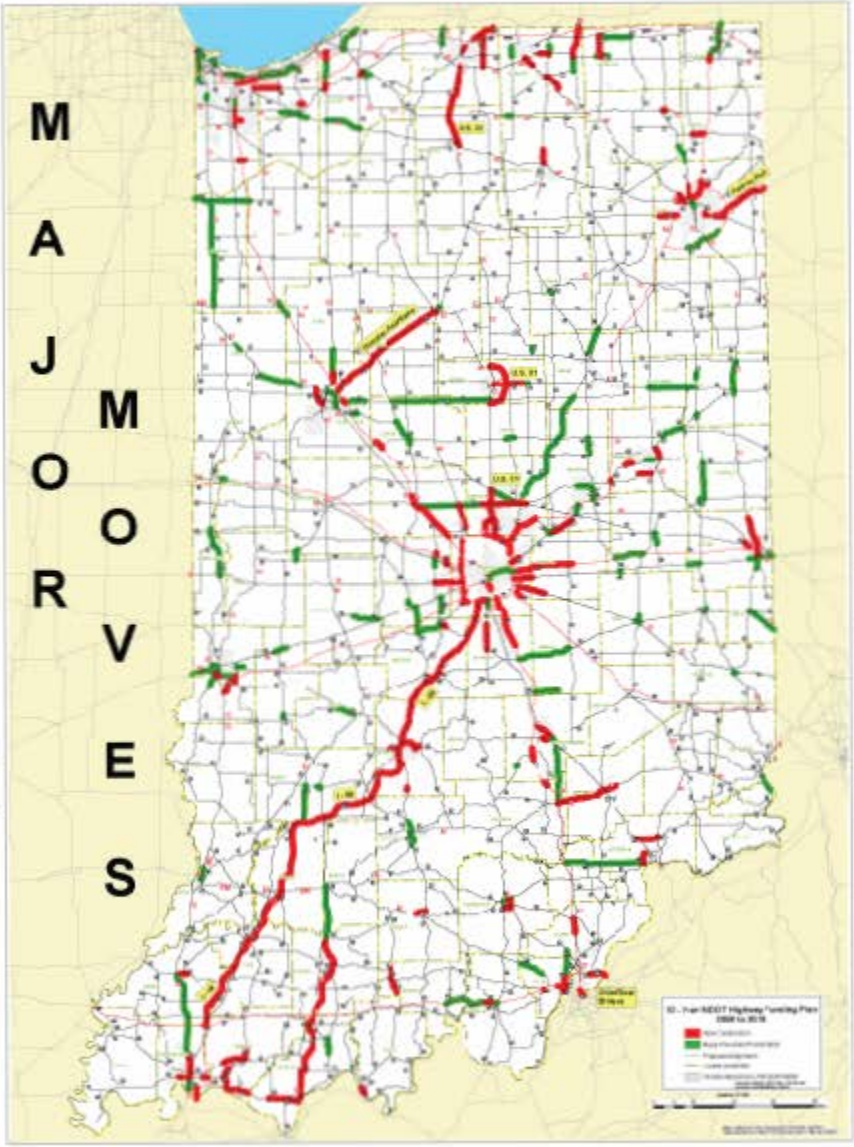
- I-69 Tier 1 EIS Re-evaluation
- I-69 Tier 2 Studies Refinement
- Immediate Next Steps
- Next Meetings

INTERSTATE 69

MAJOR MOVES



Effect on I-69, Evansville-to-Indianapol[redacted]

- Consideration of Toll Funded Option
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- Revised Schedule for Tier 2 Studies[redacted]
- Procurement Approach

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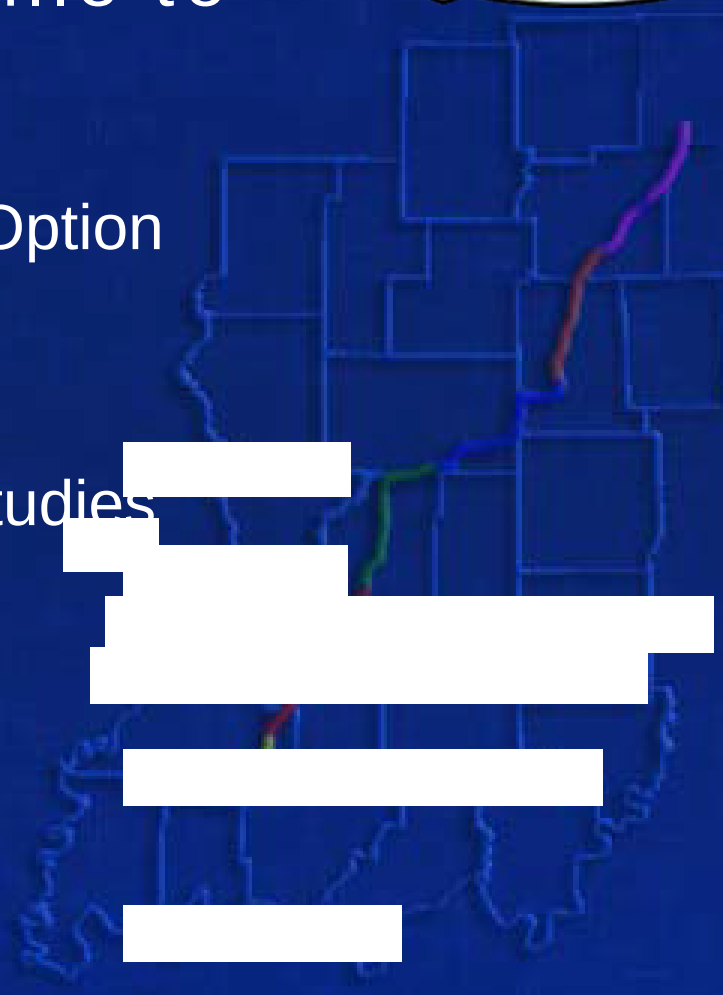
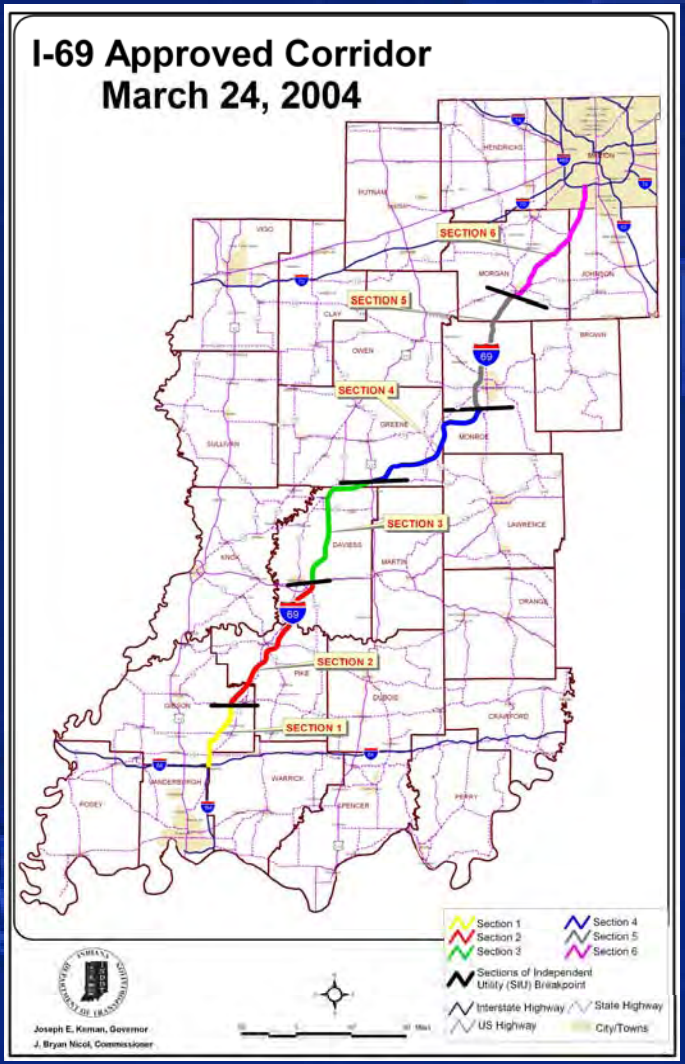


Tier 2 Studies
6 Sections

142-mile Evansville to Indianapolis project is divided into six sections

Each section is being studied independently

Draft EIS, Final EIS and [redacted] of Decision issued for each section



Consideration of Toll Option

- Same Alternatives for Tier 2 Studies
- Two Options – *Non-toll and Toll*
- Characteristics of Toll Option
  - *Fully Electronic Toll Collection System*
  - *Assumed Toll Rate Structure*
  - *Traffic Diversions with Tolls*
  - *Possible Changes to Footprint with Less Traffic – Sections 5 & 6*

Revised Schedule for Tier 2

- Re-evaluation of Tier 1 EIS
  - *Draft EIS Preferred Alternatives – 1, 2C, 3C, 4B & 4C*
  - *Re-assessment of Performance Measures*
  - *Re-evaluation of Environmental Impacts*
  - *Tier 1 EIS Re-evaluation Report*
- Refinement of Tier 2 Studies
  - *Delay in Issuance of Draft EISs*
  - *Incorporation of Toll Options*
  - *Staggered EIS Reviews*
- Accelerated Project Development Activities
  - *Preliminary Design of Preferred Alternative*
  - *Permitting*

Procurement Approach

- Public/Private Partnership
- "Concession"
  - *Design*
  - *Right-of-Way Acquisition*
  - *Construction*
  - *Operation*
  - *ance*
- Requires Legislative Action
- Other Options

Questions/Issues from IDNR

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Agenda

- Major Moves – *Creating a Top-Tier Economy Through Top-Tier Transportation*
- Effect on I-69, Evansville to Indianapolis
- Questions/Issues from IDNR

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- I-69 Tier 1 EIS Re-evaluation
- I-69 Tier 2 Studies Refinement
- Immediate Next Steps
- Next Meetings

I-69 Tier 1 EIS Re-evaluation

- Process
  - *Draft EIS Preferred Alternatives – 1, 2C, 3C, 4B & 4C*
  - *Consideration of Toll Option vs. Non-toll Option*
  - *Identification of Characteristics of Toll*
    - *Fully Electronic Toll Collection Syste*
    - *Assumed Toll Rate Structure*
    - *Traffic Diversions with Tolls*
    - *Possible Changes to Footprint with Less Traffic*

I-69 Tier 1 EIS Re-evaluation

- Process (continued)
  - *Re-estimation of Performance Measures – utilizing Indiana Statewide Toll Model*
  - *Re-assessment of Alternatives*
  - *Re-evaluation of Environmental Impacts – mostly traffic-related impacts*
  - *Documentation*

I-69 Tier 1 EIS Re-evaluation

- Schedule
  - *Complete Traffic Analysis & Impact Evaluation this Fall*
  - *Prepare Re-evaluation Report in January 2006*
  - *Submit to FHWA for Approval in early*
  - *Agency & Public Input during FHWA*
  - *Approval by FHWA-IN in early Spring*

I-69 Tier 1 EIS Re-evaluation

- Documentation
  - *Re-evaluation Report*
  - *Amended Tier 1 Record of Decision*

I-69 Tier 1 EIS Re-evaluation

- Public Involvement
  - *Agency Review & Input – Overall Agency Coord. Meeting*
  - *Public Review & Input*
    - *Public Information Meetings*
    - *Newsletter*
    - *Other Input Avenues*

Re-initiation of Formal Section 7 [redacted]tation

- Additional Field Investigations during Tier 2 Studies
  - *Summer Mist Netting during Summer of 2004 – 148 sites*
  - *Indiana Cave Inventory Database – 250 caves visited of 373 identified w/in 5 miles of I-69 Corridor* [redacted]
  - *Fall, Winter & Spring Sampling duri[redacted]004-2006 – over 75 caves*
  - *Additional Summer Mist Netting durin[redacted]tes*
  - [redacted]*alysis & Importance in Identi[redacted]*
- Results of Field Investigations [redacted]
  - [redacted]*a Bat Maternity Colonies – 13 colonies throughout I-69 Corridor* [redacted]
  - [redacted]*ana Bat Hibernacula – several caves with Indiana bats*

Re-initiation of Formal Section 7 [redacted]tation

- Addendum to Tier 1 Biological Assessment
  - *Focus on Indiana Bat*
  - *Documentation of Additional Field Investigations*
  - *Analysis of Potential Direct, Indirect & [redacted]ve Impacts*
  - *Mitigation Refinements* [redacted]
- Submittal by FHWA to US Fish & [redacted]
- [redacted] Amended Biological Opinion [redacted]

I-69 Tier 2 Studies Refinement

- Revised Schedule for Tier 2 Studies
  - *Delay in Issuance of Draft EISs – Following Approval of Tier 1 Re-evaluation*
  - *Staggered EIS Reviews – Initial Section 1 EIS Issued in Spring 2006 and Remainder throughout 2006*
  - *Final EISs Issued Later in 2006 & Earl*
  - *Records of Decision (RODs) in 2007*

I-69 Tier 2 Studies Refinement

- Adjustment to Tier 2 Studies
  - *Incorporation of Toll Options*
  - *Re-assessment of Alternatives – Changes to Footprints*
  - *Re-evaluation of Environmental Impac*
  - *Revision of Preliminary Draft EISs*

I-69 Tier 2 Studies Refinement

- Accelerated Project Development Activities
  - *Preliminary Design of Preferred Alternative*
  - *Permitting*
  - *Aerial Survey & Mapping*
  - *Geotechnical Investigations*
  - *Utility Coordination & Relocation Con*
  - *-Way Research & Design*

Immediate Next Steps

- Initiation of Tier 1 Re-evaluation
- Continuation of I-69 Tier 2 Studies
- Agency Coordination Meetings concerning Toll Options & Schedules

Next Meetings

- Agency Coordination Meetings concerning Toll Options & Schedules – *December 2005*
  - *Indiana Department of Environmental Management*
- Overall Agency Coordination Meeti[redacted]*bruary-March 2006*
- Environmental Streamlining Packa[redacted] -- *ongoing*

Questions/Issues from IDNR

Tier 2 Studies Contacts

For project information, or to provide input:

FHWA – Indiana Division
575 N. Pennsylvania St., Rm N254
Indianapolis, IN 46204
Ph. 317/226-5307
Contacts: **Tony DeSimone**

Indiana DOT
100 North Senate Avenue
Indianapolis, IN 46204
317/232-5[illegible]
Janice Osadczuk or Tom Seeman

I-69 PMC – Bernardin Lochmueller & Associ[illegible]
62[illegible]oad
Evansville, IN 47715
Ph. 812/479-6200
C[illegible] **Kent Ahrenholtz or Tom Cervone**

Web Site: www.i69indyevn.org

Keith
Matt
Tom
Jason
Kent
Mike G.
Josh
Jeremy

FAX MESSAGE

INDIANA DEPARTMENT OF NATURAL RESOURCES

103-0001-IPL
Managed Lands
Classified
Wildlife Areas

DIVISION OF FISH AND WILDLIFE
NORTH REGION
1124 N. MEXICO ROAD
PERU, IN 46970
PHONE: (765) 473-9324
FAX: (765) 473-9715

DATE: 12/22/05

TO: Jason DuPont

FROM: Mitch Marcus

SUBJECT: County CWHA Summaries

THIS IS PAGE 1 OF ~~9~~ 10

See attached.

CLASSIFIED WILDLIFE HABITAT AREAS BY COUNTY AND LEGAL DESCRIPTION

COUNTY : JOHNSON

I.D.	LAST NAME	FIRST NAME	ACRES	REC	TWP1	RNG1	SEC.1	TWP2	RNG2	SEC.2	TWP3	RNG3	SEC.3	TWP4	RNG4	SEC.4
13001	BALDWIN	PAUL	48.63	2/26/1981	14N	03E	19	14N	03E	30						
13002	HENDERSON	CHARLES G.	28.69	11/5/1990	12N	03E	35									

TOTAL TRACTS: 2 TOTAL ACRES: 77.32

CLASSIFIED WILDLIFE HABITAT AREAS BY COUNTY AND LEGAL DESCRIPTION

COUNTY : MARION

I.D.	LAST NAME	FIRST NAME	ACRES	REC	TWP1	RNG1	SEC.1	TWP2	RNG2	SEC.2	TWP3	RNG3	SEC.3	TWP4	RNG4	SEC.4
12002	EILERT	RICHARD P.	2.41	10/6/1995	16N	03E	03									
12003	HOMEOWNERS	SUNSET COVE	9.57	5/9/1996	17N	05E	21									
12004	RICE	ROBERT	22.20	1/17/1996	17N	02E	29									
12031	HOMEOWNERS	MYSTIC BAY	34.00	10/25/1988	17N	03E	25	17N	04E	30						
12032	FISH & GAME	MARION COUN	18.70	2/29/1988	16N	02E	26									
12033	HAGG	JEFF	15.00	2/20/1981	15N	04E	14									
12034	HOMEOWNERS	SANDY POINT	31.04	9/29/1992	17N	04E	19									
12035	COND. REC. COR	TAMARACK	16.82	7/28/1993	17N	03E	15									
12036	RICE	ROBERT	15.09	2/8/1984	17N	02E	29									
12037	TRUST	RED HAWK	15.89	8/23/1991	17N	04E	18									
12040	FARMS ASSOC.	EAGLE VALLE	10.17	8/6/1996	16N	02E	22									
12088	LUGAR STOCK F.		15.00	2/26/1998	14N	03E	07	14N	03E	06						

TOTAL TRACTS:12 TOTAL ACRES: 205.89

CLASSIFIED WILDLIFE HABITAT AREAS BY COUNTY AND LEGAL DESCRIPTION

COUNTY : MONROE

I.D.	LAST NAME	FIRST NAME	ACRES	REC	TWP1	RNG1	SEC.1	TWP2	RNG2	SEC.2	TWP3	RNG3	SEC.3	TWP4	RNG4	SEC.4
15022	HONGEN	ROBERT	15.61	4/28/1980	09N	1E	16	09N	01E	21						
15023	MAY	ROBERT D.	53.33	7/22/1985	07N	1W	17									
15024	WOODLING	ROBERT	17.91	1/27/1982	10N	1E	33									
15025	CHANEY	DAVID & DORC	20.00	11/4/1985	09N	1E	34									
15031	CRITTENDEN	RAY	142.62	9/23/1988	08N	2W	7	08N	02W	8						
15033	BRINSON	TODD	30.54	12/9/1988	10N	1W	19	10N	01W	24						
15034	MCCULLOUGH	DOROTHEA	32.89	2/14/1989	09N	2W	32									
15039	ATKINSON	HOWARD	27.34	6/19/1991	07N	2W	20									
15044	ARDIZZONE	TONY	75.90	10/23/1992	07N	01W	20									
15045	CO., INC.	PIKE LUMBER	15.12	1/27/1994	08N	2W	17	08N	02W	18	08N	02W	19			20
15046	HUNTINGTON	THOMAS	16.50	2/28/1994	08N	1E	07									
15047	HUNTINGTON	THOMAS	43.70	2/28/1994	08N	1E	08									
15048	GALLMAN	JOHN	63.81	2/25/1994	10N	2W	36									
15050	SHAW	AMANDA	15.00	11/21/1994	09N	02W	24									
15051	COLLER	DONALD	60.44	2/9/1995	07N	02W	26									
15052	COLLER	DONALD	14.73	2/9/1995	07N	02W	26									
15053	COLLER	DONALD	57.00	2/9/1995	07N	02W	26									
15054	COLLER	DONALD	170.00	2/9/1995	07N	02W	26	07N	02W	27						
15055	COLLER	DONALD	84.13	2/9/1995	07N	02W	22	07N	02W	27						
15056	SCHAIBLE	ROBERT	16.69	1/11/1995	10N	01W	08									
15057	SCHAIBLE	ROBERT	15.51	1/11/1995	10N	01W	08									
15058	HAMILTON	RICHARD G.	43.74	11/19/1993	09N	01W	08									
15064	OLIVER	WILLIAM W.	21.00	2/26/1997	10N	01W	30									
15065	CHRIST	NELDA	43.40	3/25/1997	07N	01W	05									
15067	GRAY	DAVID & SUSA	16.01	7/14/1997	08N	02W	06									
15069	GALLMAN	JOHN	42.92	8/10/1998	10N	02W	36									
15074	TRUST - GREICO	SYCAMORE LA	20.00	11/15/1999	10N	01W	19									
15075	TRUST - TROUT	SYCAMORE LA	172.60	11/15/1999	10N	01W	30									
15084	HEFNER TIMBER		90.35	2/13/2004	07N	02W	28	07N	02W	33						

TOTAL TRACTS:29 TOTAL ACRES: 1,438.79

CLASSIFIED WILDLIFE HABITAT AREAS BY COUNTY AND LEGAL DESCRIPTION

COUNTY : MORGAN

I.D.	LAST NAME	FIRST NAME	ACRES	REC	TWP1	RNG1	SEC.1	TWP2	RNG2	SEC.2	TWP3	RNG3	SEC.3	TWP4	RNG4	SEC.4
12026	WEIGMAN	J. MARK	20.15	2/18/1994	14N	02E	34									
12027	POWER & LIGHT	INDIANAPOLIS	80.80	2/23/1995	12N	01E	16									
12028	JOHNSON	SHIRLEY	39.00	6/8/1982	12N	01W	03									
12029	FARMS	THOMAS	47.64	6/26/1980	11N	01W	20									
12030	CLUB, INC.	VICTOR CONS	15.40	2/14/1994	13N	01E	27	13N	01E	34						
12038	BOYCE	KATHRYN	30.30	2/28/1989	11N	02E	01	11N	02E	02						
12087	POWER & LIGHT	INDIANAPOLIS	17.50	2/23/1995	12N	01E	9									
12090	M & B MAXWELL		27.49	11/2/2005	11N	01W	25	11N	01W	36						
12091	M & B MAXWELL		41.29	11/2/2005	11N	01W	25									

TOTAL TRACTS:9 TOTAL ACRES: 319.57

CLASSIFIED WILDLIFE HABITAT AREAS BY COUNTY AND LEGAL DESCRIPTION

COUNTY : GREENE

I.D.	LAST NAME	FIRST NAME	ACRES	REC	TWP1	RNG1	SEC.1	TWP2	RNG2	SEC.2	TWP3	RNG3	SEC.3	TWP4	RNG4	SEC.4
19001	BAUMAN	RAYMOND	44.60	2/24/1987	08N	03W	21	08N	03W	22						
19002	NELSON	BART	34.50	2/3/1984	08N	05W	01									
19006	WILE	DONALD F.	79.00	2/26/1980	07N	07W	02									
19020	LETOT	BETTY	20.00	2/29/1988	07N	07W	07									
19022	DAILY	JOHN & PEG	29.00	2/27/1989	08N	04W	30									
19023	WILLIAMS	RICHARD/HEL	15.40	2/27/1989	07N	04W	09	07N	04W	16						
19036	POWELL	DAVID N.	22.60	1/23/1991	08N	06W	29									
19037	MARTIN	DEAN/DENA	20.60	1/23/1991	08N	05W	02									
19038	CUMMINS	JEFF	44.20	2/19/1991	08N	04W	28									
19039	WITTUM	CHARLES	27.50	2/27/1991	08N	04W	09	08N	04W	16						
19041	LEECH	JAMES & LISA	33.80	2/28/1991	08N	07W	29									
19042	SHAFFER	DONALD E.	103.12	2/28/1991	07N	05W	34	06N	05W	03	07N	05W	35			
19045	BURNHAM L.L.C.		22.80	1/16/1992	08N	04W	35									
19046	CARNEGIE	ANDREW	45.13	6/21/1993	06N	04W	16	06N	04W	16						
19047	FLINN	GREGORY	17.84	6/3/1992	06N	04W	30									
19048	HOOD	BUD	39.00	2/10/1994	08N	06W	14									
19049	LEEDY	CHARLES W.	27.00	2/27/1991	06N	03W	17									
19050	BROWN	ALVIN/ANGELA	34.67	2/16/1994	08N	04W	19									
19051	CARLSON	DON	15.63	10/22/1993	08N	04W	28									
19053	MYERS	JEFFERY	55.50	2/27/1992	08N	04W	30									
19054	TETRICK FARMS		26.50	1/31/1994	06N	03W	04	06N	03W	05						
19070	McCORMICK	RAY	63.00	2/28/1996	06N	07W	15									
19072	REE	SANNA	77.60	2/22/1996	06N	04W	29									
19074	STACY	MARK	30.07	2/22/1996	07N	07W	30									
19094	TENHOOR/DOBS	JOAN	46.84	2/27/1998	08N	03W	29									
19097	WALKER	PAUL F.	40.00	2/10/1994	08N	06W	11									

TOTAL TRACTS:26 TOTAL ACRES: 1,015.90

CLASSIFIED WILDLIFE HABITAT AREAS BY COUNTY AND LEGAL DESCRIPTION

COUNTY : DAVIESS

I.D.	LAST NAME	FIRST NAME	ACRES	REC	TWP1	RNG1	SEC.1	TWP2	RNG2	SEC.2	TWP3	RNG3	SEC.3	TWP4	RNG4	SEC.4
18001	DEARMIN	JOE	45.90	11/12/1980	05N	05W	13									
18002	THEROFF	THURSTON	144.50	2/22/1989	02N	07W	16									
18003	SMITH	DALE	20.10	2/27/1990	02N	07W	27									
18004	DEARMIN	JOE M.	44.90	12/13/1984	05N	05W	11									
18005	OWENS	MICHAEL R.	30.67	2/19/1991	02N	07W	05									
18007	ARVIN	EDWARD	18.60	2/26/1996	02N	05W	26									
18009	HAURY III	CHARLES	40.00	3/23/1995	02N	05W	20									
18010	TAYLOR	GREGORY	30.00	2/1/1994	02N	05W	35									

TOTAL TRACTS: 8 TOTAL ACRES: 374.67

CLASSIFIED WILDLIFE HABITAT AREAS BY COUNTY AND LEGAL DESCRIPTION

COUNTY : PIKE

I.D.	LAST NAME	FIRST NAME	ACRES	REC	TWP1	RNG1	SEC.1	TWP2	RNG2	SEC.2	TWP3	RNG3	SEC.3	TWP4	RNG4	SEC.4
19027	MILLER	THOMAS K.	21.60	12/1/1986	02S	08W	16									
19028	EVANS	BRUCE	25.02	8/3/1984	02S	07W	13									
19029	HELMERICH	FRANK	40.00	2/20/1981	03S	06W	08									
19030	NEWKIRK	DORCAS	37.00	7/11/1980	01N	07W	20									
19031	KREMPP	KENNETH L.	21.80	7/30/1985	01S	07W	24									
19032	CORPORATION	OLD BEN	185.80	2/24/1987	02S	06W	21	02S	06W	28						
19033	STENFTENAGEL	SYLVESTER	39.00	2/13/1987	01S	06W	28									
19034	WEIDENBENNER	MORRIS	92.60	2/13/1987	02S	07W	01	02S	06W	06	02S	06W	07	02S	07W	12
19035	YOUNG	WILLIAM C.	125.87	11/22/1985	01N	07W	07	01N	07W	08						
19052	HILL	THOMAS	44.50	12/30/1988	01S	07W	25									
19066	RICHARDSON	TOM	75.00	1/29/1990	03S	07W	22									
19080	BETTAG	LEONARD J.	69.50	2/25/1992	02S	07W	26									
19081	GONNERMAN	GARY	217.40	2/25/1992	02S	07W	35	02S	07W	36	02S	07W	01			
19082	OEDING	MIKE	48.93	2/24/1992	02S	06W	07									
19083	FRIZ	ALAN & AIMEE	33.60	2/25/1992	02S	07W	12									
19084	VOGLER	CHARLES/EILE	16.50	11/20/1992	02S	06W	04									
19087	LEASE	KEMPER	29.63	10/21/1993	02S	08W	16									
19090	WEHR	ROGER & CAR	67.60	1/12/1993	02S	06W	06	02S	06W	07						
19091	HEICHELBECH	STEVE	37.68	2/16/1995	02S	06W	04									
19093	FOSTER BRIAN	DOUGLASS	40.00	2/22/1995	01S	06W	30									
19095	LEASE	KEMPER	39.43	1/23/1998	02S	08W	09									
19098	BECKMAN FARM		49.70	2/13/1987	01S	06W	28									

TOTAL TRACTS: 22 TOTAL ACRES: 1,358.16

CLASSIFIED WILDLIFE HABITAT AREAS BY COUNTY AND LEGAL DESCRIPTION

COUNTY : GIBSON

I.D.	LAST NAME	FIRST NAME	ACRES	REC	TWP1	RNG1	SEC.1	TWP2	RNG2	SEC.2	TWP3	RNG3	SEC.3	TWP4	RNG4	SEC.4
22001	TENBARGE	STEPHANIE A.	63.00	8/10/1983	03S	14W	28									
22002	CAMPBELL-HOW	JANICE	22.30	2/20/1987	03S	09W	26									
22003	FREUDENBERGE	JEANNINE	64.75	2/3/1983	01S	10W	23	01S	10W	14						
22004	BRYANT	WAYNE	24.30	5/22/1984	03S	09W	32									
22005	MARCHAND	DEBORAH	203.60	3/19/1984	03S	09W	28	03S	09W	32						
22006	MICHEL	LARRY D.	18.31	2/28/1984	03S	10W	26									
22008	BRYANT	WAYNE	70.00	11/13/1987	03S	09W	29	03S	09W	30						
22009	BEL INC.	W. KEMPER LE	32.90	10/11/1989	02S	09W	03									
22010	BEL INC.	W. KEMPER LE	47.52	11/14/1990	02S	09W	03									
22012	CAMPBELL-HOW	JANICE	31.08	2/26/1992	02S	10W	09									
22013	MAIER	MICHAEL	56.50	2/28/1992	03S	13W	16									
22014	MAIER	MICHAEL	60.00	2/28/1992	03S	14W	12									
22015	MAIER	MICHAEL	44.60	2/28/1992	03S	13W	21									
22016	MAIER	MICHAEL	160.00	2/28/1992	03S	14W	12	03S	14W	13						
22017	MAIER	MICHAEL	164.00	2/28/1992	03S	14W	11									
22018	DONOHOE	CATHY G.	200.46	2/18/1993	03S	14W	23	03S	14W	24	03S	14W	25	03S	14W	26
22019	DONOHOE	CATHY G.	59.69	2/18/1993	03S	14W	22	03S	14W	23	03S	14W	26			
22020	BRYANT	WAYNE	40.50	11/13/1987	02S	09W	03									
22021	WITHERSPOON	FARMS	30.04	4/13/1993	01S	11W	11									
22022	LEASE	KEMPER	17.16	11/8/1993	02S	08W	17									
22023	MAIER	MICHAEL	222.70	2/28/1992	03S	14W	14									
22024	LEASE	KEMPER	59.55	1/12/1996	02S	08W	17									
22108	LYNCH	ROY	100.59	4/17/2002	01S	10W	07									

TOTAL TRACTS:23 TOTAL ACRES: 1,793.55

CLASSIFIED WILDLIFE HABITAT AREAS BY COUNTY AND LEGAL DESCRIPTION

COUNTY : WARRICK

I.D.	LAST NAME	FIRST NAME	ACRES	REC	TWP1	RNG1	SEC.1	TWP2	RNG2	SEC.2	TWP3	RNG3	SEC.3	TWP4	RNG4	SEC.4
22047	DUNNINGTON	NANCY J.	21.40	3/5/1985	05S	09W	26									
22048	SCHNUR	DAVE	29.20	1/30/1987	06S	07W	03	06S	07W	10						
22049	DRILLING	WAYNE L.	21.60	10/23/1987	05S	09W	04									
22050	BAKER	HAROLD	33.60	12/30/1987	05S	09W	26	05S	09W	35						
22054	RHOADES	RANDY	161.40	2/27/1989	06S	07W	24	06S	08W	19						
22055	RHOADES	RANDY	65.80	2/27/1989	06S	07W	30									
22056	LEAGUE	IZAAK WALTO	375.60	2/23/1989	06S	08W	25									
22064	CONSERVANCY	THE NATURE	250.00	2/20/1990	05S	06W	29									
22065	MCGLOTHLIN	JOAN	226.50	2/28/1990	04S	06W	07	04S	06W	08	04S	06W	17	04S	06W	18
22069	PORTER	MARK & JULIE	60.66	2/11/1991	05S	08W	22									
22075	YOUNG	WILLIAM C.	44.84	6/10/1992	05S	07W	04									
22086	KREMPP LUMBE		50.00	2/22/1995	03S	07W	50									
22087	AIGNER	JERRY L.	23.60	2/22/1995	03S	06W	31									
22088	AIGNER	JERRY L.	19.60	2/22/1995	03S	07W	36									
22093	YOUNG	WILLIAM	17.42	12/23/1996	05S	07W	04									
22094	DRAYNA	DENNIS	40.00	2/3/1997	04S	07W	21									
22095	KLUMP	THOMAS	15.00	1/23/1997	04S	06W	26									
22098	BAKER	STASER	36.34	3/7/1997	05S	09W	26									
22099	REXING	CLETUS	35.00	9/4/1997	05S	09W	34									
22100	ROHLEDER	CLARIE	52.80	1/7/1998	04S	06W	14									
22101	GARRITY	BONNIE	40.00	2/24/1999	04S	06W	29									
22102	KREMPP LUMBE		189.30	2/25/2000	03S	06W	30									
22103	KREMPP LUMBE		232.60	2/25/2000	03S	07W	36									
22104	KLUMP	JIM	15.00	2/25/2000	04S	06W	27									
22112	GARRITY	JOSEPH	20.68	2/3/2005	04S	06W	29									

TOTAL TRACTS: 25 TOTAL ACRES: 2,077.94

APPENDIX C
AGENCY COORDINATION CORRESPONDENCE

2004 Agency Coordination
2005 Agency Coordination
2006 Agency Coordination
2007 Agency Coordination
2008 Agency Coordination
2009 Agency Coordination
2010 Agency Coordination
2011 Agency Coordination
2012 Agency Coordination
2013 Agency Coordination

MINUTES

Meeting with U.S. Fish and Wildlife Service

USFWS Bloomington Field Office

January 6, 2006 at 1:30 p.m.

Attendee	Organization
Andy King	USFWS
Scott Pruitt	USFWS
Tony DeSimone	FHWA
Tom Seeman (via phone)	INDOT
Janice Osadczuk	INDOT
Michelle Hilary	INDOT
Bill Malley (via phone)	Akin Gump Strauss Hauer & Feld
Kent Ahrenholtz	Bernardin-Lochmueller & Associates, Inc. (BLA)
Tom Cervone	BLA
Kia Gillette	BLA
Jason Dupont (via phone)	BLA
Josh Sherretz (via phone)	BLA
Garre Conner (via phone)	BLA

BLA welcomed everyone and opened the meeting. The following topics were discussed.

1.

Topic: **Draft Funding Agreement**

Summary: The Draft Funding Agreement for INDOT to fund a full time equivalent (FTE) at the USFWS Bloomington Field Office was discussed. The language is from both the Kentucky Transportation Cabinet and USFWS agreement. It will be a 2-year agreement with possible supplements. It will include salary, travel, per diem, benefits, and overhead. This type of agreement is not unique, other state positions are funded this way. The intent is to pay for a full time position at USFWS for INDOT priority projects. Projects could include permits, not just Section 7 activities. FHWA, INDOT, and USFWS may have to meet to discuss what projects should be priority. If the priority list is to be changed, perhaps as often as 60 days unless an emergency occurs (i.e. a bridge collapses). This will be for a full time equivalent, not a designated person, in order to not dramatically increase workload for one person.

Action Items: INDOT will forward the Draft Funding Agreement, with any revisions marked, to USFWS for their review.

2.

Topic: **BA Addendum**

Summary: Concern was expressed that "Tier 2" seems to have 2 different meanings. The Tier 2 BA title could be confusing. The Tier 1 process is not over in regards to Section 7. A project-wide BO will be issued for Tier 1 and appended BAs for Tier 2. The new Section 7 document is not replacing the original Tier 1 BA, it is just supplementing it with new information. Participants decided to rename the document the Tier 1 BA Addendum. The BOs will be referred to as the original BO and revised BO.

Action Items: None.

3.

Topic: **Indiana Bat Life History**

Summary: The Tier 1 BA Addendum abstract will include a 1 page summary of the life history of the Indiana bat. There are other potential uses for this life history summary. The Indiana bat recovery plan is currently being revised. A draft will likely be available in April. If available, the life history summary could be included in the recovery plan. It could also be made downloadable on the website. It is not specific to Indiana.

Action Items: None

4.

Topic: **Cave Survey Update**

Summary: All cave surveys are now complete. Sixteen (16) caves were looked at this winter. In 1 cave, 1 Indiana bat was found hibernating. It was decided that a detailed analysis would not be conducted for nor will the Winter Action Area be extended. Detailed analysis as well as extending the Action Area could delay completion of the BA Addendum. With only 1 bat found, a detailed analysis will not likely add much value. It will not really influence the USFWS analysis. The cave is a very recognizable landscape feature.

Action Items: None.

5.

Topic: **Bridge Fence Letter**

Summary: A draft of a letter describing the fencing of the bridge as a conservation measure has been developed for review. The bridge is scheduled for replacement in 10 years.

Action Items: Once approved by all parties, the letter will be formally sent to USFWS. USFWS will then respond with a letter. A key to the gate should be provided to the INDOT district, INDOT state office, USFWS, and BLA.

6.

Topic: **Meeting Minutes**

Summary: BLA asked if USFWS had reviewed meeting minutes from previous meetings. These meeting minutes are for the project record and are not intended to be published. USFWS replied that they do intend to look at the minutes.

Action Items: USFWS will review meeting minutes from previous meetings and provide any comments or revisions to BLA.

7.

Topic: **Forest and Wetland Mitigation and Enhancement Plan**

Summary: The original Tier 1 Forest and Wetland Mitigation and Enhancement Plan is being revised to include conceptual areas based on the Indiana bat maternity colony locations. It was agreed that this revised plan will be called the Tier 2 Forest and Wetland Mitigation and Enhancement Plan (This was later changed to the Revised Tier 1 Forest and Wetland Mitigation and Enhancement Plan because it is still conceptual in nature and really just a revised version of the original). It will replace the original Tier 1 Plan if accepted by USFWS. All mitigation will be from willing sellers and purchased at fair market value.

USFWS requested that a balance between protection and creation be specified in Tier 2. This does not have to be a set ratio, but there should be a goal. Perhaps no net loss of forest within the maternity colony areas – 1 to 1 replacement and 2 to 1 for protection. The bat mitigation should be focused on the 13 maternity colonies, but something will be needed in the Action Area outside the colonies.

Mitigation sites outside the Action Area may be looked at because more attractive sites may be available. This would not necessarily have to be part of the Indiana bat mitigation. USFWS agreed to give INDOT and FHWA some credit for the IPL property (now Ravinia Woods managed by the IDNR). (It was decided later that the IPL property could count as 1:1 of the mitigation acreage required for the impacts in Section 5.) USFWS would like to be consulted prior to the purchase of mitigation land.

Action Items: None

8.

Topic: **Eastern Greene County Interchange**

Summary: The traffic models in Section 4 have been rerun based on the possibility of an interchange near the Greene/Monroe County line. We are trying to be responsive to county officials. If it makes sense, keep it in the process. From an engineering viewpoint, it makes sense, but there are other issues. Maps of existing and forecasted traffic counts for the area were given to meeting participants. In some cases, the model numbers are a little lower than existing counts. This is from the redistribution of population to different areas. The SR 45 traffic increases for the No Build. The traffic near Cave is a mix, but close to current conditions. The 2030 volumes when compared to the No Build, show that traffic on the existing system goes down under all I-69 non-toll options. Without I-69, SR 45 will likely need to be widened.

For the toll option, the traffic on I-69 is lower and the existing network is higher than the non-toll option, but lower than the No Build. A lot of the traffic on I-69 in the non-toll option is comprised of long distance trips. For the toll option, traffic on I-69 is lower than the non-toll option with some traffic going to parallel local roads and some possibly using out of state interstate systems. For the possible County Line interchange, there is a drop on SR 45, and a slight increase near Cave. But it is still less than the No Build. The decrease in traffic is likely due to a shift to eastern Greene and Monroe counties, a slight increase in households, but 0 for employment. The interchange and connector road will be limited access.

The alternative will cross Indian Creek again with the connector road. It may be possible to avoid another crossing by moving the interchange towards Monroe County.

Maps showing estimated indirect and cumulative household and employment growth in the area were provided to meeting participants. The growth was developed from the Tier 1 model and meetings with local officials in an Expert Land Use Panel. The toll version has not been modeled. There will probably still be additional growth with the toll option, but not as much as the non-toll. There will be no more than 2 interchanges, SR 45 and 54 or 45 and the county line, or 54 and the county line. Or, possibly just 1 interchange. In Tier 1, interchanges were placed at any state road. In all cases where I-69 is built, traffic on the existing highways is lower than the No Build. There would be no need to widen any of the routes in Greene County.

Both a toll and a non-toll funding option will be addressed in each Section Tier 2 EIS. At this time, it is not certain if I-69 will be a toll facility.

USFWS stated it might be a good idea to do a delineation for Cave, this could be listed as a condition in the BO.

Action Items: Additional traffic modeling and environmental analysis are being conducted in this area to determine the locations of the interchanges in Section 4.

9.

Topic: **Medians**

Summary: Sections 2 and 4 are looking at areas to widen the median. There may be an engineering need, or a need to lessen impacts by widening medians. No mitigation will be within the right-of-ways.

Action Items: None

10.

Topic: **Revised Biological Opinion (BO)**

Summary: The revised BO will include the bald eagle and eastern fansell mussel findings. This will be included in the new BO, because just one whole document is preferable.

Action Items: None.

11.

Topic: **Pre-Consultation Agreement**

Summary: The Pre-Consultation Agreement needs to be finalized. It is preferable to move forward with the Pre Consultation Agreement, but we don't want it to hold up other things. FHWA may want to designate INDOT and BLA as a designated representative in the agreement.

Action Items: BLA will send out the Pre-Consultation agreement for review and comment.

103-0001-1PL

United States Department of Agriculture
Forest Service
Hoosier National Forest Supervisor's Office
811 Constitution Avenue
Bedford, IN 47421
Phone: 812-275-5987
Fax: 812-279-3423
TDD: 1-800-877-8339

File Code: 1950-5
Date: January 10, 2006

Keith Jason
Vince Jeremy
Dean Josh
Kent Jonna
Tom Nicole
Jim G. Dean M.
Daniel Mike G.

Kent Ahrenholtz, P.E.
Project Manager
Bernardin, Lochmueller & Associates
6200 Vogel Road
Evansville, IN 47715

Dear Mr. Ahrenholtz:

This is in response to your request for comments on the Draft Purpose and Need Statement and Preliminary Alternatives for Section 5 of the I-69 Evansville to Indianapolis Tier 2 Studies.

The Purpose and Need Section for Section 5 under the Tier 2 Studies is consistent with the Tier 1 FEIS and seems to reflect local concerns. The range of alternatives seems adequate.

Sincerely,

JAMES L. LOWE
Acting Forest Supervisor

RECEIVED
JAN 10 2006
BLA

103-0001-IPL cc: KENT AHRENHOLTZ, BLA

U.S. Department of Transportation
Federal Highway Administration

Indiana Division

575 North Pennsylvania Street, Room 254
Indianapolis, Indiana 46204

January 31, 2006

Keith Daniel
Vince Jason
Dean Carl
Kent Jeremy
Tom Josh
Jim G. Jonna
Mike G. Nicole
Carol

HDA-IN

Thomas Alcamo
U.S. Environmental Protection Agency
Region 5
77 West Jackson Boulevard
Chicago, IL 60604-3507

Dear Mr. Alcamo:

Enclosed for your agency's review in cooperation with the Federal Highway Administration in the development of Tier 2 Environmental Impact Statements for the I-69 corridor in southwest Indiana is the karst information you requested.

This information should be kept confidential in accordance with 5 USC Section 552(b)(9) which protects sensitive information related to "geological and geophysical information and data, including maps, concerning wells" due to the potential relationship of karst to the groundwater in the area. Part of this information was obtained by the Indiana Department of Transportation (INDOT) and its consultants by promising knowledgeable members of the Indiana caving community that the information they disclosed to INDOT would be protected to avoid destruction of the resources through recreational use.

As with all preliminary or potentially sensitive information related to this project that is being provided to your agency in the spirit of cooperation and early consultation, we request that your agency inform and consult with us in the event that there is a request that the information be released so that we can provide you any additional information you may need to assist in making the decision to grant a request.

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FEB - 2 2006
BLA

Celebrating 50 Years
1956 2006
Eisenhower Interstate System

BUCKLE UP AMERICA

If you require further information please contact Tony DeSimone of this office at (317) 226-5307 (e-mail: Anthony.desimone@fhwa.dot.gov).

Sincerely yours,

/S/ ANTHONY M. DeSIMONE

Robert F. Tally, Jr., P.E.
Division Administrator

Enclosures

cc:
Ms. Michelle Hilary (INDOT N855)
Kent Ahrenholtz (BLA)
Kenneth Westlake, USEPA Region 5

Carol Hood

From: Jeremy Kieffner [blainc.Bla_Mailbox.Jeremy]
Sent: Friday, February 10, 2006 3:55 PM
To: Amy S LRL Babey
Cc: Jason Dupont; Kent Ahrenholtz; Tom Cervone
Subject: I-69 Permit Process

Amy,

We would like to try and set up a meeting in the near future with the USACE to discuss the permitting process which will be used for the I-69 project. We would like to have this meeting in the next couple of weeks. The meeting could be held at the USACE office if that is more convenient for you guys. We would like to have Jim Townsend, Doug Shelton, and yourself at this meeting if possible to discuss the direction that the USACE wants to proceed with the permitting for the I-69 project. Could you please get back to me with some dates that would be available to have this meeting. Thank You.

Sincerely,
Jeremy Kieffner
Bernardin Lochmueller and Associates, Inc.
1.800.423.7411

Carol Hood

From: "Tom Cervone" <tcervone@blainc.com> [blainc.Bla_Mailbox.TomC]
Sent: Monday, February 13, 2006 9:23 AM
To: Andrew_King@fws.gov; Scott Pruitt
Cc: Jason Dupont; Kent Ahrenholtz; Kia Gillette
Subject: Pre-Consultation Agreement, Letters and USFWS Position

Dear Scott and Andy,

I had a meeting with the FHWA, INDOT and Legal Counsel on Friday, and a number of things were requested of me for Section 7 Consultation. The following three items are pending from USFWS:

1) Signing of the PreConsultation Agreement by USFWS I talked with Andy last week and he appeared to be okay with the text. You're two yellow tags appeared to be okay with him too. Have you signed this agreement? Iit is the intention of INDOT and FHWA to include this as an appendix at the end of the Tier 1 BA (Addendum). Please tell me where you are with this task.

2) Patoka River Letters Has USFWS developed two letters for INDOT on how the money will be used to help purchase the two Patoka River parcels? It was told to me nicely, that it will take INDOT 2 to 3 weeks to get these checks printed and signed and they are concerned that they may not be able to help the Div. of Refuges if they do not get these letters soon. Please tell me where you are with this task.

3) USFWS Position INDOT and FHWA is looking forward to working with USFWS on the new position. Could you please inform us as to how the agreement is going with the Service and when it will be signed?

4) Minutes from our last meeting INDOT, FHWA and Legal Counsel thought that the minutes were too detailed and didn't need to identify that this person said that or that person said that. We are revising these minutes now to be more general in the scope in our conversations and discussions during that meeting. We will get this to you soon.

For coordination purposes, the Tier 1 BA (Addendum) is in the hands of INDOT, FHWA and legal counsel now for their comments. We plan of having a meeting on Feb 22 to go over their comments in person and make appropriate changes and then get the document to USFWS at the end of the month with a formal submittal by FHWA to start formal consultation.

Please call me at 8004237411 or email me as to you progress on the above items.

Thanks
Tom

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGIONS 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

FEB 13 2006

REPLY TO THE ATTENTION OF:
B-19J

Kent Ahrenholtz, P.E.
Project Manager
Bernardin, Lochmueller & Associates
6200 Vogel Road
Evansville, IN 47715

RE: U.S. EPA Comments on the I-69 Evansville to Indianapolis Tier 2 Studies Preliminary Alternatives Analysis and Screening Package for Section 1

Dear Mr. Ahrenholtz:

The U. S. Environmental Protection Agency, Region Five (U.S. EPA) has reviewed the above referenced document. Thank you for the opportunity to comment. In the document, preliminary alternatives are presented, analyzed and eventually narrowed down to 8 build alternatives. The 8 build alternatives are formed by combining segments 1-S1, 1-S3, 1-C1, 1-C3, 1-N1, 1-N1 Modified, and 1-N2.

We appreciated the opportunity to ask questions and make comments during the webcast meeting on January 12, 2006. In this letter, we will reiterate some of the points made during the webcast and we will also make additional comments. We will address some items which pertain to all of the Tier 2 segments for the I-69 project. Those topics are the tolling reevaluation, overall tracking of direct, indirect/secondary, and cumulative impacts, and cumulative impacts analysis. These comments will be in the enclosure entitled, *U.S. EPA Statements Pertaining to All I-69 Tier 2 Segments*. We will also comment on agency coordination, air quality, cumulative impacts, document clarity, farm severance, streams, and wildlife crossings in the enclosure entitled, *Detailed comments on the I-69 Evansville to Indianapolis Tier 2 Studies Preliminary Alternatives Analysis and Screening Package for Section 1*.

If you have any questions about U.S. EPA's comments, please contact Julie Guenther at 312-886-3172 or email her at guenther.julia@epa.gov.

Sincerely,

Kenneth A. Westlake, Chief
NEPA Implementation Section

Recycled/Recyclable • Printed with Vegetable Oil Based Inks on 100% Recycled Paper (50% Postconsumer)

Enclosures (2)

Cc: T. Desimone, FHWA
T. Seemon, INDOT Project Manager

U.S. EPA Statements Pertaining to All I-69 Tier 2 Segments

From the webcast meeting on Jan. 12, 2006, U.S. EPA understands that the Tier 1 reevalution data that will address tolling will be included in the Tier 2 DEIS for each section. U.S. EPA has understood from past meetings with FHWA and InDOT that the tolling study currently being developed will reevaluate the Tier 1 DEIS 5 preferred alternatives and alternative 1. We understand that the traffic model is currently being revised to incorporate the tolling option and will result in new data. We recommend that the new data be used to perform the same type and level of analyses used in the Tier 1 EIS to determine each alternative's performance using the measures identified for each of the project's identified goals and core goals. We also recommend that each alternative be compared to the other alternatives, as well as to itself, with and without a tolling option. This would include a comparison of the costs associated with each alternative, with and without a tolling option. Please discuss how the tolling reevaluation affects the Tier 1 preferred corridor selection.

All impacted resources should have the quantifying impact data tracked and totaled for all of the direct, indirect/secondary, and cumulative impacts for all of the Tier 2 sections. The Tier 2 documentation is presenting more refined quantification of resource impacts than the Tier 1 documentation (due to field surveys, further analysis, etc.). Therefore, an overall direct, indirect and cumulative impacts analysis should be presented once the Tier 2 detailed impacts analyses are completed for all of the sections, and before the last Tier 2 Final EIS is completed. This will provide the public and project decision makers with a complete view of the I-69 project's impacts to environmental resources. The overall reporting of this data will also be helpful in determining appropriate mitigation. In addition, U.S. EPA suggests reporting resource impacts numerically (e.g., acres of wetland impact), instead of just percentages. Percentages give the appearance of minimizing the impact quantity. Please let us know how you plan on addressing the issue of tracking this data, and presenting overall direct, indirect/secondary, and cumulative impacts and mitigation.

Any resource that is impacted should be included in the cumulative impacts analysis to discover if, when combined with past, present and reasonably foreseeable future actions (federal and non-federal), the resource has been significantly impacted. For example, if wetlands (the resource) are impacted 0.5 acres, this impact should be added to the past, present, and reasonably foreseeable future impacts to wetlands to quantify what the acreage impact is to date. U. S. EPA has understood from Tier 1 documentation that Tier 2 documentation would present detailed cumulative impacts analysis for resources impacted in the section. The impacted resources that have to be addressed in a cumulative impacts analysis may differ in the sections. For example, some sections may impact karst features (e.g., springs, caves) and others may not.

Most of the comments provided in the enclosure entitled, "Detailed Comments on the I-69 Evansville to Indianapolis Tier 2 Studies Preliminary Alternatives Analysis and Screening Package for Section 1," should be examined for their application to Sections 2 through 6. For example, in the stream section of that enclosure, we will discuss the consideration given to stream impacts in this document. We expect that the same types of information would be included in future documentation for Sections 2 through 6. We would appreciate your cooperation in relaying this information to the consultants for Sections 2 through 6.

Detailed comments on the I-69 Evansville to Indianapolis Tier 2 Studies Preliminary Alternatives Analysis and Screening Package for Section 1

Air Quality

Air quality needs to be addressed in the DEIS. If a preferred alternative is chosen in the DEIS, you may do the analysis for the preferred alternative only. Section 1stops at the Vanderburg County line; however, the effects of the increased traffic will impact the Evansville nonattainment area. Evansville is a maintenance area for 8-hour ozone and a nonattainment area for PM2.5. A portion of Pike County is also nonattainment for PM2.5. The air quality impacts on all of these areas should be discussed. For example, how will the increased traffic, especially the increase in truck traffic, affect the air quality?

Transportation conformity requirements need to be met for all transportation projects in maintenance and nonattainment areas. Through a telephone conversation with U.S. EPA Region 5 staff, the Evansville Metropolitan Planning Organization (MPO) has indicated that the Indiana Department of Transportation (INDOT) is coordinating with the MPO to ensure the inclusion of the necessary expansion projects in the transportation conformity analysis for the Vanderburg County area. Please include a discussion of this coordination effort.

Since portions of the Section 1 project area are nonattainment for PM2.5, be cognizant that the transportation conformity requirements for PM2.5 become effective on April 5, 2006. U.S. EPA has not published the requirements for PM2.5 hotspot analysis; however, some type of analysis may be required for portions of the project which are in the PM2.5 nonattainment area or significantly impact the nonattainment area.

Cumulative Impacts

As mentioned above, each resource that is impacted by the project must be examined for how it is being cumulatively impacted. Therefore, in addition to farmland, U.S. EPA suggests that for this section, the Federal Highway Administration (FHWA) should consider the cumulative impacts to all water bodies (quality/quantity/habitat), forest land (habitat, core forest), air quality, and wetlands. After further analysis is completed by FHWA for the DEIS, other impacted resources may be identified for this section and should be included in the cumulative impacts analysis.

The cumulative impacts should consider all past, present and future projects that will result in an impact to the resources cited above. For example, this could include, county and city proposed development plans, airport development plans, Warrick Industrial Park, the Toyota plant, other existing and proposed business/economic development (mining, farming, etc.), utilities, and roadway projects located within the transportation modeling network for this project. More particularly, please include the potential impacts from the Phase II connector road that moves southward to a reconstructed I-164/SR57 interchange (page 12 of your document). We believe that this is a reasonably foreseeable project, since, but for the I-69 project, the Phase II connector road would not be needed.

Detailed comments on the I-69 Evansville to Indianapolis Tier 2 Studies Preliminary Alternatives Analysis and Screening Package for Section 1

Stream Impacts

Please include the report on stream impacts in the Draft EIS. (Table 9, page 25, indicates that the impacts to streams will be given "pending report completion".) In addition, consider the stream impacts when comparing alternatives for elimination. As part of the project effort, be sure to avoid and minimize impacts to all water bodies, including streams that may be channelized or classified as a legal drain. We also recommend bridging an entire floodplain of any stream. Furthermore, please indicate if any water bodies are listed as Clean Water Act Section 303 (d) impaired waters and, if so, for which impairments.

Wildlife Crossings

We commend FHWA for the inclusion of wildlife crossings in this project, and encourage their use in the other segments as well. Please include detailed schematics of the wildlife crossings in the DEIS, as recommended by the U.S. Fish and Wildlife Service (USFWS).

Farm Severance

We appreciate the importance of FHWA's efforts to avoid farm severance. We understand that the community wants farm severance minimized. Please include farm severance mitigation costs in the DEIS.

Quantum Analysis

Please include a clearer description of how Quantum helped you derive these particular alignment alternatives. Please respond to these specific questions and comments, too:

- How many alignment alternatives did Scenario B on Page 6 derive?
- Did you get any reasonable scenarios without any wetland impacts?
- Are the construction costs given in Tables 9, 10, and 11 the costs that Quantum estimated? If so, this leaves out costs that should be identified and included for each alternative. As explained by footnote 12 on page 6, Quantum does not estimate the costs of interchanges, some drainage structures, local road improvements, right-of-way, design engineering, construction engineering, utility, relocation, and environmental mitigation.
- How does Quantum fit into the steps outlined in Section 3 Development of Alternatives?
- Explain the relationship between the "InRoads Microstation" software and Quantum.

Agency Coordination

In the interest of FHWA/INDOT's EIS Streamlining Procedures, please include all agency comments in the DEIS. If verbal support from U.S. EPA Region 5 or other

agencies was given in regards to comments from another agency in prior webcasts, please take note of that and put it in the DEIS. We have noticed that webcast comments are not captured fully; therefore, our ability to streamline projects is hampered because we have to write many things we have already said. Please include the webcast minutes and the written comments from the agencies in the DEIS.

Document Clarity --Tables, Definitions and Figures

- If there are any goals in Table 1 that are not quantifiable, please identify them and explain why each one is not quantifiable.
- The "italics" for core goals in Table 1 are not very discernable. We continue to recommend that the "Core Goals" be shown in a separate column on the table and be recognized as the overall Tier 1 "basic project purpose."
- On page 3, section 2.1 Scoping of Alternatives in a Tiered Study, we recommend you include a statement that alternative routes may go outside the Tier 1 Corridor in some areas, if necessary (e.g., to avoid/minimize severe impacts at a particular location).
- On Page 4, section 2.2 Traffic Modeling, what is meant by "its zonal structure?" Do you mean Traffic Analysis Zones (TAZs)? Please define TAZ and explain how the TAZs were developed/delimited and why. In the 4th paragraph, what is meant by "corridor model"? How did you make the decision to include or not include additional counties in the model? Why did you only include parts of some counties?
- Figures 1, 2, 3, and 4 are illegible (too small to decipher any meaningful information from them) and unlabeled (e.g., cities). Figure 5 is too small to decipher and it doesn't depict and label critical areas (i.e., cities, counties, major employers, etc.) that would give meaning to why parts or whole counties outside the corridor counties are part of this corridor model.
- On page 5, we have questions about the following statement: "The AM and PM peak percentages and directional splits in the corridor model traffic assignments were calibrated against actual traffic counts along SR37 and rural corridors in Southwest Indiana, as appropriate." When and how were these traffic counts done? Why were they done along SR37? What were the other rural corridors? Why were they chosen for traffic counts? Why were others not chosen?
- In addition, on page 5 footnote 9, when you write "zones", do you mean TAZs?
- For section 3.0 Development of Alternatives on page 7, please answer the following questions by including the information in the DEIS: For step 1, please explain what you mean by "access control limits?" For step 2, what constitutes an "important county jurisdictional highway" for this Tier 2 study? Do all state jurisdictional highways that cross the I-69 corridor have to have interchange access to I-69? For step 3, please explain how the study team became familiar with most of the important environmental constraints prior to scoping in 2004.
- On figures 8A through 18B, please clarify whether an existing roadway is being covered by the alternative alignment. Please show and label any businesses (e.g.

North Warrick Industrial Park), destinations being traveled to, and transmission lines on the appropriate figures. Please include a mileage scale.

- Page 12 discusses the Connector Road construction due to the loss of access to the Interstate system via SR57. Please provide additional data supporting the need for this road (e.g., traffic modeling data (with tolling) that shows the mobility and emergency responder's access problems). Is this road on top of a stream (figures 19, 20, and 21)? Can the road be located somewhere else?
- CR890E should be labeled on Figure 16A (and any other applicable figures).
- On page 17, we recommend you explain the importance of the footnote in Table 2 that refers to TAZs and what affect that note has on the populations in the tables.
- Figures 22 and 23 are not legible enough to understand the interchange configurations.
- Please give a more detailed explanation of Tables 2, 3, 4, and 5. Answer the following questions: Where did the population and employment numbers come from? What is the difference between these numbers? Why are you only showing summed distances and travel times? For the No-Build scenario, what is the interstate system being traveled to?
- Please include a quantifiable threshold for the term "substantial" as used on page 23 in a discussion of Table 6.
- Please give a more detailed explanation of the population numbers used in Table 6. Are they existing or projected populations? Are they total population or drivers only?
- Please answer the following questions about Table 6: How are the numbers weighted? Are the numbers in the column titled: "Reduction in Miles Traveled Per Weekday", vehicle miles or person miles? Who is included in the population used to compute the reductions? Are you assuming every person has a vehicle?
- Please add "Build" and "No-Build" labels to Table 7. In this table, add a column that shows the difference between the build and no-build scenarios. Is there a congestion threshold where the difference becomes significant?
- Is there an existing crash rate problem? Please provide data to support your conclusions. Referring to Table 8 on page 21, please provide the year 2030 forecasts for the No-Build Alternative.
- Table 9 eliminates Segment 1-S4 for further consideration based on the cost of severing farms and moving power lines. Do the estimated constructions costs given in the table include farm access under I-69 and moving power lines? Alternative 1-S4 has the least amount of forest and wetland impacts, before eliminating this alternative, please ensure that all costs and stream data are included in the table for a fair comparison.

Carol Hood

From: <Andrew_King@fws.gov> [Andrew_King@fws.gov]
Sent: Monday, February 13, 2006 10:41 AM
To: Tom Cervone
Cc: Jason Dupont; Kent Ahrenholtz; KGillette@blainc-indy.com; Scott_Pruitt@fws.gov
Subject: Re: Pre-Consultation Agreement, Letters and USFWS Position

Tom,

Please see the email I just sent you that updates the status of items 1 and 2, which were all signed by Scott this morning.

I believe item 3 is still waiting to be reviewed/approved in our Regional Office. Scott please address if this is not correct.

I eagerly await those revised minutes! :)

Thanks,

Andy

_____
R. Andrew King
U.S. Fish and Wildlife Service
Bloomington Field Office
620 S. Walker Street
Bloomington, IN 47403
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"Tom Cervone" <tcervone@blainc.com>
02/13/2006 10:23 AM

To
<Andrew_King@fws.gov>, <Scott_Pruitt@fws.gov>
cc
<KGillette@blaincindy.com>, "Jason Dupont" <jdupont@blainc.com>, "Kent Ahrenholtz" <kahrenholtz@blainc.com>
Subject
PreConsultation Agreement, Letters and USFWS Position

Dear Scott and Andy,

I had a meeting with the FHWA, INDOT and Legal Counsel on Friday, and a number of things were requested of me for Section 7 Consultation. The following three items are pending from USFWS:

1) Signing of the PreConsultation Agreement by USFWS I talked with Andy last week and he appeared to be okay with the text. You're two yellow tags appeared to be okay with him too. Have you signed this agreement? Iit is the intention of INDOT and FHWA to include this as an appendix at the end of the Tier 1 BA (Addendum). Please tell me where you are with this task.

2) Patoka River Letters Has USFWS developed two letters for INDOT on how the money will be used to help purchase the two Patoka River parcels? It was told to me nicely, that it will take INDOT 2 to 3 weeks to get these checks printed and signed and they are concerned that they may not be able to help the Div. of Refuges if they do not get these letters soon. Please tell me where you are with this task.

3) USFWS Position INDOT and FHWA is looking forward to working with USFWS on the new position. Could you please inform us as to how the agreement is going with the Service and when it will be signed?

4) Minutes from our last meeting INDOT, FHWA and Legal Counsel thought that the minutes were too detailed and didn't need to identify that this person said that or that person said that. We are revising these minutes now to be more general in the scope in our conversations and discussions during that meeting. We will get this to you soon.

For coordination purposes, the Tier 1 BA (Addendum) is in the hands of INDOT, FHWA and legal counsel now for their comments. We plan of having a meeting on Feb 22 to go over their comments in person and make appropriate changes and then get the document to USFWS at the end of the month with a formal submittal by FHWA to start formal consultation.

Please call me at 8004237411 or email me as to you progress on the above items.

Thanks
Tom

103-0001-IPL

Mitchell E. Daniels, Jr., Governor
Kyle J. Hupfer, Director

DNR Indiana Department of Natural Resources
Environmental Unit
Division of Water
402 W. Washington Street, Rm. W264
Indianapolis, IN 46204-2641

Keith Jason
Vince Carl
Dean Jeremy
Kent Josh
Tom Donna
Jim G Nicole
Daniel Carol
Mike G.

17 February 2006

Mr. Kent Ahrenholtz, PE, Project Manager
Bernardin, Lochmueller & Associates, Inc
6200 Vogel Road
Evansville, Indiana 47715-4006

Re: DNR #11895: I-69 Evansville to Indy, Tier 2
Section 5 Purpose and Need; Multi (Monroe, and Morgan Counties)

Dear Mr. Ahrenholtz:

The Indiana Department of Natural Resources has reviewed the above referenced project per your request. Our agency offers the following comments for your information and in accordance with the National Environmental Policy Act of 1969.

Karst Impacts

Karst features such as sinkholes provide a direct route for surface water to enter subterranean systems with little or no pollutant filtering. Runoff from direct highway construction, highway use and secondary development is likely to have a major negative impact on the subterranean ecosystems containing a variety of cave-adapted species (many of which are listed species) including blind cave fish, blind crayfish, and a variety of other invertebrates. The entire path of SR37 around Bloomington contains areas of significant karst issues. The highway expansion and overpass/interchange construction will have a significant detrimental effect on additional karst areas that up to now have not been significantly impacted by SR37.

The Fullerton Pike interchange will cross a very deep valley with closed canopy woods covering the hillsides. The plans indicate this will be crossed by cut-and-fill methods, leading to a very wide footprint. The road will be built directly over several springs. The alignment should avoid these springs and a method of crossing the valleys which reduces the amount of cut and fill required should be evaluated.

May's Cave is located near the intersection of Rockport Road and That Road. Construction along Rockport Road and near SR37 could negatively affect the hydrology in May's cave, which harbors several types of cave-adapted fauna.

Hydrological connections under the highway, concentrated sinkhole areas, and other karst features occur at Wapehani Mountain Bike Park, at the SR45/SR37 interchange, in Brown's Woods south of the railroad, near Whitehall entrance south of the railroad, and at Vernal Pike. The karst features should be avoided to the extent possible.

Forested Habitat

The SR37/I-69 corridor runs through the very heavily forested areas north of Bloomington, some of which are part of or adjacent to Morgan-Monroe State Forest. Direct habitat loss will occur at interchanges and where the road is not exactly on the same alignment as SR 37. Habitat fragmentation impacts will be highest where overpasses and interchanges occur as on/off-ramps and frontage roads make deep incursions into undisturbed habitat. Large forest blocks traversed by a road, highway or utility easement experience a reduction of interior habitat,

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and a reduction or elimination of interior habitat connections to other interior habitats. With habitat fragmentation, the ratio of edge to interior habitat rises and leads to poor conditions for forest interior species like increased temperature and humidity fluctuations, light, lower air quality and better access to previously inaccessible areas of the forest to edge predators such as raccoons, housecats and brown-headed cowbirds. This will impact high quality forested habitat essential to neotropical migrant songbirds, which is a declining resource throughout the Midwest.

Forested habitat mitigation must take into account the reduction of interior forest habitat and focus on creating mitigation forest polygons with the highest interior habitat to edge habitat ratio possible. A 3:1 ratio has been proposed for forested habitat mitigation. Interior forest habitat should be mitigated at a 4:1 ratio. Non-wetland forest in the highway's projected alignment should undergo a Floristic Quality Assessment to determine appropriate ratios for mitigation.

Light and Noise Effects

The effect of car traffic noise on birds in the forest habitat areas found in Section 4 may be very significant. The mitigation ratios for forest habitat loss may need to be adjusted to also take into account the impact to breeding songbird habitat that will occurring as a result of highway noise.

Artificial night lighting can negatively impact the behaviors and reproduction of nocturnal wildlife such as frogs and salamanders. Artificial night lighting can also disorient night-migrating birds. Changes in nocturnal wildlife activity patterns can be minimized by shielding the highway lighting so that it shines directly down onto the roadway.

Stream, Wetland, and Riparian Impacts

Several areas of riparian wetland will be impacted by a widened footprint from frontage roads, overpasses, and interchanges. This includes the Bean Blossom floodplain and the Indian Creek floodplain. In areas of significant habitat, such as in riparian areas, impacts to fish, wildlife, and botanical resources should be avoided as much as possible.

An unnamed tributary to Bryant Creek and associated scrub-shrub wetland where SR37 is split will be impacted due to placement of all 6 future lanes on one side. Primary headwater streams provide sediment, nutrient, and flood control functions as well as providing the water and food supply to larger downstream creeks and rivers. The health of the primary headwater streams directly affects the health of the downstream stretches. Large amounts of cut and fill used to cross a headwater steam will involve a long area of creek that is placed in a culvert. The use of long culverts (over 100ft) should be avoided where possible and bridging or another alternative method used.

Stream realignment at highway creek crossings will be a large cumulative impact on the creek and riparian habitats in section 5. Stream realignment impacts will be especially high on Indian Creek due to the multiple crossings in a relatively short distance (3 times in 4 miles). The relocated portion of a stream channel should include the following: similar cross-section, similar or better channel morphology (sinuosity, riffle, run, pool assemblages), and similar substrate characteristics.

Habitat Connectivity

Wildlife habitat connectivity in riparian zones should be maintained by providing adequate space on dry land under bridges to allow wildlife passage. Bridge/culvert plans should include an opening sufficient to pass white-tail deer under the crossing (8' tall by 24' wide, not including the channel opening). Due to the width of the highway, these dimensions may need to be adjusted to provide an adequate openness ratio (http://www.deercrash.com/toolbox/CMToolboxCrossings.doc). If riprap is planned under the bridge, only dry land unarmored with riprap should be considered in the opening dimensions. Considerations can be made if alternative armoring materials are used. Culverts should be three-sided concrete box culverts to allow the natural stream bed to remain. All culverts should extend beyond the top of the bank or contain an above-water ledge for terrestrial wildlife movement. The riparian habitat which is disturbed should be replanted using a mixture of grasses, sedges, wildflowers, vines, shrubs, and trees native to Southern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion of the bridge construction.

Our agency appreciates this opportunity to be of service and apologizes for not being able to respond sooner in this matter. Please do not hesitate to contact Christie Stanifer, Environmental Coordinator at (317) 232-4160 or toll free at 1-877-928-3755 if we can be of further assistance.

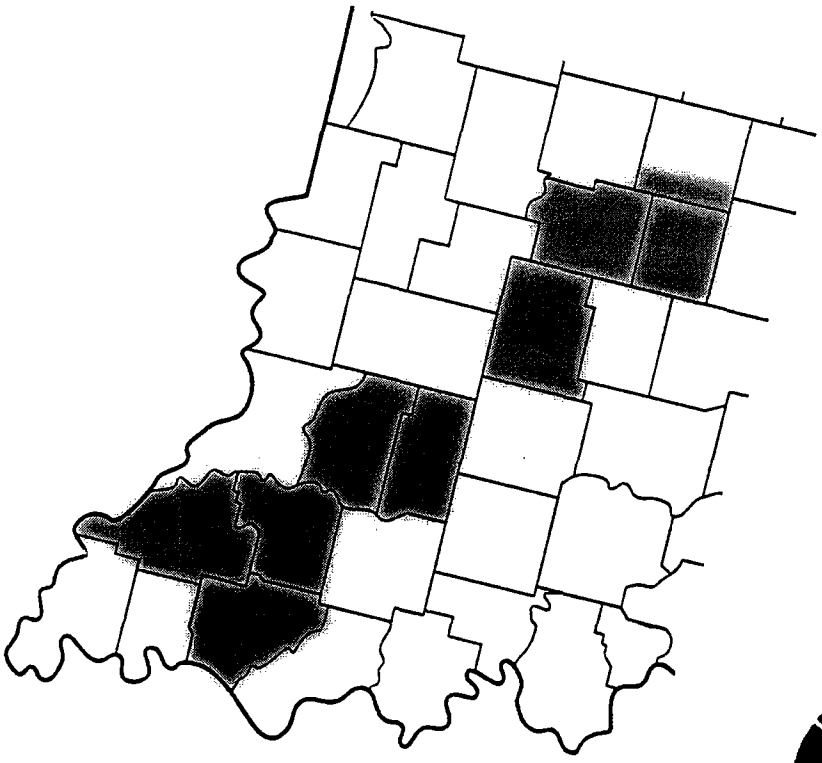
Sincerely,

Jon W. Eggen
Environmental Supervisor
Division of Fish and Wildlife

Proposal to Survey the I-69 Corridor
for the
Federal Highway Administration
and the
Indiana Department of Transportation

Submitted by the
Indiana Department of Natural Resources,
Division of Historic Preservation and Archaeology

February, 2006



INDIANA DIVISION OF
HISTORIC PRESERVATION
AND ARCHAEOLOGY

EXECUTIVE SUMMARY

This proposal sets forth a plan for the Indiana State Historic Preservation Office, the Federal Highway Administration, and the Indiana Department of Transportation to cooperate on a project to survey historic sites and structures within the I-69 Corridor. This will be a pilot project for electronic collection of field data on historic sites and structures.

The two goals of this project are to update the survey data for historic resources in the I-69 Corridor and to enhance the DHPA's GIS capabilities. There are 11 survey areas within the project corridor – 8 counties and 3 townships of Marion County – which contain an estimated 15,600 resources. As part of the survey, GPS coordinates will be collected and linked to the survey data to build a GIS layer for the historic resources within the corridor.

This 5-year project will begin early in State Fiscal Year 2007 (July 1, 2006) and be completed by the end of State Fiscal Year 2011 (June 30, 2011).

The budget for this project is divided into 3 parts: start-up costs for necessary equipment to launch the project, annual costs for a full-time survey coordinator position and technology maintenance fees for the survey program's computer equipment, and survey costs for documentation of the 11 survey areas and publication of the survey data in hard copy or CD-ROM format. The total budget request for this project is $700,000.

The staff of the Indiana State Historic Preservation Office is anxious to discuss this proposal and is available to answer any questions about the project methodology, budget calculations, and site number estimates. Please do not hesitate to contact Karie Brudis or Steve Kennedy at 232-1646.

Respectfully submitted,

Jon C. Smith
Director, Indiana Division of Historic Preservation & Archaeology,
Deputy State Historic Preservation Officer

Karie A. Brudis
Senior Historic Structures Reviewer

Steven D. Kennedy
Chief of Grants and Administration

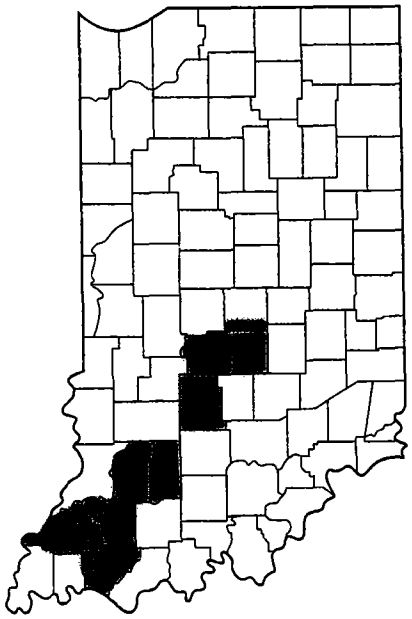
Frank D. Hurdis, Jr.
Chief of Survey and Registration

Division of Historic Preservation and Archaeology
Proposal to Survey the I-69 Corridor for the
Federal Highway Administration and the
Indiana Department of Transportation

INTRODUCTION

The Tier 1 Memorandum of Agreement (MOA) between the Federal Highway Administration (FHWA) and the Indiana State Historic Preservation Officer (SHPO), regarding the extension of I-69 from Indianapolis to Evansville, stipulates that FHWA and the Indiana Department of Transportation (INDOT) will seek ways to provide funding and technical assistance to update the survey data of historic resources in the I-69 Corridor and enhance the SHPO's GIS capabilities. Currently, the agreed-upon list of counties includes: Marion (Decatur, Franklin, and Perry Townships), Johnson, Morgan, Monroe (excluding Bloomington), Martin, Daviess, Pike, Gibson, and Warrick for a total of 11 "survey areas." **This document sets forth a plan, methodology, and budget for a proposed project to meet these identified goals.**

The Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology (DHPA – the State Historic Preservation Office) proposes to undertake these county surveys using its own staff, instead of contracting outside organizations through its annual federal matching grant program to complete the surveys, which is how county surveys are currently conducted. The DHPA has identified a number of advantages to this new approach, including procedural efficiencies, projected cost-savings, and faster availability of survey data. Where appropriate, procedural "**Drawbacks**" of the current survey program, "**Opportunities**" presented by a new approach, and "**Comparisons**" of the two systems are identified and explained in this proposal. Statistical analyses, numerical projections, and cost calculations are supported by **TABLES** at the end of this document.



Map of the I-69 Corridor survey areas identified in the Tier 1 MOA.

The timing for this project is especially good since it intersects with a major overhaul of the survey program. The DHPA is currently in the process of developing a comprehensive electronic database that will integrate all of the division's cultural resource data into one system. In addition, electronic site recordation methods are being developed that will allow the survey program to become fully electronic. Therefore, this proposal represents an opportunity for a pilot project to collect all survey data electronically, eliminating the need to manually enter data from hardcopy forms into a database. The elimination of this one labor-intensive step will

represent a significant cost savings for the survey program. Other advantages of this change in technology are expected to yield additional cost savings over time.

In order for the DHPA to accomplish the survey of the 11 areas in the I-69 Corridor, it will need a financial commitment from FHWA and INDOT to cover: start-up costs for the purchase of needed equipment; annual costs, such as the salary of a full-time survey coordinator position and technology maintenance fees; and county-by-county survey costs, such as surveyor wages, travel expenses, incidental supplies, and interim report publications. The total cost of this program is expected to be approximately $700,000. A detailed budget is included in this proposal.

The I-69 Corridor survey program is tentatively scheduled to begin early in State Fiscal Year 2007 and be completed by the end of SFY2011. Costs have been projected over this 5-year period.

BACKGROUND INFORMATION

The following sections describe the county survey program in Indiana, including its history, the current survey methodology used, and a look ahead to future plans for resurvey activities.

The Origin of the Indiana Historic Sites and Structures Inventory (IHSSI) Program

The state survey program has its genesis in the National Historic Preservation Act of 1966. Section 101b(3) of the Act states that "It shall be the responsibility of the State Historic Preservation Officer to administer the State Historic Preservation Program and ... in cooperation with Federal and State agencies, local governments, and private organizations and individuals, direct and conduct a comprehensive statewide survey of historic properties and maintain inventories of such properties."

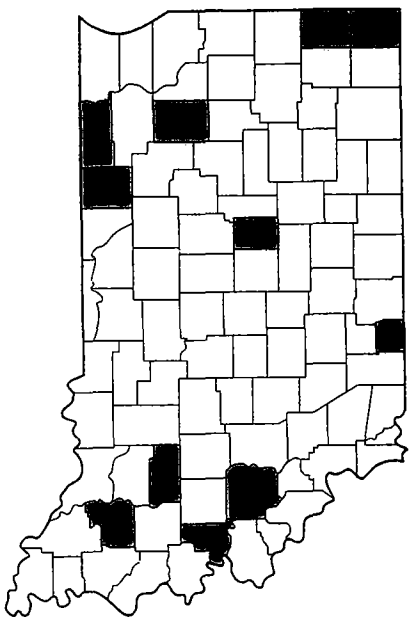
In 1971 the Indiana General Assembly authorized the Department of Natural Resources (DNR) to bring the state's preservation activity into compliance with federal requirements to be eligible to receive federal funding. The DNR hired full-time preservation staff and, in 1972, entered into a cooperative agreement with Historic Landmarks Foundation of Indiana (HLFI) to undertake the mandated survey program. With the advent of the DHPA's federally funded matching grant program about a decade later, HLFI began to compete on an annual basis with other preservation entities and local governments for financial assistance. Because of the importance of survey data in the day-to-day operation of the SHPO, the grant evaluation criteria developed by the DHPA give preferential consideration to proposed survey projects.

The information gathered through the survey program is used by federal and state agencies, such as FHWA and INDOT, in meeting their responsibilities to consider historic resources that may be affected by their undertakings. Similarly, the DHPA relies heavily on this survey data in carrying out its mandated review and compliance duties. The survey information also is used by the DHPA in evaluating the eligibility of properties for listing in the National Register of Historic Places.

The Indiana Historic Sites and Structures Inventory Program – Phase I

The first phase of the IHSSI Program consists of completing an initial countywide survey for each of Indiana's 92 counties and, ideally, publication of the survey data in book form called an "interim report." To date, the DHPA and HLFI have partnered to complete 75 county surveys. Six additional surveys were completed in cooperation with other preservation organizations and municipal governments for a total of 81 surveyed counties. In addition, several of the oldest county surveys have been updated through re-survey activities and city-wide surveys have been completed for 8 communities.

At this point, there are only 11 counties that remain to be surveyed. This list includes 3 counties that are already scheduled to be surveyed in 2006/2007 through the DHPA's federal matching grant program and 2 counties (Martin and Pike) that are covered by the I-69 MOA. The other 6 counties should be surveyed through the DHPA's grant program over the next 4 years. Currently, the DHPA is focused on execution of these last 11 county surveys in order to bring Phase I of its survey program to completion by 2010.



Map showing the 11 remaining unsurveyed counties in Indiana, including Pike and Martin. Completion of these counties will close Phase I of the IHSSI Program.

Under the current system, applicants request financial assistance through the DHPA's annual federal matching grant program to undertake surveys and prepare survey publications. It normally takes 12-16 months to complete a countywide survey. In the year following the fieldwork, the survey publication is prepared, which usually takes an additional 12-16 months. For example, in one annual grant cycle, HLFI typically completes the fieldwork for two or three counties and also publishes the reports for the two or three counties that it surveyed in the previous year.

- **Drawback:** Although it does provide direction through its grant evaluation criteria, the DHPA has relatively little control over what counties are proposed for survey. Each year, the DHPA designates certain counties for priority grant consideration, such as unsurveyed counties, areas facing significant development pressures, and the most out-of-date surveys that need to be updated. However, the required match for the DHPA's grant funding is provided by local governments or local preservation groups, not HLFI. Therefore, HLFI ordinarily selects counties for survey based in large part upon the availability of local matching funds, so that the counties proposed for survey do not always match the priority counties identified by the DHPA. This has made it difficult to complete Phase I of the IHSSI Program.

- **Opportunity:** By conducting the IHSSI Program in-house with financial assistance from FHWA and INDOT, the DHPA could plan and execute surveys in the I-69 Corridor in the order of the counties' release for survey after completion of the environmental documents.

Without being hindered by the time-consuming need to raise local matching funds first, the DHPA would be able to gather the survey data as fast and as systematically as possible, which will greatly assist the regulatory review process.

- **Opportunity:** Because the DHPA proposes to complete the I-69 Corridor surveys in-house, the DHPA's major partner in the survey program, HLFI, will be available to continue working on the last remaining unsurveyed counties. This should keep the IHSSI Program moving towards its targeted completion date of 2010 for Phase I.

The Indiana Historic Sites and Structures Inventory Program – Phase II

The second phase of the IHSSI Program will consist of resurvey activities once the initial inventory has been completed for all 92 counties. By the time the second phase begins, the IHSSI field data collection procedures will be entirely electronic and will feed directly into the DHPA's electronic site inventory database.

- **Opportunity:** The DHPA already received a $90,000 grant from the FHWA in 2004 to create a comprehensive electronic Microsoft SQL database to store all of the IHSSI data. Programmers within DNR have finished constructing this database and currently are preparing the detailed programming requirements to develop the interface. FHWA's funds will be used to contract software designers to develop the computer screen interface so that data can be entered and the database can be manipulated, searched, and queried by users. This component of the database is expected to be completed by September 2006. Data conversion will commence soon thereafter; the DHPA is currently pursuing other funding sources in order to complete this work.

- **Opportunity:** Execution of the I-69 Corridor county surveys by the DHPA will provide a valuable opportunity to test the new aspects of the survey program and data collection methods. This will enable the DHPA to fine-tune the new survey methodology, test the electronic field application, make any necessary adjustments to the survey equipment, and query and test the database prior to the actual commencement of Phase II of the survey program.

- **Opportunity:** The DHPA plans to produce Phase II county interim reports as CD-ROMs instead of hardcopy publications, which will greatly reduce the overall cost of the survey program. In addition, this will make the survey data available to the public and other state agencies many months sooner than under the current system. This project represents an opportunity to develop and refine the searchable file formats that will make the CD-ROMs much more valuable tools than the hard-copy interim report survey publications.

Current County Survey Methodology for the IHSSI Program – Phase I

Before field documentation begins, the survey coordinator trains the field surveyors in the general and specific aspects of the IHSSI Program. Next, the surveyors conduct preliminary research and interviews with local historians to gain a basic understanding of the county's development. Early maps and historical accounts yield dates of settlement and early industries,

and identify historic transportation routes and original town boundaries. The surveyors also note building types and styles that may be especially prevalent in or unique to the county. While the background research is taking place, the survey coordinator continues to work with individuals and groups within the subject county to solicit additional historical information and guidance, and to publicize the survey activity in order to build awareness and support for the project.

During the fieldwork phase, the surveyors drive every road in the county to identify potential historic resources. They make an initial determination of each resource's eligibility for inclusion in the survey. They consider buildings, bridges, cemeteries, markers, landscapes, and anything that may meet the criteria of the National Register of Historic Places. The surveyors then return to each eligible property to complete the site documentation. This includes recording detailed information on official IHSSI survey forms, sketching a site map, taking photographs, and using a handheld GPS unit to record at least one UTM coordinate for the property. At this point, it is important that the field surveyors submit their work to the survey coordinator on a regular basis to insure that any problems with their work or data can be identified and addressed early.

- **Drawback:** There have been significant problems with the UTM coordinates collected in the field on recent surveys. The DHPA's initial examination of the GPS data suggests that there is an error rate approaching 50%. The handheld GPS units require surveyors to take the reading and write the coordinates on the IHSSI form; unfortunately, this creates the opportunity for transcription errors. In addition, mishandling the GPS units can lead to them becoming miscalibrated or giving incorrect readings. In other instances, surveyors have simply forgotten to take the GPS reading for some sites. All of these problems must be overcome and the error rate for UTM coordinates must approach zero if the surveys are to yield useful data to build an accurate GIS layer of historic sites.

- **Opportunity:** The DHPA proposes that surveyors record site data on Tablet PC units with built-in GPS receivers. The Tablet PCs can be programmed so that they will not advance to the next site record until a GPS reading is taken. The resulting UTM coordinates will be recorded on electronic site records. These improvements will eliminate transcription errors and instances of no UTM coordinates being recorded, and should ensure near 100% accuracy of the GPS data.

While the fieldwork is in progress, the survey coordinator defines historic districts and recommends district boundaries, checks for product consistency among all surveyors, and takes care of all administrative duties such as ordering supplies, sending film to be developed, and tracking work hours and project expenses. Once the fieldwork is complete, the survey coordinator reviews all survey data (forms, written histories, district maps, and U.S.G.S. quadrangle maps), assigns the final survey number to each site, and produces the final set of U.S.G.S. maps that show the locations of all sites.

- **Drawback:** Most surveyors tend to be graduate students in preservation or related fields of study so that much of the fieldwork takes place in the summer. Once classes resume in the fall, the pace of the fieldwork usually slows considerably. Often, HLFI retains one year-round surveyor who can finish the fieldwork and resolve any outstanding issues.

- **Opportunity:** Using several full-time, year-round surveyors, a county survey could probably be completed in about 4-6 months instead of the 12-16 months under the current system. This smaller surveyor team would complete one county at a time instead of working on 2 or 3 counties simultaneously. This approach matches the way that the I-69 counties will be released for survey after the environmental documents have been completed.

Once the county survey project is finished, the complete body of survey data is turned over to the DHPA for final review. This might result in changes to the ratings given to individual sites, adjustments to district boundaries, requests for revisions to the written histories, and corrections to the U.S.G.S. maps. The data then is returned to HLFI so that any requested changes can be made and a draft of the county survey interim report can be prepared. Once a draft of the survey report has been produced (approximately 9 months later), it too is reviewed by DHPA staff for accuracy. When the printed interim reports are delivered to the DHPA several months later, they are accompanied by the survey forms and maps. At this point, the data is officially added to the division's permanent survey archive and the county project is complete – usually 24-28 months after the survey was initiated.

- **Drawback:** While necessary to insure the quality of the survey publication, the step of returning the site forms to HLFI significantly delays the availability of the survey data to the DHPA, INDOT, and other agencies that rely on the information. The corrected survey data, which remains at HLFI until the completion of the interim report draft, normally is unavailable to the DHPA staff and other entities for 10-12 months following completion of the survey activities.

- **Opportunity:** By undertaking the county surveys in-house, the DHPA projects that it could complete a county survey in much less time. Since the surveys would be completed sequentially and not simultaneously, some counties could be completed perhaps as much as 6-8 months sooner than the current system allows. In addition, by collecting survey data electronically, records can be added to the database immediately upon completion of the fieldwork, making them available to the DHPA and other state agencies an estimated 12-24 months earlier.

PROPOSAL

The following sections provide an analysis of recent survey project costs, a new methodology for predicting resource counts, and a detailed description of the projected budget needed by the DHPA to execute the I-69 Corridor surveys.

Recent Survey Project Cost Analysis

Between 1997 and 2004, fifteen county surveys and their corresponding interim reports were completed by HLFI with matching grant funding from the DHPA. Because the survey contractor was the same, this pool of recent projects yields highly comparable statistical data from which average cost figures can be derived. The DHPA staff has carefully analyzed the cost data from these projects in order to isolate the average cost for each survey and publication project (see **TABLE #1**).

The total cost of conducting a county-wide survey of historic sites and structures includes the hourly wages and FICA charges for the survey coordinator and surveyors, supplies (incidentals, postage, film and processing), and mileage for surveyors (at the State Auditor's rate of $.34/mile). The total cost of preparing and printing a county survey publication includes the hourly wages and FICA charges of the survey coordinator, mapping fees, and printing and binding. In recent years, the total cost for completing the fieldwork for one county inventory has averaged about $31,000 and the cost of producing a survey report has averaged about $14,000. As a result, the average total cost of producing a survey and publication has been around $45,000 per county.

- **Drawback:** Historically, the projected budgets of many grant-assisted surveys have been largely off-target; some county surveys have been completed significantly under-budget while other surveys have run significantly over-budget. Between 1997 and 2004, the actual cost of the fifteen county survey projects have differed from the estimated project budget by an average of nearly 29% (see **TABLE #2**). This suggests that the grant-assisted entities conducting surveys have not adequately researched the subject counties to better predict the number of resources expected to be encountered. In the end, this causes difficulty for the DHPA because it inadvertently awards either too much or not enough grant funds to easily complete the survey projects.

- **Opportunity:** In order to establish more accurate projections of survey costs for the I-69 Corridor, the DHPA staff revisited the data from the counties surveyed between 1997 and 2004. Staff hypothesized that certain information from the U.S. Census could be used in several different ways to make a better prediction of the estimated number of historic sites that would be encountered in any given county. In order to test these hypotheses, staff added populations, square mile areas, and the number of residences built before 1960 to the matrix of survey cost data. (See explanation below.)

Estimating the Number of Survey Sites in the I-69 Corridor

DHPA staff developed two different methods of statistical analysis to provide a basis for estimating the number of survey sites that would be encountered in the I-69 Corridor. Because the number of sites is the major factor in determining the cost of any survey project, the accuracy of these calculations is especially critical.

Method #1: Staff predicted that recent survey data would reveal an average number of sites per square mile throughout the state, depending on population densities. An analysis of the survey data showed that counties with populations less than 50,000 had an average of 3.2 sites per square mile (see **TABLE #3-A**). An analysis of the same data showed that counties with populations greater than 50,000 had an average of 9.7 sites per square mile (see **TABLE #3-B**).

Method #2: Staff theorized that there might also be a fairly constant correlation between the number of residences built before 1960, as reported in the U.S. Census, and the actual number of sites that will be documented in any given county.[1] The National Register criteria stipulate that a

[1] All figures for populations, square mile areas, and numbers of residences built before 1960 were taken from the U.S. Census for the year 2000.

property must ordinarily be at least 50 years old to be considered eligible for listing. Because the survey and publication process normally takes about two years to complete, and in order to provide additional shelf-life to the survey data, the IHSSI guidelines suggest that buildings approximately 45 years old or older be considered in the survey. The U.S. Census data for the number of residences built prior to 1960 provides a perfect statistical reference for this consideration.

Recognizing that survey-eligible sites include bridges, churches, commercial buildings, cemeteries, schools, public buildings, and many other types of resources besides residences, staff considered that the number of historic residences reported in the census could serve as a good indicator of the "relative density" of all types of historic resources in a county. This indicator was derived by dividing the number of residences built before 1960 by the actual number of sites surveyed in the county. The resulting figure was named the "historic structure value." For counties with populations less than 50,000, this value proved to be an average of 25% of the number of residences built before 1960 (see **TABLE #4-A**). For counties with populations greater than 50,000, the historic structure value proved to be an average of 20% of the number of residences built before 1960 (see **TABLE #4-B**).

Conclusion: The DHPA staff believes that using these two different methods forms the basis for predicting more scientifically the number of sites that will be encountered in the I-69 Corridor counties. The values resulting from these two calculations establish a range where the actual number of sites can be expected to fall for any given county. In some cases, the two values are very close together and the range is very small. In other cases, however, the two values are quite far apart and the range is extremely large. In either case, the DHPA staff has considered any other known factors that might illuminate the estimated number of survey sites, such as high development pressures that result in increased demolitions, remodelings, and new construction. In the end, these calculations enabled the DHPA staff to make informed predictions of the number of historic sites that might be surveyed in the I-69 Corridor counties (see **TABLE #5**). **The DHPA predicts that the 11 survey areas in the I-69 Corridor will contain a total of approximately 15,600 sites.**

I-69 Corridor Survey Cost Projections

The proposed budget for the DHPA's plan to carry out the I-69 Corridor county surveys must be examined in three parts: start-up costs, annual costs, and survey costs.

Start-up costs will cover necessary equipment purchases for the DHPA survey program staff. This equipment will enable the DHPA's survey coordinator and field surveyors to collect and prepare the survey data in electronic format. In the end, this data will be ready for download to the new IHSSI electronic database without the costly and time-consuming steps of converting and manually entering data from hard-copy forms (see **TABLE #6**).

- The needed equipment includes a desktop PC for the survey coordinator and four sets of field equipment – one for each surveyor. The field equipment includes tablet PC units, spare batteries and carrying cases for the tablet PCs, GPS receivers, digital cameras, spare batteries

and camera cases, extra camera memory cards, and memory card adapters for downloading images. The total cost of the needed equipment is estimated to be about $19,000.

Annual costs will cover technology maintenance fees and the salary and fringe benefits of a full-time survey coordinator position. The I-69 Corridor Survey project is expected to begin in SFY2007 and be completed by the end of SFY2011; therefore, these annual costs have been projected over the span of five years (see **TABLE #6**).

- The Indiana Office of Technology (IOT) is now charging state agencies an annual fee for the maintenance of each computer device. The IOT fee structure is very new and probably subject to modest revision in the next few years, so the DHPA is projecting annual IOT fees for a desktop PC to be $1,000 and the charge for each tablet PC unit to be nearly $350. Over five years, the technology maintenance fees for this equipment will total approximately $11,750. The DHPA's current operating budget is insufficient to absorb the projected annual maintenance charges of $2,350 for the survey equipment.[2]

- The largest single component of this proposal is the creation of a full-time survey coordinator position.[3] This person will be responsible for: hiring, training, and supervising a pool of field surveyors; reviewing the field survey data to insure that it meets the DHPA's standards; preparing narrative text, maps, and resource listings for the county interim reports; importing the finalized field data into the new electronic survey database; and supervising all aspects of the survey program. Therefore, it will be necessary to hire a qualified preservationist with an understanding of the new technology that the survey program will utilize.

  The cost calculations for this position are based on the current salary rate of a Preservation Officer 2, which is $32,734 per year, and a benefits package that averages 52% of the base salary.[4] Included in these cost calculations are incremental salary increases over time, incremental increases in state-provided benefits following established patterns, and medical and dental coverage at the "family" rate. The total cost of the survey coordinator position over five years is estimated to be a maximum of nearly $259,000. (Note that if annual salary increases do not materialize and the employee selects medical and dental insurance options at the "single" rate, the total figure will be closer to $215,000 over five years for a total cost savings of about $44,000.)

- **Comparison:** Based on project data, the DHPA staff has determined that HLFI's survey coordinator position costs a total of $9.53 per site for both survey and publication activities. Projected over the I-69 Corridor project, HLFI's position would cost nearly $149,000.[5] In

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[2] The DHPA's annual operating budget (.2 through .9) is just $41,125 for a staff of 20. This amount must be heavily augmented by federal funds from the National Park Service that pay for certain costs directly related to federal preservation programs.

[3] This position is expected to meet the minimum qualifications for preservation professionals set forth in 36CFR61.

[4] As of January 26, 2006, the Texas Historical Commission had a job vacancy posting on its website for a Historic Sites Survey Coordinator (Historian III) position. The annual salary range for the position was $32,988 to $39,600. The required qualifications for the position were the same as those planned for the DHPA's survey coordinator. In addition, the listed job duties were extremely similar to those planned for the DHPA's position.

[5] This figure includes hourly wages and FICA, but not benefits. Also note that this figure does not represent 100% of the survey coordinator's time.

contrast, the DHPA's proposed full-time survey coordinator would cost between $13.78 and $16.60 per site, depending on the benefits options selected. Projected over the I-69 Corridor project, the DHPA's survey coordinator would cost $66,000 to $110,000 more.[6] However, the additional cost would yield significant advantages over the current system, such as verification of GPS coordinates, creation of searchable county interim reports in CD-ROM format, and the immediate addition of electronic survey records to the new database. In addition, the DHPA's survey coordinator will be able to initiate efforts to convert data from hard copy records to electronic database entries. Currently, none of these items are accomplished on the grant-assisted surveys.

Survey costs are calculated for each county or township based on the predicted number of sties. These costs include: fieldwork (surveyor time, mileage, and supplies), publication costs to produce the interim report in hard copy and/or CD-ROM version, and a small budget reserve.

Fieldwork costs have been calculated on a county-by-county basis according to the estimated number of survey sites predicted for each county or township. An in-depth examination of the cost documentation from 5 particular grant-assisted surveys conducted by HLFI revealed average costs for the fieldwork components. DHPA staff selected these 5 counties for close examination because they were highly representative examples of the 15 county surveys completed by HLFI between 1997 and 2004. The 5 counties studied were Dekalb, Posey, Scott, Starke, and Whitley, which ranged in size from a low of 646 sites to a high of 1,920 sites. These past projects revealed average costs for surveyors, travel, and supplies (see **TABLE #6**).

- Surveyor time includes library research, travel within the county, the time spent actually visiting and documenting each site, and time spent working on the survey forms. An analysis of time sheets showed that HLFI surveyors required an average of 1.4 hours per site. This figure also includes time spent preparing forms, cutting and attaching photos, and cutting and attaching negatives to the site cards. Because digital photographs will now be linked to the electronic site records, the DHPA estimates that there will be some incremental time savings on each site. Therefore, the DHPA has conservatively calculated surveyor time using the new technology at an average of 1.33 hours per site. Over the entire corridor, this could represent a time savings of more than 1,000 hours, or about $16,000.

- Mileage reimbursements for the 5 surveys covered actual miles driven within each county and included both reconnaissance level and intensive level survey activities. Each of the 5 county surveys had mileage costs that averaged nearly $3.00 per site at the State Auditor's rate of $.34/mile. The DHPA projects that these costs will remain constant for the I-69 corridor surveys and has calculated mileage costs at the rate of $3.00 per site – except for the three Marion County Townships, which are expected to have somewhat lower travel costs due to their smaller geographic areas and the shorter distances between sites.

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[6] The bulk of this additional cost represents the state benefits package. A comparison of the hourly rates for the two positions reveals that HLFI's survey coordinator costs an average of $15.76 per hour, whereas the DHPA's survey coordinator would be paid $16.79 per hour, plus benefits. For each year under this proposal, the additional cost of the survey coordinator would be $13,200 to $22,000, which is the cumulative total of the slightly higher hourly rate and the state-provided benefits package.

- Supplies for the five survey projects included U.S.G.S. quadrangle maps, incidental supplies for surveyors, film and developing, and postage for mailing film and prints to and from the survey area. The switch to digital photography will completely eliminate the costs for film and processing – a projected savings of $23,000 for this project. In addition, the use of digital photography will eliminate most of the usual postage charges for a projected savings of an additional $2,000. (Any actual postage costs will be paid by the DHPA.) In short, the DHPA estimates the total cost of supplies to be a maximum of $.50 per site for a total savings of more than $25,000 for the entire corridor.

- Publication costs for the county interim reports will be necessary, but represent an opportunity for tremendous cost savings. Because Pike and Martin Counties are the only unsurveyed areas in the I-69 Corridor, the DHPA plans to publish printed interim reports for these 2 counties only. However, both Pike and Martin Counties are projected to have a small number of sites. Examination of the publication costs of comparably sized counties indicates that these interim reports will cost about $11,000 each, instead of the nearly $14,000 average per county. The DHPA plans to use the resurvey of the other 9 counties and townships in the I-69 Corridor as an opportunity to create searchable electronic versions of the interim reports on CD-ROM. This will eliminate the contractual costs of printing and binding the interim reports. Instead, the cost of CDs, labels, and jewel cases is expected to be only $250 per survey area. This approach of printing interim reports for just 2 counties and creating CD-ROM versions for the other 9 survey areas is projected to represent a cost savings of about $50,000 for the entire corridor.

- A survey budget reserve is the last part of the identified survey costs. The DHPA suggests a modest reserve of 10% of the projected survey costs, which would total $35,100. The actual number of survey sites often differs from the projected number of sites, which partially explains why HLFI survey budgets tended to be off-target by 29%. Because the DHPA has projected the number of survey sites using more scientific methods, a reserve of just 10% is warranted and should be sufficient to protect against any unexpected field situations that might increase project costs.

Therefore, the total 5-year budget for the I-69 Corridor survey project can be summarized as follows:

Start-Up Costs	
Equipment	$ 18,925
Annual Costs	
Technology Maintenance Fees	$ 11,750
Survey Coordinator	$258,975
Survey Costs	
County-By-County Costs	$351,000
Publication & CD-ROM Costs	$ 24,250
Survey Budget Reserve	$ 35,100
TOTAL	**$700,000**

If this proposal is accepted, the DHPA will establish project codes for use in DNR's Financial Information Management System (FIMS) in order to track project expenses. DNR's Division of

Accounting uses this system to track sources of funds and corresponding project expenditures for many different grants received by divisions throughout the department. Using FIMS, DNR staff will be able to provide expenditure reports to FHWA and INDOT to supplement periodic progress reports. FHWA and INDOT would be asked to provide reimbursement only for the actual cost of the project, which may total far less than the $700,000 budgeted.

- **Comparison:** The DHPA staff carefully analyzed the financial data from past HLFI surveys for purposes of comparing average per site costs. Excluding the survey coordinator costs from this equation, HLFI's field survey costs of $19.77 and interim report publication costs of $4.76 yield a total cost of $24.53 per site. Under this proposal, the DHPA plans to pay surveyors a higher hourly rate, but eliminate several other survey-associated costs and greatly reduce publication costs. Therefore, the DHPA anticipates a total cost of $24.05 per site, which actually represents a modest cost savings of about $7,500 over the entire I-69 Corridor (see **TABLE #7-A**).

- **Comparison:** It is also useful to incorporate the cost of the survey coordinator into the per site cost comparisons. HLFI's grand total for the survey coordinator, field survey, and interim report publications yields a projected cost of $34.06 for each site in the I-69 Corridor. The DHPA's grand total for the survey coordinator, equipment and technology fees, field survey, and interim report publications yields a projected cost of $44.87 for each site in the corridor (see **TABLE #7-B**). The DHPA staff believes that this additional cost of less than $11.00 per site will leverage significant improvements in both the quality and format of the survey data, which will greatly improve the environmental review process for the I-69 extension as well as many future state and federal projects.

CONCLUSION

This survey proposal is intended to help the SHPO, FHWA, and INDOT meet the 2 goals identified in the I-69 Tier 1 MOA: update historic sites and structures survey data in the project corridor, and enhance the DHPA's GIS capability. In addition, this proposed project will yield many benefits for the State of Indiana in the form of procedural efficiencies and projected cost savings in the DHPA's survey program. The benefits of this proposal that are described throughout the document are summarized below.

Procedural Efficiencies:

- The I-69 Corridor survey project affords the DHPA a unique opportunity to field test new electronic data collection equipment and survey methodologies before the entire IHSSI program adopts electronic technology in the next several years.

- By retaining several full-time surveyors and working on one county at a time, the DHPA can complete a county survey in 4-6 months – an estimated time savings of 6-12 months over the current system.

- By gathering the field data in electronic format, it can be downloaded to the database at the completion of each survey and will be available to DHPA staff and other state agencies an estimated 12-24 months sooner than the current system allows.

- Using Tablet PC units with built-in GPS receivers will yield highly accurate UTM coordinates so that the database can upload site locations to a GIS layer. This will greatly improve the usefulness of the survey data for state and federal agencies, consultants, and researchers, and is expected to have a significant streamlining effect on the DHPA's overall review and compliance duties.

- Having electronic survey data for the I-69 Corridor will greatly improve the DHPA's ability to conduct its mandated review and compliance duties for ALL state and federal undertakings within the 11 survey areas – not just the I-69 extension project.

Projected Cost Savings:

- The use of electronic data collection methods should yield a small incremental time savings of about 4+ minutes per site. Projected over the entire corridor of approximately 15,600 sites, this time savings could add up to more than 1,000 hours for a cost savings of at least $16,000. Furthermore, a small pool of full-time surveyors will gain speed as they gain experience by working on multiple counties. This could yield even greater cost savings as the corridor survey project progresses.

- The switch to digital photography will eliminate the cost of film and processing. Projected over the corridor, this is expected to represent a total cost savings of $23,000.

- Digital photography will also eliminate the need for postage to send undeveloped film to the survey coordinator and developed prints and negatives back to the field surveyors. Some small postage charges are still anticipated, but will be borne solely by the DHPA. This is expected to yield a total cost savings of $2,000.

- Preparing printed interim reports for only 2 counties and producing electronic survey reports on CD-ROMs for the other 9 survey areas will the eliminate a significant amount of contractual costs. This is projected to save about $50,000.

- Combined, the potential cost savings leveraged by the DHPA's proposed electronic survey methodology should total more than $90,000. This amount will offset the cost of the equipment, the technology maintenance fees, and half or more of the higher projected cost of the DHPA's full-time survey coordinator.

Other Major Benefits:

- To date, the DHPA's survey program has been accomplished entirely in partnership with municipal governments and local organizations. This proposal represents an opportunity for the DHPA to partner with other state and federal agencies on the statewide survey program, as suggested in Section 101b(3) of the National Historic Preservation Act of 1966.

- A financial commitment from FHWA and INDOT will eliminate the need for time-consuming local fundraising efforts before survey activities can begin. This will enable the DHPA to execute the 11 corridor surveys sequentially as the environmental documents are approved, making the survey data available as quickly and systematically as possible – perhaps years sooner than would be possible under the current system.

- The DHPA has developed a scientific methodology for predicting the number of survey sites in any given county. This proposal affords the opportunity to greatly expand the pool of survey statistics and also to test, validate, and refine these prediction methods.

- This project affords the DHPA an opportunity to create, test, and refine the format and content of searchable files of survey data that will be put on CD-ROM. This approach to the survey reports will allow for much greater depth of detail in the survey data, which will make them a much more useful and user-friendly tool for the DHPA, other government agencies, consultants, and researchers.

- Execution of I-69 Corridor surveys by the DHPA will leave other survey program partners available to undertake documentation of the last 6 unsurveyed counties so that the entire state will be surveyed by 2010.

In conclusion, the DHPA staff believes that this proposal has many advantages for the three partners. Conducting the I-69 Corridor surveys in-house will help the DHPA meet the 2 goals identified in the Tier 1 MOA. In addition, the full-time survey coordinator position will give the DHPA greater control over the survey program and the ability to implement immediate changes and other procedural and technological improvements. The budget for the project is reasonable and is based on years of experience and project cost data. Finally, this proposal represents significant cost savings through the use of new technology to offset many of the project costs. The DHPA staff looks forward to discussing this proposal and is ready to answer any questions.

TABLE #1: Recent Survey & Publication Costs

	County	Years of Survey	# of Sites Surveyed	Survey Cost†	Publication Cost†	Total Cost†
1	Blackford	2003-2004	520	$ 17,324	$ 11,011	$ 28,335
2	Elkhart	2003-2004	3,667	$ 49,860	$ 17,756	$ 67,616
3	Starke‡	2003-2004	646	$ 24,682	$ 12,252	$ 36,934
4	Posey‡	2002-2003	1,314	$ 31,276	$ 17,338	$ 48,614
5	Scott‡	2002-2003	1,210	$ 29,730	$ 15,928	$ 45,658
6	Dekalb‡	2001-2002	1,920	$ 36,365	$ 14,790	$ 51,155
7	Howard	2001-2002	1,291	$ 28,129	$ 19,227	$ 47,356
8	Jasper	2000-2001	1,107	$ 21,690	$ 10,197	$ 31,887
9	Sullivan	2000-2001	739	$ 15,600	$ 6,808	$ 22,408
10	Whitley‡	2000-2001	1,127	$ 22,874	$ 10,382	$ 33,256
11	Spencer	1999-2000	1,221	$ 48,958	$ 5,646	$ 54,604
12	Wayne	1999-2000	6,766	$ 66,169	$ 31,281	$ 97,450
13	Greene	1998-1999	1,085	$ 32,505	$ 15,911	$ 48,416
14	Vermillion	1998-1999	844	$ 11,756	$ 12,376	$ 24,132
15	Decatur	1997-1998	1,285	$ 29,465	$ 4,857	$ 34,322
		Totals:	**24,742**	**$ 466,383**	**$ 205,760**	**$ 672,143**

Average # of Sites Surveyed	Average Survey Cost	Average Publication Cost	Average Total Cost
1,649	$31,092	$13,717	$44,810

† Note: The survey and publication figures for each county include the cost of the survey coordinator's time. The cost of publications is generally about half survey coordinator's time and half contractual costs for mapping and printing.

‡ Note: These five counties are used as the subjects of very in-depth cost analyses described later in this proposal.

TABLE #2: Survey Project Budgeted Costs vs. Actual Costs

	County	Years of Survey	Budgeted Cost†	Actual Cost	Difference‡	Off-Budget Percentage
1	Blackford	2003-2004	$ 31,315	$ 17,324	$ 13,991	44.7%
2	Elkhart	2003-2004	$ 39,456	$ 49,860	$ 10,404	26.4%
3	Starke	2003-2004	$ 33,950	$ 24,682	$ 9,268	27.3%
4	Posey	2002-2003	$ 34,508	$ 31,276	$ 3,232	9.4%
5	Scott	2002-2003	$ 33,876	$ 29,730	$ 4,146	12.2%
6	Dekalb	2001-2002	$ 39,145	$ 36,365	$ 2,780	7.1%
7	Howard	2001-2002	$ 39,113	$ 28,129	$ 10,984	28.1%
8	Jasper	2000-2001	$ 32,636	$ 21,690	$ 10,946	33.5%
9	Sullivan	2000-2001	$ 33,370	$ 15,600	$ 17,770	53.3%
10	Whitley	2000-2001	$ 33,130	$ 22,874	$ 10,256	31.0%
11	Spencer	1999-2000	$ 37,079	$ 48,958	$ 11,879	32.0%
12	Wayne	1999-2000	$ 42,797	$ 66,169	$ 23,372	54.6%
13	Greene	1998-1999	$ 33,566	$ 32,505	$ 1,061	3.2%
14	Vermillion	1998-1999	$ 23,811	$ 11,756	$ 12,055	50.6%
15	Decatur	1997-1998	$ 35,679	$ 29,465	$ 6,214	17.4%

Average Budgeted Cost	Average Actual Cost	Average Difference	Average Off-Budget Percentage
$34,895	$31,092	$9,891	28.7%

† Note: These cost figures reflect the survey project only; publication project costs are not included.

‡ Note: Regardless of whether projects ran over or under budget, the Average Difference is represented as a positive value in order to accurately determine the percentage by which the actual project costs deviated from the budgeted costs.

TABLE #3-A: Average Number of Sites for County Populations Under 50,000

	County	County Population†	Actual # of Sites Surveyed	Square Miles in Survey Area	Sites Per Square Mile
1	Dekalb	40,285	1,920	363	5.3
2	Greene	33,157	1,085	542	2.0
3	Whitley	30,707	1,127	336	3.4
4	Jasper	30,043	1,107	560	2.0
5	Posey	27,061	1,314	408	3.2
6	Decatur	24,555	1,285	373	3.4
7	Starke	23,556	646	309	2.1
8	Scott	22,960	1,210	190	6.4
9	Sullivan	21,751	739	447	1.7
10	Spencer	20,391	1,221	399	3.1
11	Vermillion	16,788	844	257	3.3
12	Blackford	14,048	520	165	3.2

Average County Population	Average Actual # of Sites Surveyed	Average Square Miles in Survey Area	Average Sites Per Square Mile
25,442	1,085	362	3.2

† Note: Elkhart County (pop. 182,791), Howard County (pop. 84,964), and Wayne County (pop. 71,097) were not considered in these calculations because of their higher population densities. Therefore, these calculations are based on directly comparable survey projects in counties with low-to-medium populations (under 50,000).

TABLE #3-B: Average Number of Sites for County Populations Over 50,000

	County	County Population	Actual # of Sites Surveyed	Square Miles in Survey Area	Sites Per Square Mile†
1	Elkhart	182,791	3,667	464	7.9
2	Howard	84,964	1,291	293	4.4
3	Wayne	71,097	6,766	404	16.7

Average County Population	Average Actual # of Sites Surveyed	Average Square Miles in Survey Area	Average Sites Per Square Mile
112,951	3,908	387	9.7

† Note: The inclusion of only three counties in this calculation makes a somewhat less accurate model than a calculation based on a larger number of counties. Nevertheless, the Average Sites Per Square Mile represents a starting point for estimating the number of historic sites that might be encountered in a high-population county or high-density area.

TABLE #4-A: Average Number of Sites for Counties with Populations Under 50,000

	County	County Population	Actual # of Sites Surveyed	# of Residences 45+ Years Old	Hist. Structure Value†
1	Dekalb	40,285	1,920	7,657	25.1%
2	Greene	33,157	1,085	6,083	17.8%
3	Whitley	30,707	1,127	5,796	19.4%
4	Jasper	30,043	1,107	3,953	28.0%
5	Posey	27,061	1,314	4,199	31.3%
6	Decatur	24,555	1,285	4,319	29.8%
7	Starke	23,556	646	4,415	14.6%
8	Scott	22,960	1,210	3,162	38.3%
9	Sullivan	21,751	739	4,302	17.2%
10	Spencer	20,391	1,221	2,861	42.7%
11	Vermillion	16,788	844	4,296	19.6%
12	Blackford	14,048	520	3,519	14.8%

Average County Population	Average Actual # of Sites Surveyed	Average # of Residences 45+ Years Old	Average Hist. Structure Value
25,442	1,085	4,547	24.9%

† Note: The "Historic Structure Value" is the name given to the figure that represents the number of residences more than 45 years old (as reported in the 2000 U.S. Census) divided by the actual number of sites surveyed in the listed counties. For individual counties, these figures range from a low of 15% to a high of 43%, but establish an average of 25% for counties with populations less than 50,000.

TABLE #4-B: Average Number of Sites for Counties with Populations Over 50,000

	County	County Population	Actual # of Sites Surveyed	# of Residences 45+ Years Old	Hist. Structure Value†
1	Elkhart	182,791	3,667	26,228	14.0%
2	Howard	84,964	1,291	16,584	8.0%
3	Wayne	71,097	6,766	17,995	38.0%

Average County Population	Average Actual # of Sites Surveyed	Average # of Residences 45+ Years Old	Average Hist. Structure Value
112,951	3,908	20,269	20.0%

† Note: The inclusion of only three counties in this calculation makes a somewhat less accurate model than a calculation based on a larger number of counties. Nevertheless, the Average Historic Structure Value represents a starting point for estimating the number of historic sites that might be encountered in a high-population county. Predictably, this value will be lower in higher population counties due to the higher concentration of modern (non-historic) buildings.

TABLE #5: Projected Number of Sites for the I-69 Corridor

County or Township	Population in 2000	Survey Area in Square Miles	Method #1: Est. Sites By Square Mile Land Area	Method #2: Total # of Residences 45+ Years Old	Method #2: Est. Sites By Historic Structure Value	DHPA Estimated # of Sites
Populations Over 50,000:			**9.7/sq. mi.**		**20%**	
Johnson	115,209	320	3,104	10,171	2,034	**2,000**
Marion--Perry Tshp.	92,838	46	446	11,534	2,307	**2,000**
Morgan	66,689	406	3,938	8,060	1,612	**2,100**
Warrick	52,383	384	3,725	5,102	1,020	**1,500**
Monroe†	51,272	374	1,197	4,017	803	**1,800**
Populations Under 50,000:			**3.2/sq. mi.**		**25%**	
Gibson	32,500	489	1,565	6,575	1,644	**1,800**
Marion--Franklin Tshp.	32,080	42	134	1,704	426	**1,000**
Daviess	29,820	431	1,379	5,575	1,394	**1,500**
Marion--Decatur Tshp.	24,726	32	102	2,121	530	**800**
Pike	12,837	336	1,075	2,331	583	**600**
Martin	10,369	336	1,075	1,859	465	**500**
						TOTAL: 15,600

† Note: The population and land area figures for Monroe County do not include the the incorporated City of Bloomington, which was separately surveyed in 2002-2003 and is not included in the I-69 Corridor survey project.

TABLE #6: Total Project Costs

Start-Up Costs				
Equipment	**Quantity**	**Unit Price**	**Subtotal**	
Desktop PC unit	1	$ 2,000	$ 2,000	
Tablet PC units	4	$ 2,000	$ 8,000	
Spare batteries for tablet PC units	4	$ 180	$ 720	
Carrying cases for tablet PC units	4	$ 60	$ 240	
GPS receivers	4	$ 300	$ 1,200	
Digital Cameras	4	$ 900	$ 3,600	
Spare batteries for digital cameras	4	$ 60	$ 240	
Carrying cases for digital cameras	4	$ 60	$ 240	
1 GB memory cards for digital cameras	8	$ 110	$ 880	
Memory card adapters	4	$ 20	$ 80	
10% Reserve for potential cost increases	(NA)	$ 1,725	$ 1,725	**$ 18,925**
Annual Costs				
Technology Maintenance Fees	**# of Years**	**Unit Price**	**Subtotal**	
Annual IOT charge for 4 tablet PC units	5	$ 1,350	$ 6,750	
Annual IOT charge for 1 desktop PC unit	5	$ 1,000	$ 5,000	**$ 11,750**
Survey Coordinator	**# of Years**	**Unit Price**	**Subtotal**	
Year 1 survey coordinator salary	1	$ 32,734	$ 32,734	
survey coordinator fringe benefits	1	$ 17,423	$ 17,423	
Year 2 survey coordinator salary	1	$ 33,390	$ 33,390	
survey coordinator fringe benefits	1	$ 17,570	$ 17,570	
Year 3 survey coordinator salary	1	$ 34,059	$ 34,059	
survey coordinator fringe benefits	1	$ 17,720	$ 17,720	
Year 4 survey coordinator salary	1	$ 34,740	$ 34,740	
survey coordinator fringe benefits	1	$ 17,874	$ 17,874	
Year 5 survey coordinator salary	1	$ 35,435	$ 35,435	
survey coordinator fringe benefits	1	$ 18,031	$ 18,031	**$ 258,975**
Survey Costs				
County-By-County Costs	**# of Sites**	**Unit Price**	**Subtotal**	
Daviess County	1,500	$ 22.50	$ 33,750	
Gibson County	1,800	$ 22.50	$ 40,500	
Johnson County	2,000	$ 22.50	$ 45,000	
Marion County--Decatur Township	800	$ 22.50	$ 18,000	
Marion County--Franklin Township	1,000	$ 22.50	$ 22,500	
Marion County--Perry Township	2,000	$ 22.50	$ 45,000	
Martin County	500	$ 22.50	$ 11,250	
Monroe County	1,800	$ 22.50	$ 40,500	
Morgan County	2,100	$ 22.50	$ 47,250	
Pike County	600	$ 22.50	$ 13,500	
Warrick County	1,500	$ 22.50	$ 33,750	**$ 351,000**
Publication & CD ROM Costs	**# of Areas**	**Unit Price**	**Subtotal**	
Interim Report Publications	2	$ 11,000	$ 22,000	
CD ROM-Reports	9	$ 250	$ 2,250	**$ 24,250**
Survey Budget Reserve			**Subtotal**	
10% of County-By-County Costs			$ 35,100	**$ 35,100**
Grand Total				**$ 700,000**

TABLE #7-A: Survey & Publication Cost Comparison

	Average HLFI Cost Per Site	Projected DHPA Cost Per Site
Survey Activities†		
Surveyors @ $10.00/hour + FICA (HLFI)	$ 15.07	
Surveyors @ $13.50/hour + FICA (DHPA)		$ 19.00
Mileage	$ 2.71	$ 3.00
Incidental Supplies	$ 0.38	$ 0.50
Postage	$ 0.14	$ -
Film & Processing	$ 1.47	$ -
Subtotal:	**$ 19.77**	**$ 22.50**
Interim Report Publication Costs		
Interim Report Publications (HLFI)	$ 4.76	
Interim Report Publications & CD-ROMs (DHPA)		$ 1.55
Subtotal:	**$ 4.76**	**$ 1.55**

Total HLFI Cost Per Site:	**$24.53**	
Total DHPA Cost Per Site:		**$24.05**

Total Projected HLFI Survey Cost for I-69 Corridor:	**$382,668**	
Total Projected DHPA Survey Cost for I-69 Corridor:		**$375,180**

† Note: This comparison of current and proposed survey costs does not include the cost of the survey coordinator.

TABLE #7-B: I-69 Corridor Project Total Cost Comparison

	Projected HLFI Cost	Projected DHPA Cost
Start-Up Costs		
Equipment	$ -	$ 18,925
Annual Costs		
Technology Maintenance Fees	$ -	$ 11,750
Survey Coordinator	$ 148,668	$ 258,975
Survey Costs		
County-By-County Costs	$ 308,412	$ 351,000
Publication & CD-ROM Costs	$ 74,256	$ 24,250
Survey Budget Reserve	$ -	$ 35,100

Total Projected HLFI Cost for I-69 Corridor Project:‡	**$531,336**	
Total Projected DHPA Cost for I-69 Corridor Project:‡		**$700,000**

Total Projected HLFI Cost Per Site:	**$34.06**	
Total Projected DHPA Cost Per Site:		**$44.87**

‡ Note: This comparison of costs presupposes different survey methodologies that will result in very different products, but it is useful for purposes of comparison and to reveal the relatively small overall difference in the bottom-line per site cost.

From: Carol Hood [blainc.Bla_Mailbox.Carol]
Sent: Monday, March 13, 2006 10:33 AM
To: Carol Hood
Subject: Fwd: FW: EPA Questions

>>> Kent Ahrenholtz 02/24/06 08:33AM >>>
Please place this in the official project record...

Kent L. Ahrenholtz, P.E.
Bernardin Lochmueller & Associates
6200 Vogel Road
Evansville, IN 47715

(812) 479-6200
Fax: (812) 479-6262
Cell: (812) 459-9909
Email: kahrenholtz@blainc.com

>>> "DeSimone, Anthony" <Anthony.DeSimone@fhwa.dot.gov> 02/24/06 05:56AM >>>
FYI

Tony DeSimone, P.E.
FHWA-Indiana Division
(317) 226-5307
Fax (317) 226-7341

-----Original Message-----
From: Laszewski.Virginia@epamail.epa.gov
[mailto:Laszewski.Virginia@epamail.epa.gov]
Sent: Thursday, February 23, 2006 4:39 PM
To: John Smith
Cc: Andrew King; John Moore; Thomas Tokarski; DeSimone, Anthony;
tseeman@indot.state.in.us; westlake.kenneth@epamail.epa.gov
Subject: Re: EPA Questions

Mr. Smith -

Yes, I did receive your below emails, thank you. At this time, I don't have much information or guidance concerning your latest below email inquiry.

As you know, the I-69 Project is a Federal Highway Administration (FHWA)/Indiana Department of Transportation (INDOT) project. Consequently, FHWA is the lead federal agency responsible for complying with the National Environmental Policy Act (NEPA) and appropriately developing the Tiered EIS for this project.

At this time, USEPA understands that FHWA/INDOT are currently developing a tolling study as part of the Tiered EIS process. We understand the tolling study will be released for public comment prior to release of the first Tier 2 DEIS. USEPA plans to review and comment on the tolling study once FHWA/INDOT release it for public comment.

Since FHWA/INDOT/Consultants, not USEPA, are developing karst and water

quality information for the Tier 2 EISs, I recommend you redirect your inquiry to FHWA/INDOT concerning "the status of the karst and water quality issues" of the I-69 project.

Virginia Laszewski
Environmental Scientist

US EPA, Region 5
OSEC, NIS
77 W. Jackson Blvd. (mail code: B-19J)
Chicago, IL 60604-3590
Phone: (312) 886-7501
Fax: (312) 353-5374
email: laszewski.virginia@epa.gov

John Smith
<countus@i69tour.org>
02/23/2006 08:34 AM

To
Virginia Laszewski/R5/USEPA/US@EPA

cc
Andrew King <Andrew_King@fws.gov>, Thomas Tokarski <ttokarski@bluemarble.net>, John Moore <JMoore@ELPC.org>

Subject
EPA Questions

Virginia Laszewski,

I sent this document to you on February 21st. Did you see it? It included just received attachments from INDOT documenting traffic estimates significantly reduced since earlier purpose and need sections of the I-69 study here.

Perhaps my organization was not the best, but I believe that I am bringing up some valid questions regarding the continuity of the NEPA study process and Tiering.

This seems very much like "Bate and Switch" and regarding tolling, forcing science into the realm of wishful thinking.

Any comment or guidance regarding oversight of the process in these

areas would be appreciated.

Please provide updated information regarding progress on the karst and water quality issues of this I-69 project too.

Thank you,

John Smith
COUNT US!
RR3 Box 486
Solsberry, Indiana
(812) 327-6142

John Smith wrote:

> Dear U.S.EPA, U.S. Fish and Wildlife Service, U.S. FHWA, and INDOT officials,
>
> I am sending this e-mail on to INDOT and request that this entire document be recorded as a comment in the EIS for I-69, Evansville to Indianapolis Study.
>
> Today, I cry foul regarding the I-69 Study in Indiana and the INDOT Document that I am forwarding below.
>
> I have not signed on to any I-69 booster website. I have volunteered as a representative of the Bloomington Bicycle Club as a member of the CAC for section 4 of the I-69 Evansville to Indianapolis study and I have signed up for information for a few of the sections Tier 2 studies. I question the appropriateness of this official INDOT document.
>
> Page one Chapter one of the Tier 1 FEIS for I-69, 3C, Evansville to Indianapolis said 'not feasible as a toll road'.
>
> http://deis.i69indyevn.org/FEIS/Vol1-FEIS/PDF/Chapter01.pdf
>
> Chapter 1 Project History and Background
>
> 1.1 Previous Studies
>
> ....
>
> The following points summarize key themes in these studies.
>
> .....
>
> .....
>
> .....
>
> Some Previous proposals were studied as toll roads.
> These proposals were not recommended because the road would not be financially feasible as a toll road.
> "Toll feasibility" requires that traffic levels not only pay ongoing operating and maintenance costs, but that they also provide revenues sufficient for construction debt service. Being "toll feasible"

requires higher traffic volumes than those which
justify construction of a non-toll facility.

I fail to understand how this can be a "study" in any scientific meaning of the term.

On February 17th, I have been given the attached PDF traffic estimates for the section of I-69 in Monroe County known as 3-C by Michelle C. Hilary, Office of Environmental Services, Indiana Department of Transportation. These are the numbers being used in the I-69, Evansville to Indianapolis study. They are based on I-69 not as a toll road. The show a trend that I believe calls into question the purpose and need section of the Tier 1 EIS. The certainly don't support a revision of the toll conclusion above.

The specific section that I focus on below is the new terrain section of I-69 in Monroe County. This is the section of the greatest Karst concern.
I list INDOT calculations for trucks for this section from the DEIS, The Tier 1, FEIS and the latest available numbers being used for the Tier 2 DEIS.

Section I-69, 3C section 4 at section 5 Monroe County	trucks / day	total vehicles/day
Tier 1 DEIS*	12,305	-
Tier 1 FEIS	7,600	28,000
Tier 2 DEIS- in progress**	5,700	25,300

* This number is a calculation based on truck hours savings see: http://www.i69tour.org/freight.html

I am having much difficulty placing any faith in the logic of this study based on the facts.

** It would be consistent with other toll situations to assume a lower traffic count if I-69 were made a toll road rather than a free interstate.

We also challenge the jobs numbers put forth in the objectionable INDOT document below.
See:
DEIS Personal Income Growth : http://www.i69tour.org/PIG.html
Daniels Basis for 100,000 jobs:
http://www.i69tour.org/100k_jobs.html
Groups refute jobs claim: http://www.i69tour.org/PRjobs.html
Prof. Grossman refutes jobs claim:

http://www.i69tour.org/hogwash.html

John Smith
RR3 Box 486
Solsberry, IN 47459
(812) 327-6142

-------- Original Message --------

Subject: New Web site details I-69 funding

Date: Mon, 20 Feb 2006 10:30:48 -0600

From: I-69 Project Team <publicinvolvement@i69indyevn.org>

To: <info@bikesmiths.net>

To view this email as a web page, go here.

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| (Embedded image moved to file: pic23277.jpg)
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| February 20, 2006
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| At any time, you can always
unsubscribe from|
| Fast Lane by clicking the
unsubscribe link |
| at the bottom of this e-mail or
UNSUBSCRIBE.|
|
|
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|
| Time to Vote - Talk to your
legislators |
| As part of Governor Daniels' Major
Moves |
| transportation legislation, the
funding |
| mechansim for I-69 will soon come to
a vote.|
| You are encouraged to express your
views to |
| your legislators about I-69, and the
funding|
| to allow the road to be built.
|
|
|
| Who's your legislator? Not sure? Go
Here: |
| http://www.in.gov/apps/sos/legislator/search|
| /
|
|
|
|
|
| I-69 a part of Major Moves Web site
|
| A wealth of information about I-69
and the |
| funding mechanisms being considered
to build|
| the road can be found at INDOT's new
Major |
| Moves Web site. Here are links to
some key |
| areas of the site:
|
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| Extending I-69 from Evansville to
|
| Indianapolis - facts
|

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| Major Moves at a Glance
|
|
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|
| Putting I-69 on turbo
|
| It's no secret that Indiana is short
on |
| funds to build I-69 and a host of
other |
| necessary road projects throughout
the |
| state. That's why Governor Mitch
Daniels |
| introduced the innovative funding
mechanisms|
| - tolls and
public-private-partnerships - in|
| the recent Major Moves legislation
which |
| will come to a vote in the Indiana
Senate |
| later this week.
|
|
|
| Without tolls, the start of I-69
|
| construction could be delayed until
2017 at |
| the earliest with completion no
earlier than|
| 2035. By using tolling, construction
will |
| begin in 2008 with completion
targeted for |
| 2018 - about the same time
construction |
| would start without tolling. Tolling
would |
| also significantly reduce the amount
of |
| money needed to complete this vital
economic|
| development corridor for Southwest
Indiana. |
|
|
|
|

| The other funding mechanism proposed in |
| Major Moves, public-private partnerships, |
| allows a private vendor to compress the |
| construction timeline to complete the |
| project. A private vendor will want the road|
| constructed as quickly as possible to |
| maximize its return on investment. A private|
| partner will also be able to save money |
| through more efficient operation - while |
| maintaining state safety and maintenance |
| standards.
|
|
|
|
|
| Working to expedite the start, and
|
| ultimately completion, of I-69 and other |
| vital road projects is based on the positive|
| economic impact the highway will have on |
| Southwest Indiana and the state as a whole. |
| According to the US Department of
|
| Transportation and the Indiana Chamber of |
| Commerce, every $1 invested in roads
|
| generates $2 in economic activity and $0.25 |
| in cost savings to business annually. Every |
| $1 billion invested in roads could also |
| create 47,000 jobs. This project will link |
| Evansville with the rest of the state and |
| provide jobs in many Southwest Indiana |
| counties that regularly lead the state in |

unemployment.

Carol Hood

From: "DeSimone, Anthony" <Anthony.DeSimone@fhwa.dot.gov> [Anthony.DeSimone@fhwa.dot.gov]
Sent: Thursday, March 02, 2006 8:07 AM
To: Laszewski.Virginia@epamail.epa.gov
Cc: guenther.julia@epa.gov; westlake.kenneth@epamail.epa.gov; tseeman@indot.state.in.us
Subject: RE: Tolling - Alternatives Re-evaluation Documentation

Virginia,

I wanted to send you a quick note to help you with your planning. Do not expect to see the reevaluation until the 1st of April (no, I'm not setting you up for an April fools joke, ;)). Some technical issues continue to be worked out but I think we are all on target now. You should received further detailed information on our plans in the next 2 or 3 weeks once we have some additional issues worked out. If everything is going as planned, the first DEIS would become available in early June after we had time to digest comments on the reevaluation. More details to come!!

Tony DeSimone, P.E.
FHWAIndiana Division
(317) 2265307
Fax (317) 2267341

> Original Message
> From: DeSimone, Anthony
> Sent: Thursday, February 09, 2006 2:09 PM
> To: 'Laszewski.Virginia@epamail.epa.gov'
> Cc: 'Guenther.Julia@epamail.epa.gov';
> 'westlake.kenneth@epamail.epa.gov';
> 'Ellens.Newton@epamail.epa.gov';
> 'Kenney.Thomas@epamail.epa.gov'; 'tseeman@indot.state.in.us'
> Subject: RE: Tolling Alternatives Reevaluation Documentation
>
> There will be a delay before the info is available due to
> modeling difficulties. My meeting today only covered the
> current status and there are still some questions that need
> answered. The release of the report will be further delayed
> and I believe an official notice will be going out soon about
> that to the agencies. We are working with INDOT so that
> there will be an adjustment to the "back end" of the project,
> not a further compression.
>
> My current impression is to not expect the report until early
> or even mid March, but I could be wrong.
>
> Tony DeSimone, P.E.
> FHWAIndiana Division
> (317) 2265307
> Fax (317) 2267341

>
>
> > Original Message
> > From: Laszewski.Virginia@epamail.epa.gov
> > [mailto:Laszewski.Virginia@epamail.epa.gov]
> > Sent: Thursday, February 09, 2006 9:36 AM
> > To: DeSimone, Anthony
> > Cc: Guenther.Julia@epamail.epa.gov;
> > westlake.kenneth@epamail.epa.gov;
> > Ellens.Newton@epamail.epa.gov; Kenney.Thomas@epamail.epa.gov;
> > tseeman@indot.state.in.us
> > Subject: RE: Tolling Alternatives Reevaluation Documentation
> >
> > Tony Thanks. Please keep us posted . . . even if it is
> just rough
> > guess. Thanks again!
> >
> > Virginia Laszewski
> > Environmental Scientist
> >
> > US EPA, Region 5
> > OSEC, NIS
> > 77 W. Jackson Blvd. (mail code: B19J) Chicago, IL 606043590
> > Phone: (312) 8867501
> > Fax: (312) 3535374
> > email: laszewski.virginia@epa.gov
> >
> >
> >
> >
> > "DeSimone,
> >
> > Anthony"
> >
> > <Anthony.DeSimon
> >
> > e@fhwa.dot.gov>
> > To
> > Virginia
> >
> > 02/09/2006 05:37
> > Laszewski/R5/USEPA/US@EPA,
> > AM
> > tseeman@indot.state.in.us
> >
> > cc
> > Kenneth
> > Westlake/R5/USEPA/US@EPA,
> > Julia
> > Guenther/R5/USEPA/US@EPA,
> > Newton
> > Ellens/R5/USEPA/US@EPA,
> > Thomas
> > Kenney/R5/USEPA/US@EPA

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> > Subject
> > RE: Tolling
> > Alternatives
> > Reevaluation
> > Documentation
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> >
> > Virginia,
> >
> > There has been a delay because the recreation of the Tier 1
> modeling
> > had some difficulty. I am getting my first look at a draft
> document
> > today.
> > We are talking schedule later today also so I might no more by
> > tomorrow.
> >
> > Keep warm!
> >
> > Tony DeSimone, P.E.
> > FHWAIndiana Division
> > (317) 2265307
> > Fax (317) 2267341
> >
> >
> > > Original Message
> > > From: Laszewski.Virginia@epamail.epa.gov
> > > [mailto:Laszewski.Virginia@epamail.epa.gov]
> > > Sent: Wednesday, February 08, 2006 6:46 PM
> > > To: DeSimone, Anthony; tseeman@indot.state.in.us
> > > Cc: westlake.kenneth@epamail.epa.gov;
> > > Guenther.Julia@epamail.epa.gov; Ellens.Newton@epamail.epa.gov;
> > > Kenney.Thomas@epamail.epa.gov
> > > Subject: Tolling Alternatives Reevaluation Documentation
> > >

> > > Hi Tony and Tom
> > >
> > > Sorry to bother you two (I know you must be very busy) but
> > Ken and I
> > > were wondering when FHWA/INDOT were planning to release the above
> > > referenced documentation for public/agency review and
> > comment? Thank
> > > you.
> > >
> > > Virginia Laszewski
> > > Environmental Scientist
> > >
> > > US EPA, Region 5
> > > OSEC, NIS
> > > 77 W. Jackson Blvd. (mail code: B19J) Chicago, IL 606043590
> > > Phone: (312) 8867501
> > > Fax: (312) 3535374
> > > email: laszewski.virginia@epa.gov
> > >
> >
> >
>

103-0001-IPL cc: Mr Kent Ahrenholtz

U.S. Department of Transportation
Federal Highway Administration

Indiana Division

575 North Pennsylvania Street, Room 254
Indianapolis, Indiana 46204

March 7, 2006

Keith Jason
Vince Carl
Dean Jeremy
Kent [redacted]
Tom Jonna
Jim G Nicole
Daniel Carol
Mike G

Mr. Scott Pruitt, Supervisor
U.S. Fish & Wildlife Service
Bloomington Field Office
620 South Walker Street
Bloomington, Indiana 47403-2121

Dear Mr. Pruitt:

The Federal Highway Administration (FHWA), in cooperation with the Indiana Department of Transportation (INDOT), has completed a Tier 1 Final Environmental Impact Statement (FEIS) and Record of Decision (ROD) for the proposed I-69 Indianapolis to Evansville project. The FEIS evaluated five alternative routes and their associated variations through the south-western portion of Indiana. The Record of Decision (ROD) for the project was signed by FHWA on March 24, 2004 identifying Alternative 3C as the selected alternative. Alternative 3C traverses portions of Gibson, Warrick, Pike, Daviess, Greene, Monroe, Morgan, Johnson, and Marion counties in Indiana. Tier 2 EISs are currently underway for each of the six sections identified in Tier 1.

During the original Tier 1 study, both formal and informal Section 7 consultation with the US Fish and Wildlife Service (USFWS) was conducted. A Biological Assessment (BA) was submitted to USFWS on March 26, 2003 for its review. The BA described anticipated effects to the Federally endangered Indiana bat, Federally threatened bald eagle, and the Federally endangered eastern fanshell mussel that would result from the proposed project. The USFWS reviewed the Draft BA and provided comments to FHWA and INDOT on May 30, 2003. The document was revised, and a Final BA was submitted to the USFWS on July 18, 2003 along with a request to initiate formal consultation on the Indiana bat and bald eagle. At the conclusion of the formal consultation, the USFWS issued a Tier 1 Biological Opinion (BO) and Incidental Take Statement. The BO concluded that the proposed project was not likely to jeopardize the continued existence of the Indiana bat or the bald eagle. The USFWS completed informal consultation for the eastern fanshell by providing the FHWA its written concurrence that this species was not likely to adversely affect by the proposed project.

At the recommendation of the USFWS, FHWA and INDOT are hereby requesting to reinitiate formal Section 7 consultation on the Indiana bat for impacts associated with the proposed I-69 Indianapolis to Evansville project. Our decision to reinitiate was prompted by new information

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gained during Tier 2 field studies of Indiana bats from 2004 through the present that was not available for analysis during the original Tier 1 (i.e., project-wide) consultation. New information includes results from mist netting, roost tree identification, roost tree emergence counts, and bridge surveys for Indiana bat summer habitat, and results from fall/spring cave harp trapping and winter cave surveys for Indiana bat winter habitat. We understand that the formal consultation process will conclude with USFWS issuing a revised Biological Opinion for the entire Alternative 3C corridor. Reinitiation of formal Section 7 consultation is not being requested for the bald eagle at this time, because there has not been new information that shows substantial changes to this species since the original Tier 1 BA. Likewise, we do not see a need to informally consult on the eastern fanshell mussel again, since the original findings for this species remains valid as well.

The enclosed Tier 1 BA Addendum, I-69 Evansville to Indianapolis, has been prepared for the entire length of the I-69 project. The purpose of this BA Addendum is to present additional information that has been gathered for the Indiana bat (*Myotis sodalis*) since the publication and submission of the original I-69 Evansville to Indianapolis Tier 1 Biological Assessment (BA) dated July 18, 2003 (Revised October 27, 2003). This document is not intended to replace the original Tier 1 BA, rather it will supplement it with the results of habitat surveys and analysis that have been conducted since the publication of the original Tier 1 BA.

Based on the BA Addendum, **we are requesting the reinitiation of formal Section 7 consultation regarding the project's impacts on the Indiana bat (*Myotis sodalis*).** We also are requesting that you confirm in writing your previous concurrence with the determinations that the project is *not likely to adversely affect* the eastern fanshell mussel (*Cyprogenia stegaria*) and that the project is *likely to adversely affect, but not jeopardize,* the bald eagle (*Haliaeetus leucocephalus*). We also are requesting that you confirm in writing that information in the original Tier 1 BO remains valid concerning these species.

We are aware that at the Tier 1 stage, both the Biological Assessment and programmatic Biological Opinion are preliminary and findings could be modified during Tier 2 studies as more detailed information is developed. A Tier 2 Biological Assessment (Tier 2 BA) will be provided for each of the six Tier 2 sections to document the final analysis of the impacts to the appropriate species in that section. As long as the types and magnitude of section-specific impacts in a Tier 2 BA are consistent with those analyzed within the revised Tier 1 BO, then it is our understanding that USFWS will acknowledge this in a letter and append each Tier 2 BA to the revised Tier 1 BO along with any additional reasonable and prudent measures and terms and conditions needed to further minimize the amount of incidental take of Indiana bats outlined in the Incidental Take Statement.

With this letter, the FHWA is submitting the Addendum to the Tier 1 Biological Assessment and is exercising our option in accordance to 50 CFR 402.12(j) to initiate formal consultation at this time, concurrently with the submission of the BA. Please notify us, in accordance with the regulations, within 30 days as to your concurrence with the Tier 1 Biological Assessment (revised October 27, 2003) and enclosed Addendum to that document. Formal consultation will conclude in a maximum of 90 days from this notice and a Biological Opinion is to be received by our agency within 45 days of concluding formal consultation.

We greatly appreciate the time that you and your staff have provided during the early coordination of this Section 7 consultation. We hope that this will help in minimizing these time frames provided by the regulations for you to submit to as the BO. If you require any assistance during your review, please do not hesitate to contact our office, INDOT or our consultants. Our consultant, Bernardin-Lochmueller & Associates, Inc., prepared the original Tier 1 BA and the Tier 1 BA Addendum and may function as our designated representative for this consultation. We understand that the ultimate responsibility for compliance with Section 7 remains with the FHWA.

We are requesting that portions of this document which are marked "Confidential" be kept confidential to the maximum extent possible, consistent with the requirements of the Freedom of Information Act. Part of this information was obtained by the Indiana Department of Transportation (INDOT) and its consultants by promising knowledgeable members of the Indiana caving community that the information they disclosed to INDOT would be protected to avoid destruction of the resources through recreational use.

As with all preliminary or potentially sensitive information related to this project that is being provided to your agency in the spirit of cooperation and early consultation, we request that your agency inform and consult with us in the event that there is a request that the information be released so that we can provide you any additional information you may need to assist in making the decision to grant such a request.

Please send your response to the undersigned with a copy to Tom Cervone, Ph.D., Bernardin-Lochmueller & Associates, Inc., 6200 Vogel Rd., Evansville, IN 47715.

If you require further information please contact Tony DeSimone of this office at (317) 226-5307 (e-mail: Anthony.desimone@fhwa.dot.gov).

Sincerely yours,

/S/ ANTHONY M. DeSIMONE

Robert F. Tally, Jr., P.E.
Division Administrator

Enclosures

cc:
Ms. Janice Osadczuk (INDOT N855)
Kent Ahrenholtz (BLA)

Carol Hood

From: <Andrew_King@fws.gov> [Andrew_King@fws.gov]
Sent: Tuesday, March 07, 2006 10:11 AM
To: Anthony DeSimone
Cc: Jane Mosby; Kent Ahrenholtz; Tom Cervone; KGillette@blainc-indy.com; Scott_Pruitt@fws.gov
Subject: RE: Delivery of Tier 1 Biological Assessment to USFWS

Tony,

We'd prefer to have an original, signed letter for our administrative record of the consultation.

Thanks,

Andy

_____

R. Andrew King
U.S. Fish and Wildlife Service
Bloomington Field Office
620 S. Walker Street
Bloomington, IN 47403
Phone: 8123344261 x216
Fax: 8123344273

"DeSimone, Anthony" <Anthony.DeSimone@fhwa.dot.gov>
03/07/2006 07:39 AM

To
"Tom Cervone" <tcervone@blainc.com>, <KGillette@blaincindy.com>, "Jane Mosby" <jmosby@blainc.com>, "Kent Ahrenholtz" <kahrenholtz@blainc.com>
cc
"King, Andy" <Andrew_King@fws.gov>
Subject
RE: Delivery of Tier 1 Biological Assessment to USFWS

Attached is my letter. Andy, do you need me to mail you the original or is the copy that BLA will deliver with the BA sufficient.

Thanks

Tony DeSimone, P.E.
FHWAIndiana Division

(317) 2265307
Fax (317) 2267341
[attachment "winmail.dat" deleted by Andrew King/R3/FWS/DOI]

Carol Hood

From: Jeremy Kieffner [blainc.Bla_Mailbox.Jeremy]
Sent: Tuesday, March 14, 2006 8:40 AM
To: Amy S LRL Babey
Cc: Jason Dupont; Kent Ahrenholtz; Tom Cervone
Subject: RE: I-69 Permit Process

Amy,

Sorry I haven't gotten back to you on your first email.

The March 27th date is not available for us. Let's try April 11th or 12th for this meeting. The Project Manager is not available today so I will have to let you know later this week which date works best for us and INDOT. I will also have a tenative agenda put together for you by the end of the week so you guys will know what we want to cover in this meeting. Thank you for your response and I will email you again by the end of the week.

Sincerely,
Jeremy Kieffner
Bernardin Lochmueller and Associates, Inc.
1.800.423.7411
jkieffner@blainc.com

>>> "Babey, Amy S LRL" <Amy.S.Babey@lrl02.usace.army.mil> 03/14/06 08:27AM >>>
Jeremy,

If you and INDOT still would like to meet, I have some potential dates for you to come down to the District Office here in Louisville. We (Jim, Doug, and myself) have the following dates open: Monday, March 27 and anytime the week of April 10-14. Please let me know if any of these dates work for you as soon as you can so that I can be sure to get it on our schedules.

Thanks!

Amy

-----Original Message-----
From: Jeremy Kieffner [mailto:jkieffner@blainc.com]
Sent: Friday, February 10, 2006 4:55 PM
To: Babey, Amy S LRL
Cc: Jason Dupont; Kent Ahrenholtz; Tom Cervone
Subject: I-69 Permit Process

Amy,

We would like to try and set up a meeting in the near future with the USACE to discuss the permitting process which will be used for the I-69 project. We would like to have this meeting in the next couple of weeks. The meeting could be held at the USACE office if that is more convenient for you guys. We would like to have Jim Townsend, Doug Shelton, and yourself at this meeting if possible to discuss the direction that the USACE wants to proceed with the permitting for the I-69 project. Could you please get back to me with some dates that would be available to have this meeting. Thank You.

Sincerely,
Jeremy Kieffner
Bernardin Lochmueller and Associates, Inc.
1.800.423.7411

Carol Hood

From: Jeremy Kieffner [blainc.Bla_Mailbox.Jeremy]
Sent: Friday, March 17, 2006 4:12 PM
To: Amy S LRL Babey
Cc: Jason Dupont; Kent Ahrenholtz; Tom Cervone
Subject: Tenative Agenda for the USACE Meeting

Amy,

Attached is the tenative agenda for the upcoming meeting with Jim, Doug, and yourself. Please review this agenda at your earliest convenience. We are still trying to coordinate with INDOT staff on the exact date. That is why the agenda has April 11 or 12th on it. I will let you know ASAP on the date.

Sincerely,
Jeremy Kieffner
Bernardin Lochmueller and Assoicates, Inc.
1.800.423.7411
jkieffner@blainc.com

USACE Permit
Meeting Agenda2.d..

Carol Hood

From: "DeSimone, Anthony" <Anthony.DeSimone@fhwa.dot.gov> [Anthony.DeSimone@fhwa.dot.gov]

Sent: Tuesday, March 21, 2006 7:55 AM

To: Laszewski.Virginia@epamail.epa.gov; westlake.kenneth@epamail.epa.gov

Cc: Kent Ahrenholtz; guenther.julia@epa.gov; JOSADCZUK@indot.state.in.us; Michelle Hilary; TSEEMAN@indot.state.in.us

Subject: Status of I-69 Tier 2 Studies, Indiana

Ken and Virginia,

I just wanted to send you a quick email about the status of things.

We should have the reevaluation ready by the end of the month or the first week of April, though, what the Indiana legislature has done requires a little consideration and could delay things but I do not think it will at this point. At the same time, would should be able to provide EPA with some revised timeframes and process revisions that takes into account the recent delays. I think we have some proposals that might streamline things a bit more. We are still shooting for our first Tier 2 DEIS by early to Mid June. We are also still considering thoroughly your written comments on Section 1 alternatives screening.

I was wondering if there is anything from our part you need concerning the proposal to pay for a Karst reviewer which was discussed at our last meeting. Do you have what you need or do we need to talk about that more?

Thanks

Tony DeSimone, P.E.

FHWAIndiana Division
(317) 2265307
Fax (317) 2267341

Carol Hood

From: Jeremy Kieffner [blainc.Bla_Mailbox.Jeremy]
Sent: Wednesday, March 22, 2006 4:32 PM
To: Amy S LRL Babey
Cc: Jason Dupont; Kent Ahrenholtz; Tom Cervone
Subject: I-69 USACE Section 404 Permit Meeting

Dear Amy,

We would like to have the meeting to discuss the I-69 Permitting Process on April 12, 2006 at the USACE office in Louisville at 10:00am (Louisville Time) if that is alright with Jim, Doug, and Yourself. Could you please email me a response indicating if this date and time is okay with everyone involved at the USACE. Also, could you please let me know a room number where we will be having this meeting. I would plan on 10 people in addition to the USACE personnel attending this meeting. The agenda I sent to you on March 17 will be the one we would follow for this meeting. Thank you.

Sincerely,
Jeremy Kieffner
Bernardin Lochmueller and Associates, Inc.
1.800.423.7411

I-69 Evansville to Indianapolis
Tier 2 Studies

AGENDA

I-69 Tier 2 Permitting Meeting with US Army Corps of Engineers

USACOE District Office, Room 709, Louisville KY
April 12, 2006, at 10:00 am (Louisville Time)

1. **Introductions & Opening Remarks**
2. **Status of I-69 Tier 2 Studies**
3. **Funding Agreement for USACOE Position for INDOT projects**
4. **Permitting Process for I-69**
   a. Permitting for Initial Construction Contract (I-64 to SR 68)
   b. Single Preliminary Corridor-wide Permit (1) or Individual Section Permits (6)
      i. Multiple Regional General Permits for impacts <1 acre
      ii. One or Six Individual Permits
      iii. Level of data anticipated for initial permit application/preapplication
   c. Final Permit by I-69 Concessionaire
      i. Following completion of final design
      ii. Re-evalution and amendment for final impact numbers
      iii. Mitigation – *possibly "over" mitigate to accommodate any minor increases in impacts*
5. **Mitigation Measures**
   a. Wetland Mitigation
      i. Same 8-digit Watershed as the Wetland Impacts
      ii. 4:1 or 3:1 for Forested Wetlands (depending on quality)
      iii. 3:1 for Scrub / Shrub wetlands
      iv. 2:1 for Emergent Wetlands
      v. 1:1 for all impacted wetlands if mitigation is completed and proved successful prior to construction
   b. Open Water Impacts <u>Not</u> Mitigated – *borrow pit construction to compensate for impacts to open water areas*
   c. Stream mitigation
      i. Same 8-digit Watershed as the Stream Impacts
      ii. Construction of Riparian Buffers
      iii. In-stream Improvements and Natural Channel Designs, if appropriate
6. **Timing of Permit(s)**
7. **Other Issues**

MINUTES

revised 6/6/2006

Meeting with U.S. Army Corps of Engineers

At USACE's Louisville District Office

April 12, 2006 at 10:00 a.m. EDT

Attendee	Organization
Jim Townsend	USACE
Doug Shelton	USACE
Amy Babey	USACE
Tony DeSimone	FHWA
Tom Seeman	INDOT
Janice Osadczuk	INDOT
Michelle Hilary	INDOT
Richard Phillabaum	INDOT
Bill Malley	Akin Gump Strauss Hauer & Feld
Tom Cervone	Bernardin Lochmueller & Associates (BLA/PMC)
Kent Ahrenholtz	BLA
Jeremy Kieffner	BLA

USACE opened the meeting and welcomed everyone to the Louisville District Office.

INDOT gave a brief update on the status of I-69 and how the passing of "Major Moves" has given INDOT the ability to move projects forward and the number of projects that will be starting.

BLA proceeded to update the USACE on the progress of the I-69 project.

I. Schedule

BLA provided an overview of the current schedule. Highlights included:

- The Tier 1 Reevaluation is expected to be completed in May or June.
- After as the Re-evaluation document is completed, FHWA and INDOT anticipate that an Amended Tier 1 ROD will be issued,
- The Tier 2 DEIS's will follow the Amended Tier 1 ROD.
- With the current schedule, Section 1 DEIS should be published in mid-2006.
- With the current schedule the Section 1 ROD could be issued in 2007.
- INDOT intends to break ground and start meaningful construction on the southern 2 miles of the project in 2008 (at the southernmost end of Section 1).

II. Tier 1 Re-evaluation

A. Contents of Tier 1 Re-evaluation

The Tier 1 Re-evaluation will analyze selected alternatives from the Tier 1 EIS as tolled alternatives. The footprint impacts are not expected to change because tolls will be collected electronically (without toll plazas). Traffic-related impacts will change, because tolls will affect traffic volumes on I-69. The Re-Evaluation will present new traffic forecasts for I-69 as a tolled facility and assess traffic-related impacts based on those new forecasts. It will use this information to re-assess the selection of Alternative 3C as the preferred alternative.

B. Distribution of Tier 1 Reevaluation

The agencies will be provided the Re-evaluation document and given a 30-day comment period. The document also will be posted on the Internet and made available for public comment for 30 days.

C. Major Moves

The USACE asked if the corridor will remain in the same location as it currently is in Section 6 with the Major Moves legislation? BLA responded stating that as of now we are moving ahead as is.

D. Agency Contacts

The USACE asked for a central contact person for dealing with the Corps on Section 404 Permits and stated that, to this point in the I-69 process things have been working well.

INDOT indicated that Michelle Hilary will be the central contact person at INDOT for permitting. BLA will be involved with INDOT to work hand in hand with the USACE during the permitting process for I-69.

E. Funding of Agency Positions

BLA discussed the issue of INDOT possibly funding a position at the USACE to process INDOT projects.

FHWA noted that SAFETEA-LU allows for the FHWA to fund positions at the USACE. If a position was funded, the USACE must show that things are working better than they were before the funding was provided. It may be possible to fund 1 or 2 positions if needed.

USACE noted that there is some uncertainty about their legislative authority to accept funds from other federal agencies to fund positions. They have the authority under current law but it is scheduled to expire in less than a year. It has been extended in the past and they expect this authority to continue.

USACE noted that the Ohio district of USACE has a funding agreement in place that may be useful to follow. The USACE is currently reviewing this agreement to see if it may work for the Louisville District.

FHWA noted that Texas also has a USACE funding agreement in place that may be referenced.

USACE will work with INDOT and FHWA on the issue of funding a position. Ideally the agreement would cover both the Louisville and Detroit Districts.

II. Section 404 Permitting Procedures

A. Overall Approach

FHWA, INDOT, USACE, and BLA discussed overall approach to Section 404 permitting for this tiered project. Several possible approaches were discussed. The attendees agreed on the following overall approach as the basis for further discussions with other agencies:

- Scope. The Tier 6 Sections of the I-69 Evansville-to-Indianapolis Project will be permitted individually for Section 404. It will not be necessary to submit a single application for the entire Evansville-to-Indianapolis project.

- Duration. No agreement was reached on the term of the permit. The USACE noted that it can grant permit extensions if construction does not start before the permit expires.

  Type of Permit. Each of the 6 Sections is anticipated to qualify for multiple Regional General Permits (RGP's) and possibly 1 Individual Permit (IP).

B. Design Levels for Permitting

FHWA, INDOT, USACE, and BLA discussed the appropriate level of design for Section 404 permitting.

Levels of Design Detail. INDOT and BLA began by describing three different levels of design detail:

- 10% Design Level is generally the level of design the I-69 project will be at for the release of the DEIS's. This level of designs usually includes design plans with preliminary profile and stream crossings, structure type for all stream crossings, and a "rough" estimate of construction limits.

- 25-35% Design Level usually includes refined profiles to balance cut and fill, roadside drainage and assess roads, structure size and type for each stream crossing, more refined estimates of impacts, and evaluates the impacts and adjustments are made to reduce impacts where possible.

- Final Design Level usually includes post public hearing refinements, structural design detail, establishment of right-of-way limits, ramp and interchange profiles, maintenance of traffic during construction, and temporary impact identification in "water" impact areas.

Need for Flexibility. INDOT explained that they intend to build this project under design-build contracts and also may use a type of public-private partnership known as a concession. The value of this approach rests, in part, on giving the design-builder or concessionaire the flexibility to come up with more cost-effective ways to build the project. For that reason, INDOT intends to complete approximately 10% design before entering into a design-build contract or concession agreement. Higher level of design would be completed only where needed for permitting.

Proposed Level of Design Detail. INDOT explained that it would like to permit most of the project at the 10% design level; although, in areas with large amounts of water resource impacts, additional design may be completed and these areas will be coordinated ahead of time with the USACE.

Potential for Permit Modifications. The USACE noted that, ideally, they would prefer to handle Section 404 permitting for each project all at one time, rather than granting a permit and then having to review requests for modifications at a later time. INDOT noted that modifications may be needed on this project, because a design-build approach is being used. With design-build, it is likely that some design changes will be made by the design-build contractor, which may necessitate modifications to the wetlands permits.

Design Needed for Section 404 Permitting. The USACE stated that they are willing to consider Section 404 permit applications based on 10% design. However, they emphasized that INDOT should keep in mind that the USACE is not making any commitments on permitting at any design level; if USACE believes 10% design is not sufficient in a particular area, they will "NOT" issue a Section 404 permit until the necessary design work is completed.

- The USACE noted that an issue with permitting at 10% Design is that the Section 404 permit application asks for quantities of cut and fill in water resource areas and these quantities may not be available at 10% design. The USACE indicated that these quantities could be estimated (rather than specifically calculated) in areas with lower-quality aquatic resources; this would allow 10% design plans to be used in those areas.

Obligations of Contractors. The USACE noted that the design-builder or concessionaire must be made aware that if they go over the permitted impacts, the project may be delayed because of the need to amend the permits. The contracts must include a list of "commitments" that must be followed by the design-builder or concessionaire.

D. Timing of Section 404 Permitting

Timing. Section 404 permitting for the I-69 Project is anticipated to take 1-2 years. The first permit application may be submitted in early 2007 and the majority of the permit applications could be submitted by the end of 2007 with a few coming in early 2008.

Potential for PPP. INDOT wants to be in a position by spring of 2008 for the selection of a private/public partnership. INDOT would like to have the permits in place by this time.

Status of Regional General Permits. The Regional General Permits will not be reinitiated until 2009; INDOT hopes to have all of the I-69 permits should be submitted prior to this re-initiation.

Initial 2.5-Mile Construction Contract. INDOT would like to begin construction in 2008 with a 2.5-mile section at the southernmost end of the project. This project would be the beginning of Section 1 (extending north from I-64). See below for a discussion of the Section 404 permitting for this section.

C. Mitigation

"Over-Mitigation." INDOT and BLA proposed developing mitigation measures that would "over mitigate" for the impacts of each Tier 2 section on Section 404 resources. This would allow greater flexibility in case actual impacts are greater than estimated in

each Tier 2 EIS FHWA noted that it is still necessary to avoid and minimize, not just mitigate. All agreed that avoidance must be attempted first, then minimization, and then mitigation.

Preferred Alternative and Mitigation Package. The Preferred Alternative Mitigation Package (PAMP) will consider appropriate mitigation sites for this project. The PAMP will be included as part of the FEIS's, rather than being circulated as a separate document between the DEIS and FEIS.

Mitigation and Monitoring Plan. A Mitigation and Monitoring Plan will be submitted with all Permit Applications. Coordination with current land owners of mitigation sites will be addressed as part of the Mitigation and Monitoring Plans.

Mitigation Team. INDOT will consider forming a "Mitigation Team" to handle mitigation for the I-69 Project. This "Mitigation Team" would not only be responsible for coordinating "water resources" mitigation as well as other mitigation, including mitigation for impacts to endangered species under Section 7 of the Endangered Species Act..

Multi-Purpose Sites. BLA noted that the mitigation plan for this project assumes that a single mitigation site may be used to mitigate for multiple impacts, not just water resources. The USACE noted that INDOT should make sure that the mitigation sites are approved by all of the regulatory agencies with jurisdiction.

Advance Purchase. BLA noted that some mitigation sites may be purchased prior to submitting the permit application. USACE suggested purchasing high quality areas in areas that may be subject to future development and the Corps may even look at providing credits for protecting these high quality areas.

Stream Restoration Methods. USACE stated that INDOT should look at putting back more natural systems and possibly using "Rosgen" designs for high quality stream impacts. BLA noted that they are currently completing Rosgen training.[1]

Use of Excess Mitigation for Other Projects. BLA asked the USACE if INDOT could use excess mitigation for other INDOT project in the same 8-digit watershed. The USACE responded stating as long as there is an accounting methodology in place to keep track of the excess mitigation this would not be a problem, but do not create additional mitigation solely for the purpose of using it on another project.

Mitigation Ratios. BLA asked if the mitigation ratios stated in the agenda from the MOU between INDOT and USFWS and IDNR are acceptable to the USACE. The USACE stated that they were fine using those ratios from the MOU.

Wetland Mitigation

- Same 8-digit Watershed as the Wetland Impacts
- 4:1 or 3:1 for Forested Wetlands (depending on quality)
- 3:1 for Scrub / Shrub wetlands
- 2:1 for Emergent Wetlands
- 1:1 for Farmed Wetlands

[1] The Rosgen stream classification system is explained on the EPA web site at: http://www.epa.gov/watertrain/stream_class/

Open Water Impacts
Not mitigated; borrow pit construction to compensate for impacts to open water areas.

Stream Mitigation
- Same 8-digit Watershed as the Stream Impacts
- Construction of Riparian Buffers
- In-stream Improvements and Natural Channel Designs, if appropriate

D. Permitting for Initial Construction Project

Scope of Application. The USACE stated that Section 1 should be permitted all at once; INDOT should not try to separate out the first 2 miles.

Archeology. INDOT asked if the level of Archaeology being completed for the EIS's was sufficient enough for permitting.

FHWA vs. Corps Roles. USACE stated that FHWA is the lead Federal Agency for this project and that it is the FHWA's responsibility to make sure all environmental impacts are assessed properly. The USACE is only responsible for "Water" impacts associated with the I-69 Project.

Record-Keeping. INDOT made the USACE aware of the possibility of a law suit being filed by the opponents of the project against the Section 404 Permits and that INDOT wanted to provide as much assistance to the USACE as possible to make the Section 404 Permits sound.

Inter-Agency Consultation on Section 404 Issues. BLA stated that the I-69 project team start to bring more agencies together to start discussions of mitigating water resources. The USACE advised INDOT to do this and also stated that they do not provide assistance on how to design mitigation sites.

E. Other Issues

Legal Drains. FHWA asked if the present conditions of Legal Drains should be used as impact descriptions. The USACE stated that yes, present conditions of Legal Drains should be used to describe the system.

Quality Assessments. BLA noted that all of the wetlands and streams impacted by this project were assessed for quality using either InWRAP, QHEI, or HHEI (the wetlands and stream assessment techniques that are being used in Tier 2 for this project). The mitigation sites will also have quality assessments completed on them at the end of their monitoring periods to indicate if the quality of the mitigation replaced the quality of the impacts.

Section 401 Certification. INDOT acknowledges that a Section 401 Water Quality Certification is required prior to issuing any Section 404 Permit. INDOT and BLA will be coordinating with the Indiana Department of Environmental Management (IDEM) about Section 401 certification for this project.

Pre-Application Consultation. USACE recommended additional pre-application consultation to discuss the information needed in the Section 404 application. INDOT

noted that a meeting with the USACE could be scheduled for each of the 6 permit submittals to determine the information needed for that specific application.

Jurisdictional Determinations. Each of the 6 Tier 2 Sections will submit a Jurisdictional Determination (JD) Report for their section.

BLA thanked everyone for their time and adjourned the meeting.

Meeting Minutes

Tier 2 BLA Management Team Meeting

Indiana Department of Natural Resources (IDNR), Indianapolis, IN
Monday, April 16, 2006, 2:00 p.m.

Attendees:	
John Davis - IDNR	Michelle Allen - INDOT
Ron McAhron - IDNR	David Glista - INDOT
John Bacone – IDNR Division of Nature Preserves	Tom Cervone – BLA/PMC
Christie Stanifer - IDNR	Jason Dupont – BLA/PMC
Jon Eggen - IDNR Division of Water	Kia Gillette – BLA/PMC
Katie Gremillion-Smith – IDNR Division of Fish & Wildlife	
Michelle Hilary - INDOT	

Jason Dupont opened the meeting and participants introduced themselves.

INDOT and the PMC are here to be helpful. INDOT's goal is to provide the best product for the State of Indiana. IDNR's goal is to help protect Indiana's resources (i.e. natural, cultural and mineral). IDNR would like to be helpful in providing what is needed and identifying what impacts will occur from the project. I-69 is a large, complex project and good communication between the agencies is necessary.

Project Background

- I-69 is a Tiered project, and many agency comments have been made an incorporated by this point in the project. Tier 1 was from about 1999-2004 and Tier 2 from 2004-present.
- A tremendous amount of information has been gathered as part of this project including: Indiana bat surveys, karst surveys, cave biota surveys, and many others. A lot of advancement has come about by working with different agencies.
- Many things have been learned about southwestern Indiana as part of this project.

Project Coordination

- IDNR responses will likely come from Christy Stanifer. This project will ultimately be a water permit. Responses should be consistent. IDNR would like to encourage contact with people in the field, but don't mistake informal conversations as formal. Bigger picture questions should go to Christy for coordination with and formal responses from John Davis, John Bacone and Ron McAhron; however, you can contact field biologists for some questions.
- There will be different kinds of permitting action. It will be helpful for IDNR people to have MOU's and mitigation guidelines and to have Early Coordination information match up with other project coordination. IDNR should not take inconsistent positions without good reason.
- IDNR, INDOT, and PMC contacts on the I-69 Coordination Topics list, as provided by the PMC, were reviewed. Katie Gremillion-Smith was added to the list of IDNR karst contacts. Jon Eggen was removed from the IDNR permitting contacts. Herschel McDivitt was added to the IDNR mineral resource contacts. Phil Marshall and Mike Homoya were added to the IDNR revegetation contacts.

Permitting and Mitigation

- For I-69, permitting and mitigation in the field has started. The project will follow the 1991 MOU for wetland mitigation.
- Natural Resources Commission Information Bulletin 17 also sets guidelines for habitat mitigation.
- The spatial requirement in Bulletin 17 (same 14-digit watershed) may be limiting to possible I-69 mitigation. Mitigation is being focused in large, biologically attractive areas. The 14-digit watershed requirement could limit this and require many smaller sites. It was agreed that larger, more biologically attractive sites would be preferred to smaller scattered sites. Bulletin 17 is a non-rule policy and adjustments can be made. IDNR is in favor of the approach to seek and utilize larger biologically attractive areas for I-69 acknowledging that this will likely require going outside of the 14-digit watershed boundary in some locations.
- The wetland mitigation ratios in Bulletin 17 are at the upper end of the MOU. During earlier planning stages, the focus was to avoid high quality habitats. I-69 wetland impact mitigation will also include an additional 10% to compensate for potential slight shifts in alignment during design. The concern with the Bulletin ratios is that they always use the upper limit of the MOU in all cases. In some cases impacts may be lower quality wetlands. Or, an attractive mitigation site may be found that would only accommodate the lower limit of mitigation from the MOU. IDNR acknowledged that deviation from the Bulletin 17 ratios may be acceptable based on these factors.
- For Section 1, a 160-acre site along Pigeon Creek, along with some oxbows, is being investigated for mitigation. This site will likely cover wetland, forest, and stream mitigation. In this case, the site will likely provide more than the required mitigation. The property owner will be allowed to continue farming the area until mitigation occurs.
- Wetland impacts previously presented (ie Screening Reports) may decrease further. These impacts include what is in the right-of-way footprint, and do not account for bridging. Footprints may also be tightened in some areas. This should be explained in the documents.
- It would be helpful for reviewers to know how the project was approached. For instance, if larger alignment footrprints were used and will later be tightened, that should be explained.
- For forest mitigation, “upland forest” refers to all non-wetland forest. Thus it could be in bottomland or riparian areas.
- For forest mitigation, the I-69 study team wants to clarify forest mitigation ratios. Forest mitigation for all I-69 non-wetland forest will include no net loss and will be replaced (reforestation) at a 1:1 ratio, forest preservtion at a 2:1 ratio may be used to account for the balance of the overall 3:1 forest mitigation commitment as defined in the Tier 1 EIS. However, IDNR states that preservation should be at a 10:1 ratio for forest in the floodway.
- IDNR acknowledges that 10 to 1 is high, but is typically only used if there is pressure on resources that could be preserved. Replacement is preferred by IDNR, but preservation will be evaluated on a case by case basis for each permit.
- INDOT will be mitigating other habitats that are outside IDNR jurisdiction.
- A mechanism for an answer on mitigation may need to be devised. This could include general concurrence for site during NEPA, and approval with the permit.
- INDOT would like IDNR to slide on the wetland mitigation ratios (within the MOU) if necessary. If there are sliding ratios, and the team has already gone to lengths to avoid, then it makes no sense to always use the high end.
- Also, mitigation sites have to be from willing sellers at fair market value.

- Potential mitigation sites are being rated with a point system, which includes presence of TES and other things. The higher the total point value, the better the site.
- It would be helpful to talk to IDNR field people about potential mitigation sites. They often know the areas well and may know of attractive sites. If a site is recommended or has been reviewed by IDNR field personnel, this can be mentioned because their opinions do carry weight for the issuance of a permit.
- IDNR Field biologists may know the best location for mitigation, but may not know the implications, like mitigation ratios.
- Wetlands and streams to be impacted have had assessments conducted, like QHEI, HHEI, and InWRAP. This will help understand the impacts for mitigation. These assessments will be used by IDNR as general reference.
- If higher quality mitigation is proposed for a lower quality impact, perhaps this could be justification for the lower mitigation ratio.
- For questions about hydraulic reviews and permitting, send the information through Christie and IDNR will provide an answer as to what should require a review.

Karst

- IDNR has provided comments via e-mail on the karst reports and biota surveys.
- Coordination regarding what karst mitigation measures were done for the SR 37 project from Bedford to Mitchell has occurred with Bob Buskirk at INDOT.

Oil and Gas

- Some oil and gas wells may be impacted by the project, but there will not likely be an impact on recovery. Impacts were determined via the Statewide GIS and ground surveys.
- Protocols for well closure procedures are still needed. A communication procedure may need to be added for when an unknown well is identified. These protocols should be developed through Herschel McDivitt.

Revegetation

- It may be possible for IDNR nurseries to grow wildflowers and seedlings. It may be possible to grow larger trees for INDOT.
- I-69 mitigation will include tree species from the IDNR list. In addition, sycamore, cottonwood, silver maple and other species often found in riparian areas are anticipated to benefit the mitigation sites.

Wildlife Crossings

- In many cases, wildlife crossings will be located in riparian areas. These areas may flood occasionally and not be dry during all flood events. It is not anticipated that there must be dry land at all times for these crossings. However, rip-rap should not be placed on the dry ledge to accommodate the wildlife crossings.
- IDNR expressed concerns for karst areas where there may be few surface streams. There would be potentially long distances without crossings. These areas will be addressed per the Karst MOU.
- Karst features exist in the Crawford Upland where there are surface drainage features there to provide connectivity. In addition, in the Mitchell Plain, there are also some surface drainages, such as Indian Creek.
- It would help IDNR to have distances between wildlife crossings.

- It is expected that overpasses for local roads will also have enough room to provide crossings.
- For deer, does the crossing have to be 24' wide? Or does it just have to meet the openness ratio? This will have to be investigated, but the openness is for light and so the animals can see. Crossings less than 24' wide will be considered.
- For SR 37, there are some crossings today with existing bridges. The team is still investigating if the existing bridges will be replaced and how long they will be. Roadkill surveys are also being conducted along SR 37. It is anticipated that wildlife crossing accommodations will be improved along SR37 from Bloomington to Indianapolis.

Carol Hood

From: Jeremy Kieffner [blainc.Bla_Mailbox.Jeremy]
Sent: Wednesday, April 19, 2006 10:21 AM
To: wmalley@akingump.com; Anthony.Desimone@fhwa.dot.gov; Josadczuk@indot.state.in.us; mhilary@indot.state.in.us; Rphillabaum@indot.state.in.us; tseeman@indot.state.in.us; Amy S LRL Babey; doug.shelton@lrl02.usace.army.mil; james.m.townsend@lrl02.usace.army.mil
Cc: Carol Hood; Kent Ahrenholtz; Tom Cervone
Subject: DRAFT Meeting Minutes from the USACE I-69 Permitting Process on April 12, 2006

Dear Everyone,

Attached are the "Draft" Meeting Minutes from the USACE I-69 Section 404 Permitting Process Meeting that was held at the Louisville District Office on April 12, 2006. Please review these minutes and let me know of any questions or comments you may have. Thank You.

Sincerely,
Jeremy Kieffner
Bernardin Lochmueller and Assoicates, Inc.
800.423.7411
JKieffner@blainc.com

USACE Permit Meeting Minutes 0...

Carol Hood

From: Jeremy Kieffner [blainc.Bla_Mailbox.Jeremy]
Sent: Thursday, April 20, 2006 10:18 AM
To: JRANDOLP@idem.in.gov; mclark@idem.in.gov
Cc: wmalley@akingump.com; Carol Hood; Jason Dupont; Kent Ahrenholtz; Tom Cervone; Anthony.Desimone@fhwa.dot.gov; Josadczuk@indot.state.in.us; mhilary@indot.state.in.us; tseeman@indot.state.in.us
Subject: IDEM I-69 401 Water Quality Certification Process Meeting

Dear Ms. Clark and Mr. Randolph,

The I-69 Project Management Team would like to try and set up a meeting with IDEM to discuss the 401 WQC Process that will be used to permit the I-69 project. We would like to set this meeting up on May 3, 2006 in the afternoon (1:30pm Indy Time) in Indianapolis. Would IDEM be available to meet with the project team on this date and time? Please let me know your availablity. Thank You.

Sincerely,
Jeremy Kieffner
Bernardin Lochmueller and Associates, Inc.
800.423.7411
JKieffner@blainc.com

Carol Hood

From: "Eggen, Jon" <JEggen@dnr.IN.gov> [JEggen@dnr.IN.gov]
Sent: Thursday, April 20, 2006 10:26 AM
To: Jeremy Kieffner; Jim Hebenstreit; Katie Smith
Cc: WMalley@AKINGUMP.com; Carol Hood; Jason Dupont; Kent Ahrenholtz; Tom Cervone; Anthony Desimone; Janice Osadczuk; Michelle Hilary; Tom Seeman
Subject: RE: IDNR I-69 Construction in a Floodway Permitting Process forI-69

Jeremy,
I am only available until 11:00 am due to prior commitments.
If you wish to discuss the details of permitting requirements you will need to have someone from DNR Division of Water in attendance since they are the Division that issues the permit and handles the routing and technical portions of the reviews. I believe Jim Hebenstreit has been the contact previously.
Jon

Jon Eggen, Environmental Supervisor
Indiana Dept. of Natural Resources
402 West Washington St. Rm. W273
Indianapolis, IN 46204
(317) 2324080
Fax (317) 2328150

Original Message
From: Jeremy Kieffner [mailto:jkieffner@blainc.com]
Sent: Thursday, April 20, 2006 11:24 AM
To: Eggen, Jon; Smith, Katie
Cc: WMalley@AKINGUMP.com; Carol Hood; Jason Dupont; Kent Ahrenholtz; Tom Cervone; Desimone, Anthony; Osadczuk, Janice; Hilary, Michelle; Seeman, Tom
Subject: IDNR I69 Construction in a Floodway Permitting Process forI69

Dear Ms. Smith and Mr. Eggen,

The I69 Project Management Team would like to set up a meeting with IDNR to discuss the Construction in a Floodway Permitting Process and other issues related to the I69 project. The team would like to try and hold this meeting in Indianapolis on May 3, 2006 in the morning (9:00am Indy Time). Please let me know your availibility on the morning of May 3, 2006 to possibly have this meeting. Thank You.

Sincerely,
Jeremy Kieffner
Bernardin Lochmueller and Associates, Inc.
800.423.7411
JKieffner@blainc.com

Carol Hood

From: Jeremy Kieffner [blainc.Bla_Mailbox.Jeremy]
Sent: Monday, May 01, 2006 8:19 AM
To: JEggen@dnr.in.gov; Jhebenstreit@dnr.IN.gov; Katie Smith; mneyer@dnr.IN.gov
Cc: wmalley@akingump.com; Carol Hood; Jason Dupont; Kent Ahrenholtz; Tom Cervone; Anthony.Desimone@fhwa.dot.gov; Josadczuk@indot.in.gov; mhilary@indot.state.in.us; Rphillabaum@indot.state.in.us; tseeman@indot.state.in.us
Subject: I-69 Project Management Team Meeting with IDNR

Dear Katie, Jon, Jim, and Mike

The I-69 Project Management Team would like to schedule the IDNR Meeting on May 23, 2006 at 9:30am to 12:00pm (Indy Time) in Indianapolis. The meeting will be held in room N642 in the Indiana Government Center North.

I ask that everyone please reply to this email and confirm his or her attendance at this meeting. I will send an email to everyone participating in this meeting once I have a response back from everyone. Thank You.

Sincerely,
Jeremy Kieffner
Bernardin Lochmueller and Associates, Inc.
JKieffner@blainc.com
800.423.7411

Carol Hood

From: Jeremy Kieffner [blainc.Bla_Mailbox.Jeremy]
Sent: Thursday, May 04, 2006 8:51 AM
To: wmalley@akingump.com; Anthony.Desimone@fhwa.dot.gov; JRANDOLP@idem.in.gov; mclark@idem.in.gov; Josadczuk@indot.in.gov; mhilary@indot.state.in.us; Rphillabaum@indot.state.in.us; tseeman@indot.state.in.us
Cc: Carol Hood; Jason Dupont; Kent Ahrenholtz; Tom Cervone
Subject: I-69 Project Management Team Meeting With IDEM

Dear Everyone,

This email is to confirm the date, time, place, and preliminary discussion items for the I-69 Project Management Team meeting with IDEM.

This meeting is scheduled as follows:

May 23, 2006
1:30 pm (EDT)
Indiana Government Center North in Indianapolis
Room N642

The meeting is to discuss the following:

1. Status of the I-69 Project
2. Schedule of the Project
3. 401 Water Quality Certification Process
4. Wildlife studies
5. Mitigation
6. Any Additional Information

Sincerely,
Jeremy Kieffner
Bernardin Lochmueller and Associates, Inc.
Permitting and Mitigation Manager
Jkieffner@blainc.com
800.423.7411

Carol Hood

From: Jeremy Kieffner [blainc.Bla_Mailbox.Jeremy]
Sent: Thursday, May 04, 2006 8:47 AM
To: wmalley@akingump.com; JEggen@dnr.in.gov; Jhebenstreit@dnr.IN.gov; mneyer@dnr.IN.gov; kgsmith@dnr.state.in.us; Anthony.Desimone@fhwa.dot.gov; Josadczuk@indot.in.gov; mhilary@indot.state.in.us; Rphillabaum@indot.state.in.us; tseeman@indot.state.in.us
Cc: Carol Hood; Henry Nodarse; Jason Dupont; Kent Ahrenholtz; Tom Cervone
Subject: I-69 Project Management Team Meeting with IDNR

Dear Everyone,

This email is to confirm the date, time, place, and preliminary discussion items for the I-69 Project Management Team meeting with IDNR.

This meeting is scheduled as follows:

May 23, 2006
9:30 am (EDT)
Indiana Government Center North in Indianapolis
Room N642

The meeting is to discuss the following:

1. Status of the I-69 Project
2. Schedule of the Project
3. IDNR Divison of Water Permit Process
4. Wildlife studies
5. Mitigation
6. Any Additional Information

Sincerely,
Jeremy Kieffner
Bernardin Lochmueller and Associates, Inc.
Permitting and Mitigation Manager
Jkieffner@blainc.com
800.423.7411

Carol Hood

From: Jeremy Kieffner [blainc.Bla_Mailbox.Jeremy]
Sent: Tuesday, May 09, 2006 10:34 AM
To: jdavis@dnr.in.gov
Cc: wmalley@akingump.com; Carol Hood; Henry Nodarse; Jason Dupont; Kent Ahrenholtz; Tom Cervone; Anthony.Desimone@fhwa.dot.gov; Josadczuk@indot.in.gov; mhilary@indot.state.in.us; Rphillabaum@indot.state.in.us; tseeman@indot.state.in.us
Subject: I-69 Project Management Team Meeting with IDNR to discuss Floodway Permitting and Wildlife Impacts

Dear Mr. Davis,

The I-69 Project Management Team has scheduled at meeting with IDNR on May 23, 2006 at 9:30am EDT in Room N642 in the Indiana Government Center North in Indianapolis, Indiana.

This meeting is to discuss the Construction is a Floodway Permitting Process which will be used for the I-69 Project and also to discuss Wildlife Considerations and Biota Sampling that has been completed to date on the project.

The following staff at IDNR has confirmed their attendance at this meeting:
Katie Smith - Div. of Fish and Wildlife
John Eggen - Div. of Fish and Wildlife
Jim Hebenstreit - Div. of Water
Mike Neyer - Div. of Water

The I-69 Project Management Team that will be attending this meeting are as follows:
Tom Seeman - INDOT
Janice Osadczuk - INDOT
Michelle Hilary - INDOT
Rick Phillabaum - INDOT
Tony DeSimmon - FHWA
Kent Ahrenholtz - BLA
Jeremy Kieffner - BLA
Henry Nodarse - BLA
Tom Cervone - BLA

The I-69 Project Management Team would like to extend this invitation to you. The team feel that it would be beneficial to have you at this meeting if you are available. Please let me know if you can attend this meeting on May 23, 2006 at 9:30am EDT. Thank You.

Sincerely,
Jeremy Kieffner
Bernardin Lochmueller and Associates, Inc.
JKieffner@blainc.com
800.423.7411

Carol Hood

From: Jeremy Kieffner [blainc.Bla_Mailbox.Jeremy]
Sent: Thursday, May 18, 2006 2:43 PM
To: JRANDOLP@idem.in.gov; mclark@idem.in.gov
Cc: wmalley@akingump.com; Carol Hood; Jason Dupont; Kent Ahrenholtz; Tom Cervone; Anthony.Desimone@fhwa.dot.gov; Josadczuk@indot.in.gov; mhilary@indot.state.in.us; Rphillabaum@indot.state.in.us; tseeman@indot.state.in.us
Subject: Agenda for the Upcoming I-69 Project Management Team Meeting with IDEM

Dear Martha and Jason,

Attached is a Word file that contains the Agenda for the upcoming I-69 Project Management Team Meeting with IDEM to discuss the 401 Permitting Process and other related issues. This meeting is scheduled for Tuesday May 23, 2006 at 1:30pm (EDT) in the Indiana Government Center North Room N642. Please review this agenda and let me know of any additional items you may want to add to this agenda. Your coordination is greatly appreciated. Thank you.

Sincerely,
Jeremy Kieffner
Bernardin Lochmueller and Associates, Inc.
JKieffner@blainc.com
800.423.7411

IDEM Permit
leeting Agenda 5_2.

AGENDA

I-69 Tier 2 Permitting Meeting with IDEM

May 23, 2006, at 1:30 pm (Indy Time)
Location: Indiana Government Center North, Room N642

1. **Introductions & Opening Remarks**
2. **Status of I-69 Tier 2 Studies**
   a. "Major Moves" and Effect on I-69
   b. Toll Road Options for I-69
   c. Status of I-69 Tier 2 Activities
3. **Permitting Process for I-69**
   a. Permitting for Initial Construction Contract (I-64 to SR 68)
   b. Individual Section Permits (6)
      i. Six Individual Permits
      ii. Level of detail anticipated for initial permit application/pre-application
      iii. Timing of Permit Applications and Review
   c. Final Permit Review Prior To Construction
      i. Following completion of final design
      ii. Re-evalution and amendment for final impact numbers
      iii. Mitigation – *possibly "over" mitigate to accommodate any minor increases in impacts*
   d. Resource and Impact Assessment / Data
      i. 1996 Biota Sampling Data
      ii. Tier 2 Studies Biota Sampling Data and Reports
      iii. Biota Reports currently being reviewed and finalized.
      iv. Early Coordination Letter from IDEM on 401 Water Quality Certification
         a. Why are the additional surveys being requested for the 401 WQC?
         b. How will this data be used to determine water quality?
         c. What resources should be studied to this detail?
4. **Mitigation Measures**
   a. Wetland Mitigation
      i. Same 8-digit Watershed as the Wetland Impacts
      ii. 4:1 or 3:1 for Forested Wetlands (depending on quality)
      iii. 3:1 for Scrub / Shrub wetlands
      iv. 2:1 for Emergent Wetlands
      v. 1:1 for Farmed Wetlands
   b. Isolated Wetland Mitigation
   c. Open Water Impacts will be mitigated with borrow pit construction.
   d. Stream mitigation
      i. Same 8-digit Watershed as the Stream Impacts
      ii. Construction of Riparian Buffers
      iii. In-stream Improvements and Natural Channel Designs, if appropriate
   e. Design Enhancements
5. **Coordination with USACE and other Permitting Agencies**
6. **Other Issues**

Carol Hood

From: Jeremy Kieffner [blainc.Bla_Mailbox.Jeremy]
Sent: Thursday, May 18, 2006 2:40 PM
To: cstanifer@dnr.in.gov; jdavis@dnr.in.gov; JEggen@dnr.in.gov; Jhebenstreit@dnr.IN.gov; Katie Smith; mneyer@dnr.IN.gov
Cc: wmalley@akingump.com; Carol Hood; Jason Dupont; Kent Ahrenholtz; Tom Cervone; Anthony.Desimone@fhwa.dot.gov; Josadczuk@indot.in.gov; mhilary@indot.state.in.us; Rphillabaum@indot.state.in.us; tseeman@indot.state.in.us
Subject: Agenda for Upcoming I-69 Project Management Team Meeting with IDNR Staff

Dear IDNR Staff,

Attached is a Word file that contains the Agenda for the upcoming I-69 Project Management Team Meeting with IDNR to discuss the Construction in a Floodway permitting process and other related issues. This meeting is scheduled for Tuesday May 23, 2006 at 9:30am (EDT) in the Indiana Government Center North Room N642. Please review this agenda and let me know of any additional items you may want to add to this agenda. Your coordination is greatly appreciated. Thank you.

Sincerely,
Jeremy Kieffner
Bernardin Lochmueller and Associates, Inc.
JKieffner@blainc.com
800.423.7411

IDNR Permit
leeting Agenda 5_2.

I-69 Evansville to Indianapolis
Tier 2 Studies

AGENDA

I-69 Tier 2 Permitting Meeting With IDNR

May 23, 2006, at 9:30am (Indy Time)
Location: Indiana Government Center North, Room N642

1. **Introductions & Opening Remarks**
2. **Status of I-69 Tier 2 Studies**
   a. "Major Moves" and Effect on I-69
   b. Toll Road Option for I-69
   c. Status of I-69 Tier 2 Activities
3. **Construction in a Floodway Permitting Process for I-69**
   a. Permitting Process
      i. Multiple Construction in a Floodway Permits (Estimate of 30 -35)
      ii. Number of Floodway Permits in each Section
      iii. Level of detail anticipated for initial permit application/pre-application
      iv. Hydraulics Discussion for Permits
      v. Timing of Permit Applications and Review
   b. Final Permit Review
      i. Following completion of final design
      ii. Re-evalution and amendment for final impact numbers
      iii. Mitigation – *possibly "over" mitigate to accommodate any minor increases in impacts*
   c. Summary of Biota Reports for I-69
      i. 1996 Biota Studies completed for Southwest Indiana Highway Corridor
      ii. New Biota Studies completed as part of the I-69 Tier 2 Studies
      iii. Additional information from Agencies (Heritage Database)
      iv. Formal Data Request to Agencies for Streams
   d. Resource and Impact Assessment / Data
      i. Other studies warranted for the I-69 project
      ii. SOP's for other studies if needed
4. **Mitigation Measures**
   a. Mitigation measures completed to date
   b. 8-Digit Watershed Mitigation Efforts
   c. Wildlife Corridors (Expectations from IDNR)
   d. Other Mitigation Efforts
5. **State TES Species List**
6. **Other Issues**

BERNARDIN • LOCHMUELLER & ASSOCIATES, INC.
6200 Vogel Road · Evansville, Indiana 47715-4006 · www.blainc.com
Phone 812.479.6200 · Toll Free 800.423.7411 · Fax 812.479.6262
One Source for a World of Solutions

Keith Carl
Matt Jeremy
Vince Jonna
Dean Nicole
Kent Carol
Tom C Mike G
Jim G Rusty
Daniel
Jason

May 22, 2006

Dennis Clark, Branch Chief
Water Assessment Branch
Indiana Department of Environmental Management
Office of Water Quality - Shadeland
P.O. Box 6015
Indianapolis, IN 46206-6015

RE: Formal request for IDEM information on streams crossed by the I-69 Preferred Alternative 3C corridor.

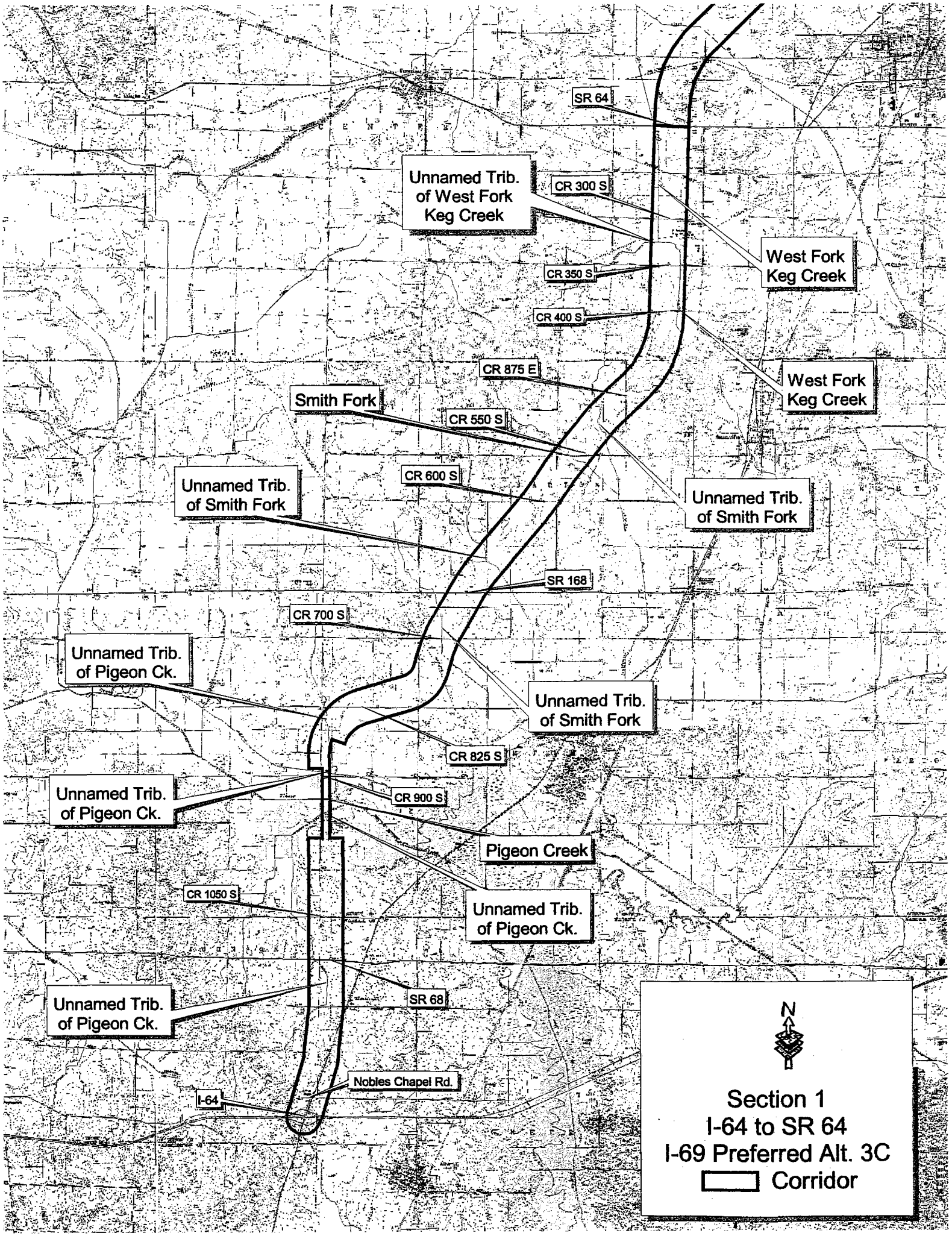
Dear Mr. Clark,

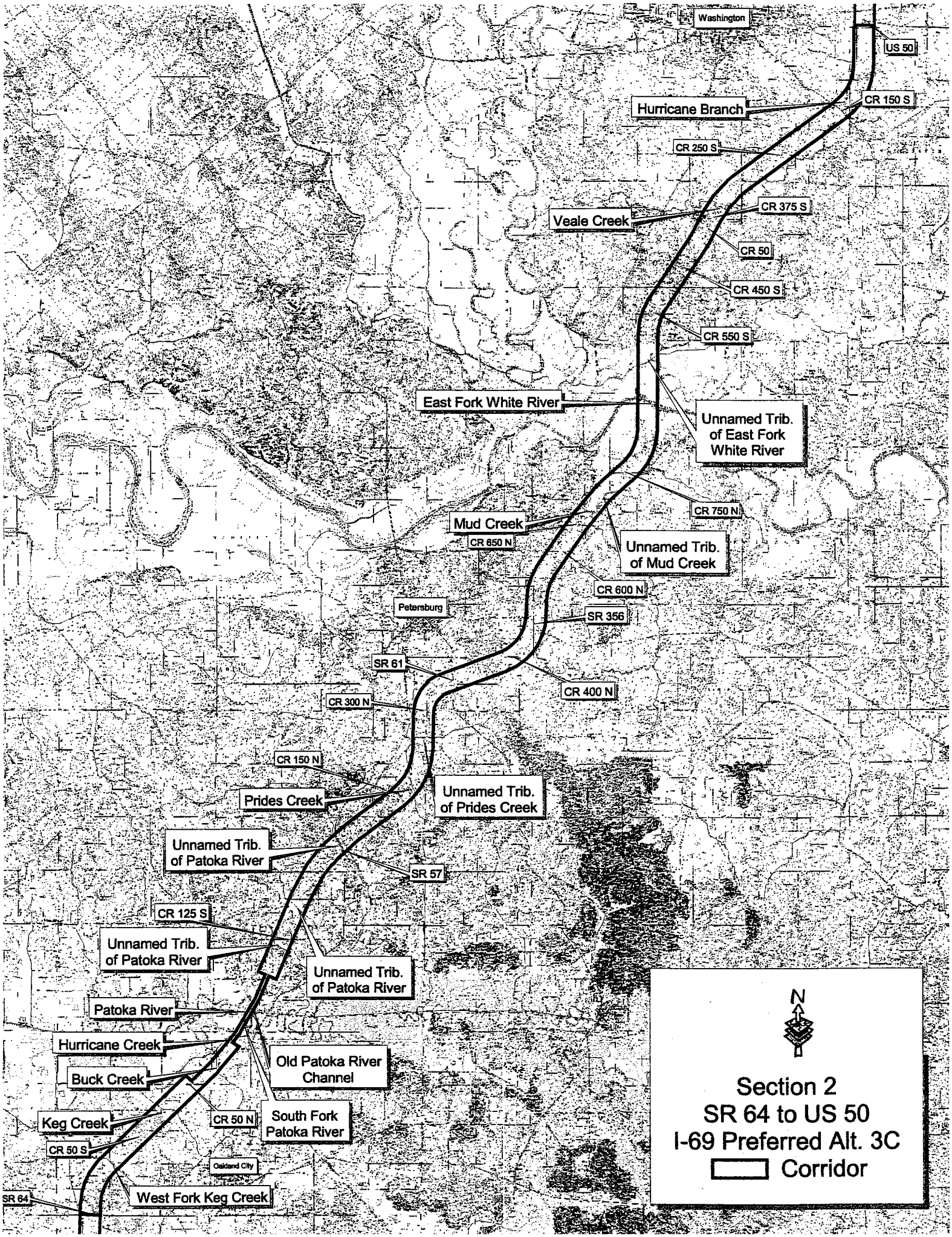
This is a formal request from the I-69 Project Management Team to the Indiana Department of Environmental Management (IDEM) for all stream information that IDEM has on the streams crossed by the I-69 Preferred Alternative 3C corridor. The attached USGS maps show the area crossed by this 2,000 foot corridor. The I-69 Project Management Team is requesting information on any stream work completed by IDEM on the streams within the 2,000 foot corridor. This information will be incorporated into the Tier 2 EIS's, which are currently being developed on each of the 6 Sections. Please pass this request on to all appropriate Departments at IDEM that may have data on these streams. Your assistance on this request for data is greatly appreciated. If you have any questions or comments about this request you can contact Jeremy Kieffner at Bernardin Lochmueller and Associates, Inc. at 800.423.7411 or email at jkieffner@blainc.com. Please send the information to Jeremy Kieffner at Bernardin Lochmueller and Associates, Inc., 6200 Vogel Road, Evanville, Indiana, 47715. Thank You.

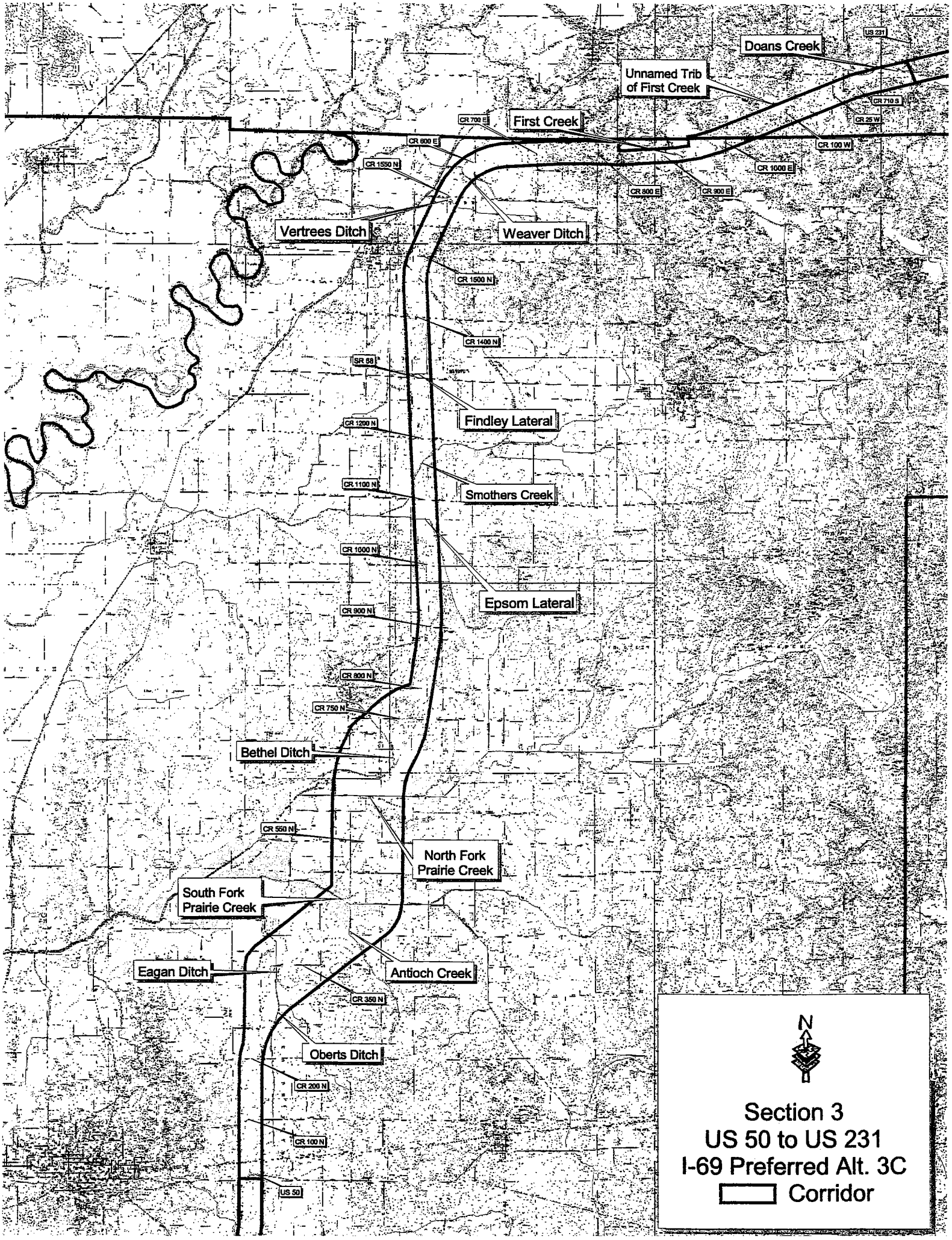
Sincerely,

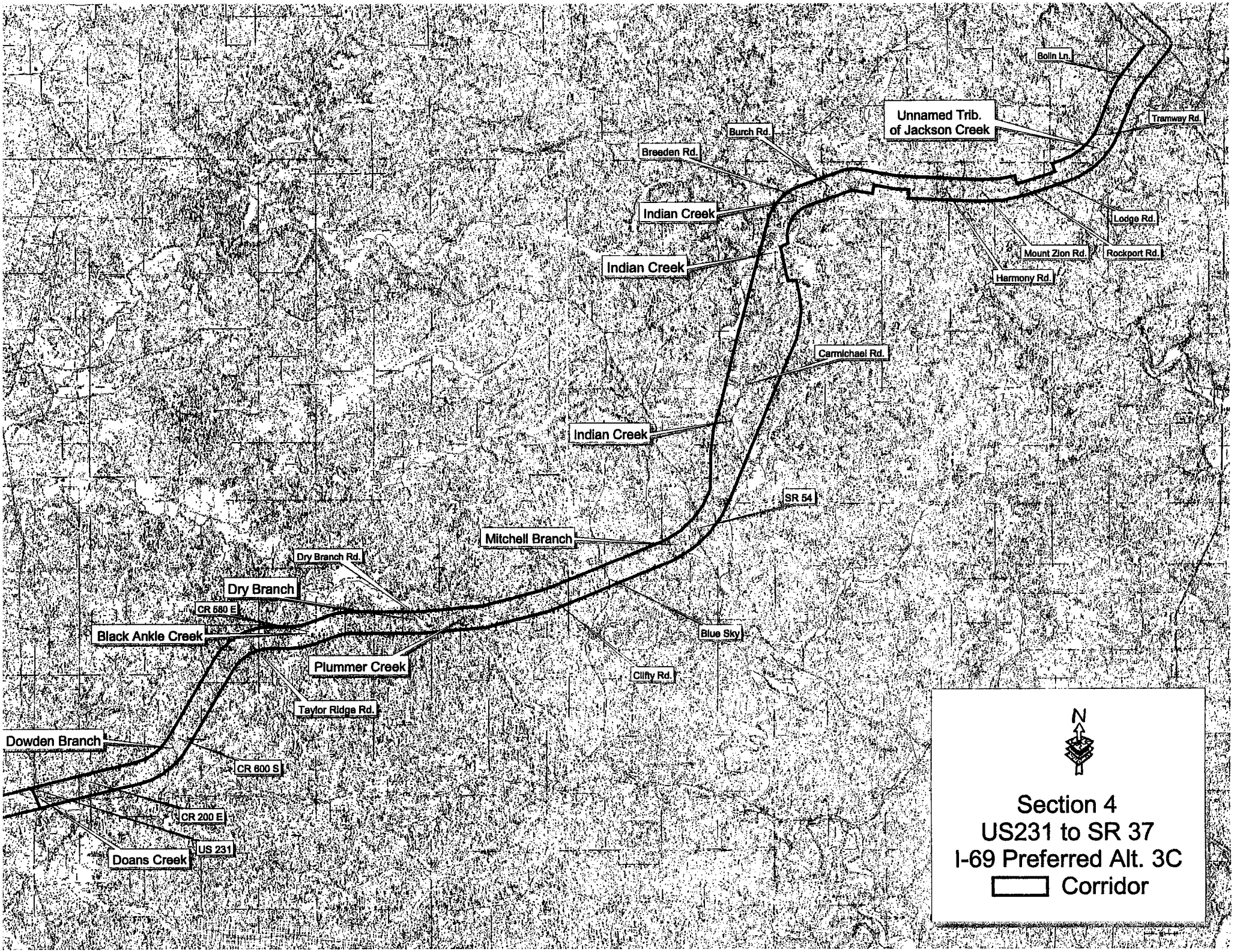
Tom Cervone, Ph.D.
Principal / Director of Environmental Services

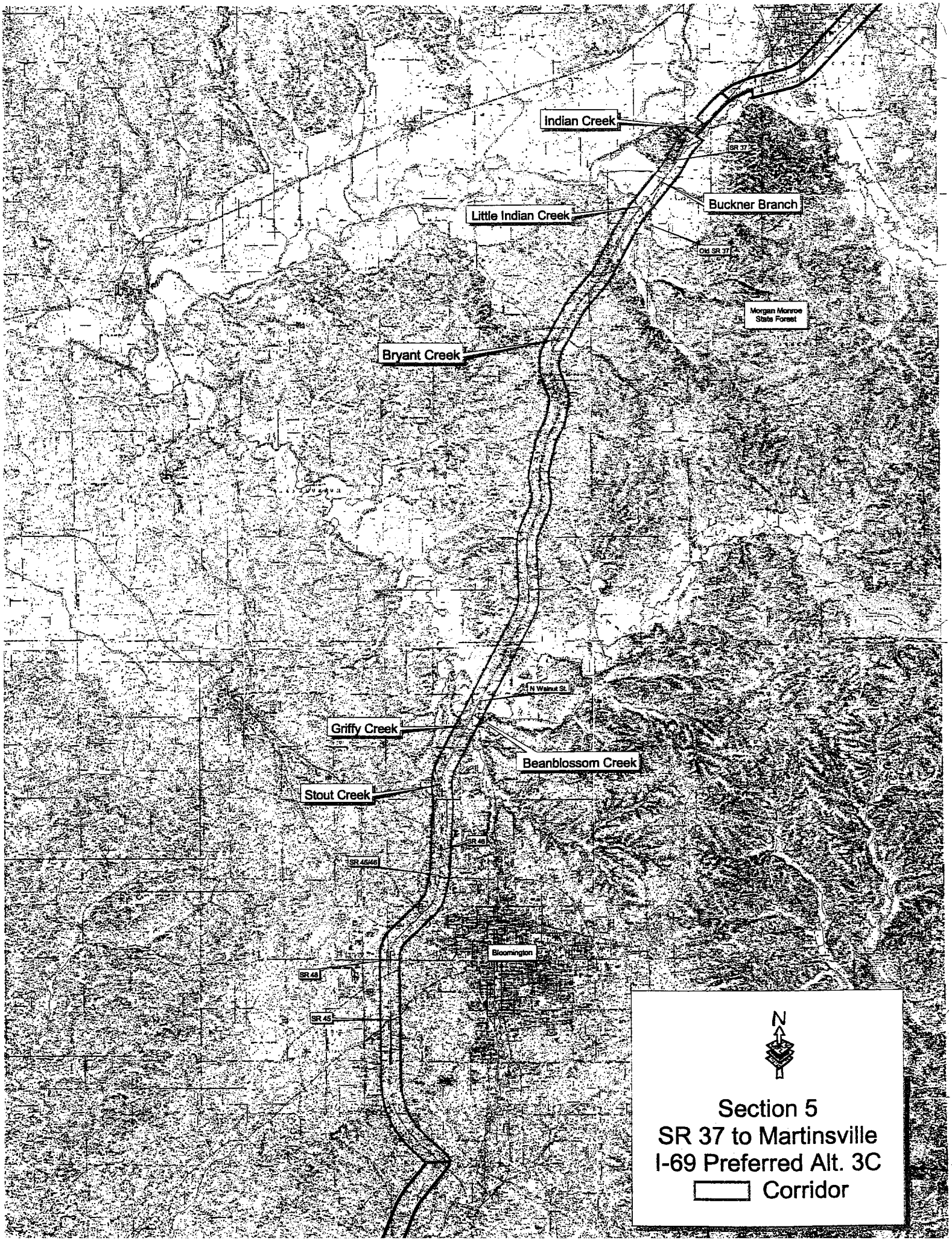
Cc: Martha Clark (IDEM)
Janice Osadczuk (INDOT)
Tom Seeman (INDOT)

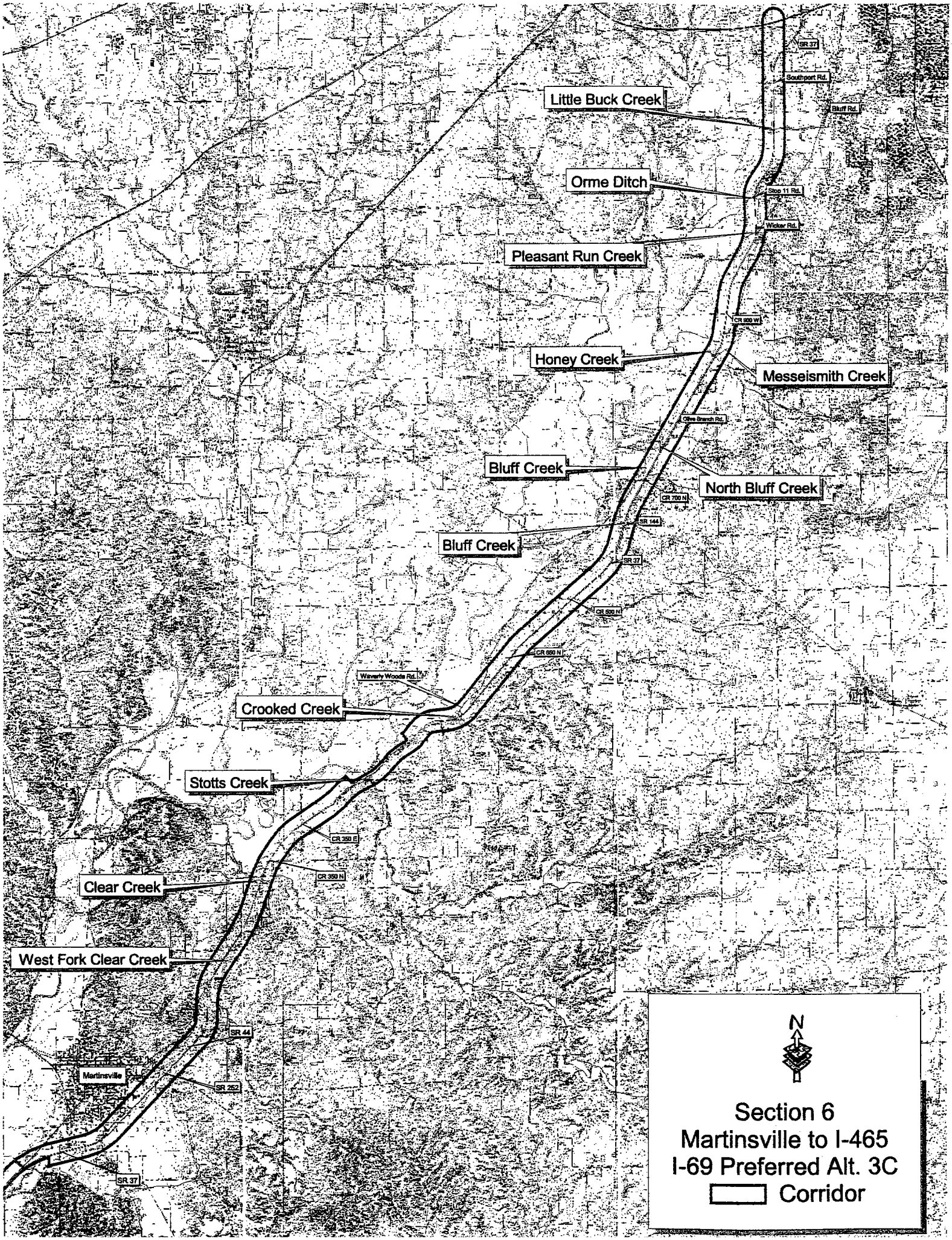

SR 64
Unnamed Trib. of West Fork Keg Creek
CR 300 S
West Fork Keg Creek
CR 350 S
CR 400 S
CR 875 E
West Fork Keg Creek
Smith Fork
CR 550 S
CR 600 S
Unnamed Trib. of Smith Fork
Unnamed Trib. of Smith Fork
SR 168
CR 700 S
Unnamed Trib. of Pigeon Ck.
Unnamed Trib. of Smith Fork
CR 825 S
Unnamed Trib. of Pigeon Ck.
CR 900 S
Pigeon Creek
CR 1050 S
Unnamed Trib. of Pigeon Ck.
Unnamed Trib. of Pigeon Ck.
SR 68
Nobles Chapel Rd.
I-64
N
Section 1
I-64 to SR 64
I-69 Preferred Alt. 3C
Corridor


Washington
US 50
CR 150 S
Hurricane Branch
CR 250 S
CR 375 S
Veale Creek
CR 50
CR 450 S
CR 550 S
East Fork White River
Unnamed Trib. of East Fork White River
CR 750 N
Mud Creek
CR 650 N
Unnamed Trib. of Mud Creek
CR 600 N
Petersburg
SR 356
SR 61
CR 400 N
CR 300 N
CR 150 N
Prides Creek
Unnamed Trib. of Prides Creek
Unnamed Trib. of Patoka River
SR 57
CR 125 S
Unnamed Trib. of Patoka River
Unnamed Trib. of Patoka River
Patoka River
Hurricane Creek
Old Patoka River Channel
Buck Creek
Keg Creek
CR 50 N
South Fork Patoka River
CR 50 S
Oakland City
SR 64
West Fork Keg Creek
N
Section 2
SR 64 to US 50
I-69 Preferred Alt. 3C
Corridor


Doans Creek
US 231
Unnamed Trib of First Creek
CR 710 S
CR 25 W
First Creek
CR 700 E
CR 100 W
CR 800 E
CR 1550 N
CR 1000 E
CR 800 E
CR 900 E
Vertrees Ditch
Weaver Ditch
CR 1500 N
CR 1400 N
SR 69
Findley Lateral
CR 1200 N
CR 1100 N
Smothers Creek
CR 1000 N
Epsom Lateral
CR 900 N
CR 800 N
CR 750 N
Bethel Ditch
CR 550 N
North Fork Prairie Creek
South Fork Prairie Creek
Eagan Ditch
Antioch Creek
CR 350 N
Oberts Ditch
CR 200 N
CR 100 N
US 50
N
Section 3
US 50 to US 231
I-69 Preferred Alt. 3C
Corridor


Bolin Ln.
Unnamed Trib.
of Jackson Creek
Tramway Rd.
Burch Rd.
Breeden Rd.
Indian Creek
Lodge Rd.
Mount Zion Rd.
Rockport Rd.
Indian Creek
Harmony Rd.
Carmichael Rd.
Indian Creek
SR 54
Mitchell Branch
Dry Branch Rd.
Dry Branch
CR 580 E
Black Ankle Creek
Blue Sky
Plummer Creek
Cliffy Rd.
Taylor Ridge Rd.
Dowden Branch
CR 600 S
CR 200 E
US 231
Doans Creek
N
Section 4
US231 to SR 37
I-69 Preferred Alt. 3C
Corridor


Indian Creek
SR 37
Buckner Branch
Little Indian Creek
Old SR 37
Morgan Monroe State Forest
Bryant Creek
N Walnut St
Griffy Creek
Beanblossom Creek
Stout Creek
SR 46
SR 45/46
Bloomington
SR 48
SR 45
N
Section 5
SR 37 to Martinsville
I-69 Preferred Alt. 3C
Corridor


Little Buck Creek
Orme Ditch
Pleasant Run Creek
Honey Creek
Messeismith Creek
Bluff Creek
North Bluff Creek
Bluff Creek
Crooked Creek
Stotts Creek
Clear Creek
West Fork Clear Creek
SR 37
Southport Rd.
Bluff Rd.
Stop 11 Rd.
Wicker Rd.
CR 900 W
Olive Branch Rd.
CR 700 N
SR 144
SR 37
CR 500 N
CR 650 N
Waverly Woods Rd.
CR 350 E
CR 350 N
SR 44
Martinsville
SR 252
SR 37
N
Section 6
Martinsville to I-465
I-69 Preferred Alt. 3C
Corridor

BERNARDIN • LOCHMUELLER & ASSOCIATES, INC.
6200 Vogel Road · Evansville, Indiana 47715-4006 · www.blainc.com
Phone 812.479.6200 · Toll Free 800.423.7411 · Fax 812.479.6262
One Source for a World of Solutions

Keith Carl
Matt Jeremy
Vince Jonna
Dean Nicole
Kent Carol
TomC Mike G
JimG Rusty
Daniel
Jason

May 22, 2006

Christie Stanifer, Environmental Coordinator
Indiana Department of Natural Resources
Division of Fish and Wildlife
Room W264, Indiana Government Center South
402 West Washington Street
Indianapolis, Indiana 46204

RE: Formal request for IDNR information on streams crossed by the I-69 Preferred Alternative 3C corridor.

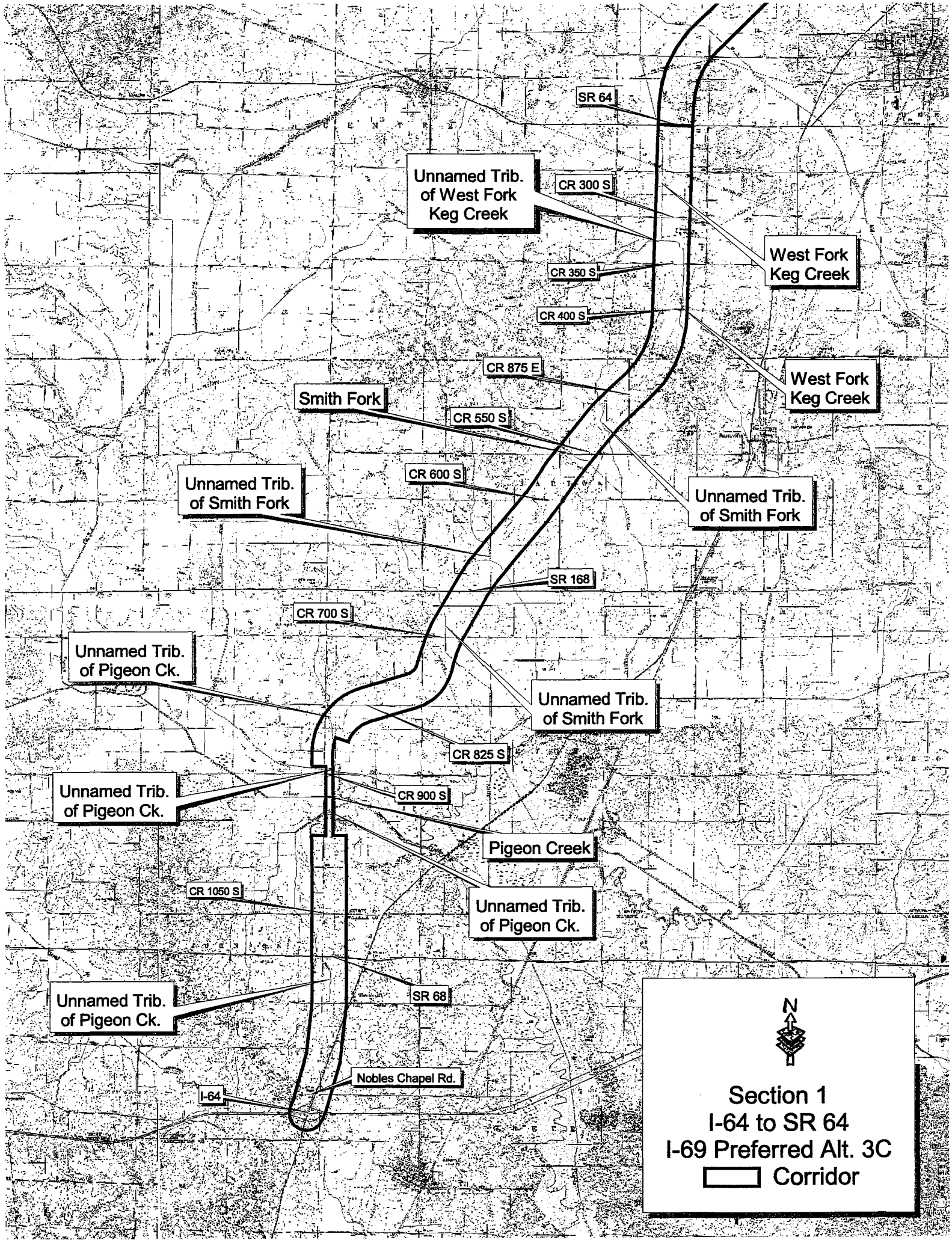
Dear Ms. Stanifer,

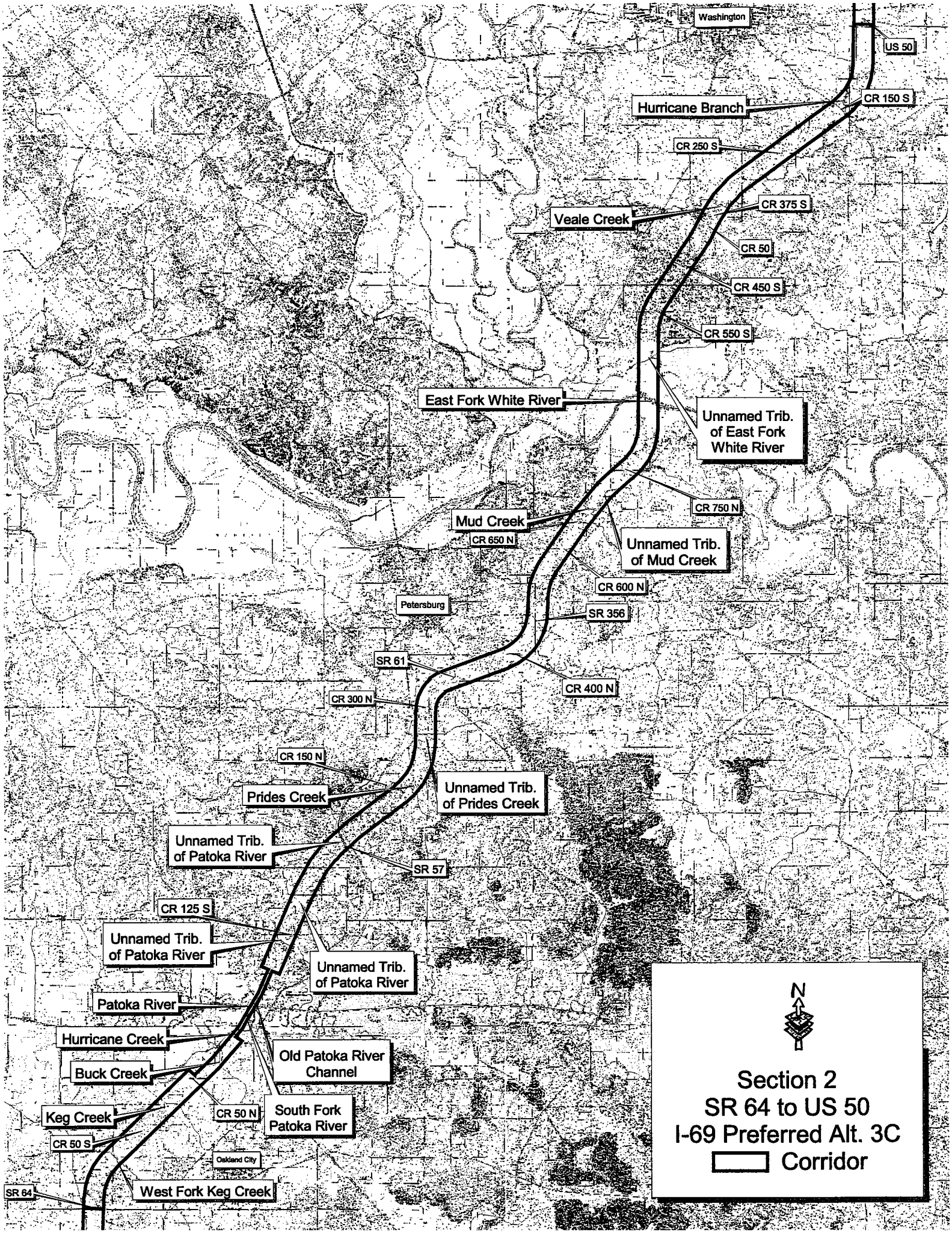
This is a formal request from the I-69 Project Management Team to the Indiana Department of Natural Resources (IDNR) for all stream information that IDNR has on the streams crossed by the I-69 Preferred Alternative 3C corridor. The attached USGS maps show the area crossed by this 2,000 foot corridor. The I-69 Project Management Team is requesting information on any stream work completed by IDNR on the streams within the 2,000 foot corridor. This information will be incorporated into the Tier 2 EIS's, which are currently being developed on each of the 6 Sections. Please pass this request on to all appropriate divisions at IDNR that may have data on these streams. Your assistance on this request for data is greatly appreciated. If you have any questions or comments about this request you can contact Jeremy Kieffner at Bernardin Lochmueller and Associates, Inc. at 800.423.7411 or email at jkieffner@blainc.com. Please send the information to Jeremy Kieffner at Bernardin Lochmueller and Associates, Inc., 6200 Vogel Road, Evanville, Indiana, 47715. Thank You.

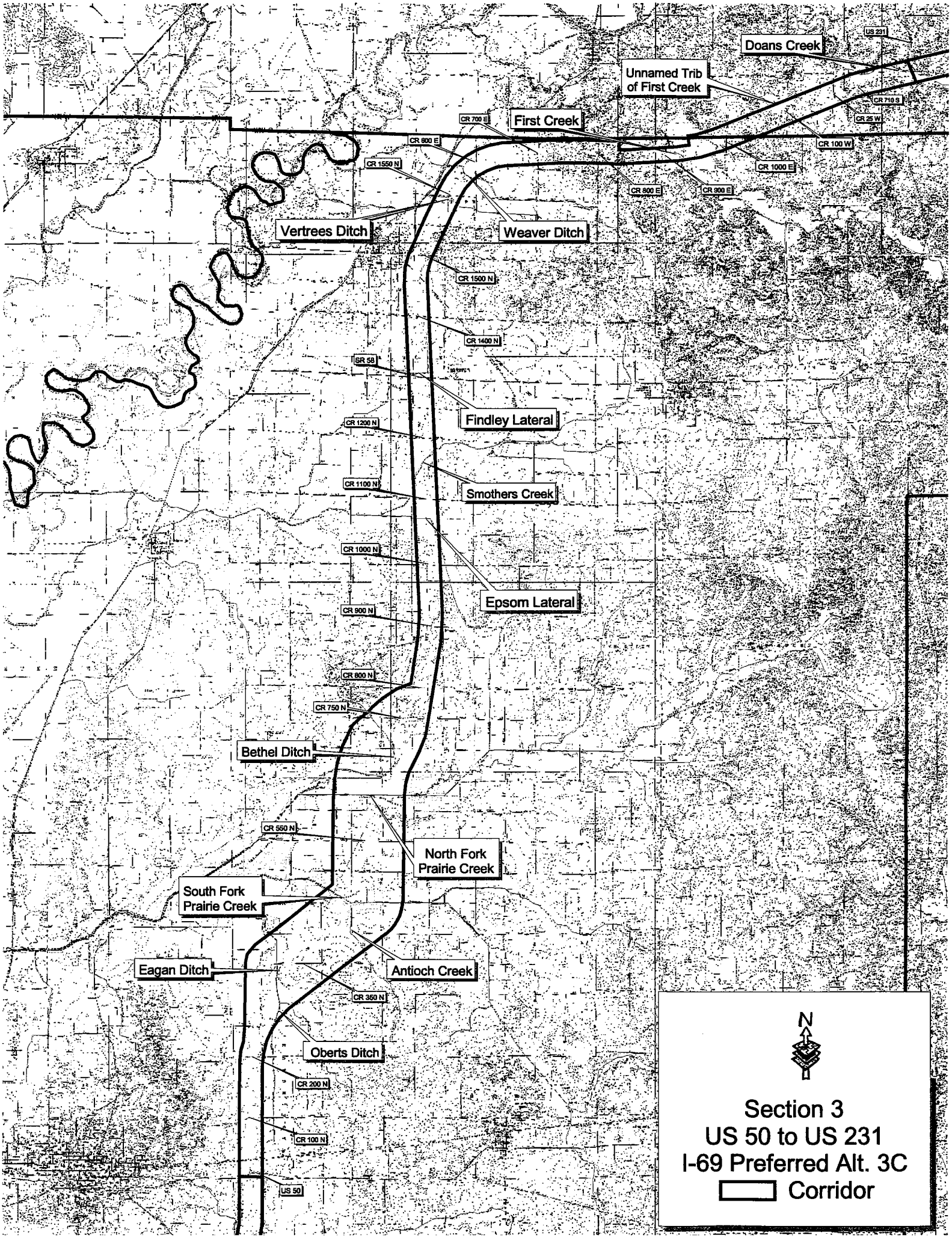
Sincerely,

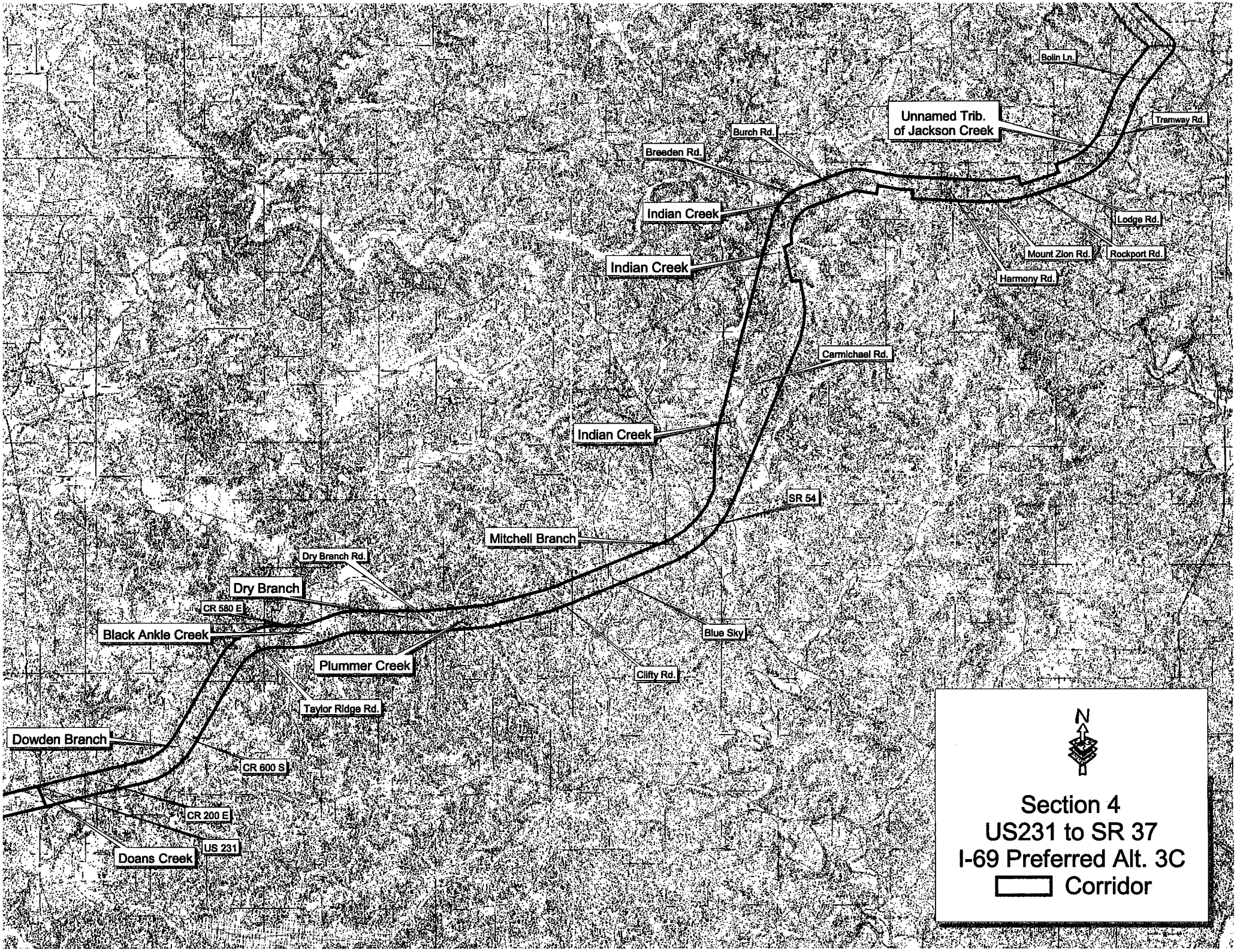
Tom Cervone, Ph.D.
Principal / Director of Environmental Services

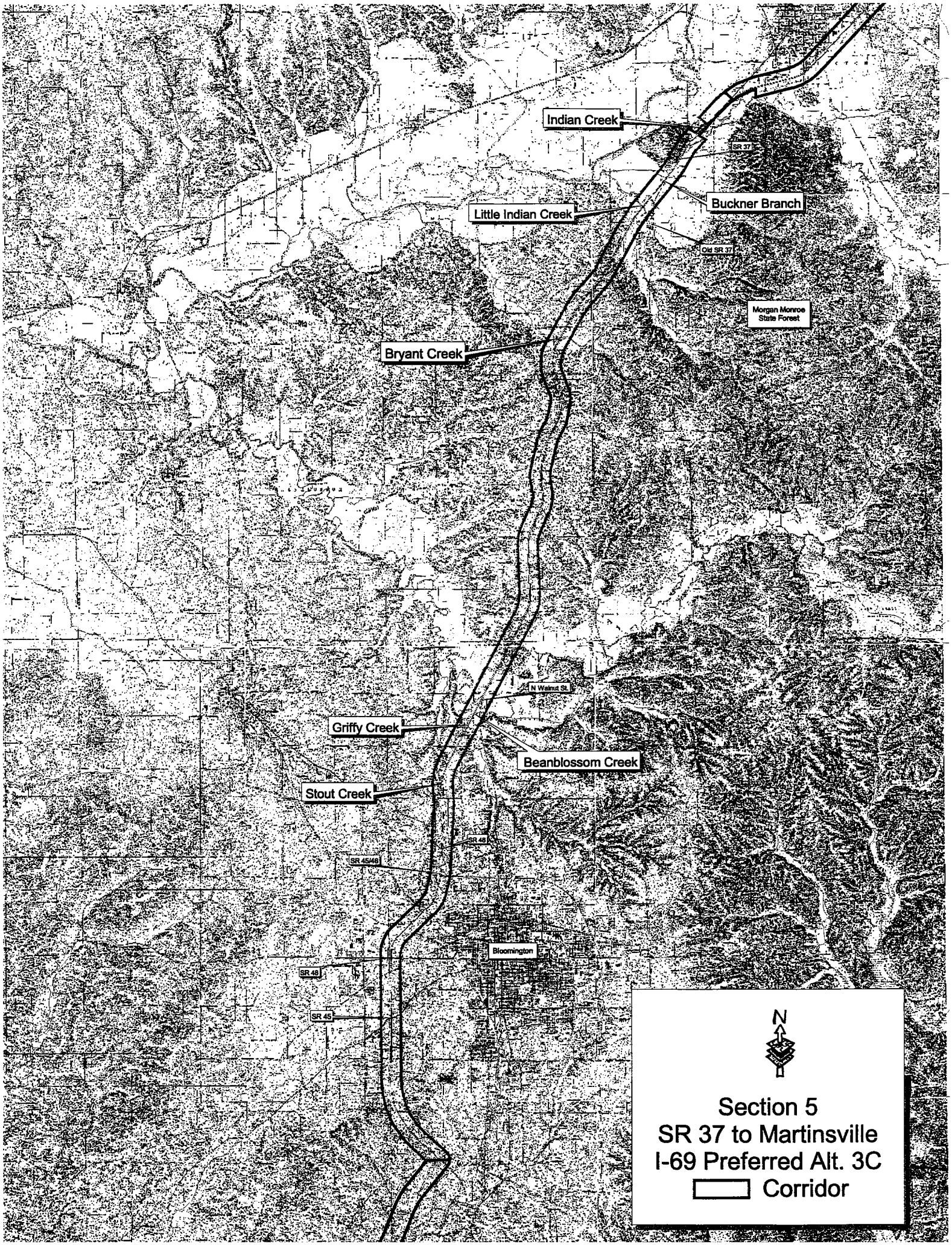
Cc: Katie Smith (IDNR)
Janice Osadczuk (INDOT)
Tom Seeman (INDOT)

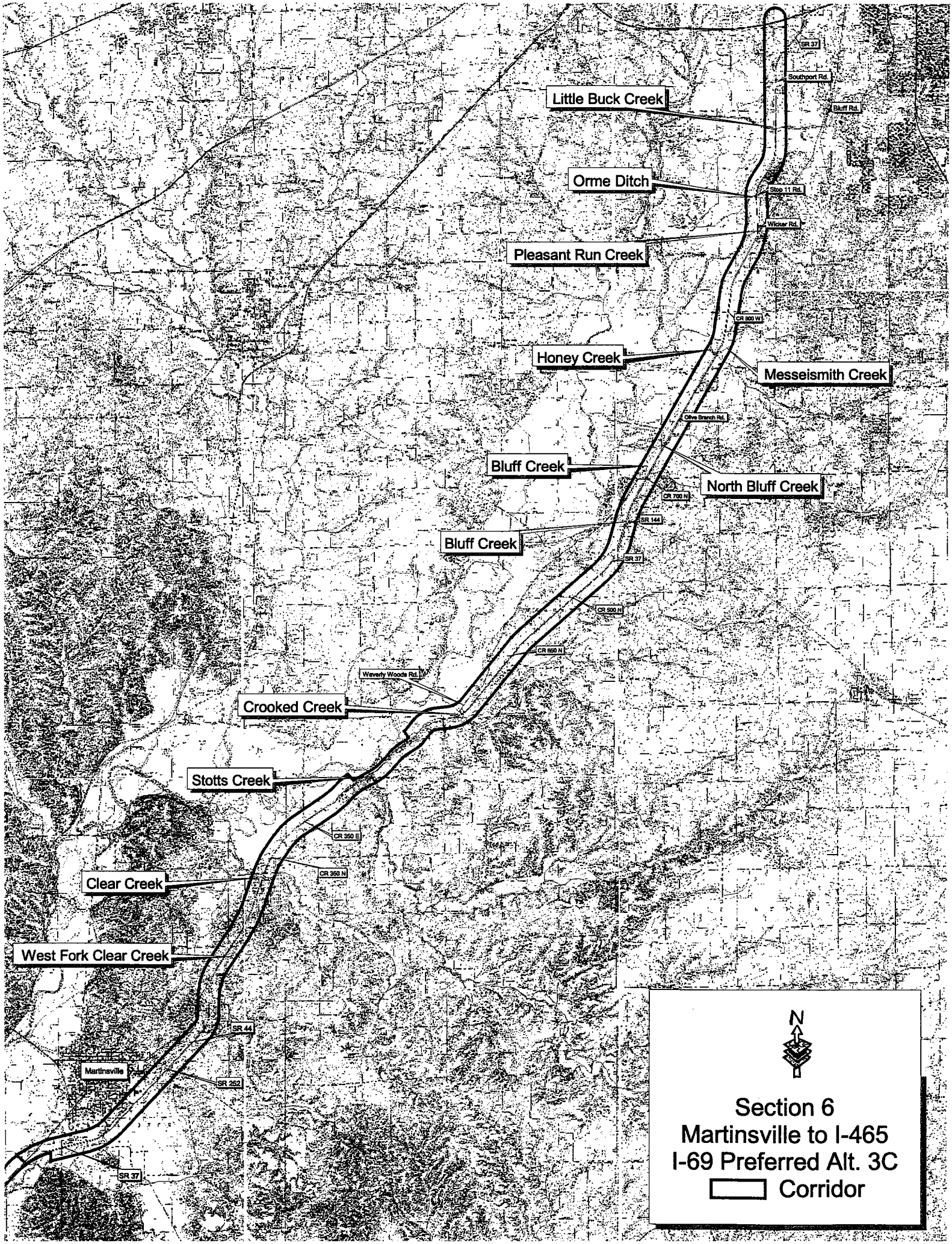

SR 64
Unnamed Trib. of West Fork Keg Creek
CR 300 S
West Fork Keg Creek
CR 350 S
CR 400 S
CR 875 E
West Fork Keg Creek
Smith Fork
CR 550 S
CR 600 S
Unnamed Trib. of Smith Fork
Unnamed Trib. of Smith Fork
SR 168
CR 700 S
Unnamed Trib. of Pigeon Ck.
Unnamed Trib. of Smith Fork
CR 825 S
Unnamed Trib. of Pigeon Ck.
CR 900 S
Pigeon Creek
CR 1050 S
Unnamed Trib. of Pigeon Ck.
Unnamed Trib. of Pigeon Ck.
SR 68
Nobles Chapel Rd.
I-64
N
Section 1
I-64 to SR 64
I-69 Preferred Alt. 3C
Corridor


Washington
US 50
CR 150 S
Hurricane Branch
CR 250 S
CR 375 S
Veale Creek
CR 50
CR 450 S
CR 550 S
East Fork White River
Unnamed Trib. of East Fork White River
CR 750 N
Mud Creek
CR 650 N
Unnamed Trib. of Mud Creek
CR 600 N
Petersburg
SR 356
SR 61
CR 400 N
CR 300 N
CR 150 N
Prides Creek
Unnamed Trib. of Prides Creek
Unnamed Trib. of Patoka River
SR 57
CR 125 S
Unnamed Trib. of Patoka River
Unnamed Trib. of Patoka River
Patoka River
Hurricane Creek
Old Patoka River Channel
Buck Creek
Keg Creek
CR 50 N
South Fork Patoka River
CR 50 S
Oakland City
SR 64
West Fork Keg Creek
N
Section 2
SR 64 to US 50
I-69 Preferred Alt. 3C
Corridor


Doans Creek
US 231
Unnamed Trib
of First Creek
CR 710 S
CR 25 W
First Creek
CR 700 E
CR 800 E
CR 100 W
CR 1550 N
CR 1000 E
CR 800 E
CR 900 E
Vertrees Ditch
Weaver Ditch
CR 1500 N
CR 1400 N
SR 58
Findley Lateral
CR 1200 N
CR 1100 N
Smothers Creek
CR 1000 N
Epsom Lateral
CR 900 N
CR 800 N
CR 750 N
Bethel Ditch
CR 550 N
North Fork
Prairie Creek
South Fork
Prairie Creek
Eagan Ditch
Antioch Creek
CR 350 N
Oberts Ditch
CR 200 N
CR 100 N
US 50
N
Section 3
US 50 to US 231
I-69 Preferred Alt. 3C
Corridor


Bolin Ln.
Unnamed Trib.
of Jackson Creek
Tramway Rd.
Burch Rd.
Breeden Rd.
Indian Creek
Lodge Rd.
Mount Zion Rd.
Rockport Rd.
Indian Creek
Harmony Rd.
Carmichael Rd.
Indian Creek
SR 54
Mitchell Branch
Dry Branch Rd.
Dry Branch
CR 580 E
Black Ankle Creek
Blue Sky
Plummer Creek
Clifty Rd.
Taylor Ridge Rd.
Dowden Branch
CR 600 S
CR 200 E
US 231
Doans Creek
N
Section 4
US231 to SR 37
I-69 Preferred Alt. 3C
Corridor


Indian Creek
SR 37
Buckner Branch
Little Indian Creek
Old SR 37
Morgan Monroe State Forest
Bryant Creek
N Walnut St
Griffy Creek
Beanblossom Creek
Stout Creek
SR 48
SR 45/46
Bloomington
SR 48
SR 45
N
Section 5
SR 37 to Martinsville
I-69 Preferred Alt. 3C
Corridor


Little Buck Creek
Orme Ditch
Pleasant Run Creek
Honey Creek
Messeismith Creek
Bluff Creek
North Bluff Creek
Bluff Creek
Crooked Creek
Stotts Creek
Clear Creek
West Fork Clear Creek
Martinsville
SR 37
Southport Rd.
Bluff Rd.
Stop 11 Rd.
Wicker Rd.
CR 800 W
Olive Branch Rd.
CR 700 N
SR 144
SR 37
CR 500 N
CR 650 N
Waverly Woods Rd.
CR 350 E
CR 350 N
SR 44
SR 252
SR 37
N
Section 6
Martinsville to I-465
I-69 Preferred Alt. 3C
Corridor

AGENDA

I-69 Tier 2 Permitting Meeting with IDEM

May 23, 2006, at 1:30 pm (Indy Time)
Location: Indiana Government Center North, Room N642

1. **Introductions & Opening Remarks**
2. **Status of I-69 Tier 2 Studies**
   a. "Major Moves" and Effect on I-69
   b. Toll Road Options for I-69
   c. Status of I-69 Tier 2 Activities
3. **Permitting Process for I-69**
   a. Permitting for Initial Construction Contract (I-64 to SR 68)
   b. Individual Section Permits (6)
      i. Six Individual Permits
      ii. Level of detail anticipated for initial permit application/pre-application
      iii. Timing of Permit Applications and Review
   c. Final Permit Review Prior To Construction
      i. Following completion of final design
      ii. Re-evalution and amendment for final impact numbers
      iii. Mitigation – *possibly "over" mitigate to accommodate any minor increases in impacts*
   d. Resource and Impact Assessment / Data
      i. 1996 Biota Sampling Data
      ii. Tier 2 Studies Biota Sampling Data and Reports
      iii. Biota Reports currently being reviewed and finalized.
      iv. Early Coordination Letter from IDEM on 401 Water Quality Certification
         a. Why are the additional surveys being requested for the 401 WQC?
         b. How will this data be used to determine water quality?
         c. What resources should be studied to this detail?
4. **Mitigation Measures**
   a. Wetland Mitigation
      i. Same 8-digit Watershed as the Wetland Impacts
      ii. 4:1 or 3:1 for Forested Wetlands (depending on quality)
      iii. 3:1 for Scrub / Shrub wetlands
      iv. 2:1 for Emergent Wetlands
      v. 1:1 for Farmed Wetlands
   b. Isolated Wetland Mitigation
   c. Open Water Impacts will be mitigated with borrow pit construction.
   d. Stream mitigation
      i. Same 8-digit Watershed as the Stream Impacts
      ii. Construction of Riparian Buffers
      iii. In-stream Improvements and Natural Channel Designs, if appropriate
   e. Design Enhancements
5. **Coordination with USACE and other Permitting Agencies**
6. **Other Issues**

MINUTES

Meeting with Indiana Department of Environmental Management (IDEM)

At the Indiana Government Center North, Room N642

May 23, 2006 at 1:30 p.m. EDT

Attendee	Organization
Martha Clark - Mettler	IDEM
Jason Randolph	IDEM
Tony DeSimmon	FHWA
Tom Seeman	INDOT
Janice Osadczuk	INDOT
Michelle Hilary	INDOT
Richard Phillabaum	INDOT
Jason Dupont	Bernardin Lochmueller & Associates (BLA/PMC)
Kent Ahrenholtz	BLA
Jeremy Kieffner	BLA

BLA opened the meeting and welcomed everyone.

INTRODUCTION

Discussion of Tolling I-69

The provision of the Legislative Decision on "Major Moves" requires additional legislative approval of the construction of I-69 through Perry Township and the collection of tolls between Martinsville and Indianapolis.

The footprint of the I-69 roadway in Sections 1-4 will essentially be the same for the toll facility as it is for the free route facility. Sections 5 and 6 may have a smaller footprint with the toll facility do to the fact that the traffic in these two sections may be less with a toll facility than with a free route facility and therefore, not as many lanes would be needed in these sections if it is built as a toll facility.

Tier 1 Re-evaluation

The Tier 1 FEIS is currently being re-evaluated to consider a tolling option for the I-69 project. A revised or amended Tier 1 ROD will be issued by the FHWA after the re-evaluation is complete.

PERMITTING DISCUSSION

The first (southern) 2 miles is currently the priority of the I-69 project because construction of this section is proposed to start in 2008.

Rule 5 Permits will be completed during final design and will be completed by the Concessionaire.

IDEM is limited to 120 days from acceptance of the 401 WQC applications to issue the permits. IDEM will permit each of the 6 individual sections of I-69 separately. It is possible that IDEM will permit the first (southern) 2 miles of the project separate from the rest of Section 1 if necessary.

It is anticipated that the first 401 Water Quality Certification (WQC) application will be submitted to IDEM in the 1st Quarter of 2007.

The isolated impacts should clearly be separated out from the jurisdictional impacts and the isolated impacts should be classed. A letter from the USACE will be required identifying all isolated impacts. IDEM is limited to 30 days after acceptance of the isolated WQC application to issue the isolated waters permit.

The PMC should provide a copy of all biota studies completed on the I-69 project (both the 1996 studies and new studies) to IDEM. This information will be used for the 401 WQC process. No additional biota studies are anticipated for the I-69 project because they are not likely to provide any new information.

It is anticipated that permitting coordination with the regulatory agencies will be starting in July 2007.

MITIGATION DISSCUSSION

IDEM recommends getting all of the regulatory agencies together to discuss mitigation.

Mitigation sites have been preliminarily identified in the Tier 1 BA. These areas are within identified Indiana bat habitat areas. These proposed mitigation areas are spread out throughout the I-69 corridor.

INDOT can only use mitigation areas that are obtained from willing seller and fair market value.

It is important that the mitigation sites replace the resources that are impacted by the project.

IDNR abandoned mine lands may be areas that mitigation can be completed on.

IDNR has some property adjacent to the White River just south of Paragon that may be a good area to use for mitigation.

The NRCS is a good source to use for identifying mitigation areas and land owners that are willing to sell land for mitigation purposes.

I-69 Evansville to Indianapolis
Tier 2 Studies

AGENDA

I-69 Tier 2 Permitting Meeting With IDNR

May 23, 2006, at 9:30am (Indy Time)
Location: Indiana Government Center North, Room N642

1. **Introductions & Opening Remarks**
2. **Status of I-69 Tier 2 Studies**
   a. "Major Moves" and Effect on I-69
   b. Toll Road Option for I-69
   c. Status of I-69 Tier 2 Activities
3. **Construction in a Floodway Permitting Process for I-69**
   a. Permitting Process
      i. Multiple Construction in a Floodway Permits (Estimate of 30 -35)
      ii. Number of Floodway Permits in each Section
      iii. Level of detail anticipated for initial permit application/pre-application
      iv. Hydraulics Discussion for Permits
      v. Timing of Permit Applications and Review
   b. Final Permit Review
      i. Following completion of final design
      ii. Re-evalution and amendment for final impact numbers
      iii. Mitigation – *possibly "over" mitigate to accommodate any minor increases in impacts*
   c. Summary of Biota Reports for I-69
      i. 1996 Biota Studies completed for Southwest Indiana Highway Corridor
      ii. New Biota Studies completed as part of the I-69 Tier 2 Studies
      iii. Additional information from Agencies (Heritage Database)
      iv. Formal Data Request to Agencies for Streams
   d. Resource and Impact Assessment / Data
      i. Other studies warranted for the I-69 project
      ii. SOP's for other studies if needed
4. **Mitigation Measures**
   a. Mitigation measures completed to date
   b. 8-Digit Watershed Mitigation Efforts
   c. Wildlife Corridors (Expectations from IDNR)
   d. Other Mitigation Efforts
5. **State TES Species List**
6. **Other Issues**

MINUTES

Meeting with Indiana Department of Natural Resources (IDNR)

At the Indiana Government Center North, Room N642

May 23, 2006 at 9:30 a.m. EDT

Attendee	Organization
Katie Gremillion – Smith	IDNR
Jim Hebenstreit	IDNR
Mike Neyer	IDNR
Jon Eggen	IDNR
Christie Stanifer	IDNR
Ben Hubbard	IDNR
John Davis	IDNR
George Bowman	IDNR
Tony DeSimone	FHWA
Tom Seeman	INDOT
Janice Osadczuk	INDOT
Michelle Hilary	INDOT
Richard Phillabaum	INDOT
Jason DuPont	Bernardin Lochmueller & Associates (BLA/PMC)
Kent Ahrenholtz	BLA
Jeremy Kieffner	BLA
Henry Nodarse	BLA

BLA opened the meeting and welcomed everyone.

INTRODUCTION

Discussion of Tolling I-69

The provision of the Legislative Decision on "Major Moves" requires additional legislative approval of the construction of I-69 through Perry Township and the collection of tolls between Martinsville and Indianapolis.

The footprint of the I-69 roadway in Sections 1-4 will essentially be the same for the toll facility as it is for the free route facility. The toll collection is planned as a completely electronic collection system, which will not require any increase in r/w for toll booths/toll plazas. Sections 5 and 6 may have a smaller footprint with the toll facility do to the fact that the traffic in these two sections may be less with a toll facility than with a free route facility and therefore, not as many lanes would be needed in these sections if it is built as a toll facility.

Tier 1 Re-evaluation

The Tier 1 FEIS is currently being re-evaluated to consider a tolling option for the I-69 project. A revised or amended Tier 1 ROD will be issued by the FHWA after the re-evaluation is complete.

PERMITTING DISCUSSION

IDNR Construction in a Floodway Permitting will be completed on each of the 6 individual Sections of the I-69 project.

The first (Southern) 2 miles of the I-69 project are currently the priority because construction on this section is proposed to start in 2008.

The estimated number of Construction in a Floodway Permits anticipated for the I-69 Project per section are as follows:

Section 1 – 1
Section 2 – 4
Section 3 – 1
Section 4 – 4
Section 5 – 7
Section 6 – 12

The time frame for the application submittals will be from the 1st Quarter of 2007 to the 3rd Quarter of 2007.

The Construction in a Floodway Permit requires that construction of the proposed project in the area of the permit be started within 5 years of receiving the permit. At the present time, there is no mechanism in place for IDNR to extend the time limit of Construction in a Floodway Permits. This may be an item to discuss in the next legislative session to allow IDNR the ability to extend Construction in a Floodway Permits.

Major Moves projects will be going on simultaneously with I-69 and a lot of these project will also require Construction in a Floodway Permits from IDNR. Therefore, INDOT is working with IDNR on the possibility of funding a position at IDNR to process permits.

It is important that competent engineers are completing the hydraulic modeling on the I-69 project in order to move the Construction in a Floodway Permits through efficiently. It is possible to receive the permit approval within 90 days if the applications are completed properly. There will be a standard procedure developed by the I-69 Project Management Team for completing the Construction in a Floodway Permit Applications. This procedure will be coordinated with IDNR Division of Water.

In the areas where Construction in a Floodway Permits are required, it is anticipated that 30% design will be completed. The impacts in these areas should include all impacts including temporary construction impacts (i.e., causeways). The permits should also clearly state any limitation placed on the contractor.

In areas that require stream relocations, a Construction in a Floodway Permit may be required even if the area is considered rural as long as the drainage area is over 1 square mile. It is important to coordinate closely with IDNR to identify if a Construction in a Floodway Permit is required or not. All streams with a drainage area less than 1 square mile are exempt from a Construction in a Floodway Permit.

The Final Design will be complete by the Concessionaire and if any significant changes occur in the areas with Construction in a Floodway Permits than the Concessionaire will be responsible for resubmitting and securing a revised Permit.

MITIGATION DISSCUSSION

There is a possibility of "over" mitigating impacts which would allow for a limited amount of increases in impacts in the areas requiring a Construction in a Floodway Permit without having to resubmit the permits.

INDOT is not a land managing agency and therefore would look at turning the mitigation areas over to more appropriate land managing agency after the mitigation land has been deemed successful by the regulatory agencies. The land would require deed restrictions insuring its use as a mitigation site in perpetuity. IDNR Division of Forestry is a land managing agency and may be willing to assume ownership of mitigation lands.

IDNR will work with INDOT in order to allow INDOT to mitigate for Construction in a Floodway impacts outside the 2.5 mile limits identified in Bulletin 17. It is better to have larger mitigation sites than to have a multitude of small mitigation sites spread throughout the corridor.

INDOT must complete mitigation on land that is purchased from a willing seller at fair market value.

IDNR would like to be involved with the discussion of mitigation with the other agencies. As a part of the permitting process, the Project Management Consultant proposes to reinitiate the Interagency Water Resources Committee to provide input on proposed mitigation.

BIOTA STUDIES DISCUSSION

Additional cave studies in Section 4 are being completed in areas that may be affected by the construction of the I-69 project.

The Karst MOU will be followed for impacts to karst features by the I-69 project.

IDNR does not feel additional biota studies are needed in the I-69 corridor because they are not likely to provide any new information.

All water crossings of the I-69 project should be treated with the same respect.

IDNR is concerned with the barrier the roadway will create after construction is completed and they feel that wildlife corridors, including travel ways not just in high quality areas, should be created. It is important to provide adequate light through the corridors in order for wildlife to use the crossings.

INDOT should make all efforts to insure that roadway construction does not cause an outbreak of existing invasive species or introduce new invasive species in areas where they are not present today.

INDOT is currently trying to remove the autumn olive along their right-of-ways.

There is no current Spec in the INDOT Spec Book to control invasive species; although, a spec on invasive species could be written into the specs for the I-69 project. Coordination with the IDNR Invasive Species Task Force will be conducted to determine appropriate measures to minimize this potential, and the major areas/species of concern.

The Concessionaire will be responsible for long-term maintenance of the I-69 roadway.

IDNR has a roster of endangered plants and animals in Indiana and will provide this roster to the PMC.

FINAL NOTES

A list of waterways that require a Navigable Waterway Permit are on the IDNR web page.

The I-69 Project Management Team needs to coordinate with IDNR to standardize the Construction in a Floodway Permit application process.

The Construction in a Floodway Permits can be appealed and these appeals can tie up projects for 2 or more years. The citizens have up to 18 days after the action to appeal the permits.

BERNARDIN • LOCHMUELLER & ASSOCIATES, INC
PLANNERS • ENGINEERS • SURVEYORS • ENVIRONMENTAL SERVICES
6200 VOGEL ROAD, EVANSVILLE, INDIANA 47715-4006
PHONE: (812) 479-6200 / FAX: (812) 479-6262

Keith Carl
Matt Jeremy
Vince Jonna
Dean Nicole
Kent Carol
Tom C Mike G
Jim G Rusty
Daniel
Jason

TRANSMITTAL

DATE: May 23, 2006

TO: Indiana Department of Natural Resources
Division of Fish & Wildlife
402 W. Washington St. RM W273
Indianapolis, Indiana 46204

RE: I-69 Evansville to Indianapolis
Tier 2 Studies
Biological Survey Reports

ATTENTION: Katie Gremillion-Smith, Chief
Wildlife Diversity Section

BLA PROJECT NO.: 103-0001-1PL
ED29

We Transmit:

☒ Attached ☐ Under Separate Cover ☐ In Accordance With Your Request

Via:

☐ UPS Ground ☐ UPS Next Day Air ☐ First Class Mail ☐ Pick-Up ☒ Messenger

No. Copies	Dated	Description
1 each (6)	2004	Reports on Summer Habitat for the Indiana Bat, Sections 1-6
1 each (2)		Reports on Additional Roost Tree Identification Elberfeld to Bloomington and Bloomington to Indianapolis
1 each (2)	2005	Fall, Winter, Spring Cave Survey Reports '04-'05
1 each (2)	2006	Fall, Winter Cave Survey Reports '05-'06
1 each (5)	2005-2006	Patoka River Region Survey Report – Fish, Unionid and Crayfish; Terrestrial Crayfish; Birds; Amphibians, Reptiles and Mammals; Plants
1	2006	Section 6 Fish, Mussel, and Crayfish Survey Report
1		Molecular Species and Gender Assessment of Bats
1	2005	Section 5 Cave Fauna Report

REMARKS: Katie,
Attached are copies of all biological survey data collected for I-69 as a part of Tier 2 Studies to date. A Fish, Mussel and Crayfish study has been completed in Section 5 and the report is currently being finalized. A copy of the report will be provided when it is finalized. If you have any questions regarding these reports, or any other work relative to I-69, please contact me at 800-423-7411 or via email at jdupont@blainc.com

Sincerely,

BERNARDIN • LOCHMUELLER & ASSOCIATES, INC.

Jason A. DuPont

By: Jason DuPont, P.E.
Chief of Environmental Services

Copies to: File

S:\ENVIRPRJ\103-0001\correspondence_general\Katie Smith trans 2006-05-22.doc

Carol Hood

From: "DeSimone, Anthony" <Anthony.DeSimone@fhwa.dot.gov> [Anthony.DeSimone@fhwa.dot.gov]
Sent: Wednesday, May 31, 2006 2:46 PM
To: Laszewski.Virginia@epamail.epa.gov
Cc: westlake.kenneth@epamail.epa.gov; Joe Gustin; TSEEMAN@indot.state.in.us
Subject: I-69 meeting with EPA

Virginia,
As you know, I have been requested to set up another meeting with the EPA concerning the I69 reevaluation at your offices. This meeting would be similar to the previous one we had with your upper management. By the time we have the meeting, you should have had the document for at least a week or two.

We would like the similar management to be in attendance as the last meeting. Our Division Administrator, Bob Tally, and INDOT's Commissioner, Tom Sharp will attend.

Would you please let me know how July 11 looks for the appropriate persons' schedules. I expect we'll have an "executive" session at the beginning of the meeting. Hopefully this one will be much shorter than the previous one. We would probably like to start at 9:30 CDT. This is a convenient date for Mr. Tally and Mr. Sharp because they will be in Chicago for another meeting in the afternoon and next day.

Thank you for your consideration.

Tony DeSimone, P.E.

FHWAIndiana Division
(317) 2265307
Fax (317) 2267341

Carol Hood

From: "DeSimone, Anthony" <Anthony.DeSimone@fhwa.dot.gov> [Anthony.DeSimone@fhwa.dot.gov]

Sent: Thursday, June 08, 2006 10:48 AM

To: Laszewski.Virginia@epamail.epa.gov

Cc: Alcamo.Thomas@epamail.epa.gov; Ellens.Newton@epamail.epa.gov; Garra.Catherine@epamail.epa.gov; Guenther.Julia@epamail.epa.gov; Kenney.Thomas@epamail.epa.gov; Koller.Mark@epamail.epa.gov; Leslie.Michael@epamail.epa.gov; Melgin.Wendy@epamail.epa.gov; Morris.Patricia@epamail.epa.gov; westlake.kenneth@epamail.epa.gov; Robert Tally; Joe Gustin; TSEEMAN@indot.state.in.us

Subject: RE: I-69 meeting with EPA (July 7?)

I was in the process of double checking the necessary calendars but I believe the July 7 date is still good.

The agenda is intended to focus on the reevaluation. We will also discuss schedule of documents and future coordination. You should have had the document for a couple of weeks by then so I expect you'll also have a good list of questions.

I have not spoken with Mr. Black in the past week. (I've been on vacation). I'll get in contact with him tomorrow to discuss the status.

Thanks for following up with this. Please let me know if there is any other agenda items you would like to discuss.

Tony DeSimone, P.E.
FHWAIndiana Division
(317) 2265307
Fax (317) 2267341

> Original Message
> From: Laszewski.Virginia@epamail.epa.gov
> [mailto:Laszewski.Virginia@epamail.epa.gov]
> Sent: Thursday, June 08, 2006 11:42 AM
> To: DeSimone, Anthony
> Cc: Garra.Catherine@epamail.epa.gov; Gustin, Joe;
> Guenther.Julia@epamail.epa.gov;
> westlake.kenneth@epamail.epa.gov;
> Koller.Mark@epamail.epa.gov; Leslie.Michael@epamail.epa.gov;
> Ellens.Newton@epamail.epa.gov;
> Morris.Patricia@epamail.epa.gov; Tally, Robert;
> Alcamo.Thomas@epamail.epa.gov; Kenney.Thomas@epamail.epa.gov;
> TSEEMAN@indot.state.in.us; Melgin.Wendy@epamail.epa.gov
> Subject: RE: I69 meeting with EPA (July 7?)
>
> Hi Tony
>
> To followup on the voice mail message I left you late
> yesterday. Our Acting Regional Administrator is available
> for a meeting at our office on July 7, 2006, starting at
> 9:30am CST and ending by 11:30am CST.

>
> If FHWA/INDOT need a different date . . . our Acting Regional
> Administrator would not be available and the highest ranking
> EPA Region
> 5 official at the meeting would most likely be JerriAnne
> Garl, Director, Office of Science Ecosystems and Communities
> (she is the director of the office my NEPA Implementation
> Section is in and she was at last years EPA/FHWA/INDOT
> meeting here at EPA).
>
> Please let me know if the meeting here at EPA on July 7,
> 2006, from 9:30am CST ending by 11:30am is a "go" on your end.
>
> I still need a solid "purpose" for the meeting and a meeting agenda.
> (At this time, I am under the impression that the meeting
> will consist of FHWA/INDOT/Consultants presenting the Tolling
> Reevaluation to us and entertaining any questions/comments we
> might have.)
>
> Also, have you been speaking with Bob Black, FHWA attorney in
> Washington DC, concerning an FHWA/EPA IAG for the funding for
> EPA's Karst Specialist?
>
> Thank you,
>
> Virginia Laszewski
> Environmental Scientist
>
> US EPA, Region 5
> OSEC, NIS
> 77 W. Jackson Blvd. (mail code: B19J)
> Chicago, IL 606043590
> Phone: (312) 8867501
> Fax: (312) 3535374
> email: laszewski.virginia@epa.gov
>
>
>
>
> "DeSimone,
>
> Anthony"
>
> <Anthony.DeSimon
>
> e@fhwa.dot.gov>
> To
> Virginia
>
> 06/01/2006 02:58
> Laszewski/R5/USEPA/US@EPA
> PM
> cc
> "Gustin, Joe"

>
>
> <JGUSTIN@indot.state.in.us>,
> Kenneth
> Westlake/R5/USEPA/US@EPA,
>
> TSEEMAN@indot.state.in.us, Thomas
> Kenney/R5/USEPA/US@EPA,
> Catherine
> Garra/R5/USEPA/US@EPA,
> Wendy
> Melgin/R5/USEPA/US@EPA,
> Patricia
> Morris/R5/USEPA/US@EPA,
> Michael
> Leslie/R5/USEPA/US@EPA,
> THOMAS
> ALCAMO/R5/USEPA/US@EPA,
> Mark
> Koller/R5/USEPA/US@EPA,
> Newton
> Ellens/R5/USEPA/US@EPA,
> Julia
>
> Guenther/R5/USEPA/US@EPA, "Tally,
> Robert"
>
>
> <Robert.Tally@fhwa.dot.gov>
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> Subject
> RE: I69 meeting with
> EPA
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>
> How does the 11th work for everyone else? If the acting

> Regional Administrator cannot attend that will be OK but
> hopefully Ms. Garl will be able to attend.
>
> There is no agenda yet since we are just planning the meeting.
> Basically it will focus on the information in the
> reevaluation, the alternatives and the performance measures.
> Any other topics you think should be discussed in this forum
> we would be happy to entertain.
>
> We seem to recall that EPA asked at the last meeting that we
> come back and present our results from the reevaluation but
> I could be mistaken.
> I hope this works out. Again, if the 11th doesn't work, how
> about the 7th or 10th.
>
> Thanks for your assistance.
>
> Tony DeSimone, P.E.
> FHWAIndiana Division
> (317) 2265307
> Fax (317) 2267341
>
>
> > Original Message
> > From: Laszewski.Virginia@epamail.epa.gov
> > [mailto:Laszewski.Virginia@epamail.epa.gov]
> > Sent: Wednesday, May 31, 2006 5:23 PM
> > To: DeSimone, Anthony
> > Cc: Gustin, Joe; westlake.kenneth@epamail.epa.gov;
> > TSEEMAN@indot.state.in.us; Kenney.Thomas@epamail.epa.gov;
> > Garra.Catherine@epamail.epa.gov; Melgin.Wendy@epamail.epa.gov;
> > Morris.Patricia@epamail.epa.gov; Leslie.Michael@epamail.epa.gov;
> > Alcamo.Thomas@epamail.epa.gov; Koller.Mark@epamail.epa.gov;
> > Ellens.Newton@epamail.epa.gov; Guenther.Julia@epamail.epa.gov
> > Subject: Fw: I69 meeting with EPA
> >
> > Tony I just checked. . . July 11th is definitely OUT for
> our Acting
> > Regional Administrator. What other dates/times?
> >
> > Virginia Laszewski
> > Environmental Scientist
> >
> > US EPA, Region 5
> > OSEC, NIS
> > 77 W. Jackson Blvd. (mail code: B19J) Chicago, IL 606043590
> > Phone: (312) 8867501
> > Fax: (312) 3535374
> > email: laszewski.virginia@epa.gov
> > Forwarded by Virginia Laszewski/R5/USEPA/US on
> > 05/31/2006 04:16 PM
> >
> >
> >

> > Virginia
> >
> > Laszewski/R5/USE
> >
> > PA/US
> > To
> > "DeSimone, Anthony"
> >
> > 05/31/2006 04:15
> > <Anthony.DeSimone@fhwa.dot.gov>
> > PM
> > cc
> > "Gustin, Joe"
> >
> >
> > <JGUSTIN@indot.state.in.us>,
> > Kenneth
> > Westlake/R5/USEPA/US@EPA,
> >
> > TSEEMAN@indot.state.in.us, Thomas
> > Kenney/R5/USEPA/US@EPA,
> > Catherine
> > Garra/R5/USEPA/US@EPA,
> > Wendy
> > Melgin/R5/USEPA/US@EPA,
> > Patricia
> > Morris/R5/USEPA/US@EPA,
> > Michael
> > Leslie/R5/USEPA/US@EPA,
> > THOMAS
> > ALCAMO/R5/USEPA/US@EPA,
> > Mark
> > Koller/R5/USEPA/US@EPA,
> > Newton
> > Ellens/R5/USEPA/US@EPA,
> > Julia
> >
> > Guenther/R5/USEPA/US@EPA
> >
> > Subject
> > Re: I69 meeting with
> > EPA
> > (Document link:
> > Virginia
> > Laszewski)
> >
> >
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> >
> > Hi Tony
> >
> > What exactly is the purpose of the meeting? Why take up
> > precious limited time if it isn't absolutely necessary?
> > Please send me the official purpose of the meeting along with
> > a detailed agenda so I can start briefing up my management
> > chain, ASAP. How much time are you going to need and exactly
> > what dates/times are you looking at? It usually takes a lot
> > of time to eventually find the dates/times that will work for
> > my management.
> >
> > Thank you,
> >
> > Virginia Laszewski
> > Environmental Scientist
> >
> > US EPA, Region 5
> > OSEC, NIS
> > 77 W. Jackson Blvd. (mail code: B19J)
> > Chicago, IL 606043590
> > Phone: (312) 8867501
> > Fax: (312) 3535374
> > email: laszewski.virginia@epa.gov
> >
> >
> >
> >
> > "DeSimone,
> >
> > Anthony"
> >
> > <Anthony.DeSimon
> >
> > e@fhwa.dot.gov>
> > To
> > Virginia
> >
> > 05/31/2006 02:45
> > Laszewski/R5/USEPA/US@EPA
> > PM
> > cc
> > Kenneth
> > Westlake/R5/USEPA/US@EPA,
> >
> > TSEEMAN@indot.state.in.us,
> > "Gustin, Joe"
> >

> >
> > <JGUSTIN@indot.state.in.us>
> >
> >
> >
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> >
> > Subject
> > I69 meeting with EPA
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> >
> > Virginia,
> > As you know, I have been requested to set up another meeting
> > with the EPA concerning the I69 reevaluation at your
> > offices. This meeting would be similar to the previous one
> > we had with your upper management.
> > By the time we have the meeting, you should have had the
> > document for at least a week or two.
> >
> > We would like the similar management to be in attendance as
> > the last meeting. Our Division Administrator, Bob Tally, and
> > INDOT's Commissioner, Tom Sharp will attend.
> >
> > Would you please let me know how July 11 looks for the
> > appropriate persons' schedules. I expect we'll have an
> > "executive" session at the beginning of the meeting.
> > Hopefully this one will be much shorter than the previous
> > one. We would probably like to start at 9:30 CDT. This is a
> > convenient date for Mr. Tally and Mr. Sharp because they will
> > be in Chicago for another meeting in the afternoon and next day.
> >
> > Thank you for your consideration.
> >
> > (Embedded image moved to file: pic04855.jpg)Tony DeSimone, P.E.
> > FHWAIndiana Division
> > (317) 2265307
> > Fax (317) 2267341
> >
> >

> >
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>

BERNARDIN • LOCHMUELLER & ASSOCIATES, INC.
6200 Vogel Road · Evansville, Indiana 47715-4006 · www.blainc.com
Phone 812.479.6200 · Toll Free 800.423.7411 · Fax 812.479.6262
One Source for a World of Solutions

Keith
Matt
Tom
Kent
Carol
Jeremy

103-0001

June 9, 2006

Mr. Scott Pruitt
Field Supervisor
United States Fish and Wildlife Service
Bloomington Field Office
620 South Walker Street
Bloomington, IN 47403-2121

RE: Formal request for USFWS information on streams crossed by the I-69 Preferred Alternative 3C corridor.

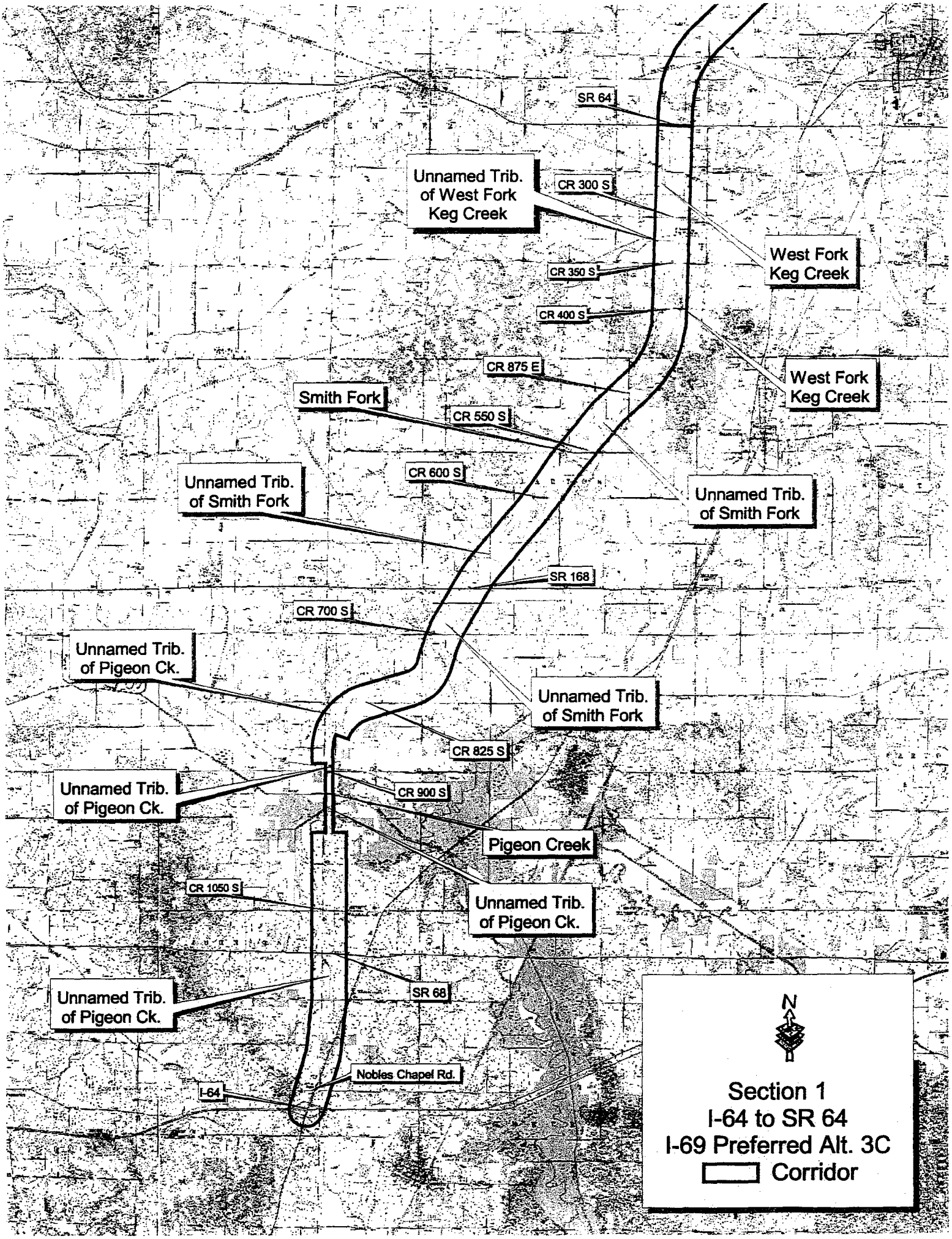
Dear Mr. Pruitt,

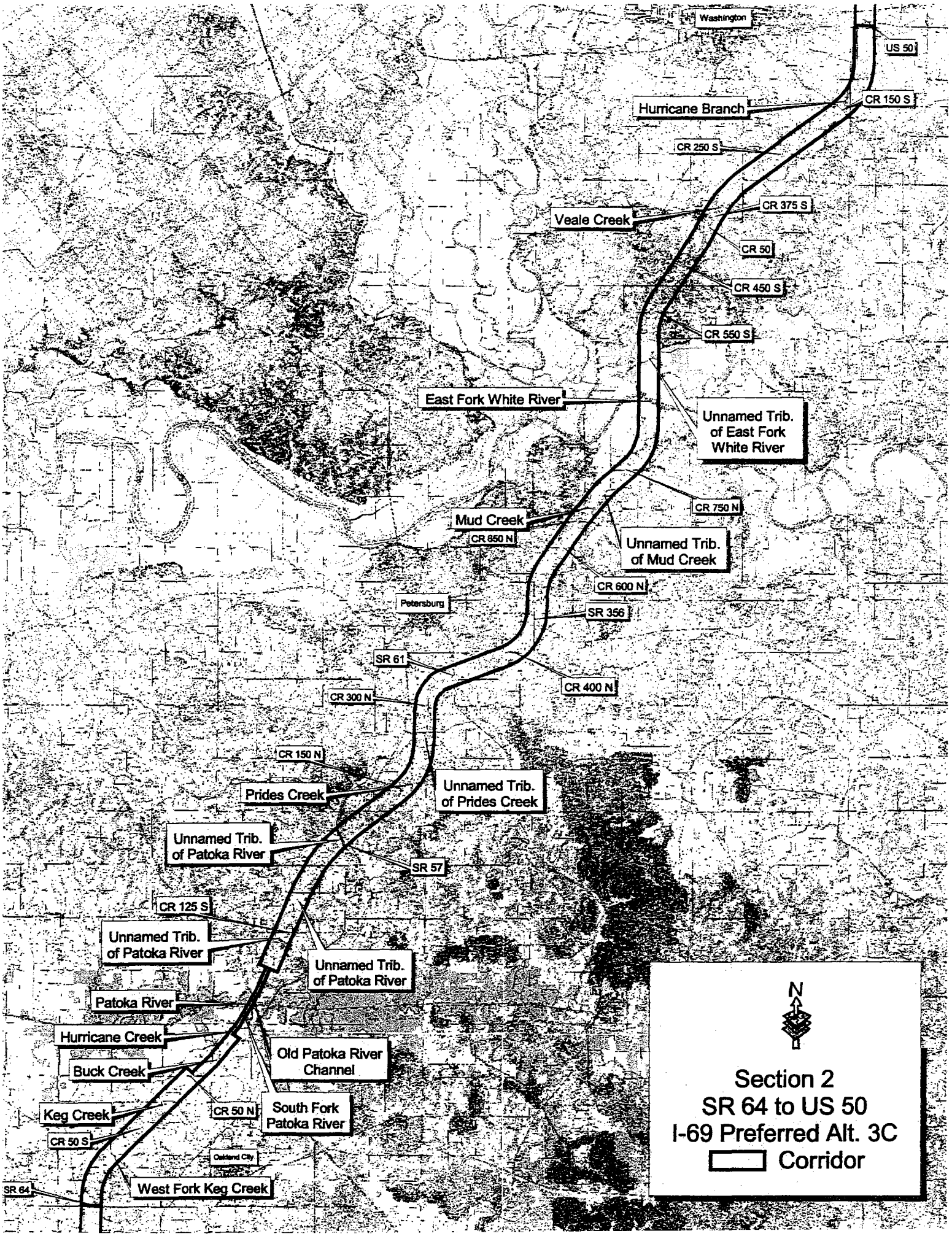
This is a formal request from the I-69 Project Management Team to the United States Fish and Wildlife Service (USFWS) for all stream information that USFWS has on the streams crossed by the I-69 Preferred Alternative 3C corridor. The attached USGS maps show the area crossed by this 2,000 foot corridor. The I-69 Project Management Team is requesting information on any stream work completed by USFWS on the streams within the 2,000 foot corridor. This information will be incorporated into the Tier 2 EIS's, which are currently being developed on each of the 6 Sections. Please pass this request on to all appropriate Departments at USFWS that may have data on these streams. Your assistance on this request for data is greatly appreciated. If you have any questions or comments about this request you can contact Jeremy Kieffner at Bernardin Lochmueller and Associates, Inc. at 800.423.7411 or email at jkieffner@blainc.com. Please send the information to Jeremy Kieffner at Bernardin Lochmueller and Associates, Inc., 6200 Vogel Road, Evansville, Indiana, 47715. Thank You.

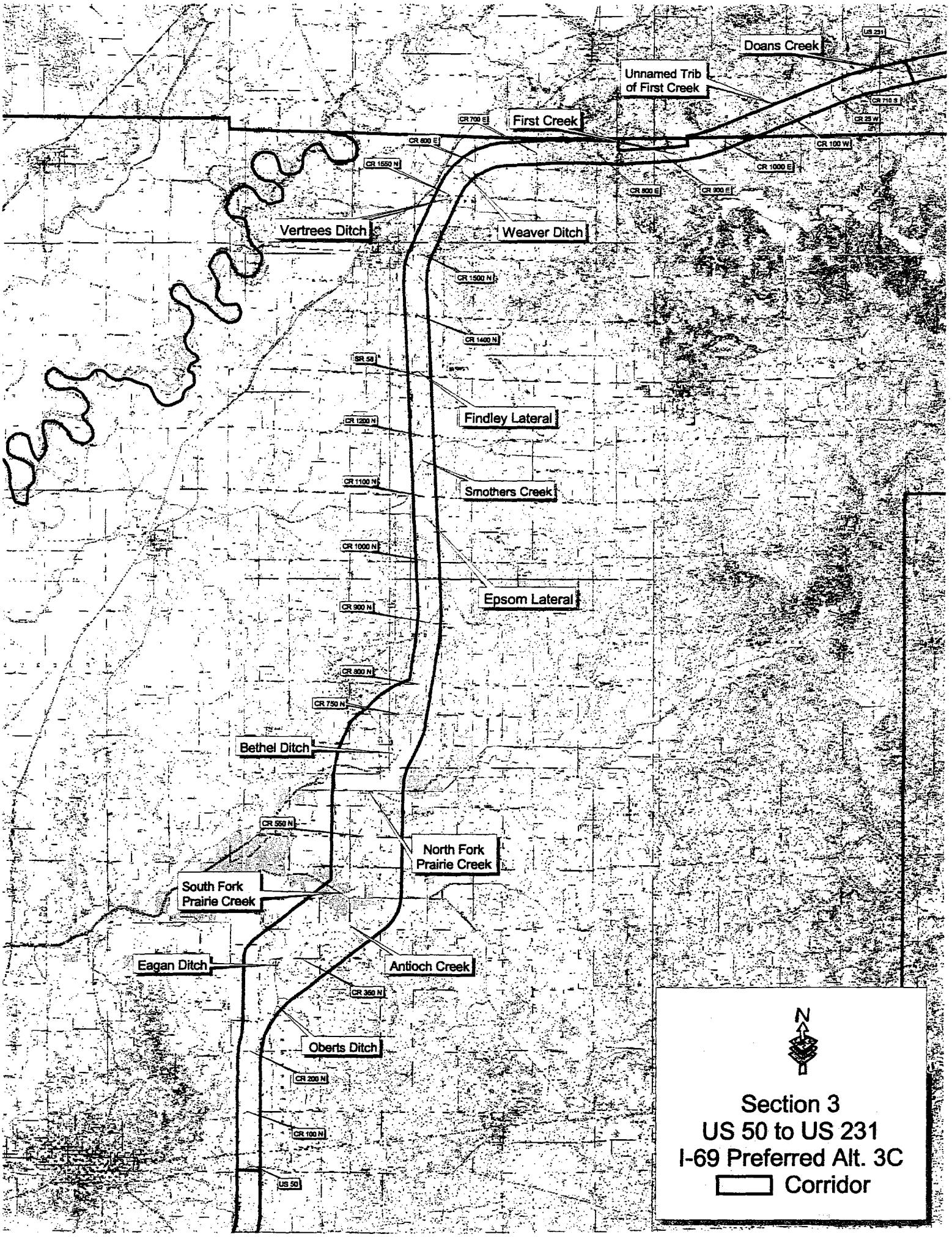
Sincerely,

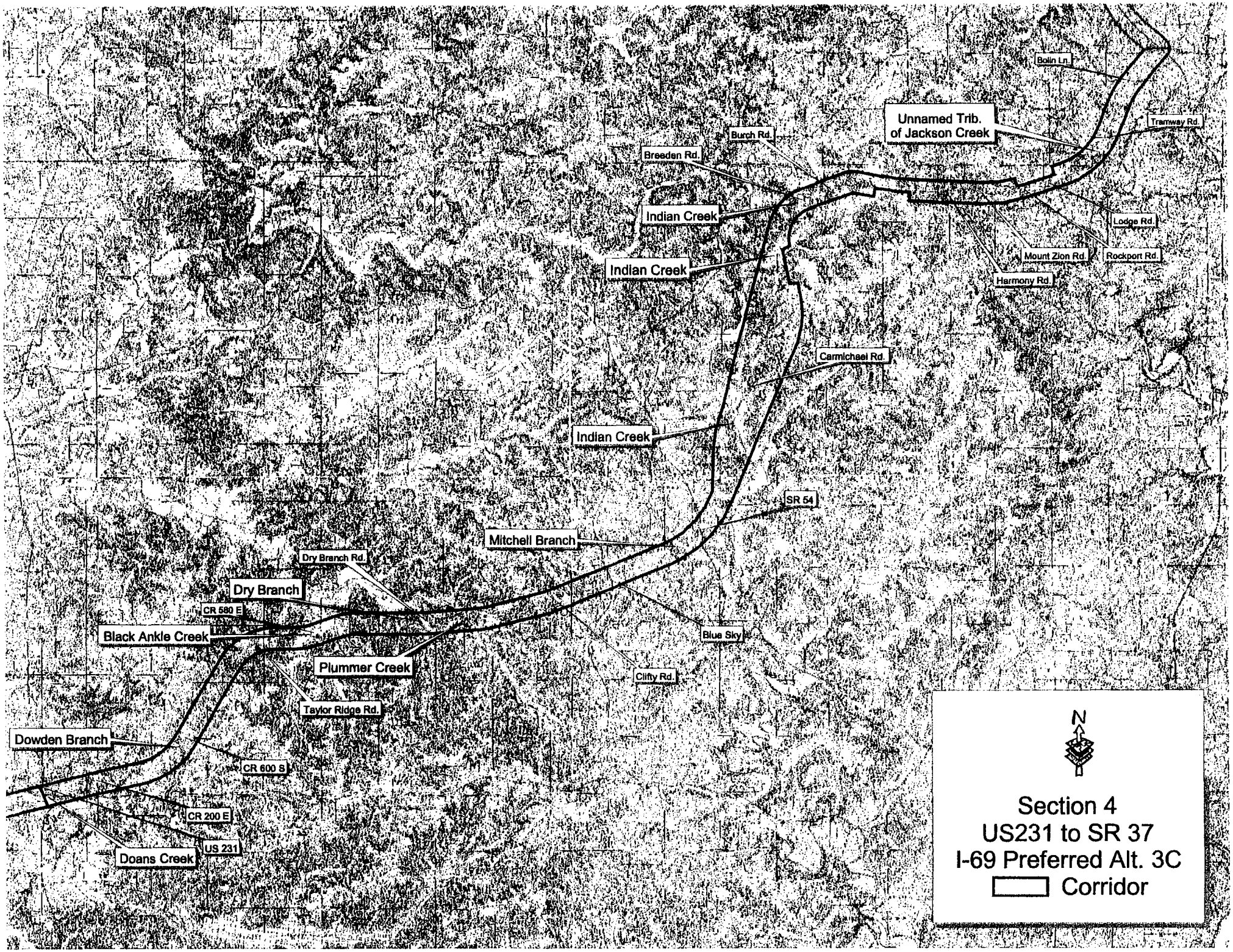
Tom Cervone, Ph.D.
Principal / Director of Environmental Services

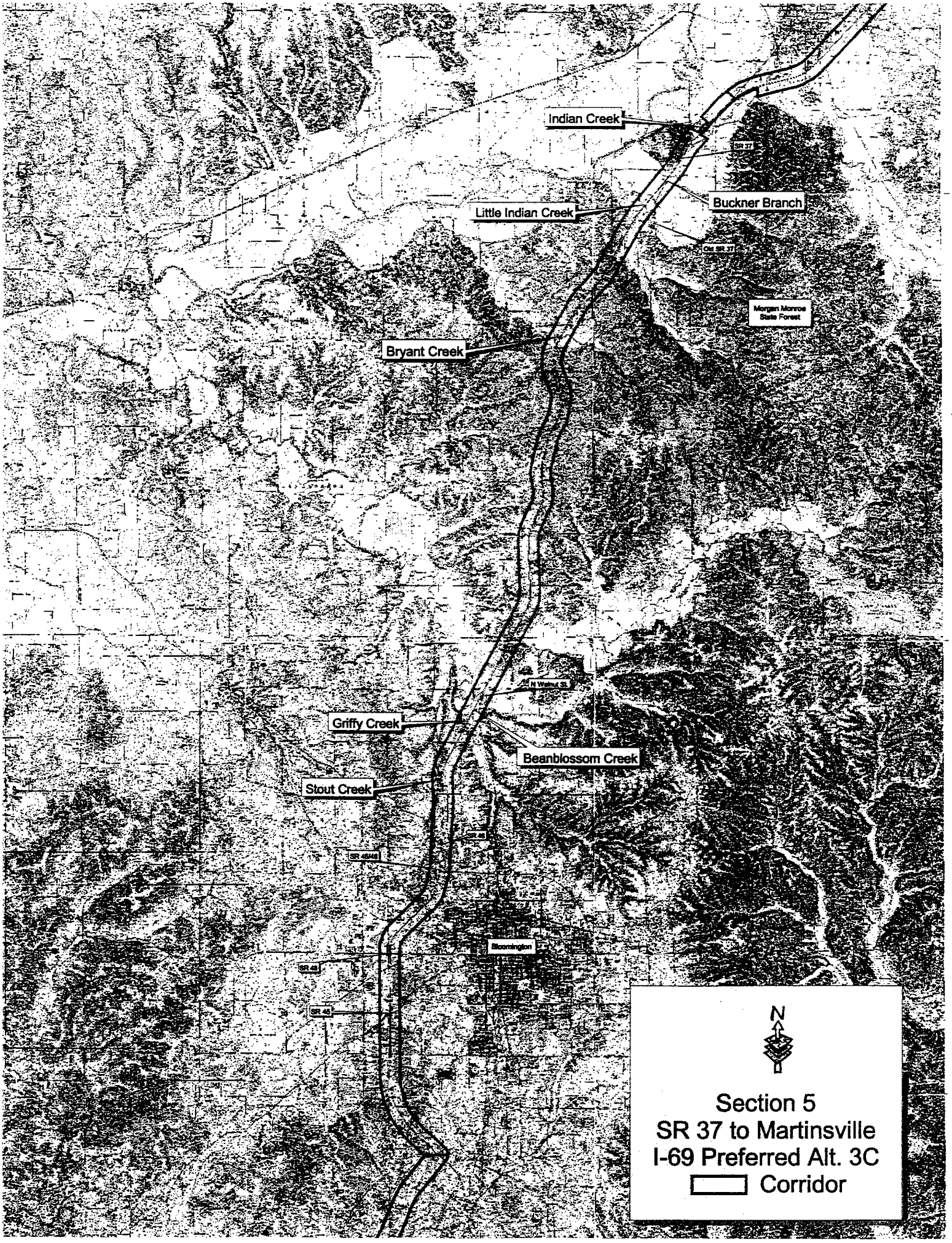
Cc: Andy King (USFWS)
Tom Simon (USFWS)
Janice Osadczuk (INDOT)
Tom Seeman (INDOT)

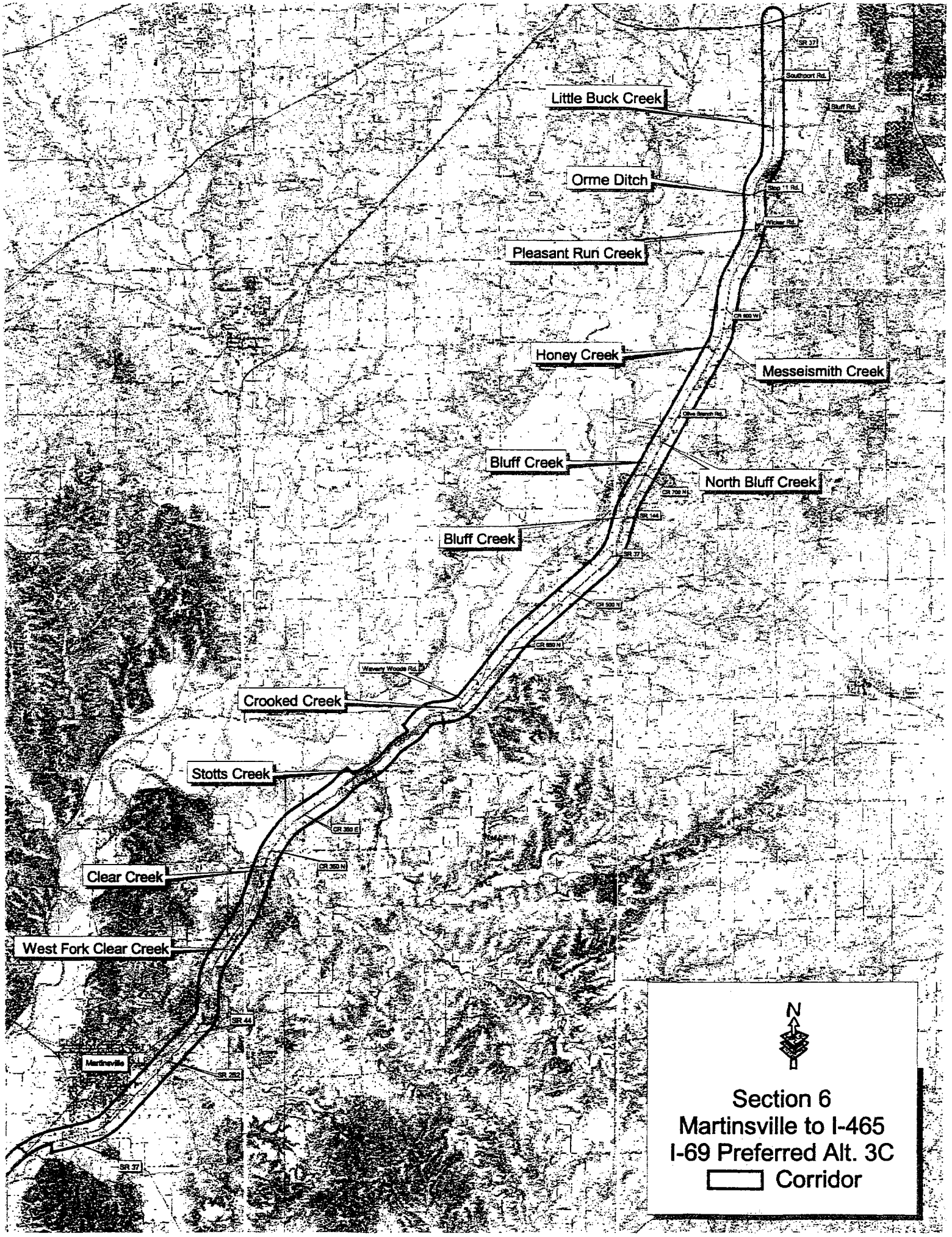

SR 64
Unnamed Trib. of West Fork Keg Creek
CR 300 S
West Fork Keg Creek
CR 350 S
CR 400 S
CR 875 E
West Fork Keg Creek
Smith Fork
CR 550 S
CR 600 S
Unnamed Trib. of Smith Fork
Unnamed Trib. of Smith Fork
SR 168
CR 700 S
Unnamed Trib. of Pigeon Ck.
Unnamed Trib. of Smith Fork
CR 825 S
Unnamed Trib. of Pigeon Ck.
CR 900 S
Pigeon Creek
CR 1050 S
Unnamed Trib. of Pigeon Ck.
Unnamed Trib. of Pigeon Ck.
SR 68
Nobles Chapel Rd.
I-64
N
Section 1
I-64 to SR 64
I-69 Preferred Alt. 3C
Corridor


Washington
US 50
CR 150 S
Hurricane Branch
CR 250 S
CR 375 S
Veale Creek
CR 50
CR 450 S
CR 550 S
East Fork White River
Unnamed Trib. of East Fork White River
CR 750 N
Mud Creek
CR 850 N
Unnamed Trib. of Mud Creek
CR 600 N
Petersburg
SR 356
SR 61
CR 400 N
CR 300 N
CR 150 N
Prides Creek
Unnamed Trib. of Prides Creek
Unnamed Trib. of Patoka River
SR 57
CR 125 S
Unnamed Trib. of Patoka River
Unnamed Trib. of Patoka River
Patoka River
Hurricane Creek
Old Patoka River Channel
Buck Creek
Keg Creek
CR 50 N
South Fork Patoka River
CR 50 S
Oakland City
SR 64
West Fork Keg Creek
N
Section 2
SR 64 to US 50
I-69 Preferred Alt. 3C
Corridor


Doans Creek
US 231
Unnamed Trib
of First Creek
CR 710 S
CR 25 W
First Creek
CR 700 E
CR 600 E
CR 100 W
CR 1550 N
CR 1000 E
CR 800 E
CR 900 E
Vertrees Ditch
Weaver Ditch
CR 1500 N
CR 1400 N
SR 58
Findley Lateral
CR 1200 N
CR 1100 N
Smothers Creek
CR 1000 N
Epsom Lateral
CR 900 N
CR 800 N
CR 750 N
Bethel Ditch
CR 550 N
North Fork
Prairie Creek
South Fork
Prairie Creek
Eagan Ditch
Antioch Creek
CR 350 N
Oberts Ditch
CR 200 N
CR 100 N
US 50
N
Section 3
US 50 to US 231
I-69 Preferred Alt. 3C
Corridor


Bolin Ln.
Unnamed Trib.
of Jackson Creek
Tramway Rd.
Burch Rd.
Breeden Rd.
Indian Creek
Lodge Rd.
Mount Zion Rd.
Rockport Rd.
Indian Creek
Harmony Rd.
Carmichael Rd.
Indian Creek
SR 54
Mitchell Branch
Dry Branch Rd.
Dry Branch
CR 580 E
Black Ankle Creek
Blue Sky
Plummer Creek
Clifty Rd.
Taylor Ridge Rd.
Dowden Branch
CR 600 S
CR 200 E
US 231
Doans Creek
N
Section 4
US231 to SR 37
I-69 Preferred Alt. 3C
Corridor


Indian Creek
SR 37
Buckner Branch
Little Indian Creek
Old SR 37
Morgan Monroe State Forest
Bryant Creek
N Walnut St
Griffy Creek
Beanblossom Creek
Stout Creek
SR 46
SR 46/48
Bloomington
SR 45
SR 45
N
Section 5
SR 37 to Martinsville
I-69 Preferred Alt. 3C
Corridor


Little Buck Creek
Orme Ditch
Pleasant Run Creek
Honey Creek
Messeismith Creek
Bluff Creek
North Bluff Creek
Bluff Creek
Crooked Creek
Stotts Creek
Clear Creek
West Fork Clear Creek
Martinsville
SR 37
Southport Rd.
Bluff Rd.
Stop 11 Rd.
Wicker Rd.
CR 600 W
Olive Branch Rd.
CR 700 N
SR 144
SR 37
CR 500 N
CR 650 N
Waverly Woods Rd.
CR 350 E
CR 350 N
SR 44
SR 252
SR 37
N
Section 6
Martinsville to I-465
I-69 Preferred Alt. 3C
Corridor

US Department
of Transportation

**Federal Highway
Administration**

Indiana Division

575 North Pennsylvania Street, Room 254
Indianapolis, Indiana 46204

June 15, 2006

HDA-IN

**Mr. Scott E. Pruitt
U.S. Fish and Wildlife Service
Bloomington Field Office
620 South Walker Street
Bloomington, In 47403-2121**

Mr. Pruitt,

On March 7, 2006, our office sent to you the Addendum to the Tier 1 Biological Assessment concerning the I-69 project from Evansville to Indianapolis. At that time, we also reinitiated formal consultation on the impacts to the Indiana Bat. To date, we have not received your response which was required within 30 days in accordance with 50 CFR § 402.12(j). Also, we have not received any request for an extension of the formal consultation period within 90 days from its initiation in accordance with 50 CFR § 402.14(c) and it is our understanding that none will be required.

We request that your response to the receipt of the Biological Assessment be sent as soon as possible. We also desire that the approved Biological Opinion be submitted by the conclusion of the 135 day consultation period which is July 20, 2006 in compliance with our Pre-Consultation Agreement for this project and 50 CFR § 402.14(c).

Also, we request a copy of the draft Biological Opinion when it is available for our review in accordance with 50 CFR § 402.14(g)(5). We hope the draft can be received by July 10, 2006. We intend a speedy review of the draft to avoid any delay to the issuance of the Biological Opinion. This same regulation also provides you with a 10 day extension should our review of the draft result in additional comments. That limited extension would be provided, if necessary.

This project is the top priority for the State of Indiana and we greatly appreciate your cooperation on this project in working with us to meet this schedule.

If you require further information please contact Tony DeSimone of this office at (317) 226-5307 (e-mail: Anthony.desimone@fhwa.dot.gov).

Sincerely yours,

for **Robert F. Tally, Jr., P.E.**
Division Administrator

Enclosures

cc:
Ms. Michelle Hilary (INDOT N855)
Kent Ahrenholtz (BLA)
Tom Cervone (BLA)

Carol Hood

From: Carol Hood [blainc.Bla_Mailbox.Carol]
Sent: Tuesday, June 27, 2006 3:52 PM
To: WMalley@akingump.com; dpluckebaum@corradino.com; btravis@dem.state.in.us; bhudson@dlz.com; Christie Stanifer; jeggen@dnr.IN.gov; jhebenstreit@dnr.in.gov; ksmith@dnr.in.gov; mneyer@dnr.in.gov; jcarr@dnr.in.us; rjones@dnr.state.in.us; garra.catherine@EPA.gov; laszewski.virginia@epa.gov; melgin.Wendy@epa.gov; Westlake.Kenneth@epa.gov; anthony.desimone@fhwa.dot.gov; jlowe@fs.fed.us; rtaylor@fs.fed.us; andrew_king@fws.gov; Bill_McCoy@fws.gov; scott_pruitt@fws.gov; tnmiller@hntb.com; dclark@idem.in.gov; jrandolp@idem.in.gov; JAMES SULLIVAN; mclark@idem.in.gov; troberts@idem.in.gov; jane.hardisty@in.usda.gov; xavier.montoya@in.usda.gov; blawrence@indot.in.gov; bsteckler@indot.in.gov; candrews@indot.in.gov; CTOMAK@indot.in.gov; dbutts@indot.in.gov; gmroczka@indot.in.gov; jcurry@indot.in.gov; jgundersen@indot.in.gov; JGUSTIN@indot.in.gov; josadczuk@indot.in.gov; jude@indot.in.gov; kknoke@indot.in.gov; kleet@indot.in.gov; MBALLEN@indot.in.gov; mhilary@indot.in.gov; mkennedy@indot.in.gov; pdrach@indot.in.gov; pschmidt@indot.state.in.us; rburcham@indot.in.gov; rbuskirk@indot.in.gov; RCLARK@indot.in.gov; rphillabaum@indot.in.gov; tseeman@indot.in.gov; ahamm@indot..in..gov; tgiller@indot.state.in.us; john.h.mccarthy@jacobs.com; Amy.S.Babey@lrl02.usace.army.mil; Doug.Shelton@LRL02.usace.army.mil; lgale@mbakercorp.com; david.poynter@navy.mil; rwade@qk4.com; vince@shrewsusa.com
Cc: MGrovak@aol.com; Daniel Townsend; Henry Nodarse; Jason Dupont; Jeremy Kieffner; Jim Gulick; Jonna Stack; Kent Ahrenholtz; Nicole Minton; Tom Cervone; Vince Bernardin; Rusty Yeager; brl@blainc.com; ccamacho@blainc-indy.com; kgillette@blainc-indy.com; dcleveland@corradino.com; Kallison@corradino.com; rray@corradino.com; barterbery@dlz.com; jstone@dlz.com; rhanas@dlz.com; tmolt@dlz.com; aroberts@graypape.com; bhoegh@hntb.com; rhancock@hwcengineering.com; tracey.lober@jacobs.com; jpeyton@mbakercorp.com; kweiss@mbakercorp.com; mhamman@mbakercorp.com; jwehner@qk4.com; linda@weintrautinc.com; dyerenv@yahoo.com
Subject: I-69 Overall Agency Coordination Meeting - August 1-2, 2006

Hello Everyone!

Mark your calendars! The next Overall Agency Coordination Meeting will be held on Tuesday, August 1 and Wednesday, August 2.

The meeting format will be like the last Overall meeting held Feb. 23-24, 2005: overall meeting followed by breakout sessions on the 1st day (10am - 5pm EDT), and tours of the Sections (Sections 4-6) on the 2nd day (8:30 am - 2 pm EDT).

Formal invitations (including agenda, location of meeting, hotel info., etc.) will be mailed out on Friday and you should receive them early next week.

Thanks,

Carol

Carol D. Hood
Project Coordinator
Bernardin Lochmueller & Associates
6200 Vogel Road
Evansville, IN 47715
(812) 479-6200/Fax: (812) 479-6262
Email: chood@blainc.com

cc: Kent Ahrenholtz

103-0001-1PL

U.S. Department of Transportation
Federal Highway Administration

Indiana Division

575 North Pennsylvania Street, Room 254
Indianapolis, Indiana 46204

Keith
Vince
Dean
Kent
Tom
Jim G
Daniel
Jason

Carl
Jeremy
Jonna
Nicole
Carol
Mike G.
Rusty

June 28, 2006

Mr. Bharat Mathur
Acting Regional Administrator
US EPA Region 5
77 W. Jackson Blvd.
Chicago, IL 60604

Dear Mr. Mathur:

The Federal Highway Administration (FHWA), in cooperation with the Indiana Department of Transportation (INDOT), has prepared a Re-evaluation to the Tier 1 Environmental Impact Statement for the I-69 Evansville to Indianapolis project. We would like to take this opportunity to follow up our October 28, 2005, meeting with you and your staff to discuss the finding the re-evaluation and the future schedule of the Tier 2 studies.

In cooperation with your staff, a meeting has been set for July 7, 2006, 9:30 a.m. (CDT), at your offices in Chicago. This meeting is with INDOT Commissioner Tom Sharp and his staff and legal council, staff from the consulting firm, BLA, Anthony DeSimone who is responsible for the studies for FHWA, and myself. We request that a conference room be reserved that will allow for a PowerPoint presentation and will provide space for those in attendance.

Your staff will have received copies of the Re-evaluation by the time of this letter. Also, an agenda will be sent via email to your staff for your consideration. If you would like any revisions to the agenda or have any other questions, please contact Mr. DeSimone of my staff at (317) 226-5307.

We look forward to meeting with you and your staff.

Sincerely,

Robert F. Tally, Jr., P.E.
Division Administrator

BUCKLE UP AMERICA

RECEIVED
JUN 30 2006
BLA - EVANSVILLE

cc:
Janice Osadczuk, INDOT N646
Kent Ahrenholtz, BLA
Bill Malley, Akin Gump Strauss Hauer & Feld, LLP
Tom Sharp, INDOT, N-755
Tom Seeman, INDOT N642
Joe Gustin, INDOT N755
Kenneth Westlake, EPA Region 5

Carol Hood

From: "DeSimone, Anthony" <Anthony.DeSimone@fhwa.dot.gov> [Anthony.DeSimone@fhwa.dot.gov]
Sent: Wednesday, June 28, 2006 6:21 AM
To: Laszewski.Virginia@epamail.epa.gov
Cc: Kent Ahrenholtz
Subject: RE: funding agreement

Virginia, I'm not making the official agenda but it should look
something like this.

Executive Session
9:30 (CDT) Welcome/Introductions
9:40 Tier 1 Reevaluation briefing by BLA
10:10 EPA questions/discussion
10:40 Tier 2 Schedule Discussion
11:00 Other EPA questions and concerns

11:30 12:30 Staff Discussion (if necessary)
Topics could include Interagency funding agreement, Cumulative
Impacts Analysis

Please provide me any comments if you would like some
additions/revisions.

Tony DeSimone, P.E.
FHWAIndiana Division
(317) 2265307
Fax (317) 2267341

> Original Message
> From: Laszewski.Virginia@epamail.epa.gov
> [mailto:Laszewski.Virginia@epamail.epa.gov]
> Sent: Tuesday, June 27, 2006 10:05 AM
> To: DeSimone, Anthony
> Cc: westlake.kenneth@epamail.epa.gov
> Subject: RE: funding agreement
>
> Hi Tony
>
> I haven't yet received a copy of the reevaluation from
> FHWA/INDOT/Consultants . . . I did go into the InDOT website
> yesterday and download a file copy and spent time and EPA
> money printing several copies off for us.
>
> Do you have an answer from your Headquarters people
> concerning whether or not FHWA can provide EPA Region 5 with
> the Karst Specialist money "upfront"? I need to know ASAP.
>
> Please send the meeting agenda when ready.

>
> Thank you.
>
> Virginia Laszewski
> Environmental Scientist
>
> US EPA, Region 5
> OSEC, NIS
> 77 W. Jackson Blvd. (mail code: B19J)
> Chicago, IL 606043590
> Phone: (312) 8867501
> Fax: (312) 3535374
> email: laszewski.virginia@epa.gov
>
>
>
>
> "DeSimone,
>
> Anthony"
>
> <Anthony.DeSimon
>
> e@fhwa.dot.gov>
> To
> Virginia
>
> 06/27/2006 06:05
> Laszewski/R5/USEPA/US@EPA
> AM
> cc
>
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> Subject
> RE: funding agreement
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>
> Virginia, hopefully you have received your copy of the
> reevaluation by now but if not, it is on the website at
> www.i69indyevn.org for download until you receive your hard copy.
>
> Still working on getting an agenda. The person that would
> put that together is on vacation sorry for the delay.
>
> Tony DeSimone, P.E.
> FHWAIndiana Division
> (317) 2265307
> Fax (317) 2267341
>
>
> > Original Message
> > From: Laszewski.Virginia@epamail.epa.gov
> > [mailto:Laszewski.Virginia@epamail.epa.gov]
> > Sent: Friday, June 23, 2006 9:40 AM
> > To: DeSimone, Anthony
> > Cc: westlake.kenneth@epamail.epa.gov;
> > Stone.George@epamail.epa.gov; Sykes.Karen@epamail.epa.gov;
> > Koller.Mark@epamail.epa.gov; Kenney.Thomas@epamail.epa.gov
> > Subject: Re: funding agreement
> >
> > Tony
> >
> > 1. Thanks, let me know what you find out. I am passing your below
> > email on to the folks here in R5 who are trying to help me with the
> > karst specialist funding agreement issues.
> >
> > 2. Yes, I need a detailed July 7th meeting agenda. [Note:
> > the Karst Specialist funding issue may have to be on the agenda?]
> >
> > 3. Will we receive copies of the Tolling Reevaluation by Monday?
> >
> > Thank you,
> >
> > Virginia Laszewski
> > Environmental Scientist
> >
> > US EPA, Region 5
> > OSEC, NIS
> > 77 W. Jackson Blvd. (mail code: B19J) Chicago, IL 606043590
> > Phone: (312) 8867501
> > Fax: (312) 3535374
> > email: laszewski.virginia@epa.gov
> >
> >
> >
> >
> > "DeSimone,
> >

> > Anthony"
> >
> > <Anthony.DeSimon
> >
> > e@fhwa.dot.gov>
> > To
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> >
> > 06/23/2006 06:02
> > Laszewski/R5/USEPA/US@EPA
> > AM
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> > Fax (317) 2267341
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Carol Hood

From: <Laszewski.Virginia@epamail.epa.gov> [Laszewski.Virginia@epamail.epa.gov]
Sent: Thursday, June 29, 2006 2:40 PM
To: Anthony DeSimone
Cc: Kent Ahrenholtz; Alcamo.Thomas@epamail.epa.gov; Garra.Catherine@epamail.epa.gov; Kenney.Thomas@epamail.epa.gov; Koller.Mark@epamail.epa.gov; Leslie.Michael@epamail.epa.gov; Melgin.Wendy@epamail.epa.gov; Morris.Patricia@epamail.epa.gov; Stone.George@epamail.epa.gov; Sykes.Karen@epamail.epa.gov; westlake.kenneth@epamail.epa.gov; tseeman@indot.state.in.us
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"DeSimone, Anthony" <Anthony.DeSimone@fhwa.dot.gov>
06/28/2006 06:20 AM

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RE: funding agreement

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Subject: RE: FHWA draft meeting agenda et al

Tony

Thank you for your preliminary responses.

At this time, for the August 1st and 2nd meeting, I would guess 5 to 7
EPA staff might attend. Possible attendees:
Ken Westlake, NEPA Implementation Section
Virginia Laszewski, NEPA Implementation Section
Tom Kenney, Office of Regional Council
Wendy Melgin, Wetlands and Watersheds
Cathy Garra, Wetlands and Watersheds
Patricia Morris and/or Mike Leslie, Air and Radiation Division
Tom Alcamo, Superfund.

Virginia Laszewski
Environmental Scientist

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06/29/2006 03:04 PM

To
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> Sent: Tuesday, June 27, 2006 10:05 AM
> To: DeSimone, Anthony
> Cc: westlake.kenneth@epamail.epa.gov
> Subject: RE: funding agreement
>
> Hi Tony
>

> I haven't yet received a copy of the reevaluation from
> FHWA/INDOT/Consultants . . . I did go into the InDOT website
> yesterday and download a file copy and spent time and EPA
> money printing several copies off for us.
>
> Do you have an answer from your Headquarters people
> concerning whether or not FHWA can provide EPA Region 5 with
> the Karst Specialist money "upfront"? I need to know ASAP.
>
> Please send the meeting agenda when ready.
>
> Thank you.
>
> Virginia Laszewski
> Environmental Scientist
>
> US EPA, Region 5
> OSEC, NIS
> 77 W. Jackson Blvd. (mail code: B19J)
> Chicago, IL 606043590
> Phone: (312) 8867501
> Fax: (312) 3535374
> email: laszewski.virginia@epa.gov
>
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>
> "DeSimone,
>
> Anthony"
>
> <Anthony.DeSimon
>
> e@fhwa.dot.gov>
> To
> Virginia
>
> 06/27/2006 06:05
> Laszewski/R5/USEPA/US@EPA
> AM
> cc
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> Subject
> RE: funding agreement
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>
> Virginia, hopefully you have received your copy of the
> reevaluation by now but if not, it is on the website at
> www.i69indyevn.org for download until you receive your hard copy.
>
> Still working on getting an agenda. The person that would
> put that together is on vacation sorry for the delay.
>
> Tony DeSimone, P.E.
> FHWAIndiana Division
> (317) 2265307
> Fax (317) 2267341
>
>
> > Original Message
> > From: Laszewski.Virginia@epamail.epa.gov
> > [mailto:Laszewski.Virginia@epamail.epa.gov]
> > Sent: Friday, June 23, 2006 9:40 AM
> > To: DeSimone, Anthony
> > Cc: westlake.kenneth@epamail.epa.gov;
> > Stone.George@epamail.epa.gov; Sykes.Karen@epamail.epa.gov;
> > Koller.Mark@epamail.epa.gov; Kenney.Thomas@epamail.epa.gov
> > Subject: Re: funding agreement
> >
> > Tony
> >
> > 1. Thanks, let me know what you find out. I am passing your below
> > email on to the folks here in R5 who are trying to help me with the
> > karst specialist funding agreement issues.
> >
> > 2. Yes, I need a detailed July 7th meeting agenda. [Note:
> > the Karst Specialist funding issue may have to be on the agenda?]
> >
> > 3. Will we receive copies of the Tolling Reevaluation by Monday?
> >
> > Thank you,
> >
> > Virginia Laszewski
> > Environmental Scientist
> >
> > US EPA, Region 5
> > OSEC, NIS

> > 77 W. Jackson Blvd. (mail code: B19J) Chicago, IL 606043590
> > Phone: (312) 8867501
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> > email: laszewski.virginia@epa.gov
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> > "DeSimone,
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> > e@fhwa.dot.gov>
> > To
> > Virginia
> >
> > 06/23/2006 06:02
> > Laszewski/R5/USEPA/US@EPA
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> > Virginia,
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> > I am checking with Washington and also checking to see if
> > INDOT could do it but then they would have to Bill us when
> > you actually spent the money and could provide INDOT with the
> > consultants billing.

> >
> > It has slipped my mind and I am sorry but was there anything
> > else you needed for the July 7 meeting?
> >
> > (Embedded image moved to file: pic30838.jpg)Tony DeSimone, P.E.
> > FHWAIndiana Division
> > (317) 2265307
> > Fax (317) 2267341
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COPY

July 6, 2006

Mr. Andrew King
Bloomington Field Office
U. S. Fish & Wildlife Service
620 S. Walker Street
Bloomington, IN 47403

Re: **I-69 Tier 2 Studies, Evansville to Indianapolis**
Overall I-69 Agency Coordination Meeting on August 1-2, 2006

Dear Mr. Andrew King:

On behalf of the Indiana Department of Transportation (INDOT) and Indiana Division of the Federal Highway Administration (FHWA), we are respectfully requesting your agency's attendance and participation in the Overall I-69 Agency Coordination Meeting as part of the ongoing formal agency coordination for the I-69 Tier 2 Studies.

The meeting will be a two-day event and is scheduled for Tuesday and Wednesday, August 1-2, 2006, and will be held at the AMVETS, The Gathering in Bloomington, Indiana at *5227 West Airport Road* (directions are enclosed). A tentative agenda is included with this package. There will be three objectives of the meeting, the first objective being to review the Tier 1 Re-evaluation. The second objective will be to provide an update on the progress of each of the Tier 2 Sections, and the third objective of the meeting will give agencies a chance to address issues that may have arisen in previous meetings or conference calls and see how the INDOT, FHWA, and the PMC are addressing these issues. On the second day of the meeting we will provide agencies the opportunity to tour or visit the project area within particular I-69 sections.

Attached is a list of hotels in the Bloomington and southern Indianapolis area to allow each of you to make overnight reservations, if appropriate. We respectfully ask that you return the enclosed reply card to us as soon as possible so that accommodations can be made for lunch and the tours. Please direct any comments, questions or requests for additional information to Kent Ahrenholtz or Tom Cervone, Ph.D. of Bernardin, Lochmueller & Associates at 800/423-7411 or at kahrenholtz@blainc.com or tcervone@blainc.com. Please address all written correspondence to Kent Ahrenholtz, P.E., Project Manager, Bernardin, Lochmueller & Associates, 6200 Vogel Road, Evansville, IN 47715. Thank you and we appreciate your participation in the I-69 Tier 2 Studies.

Sincerely,
Bernardin, Lochmueller & Associates, Inc.

Kent Ahrenholtz, P.E.
Project Manager

Enclosures (Tentative Agenda, Reply Card, Hotel List, and Directions)

Cc: T. DeSimone (FHWA)
J. Osadczuk (INDOT)
T. Seeman (INDOT)
W. Malley (Akin Gump)
T. Cervone (BLA)

Overall Agency Coordination Meeting

TENTATIVE AGENDA

August 1-2, 2006

9:00 AM to 5:00 PM/8:30 AM to 2:00 PM (EDT/Indy Time)

AMVETS, The Gathering Bloomington, IN

Day 1: Tuesday, August 1

Morning Session (9:00 AM to 12:00 PM)

Welcome		Janice Osadczuk/Tom Seeman (INDOT) Anthony DeSimone (FHWA)
Project Schedules		Kent Ahrenholtz – PMC PM (BLA)
Tier 1 Re-evaluation		Mike Grovak – PMC Deputy PM (BLA)
Tier 2 Agency Review Packages		Mike Grovak – PMC Deputy PM (BLA)
Project Status	Section 1	Roger Wade (Qk4)
	Section 2	John McCarthy (HWC/Jacobs Civil Team)
	Section 3	David Pluckebaum (Corradino Group)
	Section 4	Bruce Hudson (DLZ)
	Section 5	Larry Gale (Michael Baker)
	Section 6	Tim Miller (HNTB)
Open Informal Discussion with Agencies		Kent Ahrenholtz (BLA)

Lunch (12:00 PM to 1:00 PM): On-site

Afternoon Breakout Sessions (1:00 PM to 5:00 PM)

Interagency Karst Geology Coordination Team

Interagency Water Resources Coordination Team – Permitting and Other Water Resources Issues

Indirect and Cumulative Impacts

Day 2: Wednesday, August 2

Morning Session (8:30 AM to 2:00 PM)

Tour of I-69 Sections 4, 5, and 6

Hotel List (Bloomington, IN and surrounding areas)

Bloomington:	**Surrounding areas**:
Townplace Suites (812) 334-1234 105 South Franklin Road Bloomington, IN 47404	**Super 8** (765) 349-2222 55 Bills Boulevard Martinsville, IN *(on State Road 37 between Bloomington & Indy)*
Fairfield (812) 331-1122 or (800) 228-2800 120 S Fairfield Dr. Bloomington, IN 47404	**Best Western** (765) 342-1842 50 Bills Boulevard Martinsville, IN *(on State Road 37 between Bloomington & Indy)*
University Plaza Hotel (812) 334-3252 1710 Kinser Pike Bloomington, IN 47404	**Comfort Inn** (765) 342-1842 50 Bills Boulevard Martinsville, IN *(on State Road 37 between Bloomington & Indy)*
Days Inn (812) 336-0905 200 Matlock Rd, Bloomington, IN 47408 *(located by SR 37)*	**Comfort Inn South** (317) 783-6711 5040 S. East St. Indianapolis, IN 46227
Ramada Limited (812) 339-1919 1722 N Walnut, Bloomington, IN 47404	**Red Roof Inn** 1-800-THE-ROOF 5221 Victory Drive Indianapolis, IN 46203
Bloomington Travelodge (812) 333-6191 2615 E. Third St. Bloomington, IN 47401	**Holiday Inn** 1-800-Holiday 5120 Victory Drive Indianapolis, IN (located at I-465 and Emerson Avenue)
Courtyard By Marriott (812) 335-8000 310 South College Avenue Bloomington, IN	
Homewood Suites (812) 323-0500 1399 S Liberty Dr Bloomington, IN 47403	
Econo Lodge (812) 332-9453 2601 Walnut Street, Bloomington, IN	
Super 8 Motel (812) 323-8000 1000 West State Road 45 & 46 Bloomington, IN	

Directions for **AMVETS 2000, The Gathering**

5227 West Airport Road
Bloomington, IN 47403
(812) 825-2200

From the North (Indianapolis, etc.) – 50 miles

Take 465 South until you come to the 37 South exit (Harding Street Exit),
Take SR 37 South and travel 43 miles,
Turn off onto Ramp and travel 0.4 miles,
Turn Right (South/West) onto SR 45 (2nd Street) and travel 1.2 miles,
Turn Right (West) onto West Airport Road and travel 0.2 miles,
Arrive at AMVETS

From Chicago - 220 miles

Take 65 South to 465 South and get off on 37 South (Harding Street Exit),
Take SR 37 South and travel 43 miles,
Turn off onto Ramp and travel 0.4 miles,
Turn Right (South/West) onto SR 45 (2nd Street) and travel 1.2 miles,
Turn Right (West) onto West Airport Road and travel 0.2 miles,
Arrive at AMVETS

From the South

Take US 231, travel 4 miles,
Keep straight onto SR 54 (E. Main Street) and travel 11.9 miles,
Bear left (East) onto SR 445 and travel 1.3 miles,
Keep straight onto SR 45 and travel 9.9 miles,
Turn Left (West) onto West Airport Road and travel 0.2 miles,
Arrive at AMVETS

Tier 1 Reevaluation Meeting w/EPA

I-69 Evansville to Indianapolis Tier 2 Studies

July 7, 2006

Agenda

- Introductions & Opening Remarks
- Changes to I-69, Evansville to Indianapolis
- I-69 Tier 1 EIS Reevaluation
- Questions/Issues from EP
- Immediate Next Steps
- Meetings

Changes to I-69, Evansville-to-Indiana[redacted]

- Effect of Major Moves Legislation
- Consideration of Toll Funded Option
- Reevaluation of Tier 1 EIS
- Refinement of Tier 2 Studies
- Revised Schedule for Tier 2 Studie[redacted]
- [redacted]ent Process

[redacted]

[redacted]

[redacted]

[redacted]

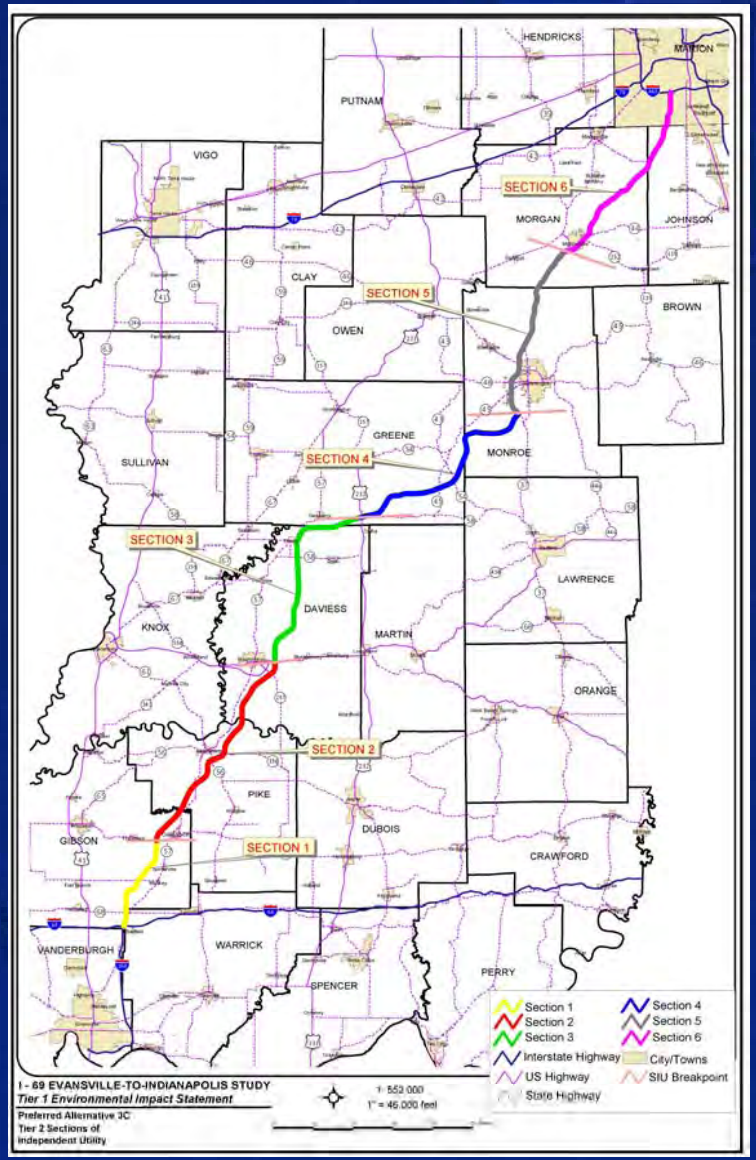
[redacted]

Tier 2 Studies
6 Sections

142-mile Evansville to Indianapolis project is divided into six sections

Each section is being studied independently

Draft EIS, Final EIS and of Decision issued for each section



Effect of Major Moves Legislati[redacted]

- Reevaluation Preceded Major Moves
  - *Consideration of use of tolls within weeks of SAFETEA-LU passage*
  - *Work started in early autumn, 2005*
- Not in response to language in M[redacted]r Moves
- Major Moves allows INDOT to con[redacted] p[redacted]rtnerships) for I-69

[redacted]

Consideration of Toll Option

- Same Alternatives for Tier 2 Studies
- Two Options – *Non-toll and Toll*
- Characteristics of Toll Option
  - *Fully Electronic Toll Collection System*
  - *Assumed Toll Rate Structure*
  - *Traffic Diversions with Tolls*
  - *Possible Changes to Footprint with Less Traffic – Sections 5 & 6*

Revised Schedule for Tier 2

- Reevaluation of Tier 1 EIS
  - *Tier 1 EIS Re-evaluation Report – Issued June 20, 2006*
  - *Official Comment Period – Deadline July 24, 2006*
  - *Amended Tier 1 Record of Decision – mid to late August 2006*
- Refinement of Tier 2 Studies
  - *Delay in Issuance of Draft EISs*
  - *Incorporation of Toll Options*
  - *Staggered EIS Reviews*
- Accelerated Project Development Activities
  - *Permitting*

Procurement Process

- Major Moves provided Legislative Approval for use of Public/Private Partnership for I-69
- "Concession"
  - *Design*
  - *Construction*
  - *Operation*
  - *ance*
- RFQ to determine "Qualified Bidders
- RFP to identify Proposed Concessionaire

I-69 Tier 1 EIS Reevaluation

- Two basic questions
  1. Would tolling have changed Tier 1 choice?
  2. Does tolling have ***significant*** impacts not considered in the Tier 1 FEIS?
- Why consider tolling now?
- Is this analysis the “last word?”

Why Consider Tolling Now?

- Major Legislative Changes
  - *Six-year federal transportation bill (SAFETEA-LU) signed August 10, 2005*
  - *Much greater flexibility to mix toll and non-toll funding*
  - *<u>Not an option</u> during Tier 1*

Why Consider Tolling Now?

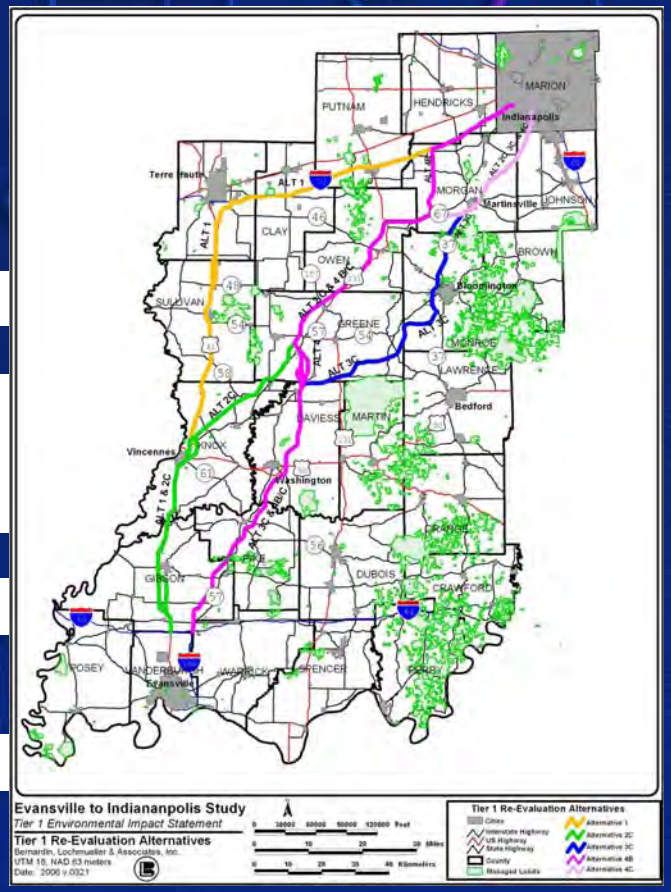
- Major Toll Collection System Improvements
  - *"Open road" tolling – fully electronic*
  - *Eliminate toll booth congestion and backups*

Is this the "last word?"

- A "high altitude" review of Toll Options
  - *Uniform toll rates*
  - *No variation by location or time*
- Comparison at a Tier 1 ("Big Pictu[redacted]l of detail
- More detailed Tier 2 Studies [redacted]
- "Toll Funding" decision as part of [redacted]

I-69 Tier 1 EIS Reevaluation

- Process
  - *Draft EIS "Preferred Alternatives" – 2C, 3B, 3C, 4B & 4C*
  - *Alternative 3B Dropped – found "environmentally unacceptable in Tier 1 FEIS*
  - *Alternative 1 Added – non-preferred status reconsidered in Tier 1 FEIS, plus high level of public support*



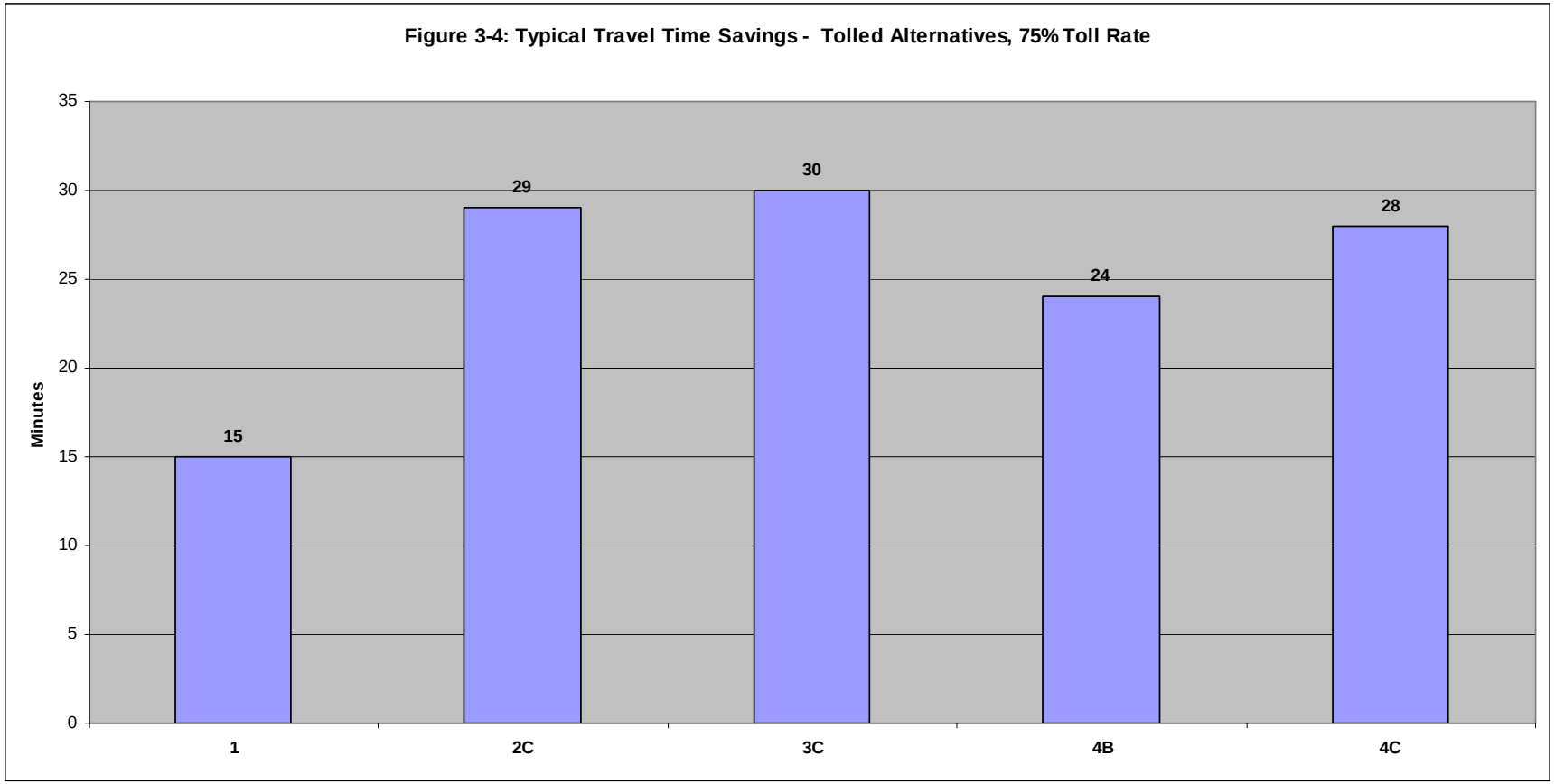
I-69 Tier 1 EIS Reevaluation

- Process *(continued)*
  - *Identification of Characteristics of Toll Option*
    - *Fully Electronic Toll Collection System*
    - *Assumed Toll Rate Structure*
    - *Traffic Diversions with Tolls*
    - *Possible Changes to Footprint with Les*
  - *Re-estimation of Performance Measu*
    de Toll Model
  - *Reassessment of Alternatives*
  - *luation of Environmental Impacts – mostly traffic-related impacts*
  - *Documentation*

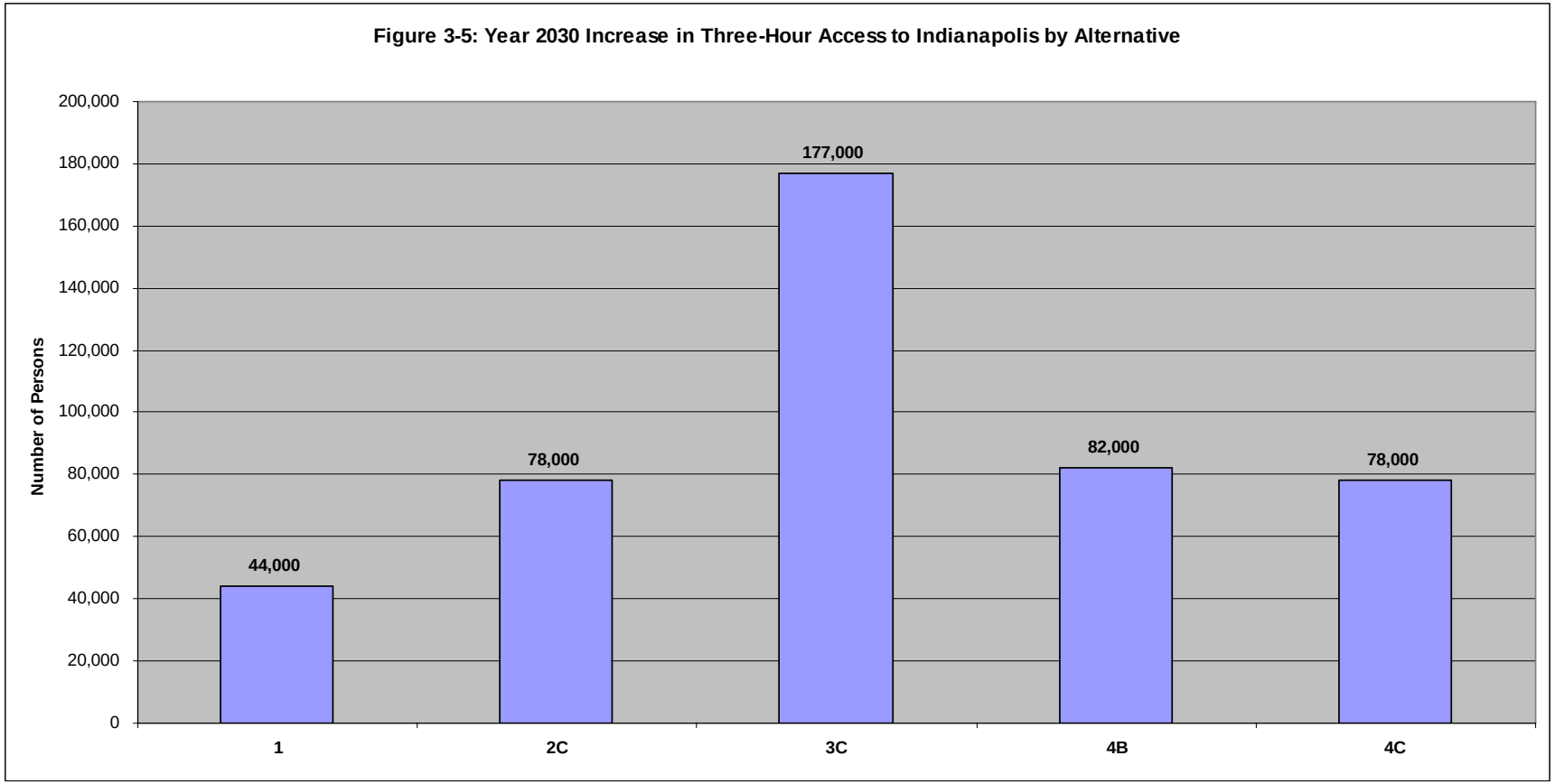
I-69 Tier 1 EIS Reevaluation – *Highlight*[redacted]

- Toll Option Performance Evaluation
  - *Tier 1 goals and performance measures*
  - *More current traffic forecasting model*[redacted]
    - *Year 2030 forecast year (vs. Year 2025 in Tier 1)*
    - *Significant technical enhancemen*[redacted]
    - *Show non-toll performance along*[redacted]

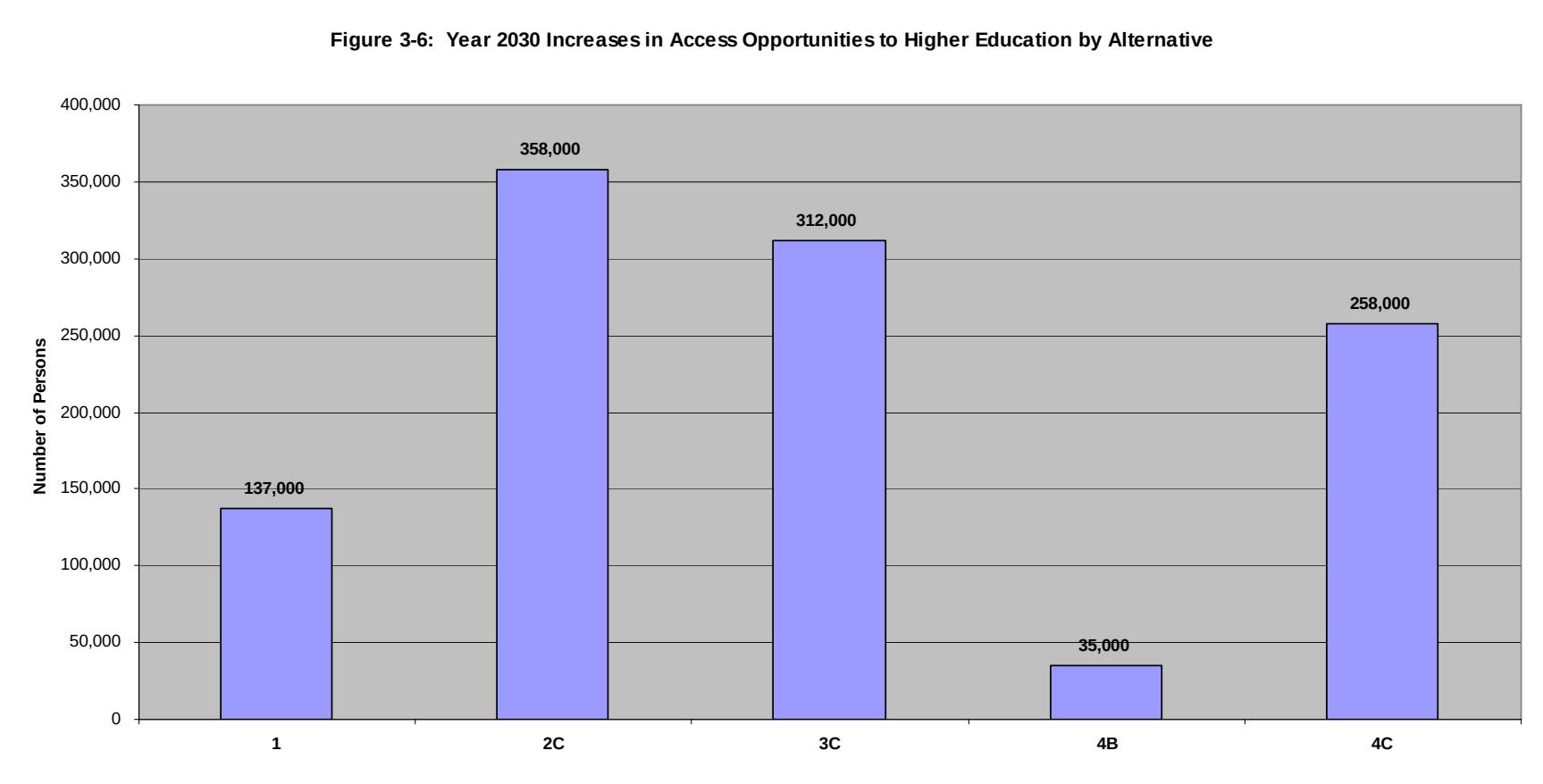
Toll Option Performance Evaluatio



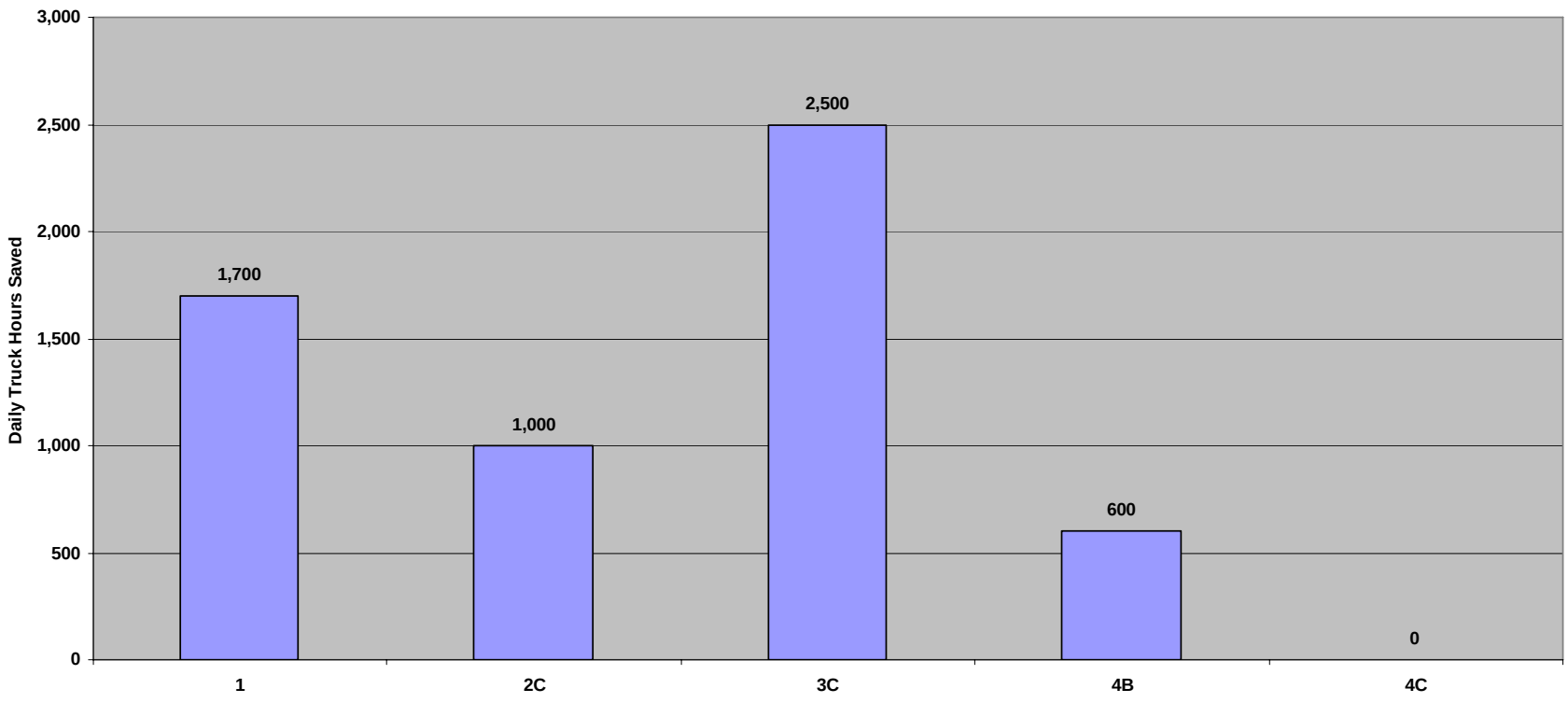
Toll Option Performance Evaluatio



Toll Option Performance Evaluatio[redacted]



Toll Option Performance Evaluatio[redacted]



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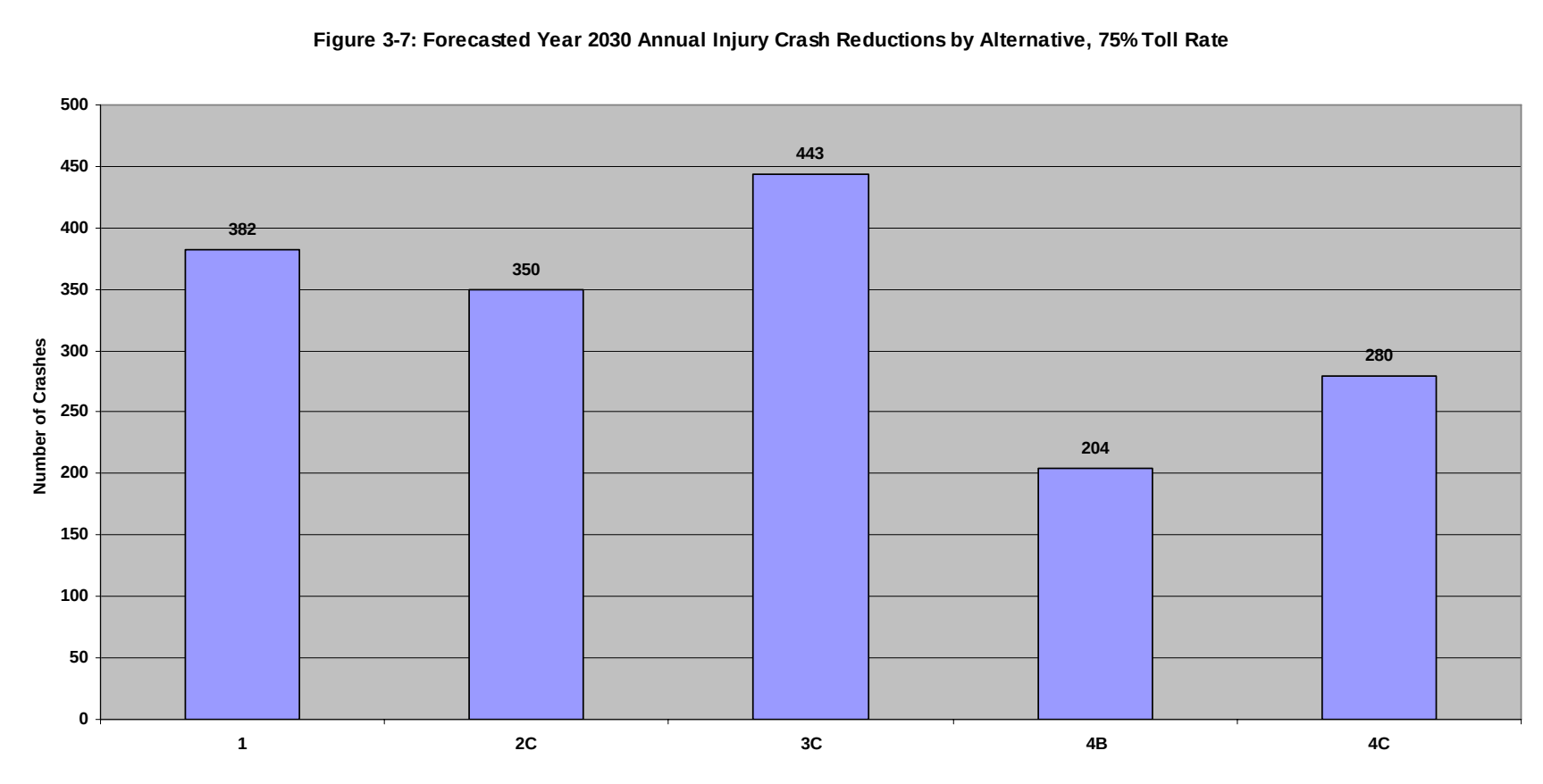

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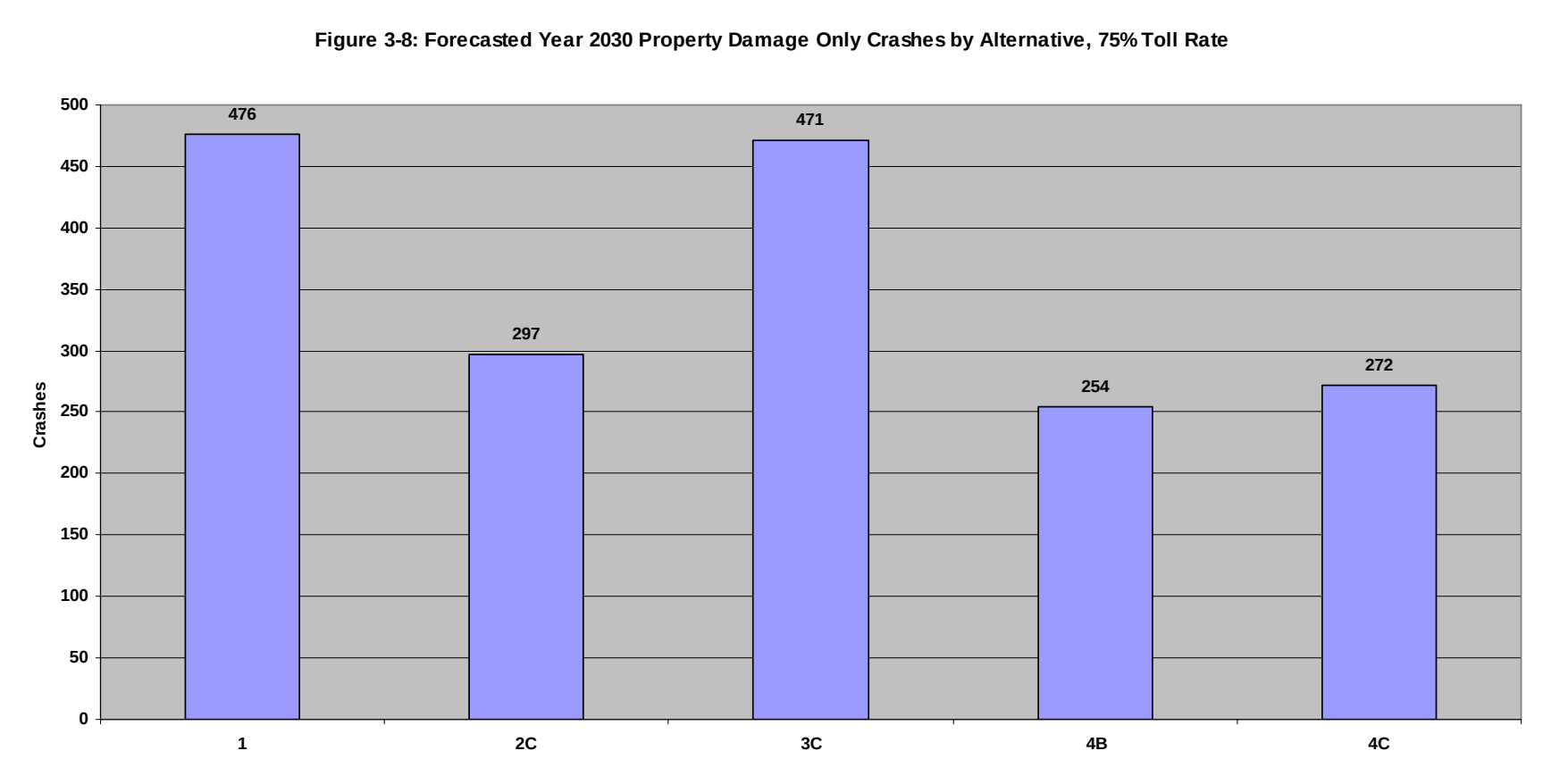
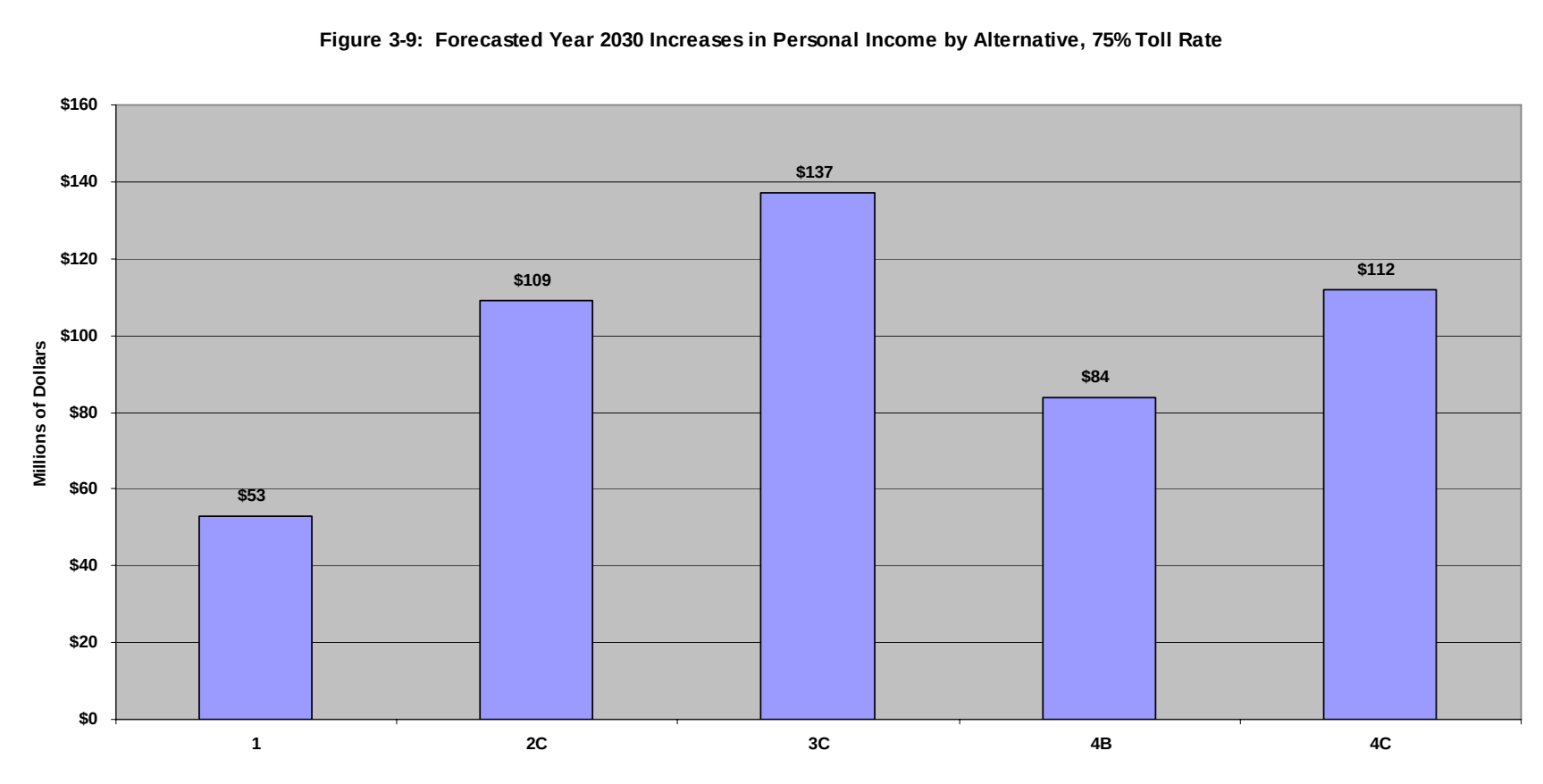
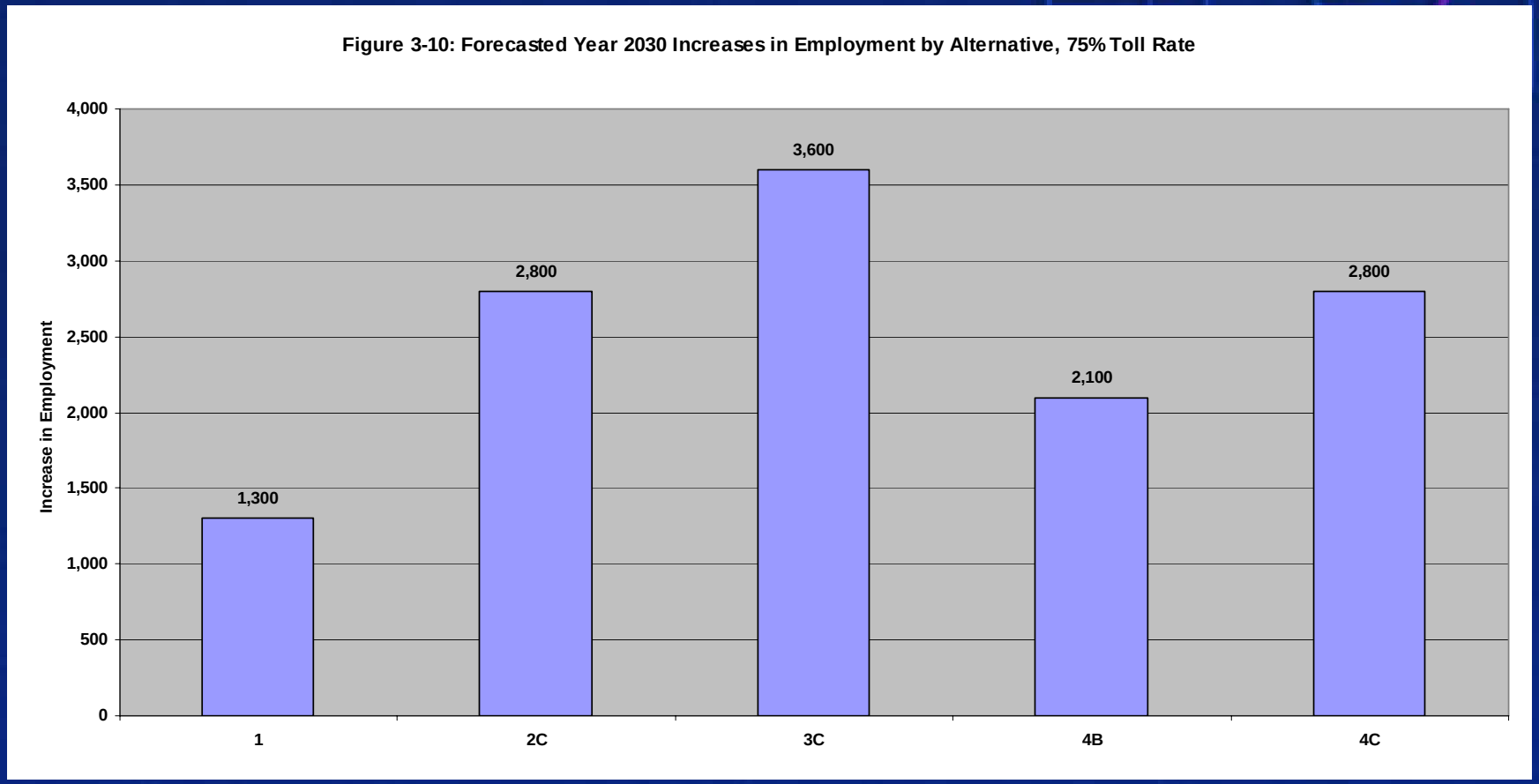


Toll Option Performance Evaluatio[redacted]



Toll Option Performance Evaluatio



I-69 Tier 1 EIS Reevaluation – *Highlight*

- Comparison with Non-Toll Option
  - *Performance on some goals unaffected by tolling*
    - *Evansville-to-Indianapolis travel time*
    - *Personal accessibility*
  - *Performance on other goals re tolling*
    - *Interstate and international freight*
    - *Crash reduction*
    - *Congestion relief*
    - *Economic development*

I-69 Tier 1 EIS Reevaluation – *Highlight*[redacted]

- Timing "Tradeoffs"
  - *Receive benefits many years sooner*
  - *Receive some in reduced m*[redacted]*de*

[redacted]

I-69 Tier 1 EIS Reevaluation – *Highlight*

- Impact Changes from Non-toll Option
  - *Traffic Impacts*
    - *More traffic on other roads*
    - *Near US 41 and SR 37 – m* *significant*
    - *Some roads have more traff*
    - *Only a few experience a change in the level of service*

I-69 Tier 1 EIS Reevaluation – *Highlight*[redacted]

- Impact Changes from Non-toll Option
  - *Environmental Justice Impacts*
    - *Identifies potential issue to lo*[redacted]*e persons*
    - *Would exist for most altern*[redacted]*sidered*
    - *Will need to be evaluated in*[redacted]

I-69 Tier 1 EIS Reevaluation – *Highlight*[redacted]

- Impact Changes from Non-toll Option
  - *Air Quality Impacts*
    - *Repeats Tier 1 assessment* [redacted]
    - *Emissions in Vanderburgh* [redacted] *Marion counties remain within SIP budget* [redacted]
    - [redacted] *additional issues for Tier 2*
      - *Additional areas in non-conformance* [redacted]
      - *Additional emissions analyses (PM 2.5, 8-hour ozone)* [redacted]

I-69 Tier 1 EIS Reevaluation – *Highlight*[redacted]

- Impact Changes from Non-toll Option
  - *Noise Impacts*
    - *Noise impacts diminished fro*[redacted]*oll*
    - *Less traffic = less noise*

I-69 Tier 1 EIS Reevaluation – *Highlight*[redacted]

- Impact Changes from Non-toll Option
  - *Indirect & Cumulative Impacts*
    - *Non-toll is "worst case"*[redacted]
    - *Development in toll case w*[redacted]*d be no greater than non-toll*[redacted]

I-69 Tier 1 EIS Reevaluation – *Highlight*[redacted]

- Clarification of Tier 1 ROD
  - *Location of interchanges and access roads outside of corridor boundari*[redacted]
  - *Commitment regarding an*[redacted]*ange at Monroe/Greene County lin*[redacted]
  - *Commitment to bridge Pato*[redacted]*plain*[redacted]

I-69 Tier 1 EIS Reevaluation

- Official Comment Period
  - *Agency Review & Input*
    - *Agency Coordination Meetings with Federal & State Agencies*
  - *Public Review & Input*
    - *Public Open Houses*
    - *Site*
    - *Project Offices & Libraries*
    - *er Input Avenues*

Questions/Issues from U.S. EPA

Immediate Next Steps

- Completion of Tier 1 Re-evaluation
- Continuation of I-69 Tier 2 Studies
- Agency Coordination Meetings concerning Toll Options & Schedules

Next Meetings

- Agency Coordination Meetings concerning Tier 1 Reevaluation – *July 2006*
  - *U.S. Fish & Wildlife Service*
  - *State Environmental Agencies*
  - *U.S. Army Corps of Engineers – decided having a meeting*
- Overall Agency Coordination Meet
- Environmental Streamlining Package Conference Calls/ Webcasts -- *ongoing*

Tier 2 Studies Contacts

For project information, or to provide input:

FHWA – Indiana Division
575 N. Pennsylvania St., Rm N254
Indianapolis, IN 46204
Ph. 317/226-5307
Contacts: **Tony DeSimone**

Indiana DOT
100 North Senate Avenue
Indianapolis, IN 46204
317/232-5

Tom Seeman

I-69 PMC – Bernardin Lochmueller & Associ
62 ad
Evansville, IN 47715
Ph. 812/479-6200
C **Kent Ahrenholtz**

Web Site: www.i69indyevn.org

AGENDA

I-69 Agency Coordination Meeting Concerning Tier 1 Reevaluation

U.S. EPA Region 5 Office, Chicago IL
Friday, July 7, 2006, 9:30 a.m. CDT/10:30 a.m. EDT

I. Introductions & Opening Remarks *B_Mathur, US EPA Acting Regional Administrator,*
(5-10 minutes) *B_Tally, FHWA Division Administrator &*
T_Sharp, INDOT Commissioner

II. Changes to I-69, Evansville to Indianapolis *K_Ahrenholtz, PMC Project Manager*
(15 minutes)

A. Effect of Major Moves Legislation
B. Consideration of Toll-Funded Option – *Same Alternatives, But Two Options – Non-toll and Toll*
C. Re-evaluation of Tier 1 EIS
D. Refinement of Tier 2 Studies
E. Revised Schedule for Tier 2 Studies
F. Procurement Process

III. I-69 Tier 1 EIS Reevaluation *K_Ahrenholtz, PMC Project Manager*
(30-45 minutes)

A. Report – Highlights
B. Schedule
C. Public Involvement

IV. Questions/Issues from EPA *All Participants*
(30 Minutes)

V. Immediate Next Steps *K_Ahrenholtz, PMC Project Manager*
(15 Minutes)

A. Completion of I-69 Tier 1 Reevaluation
B. Continuation of I-69 Tier 2 Studies
C. Overall Agency Coordination Meeting

VI. Next Meeting(s)

A. Overall Agency Coordination Meeting, August 1-2 2006
B. Environmental Streamlining Package Conference Calls/Webcasts, Ongoing

MEETING MINUTES

Tier 1 Re-evaluation Meeting with USEPA
Friday, July 7, 2006 - 9:30 a.m. CDT
USEPA Region 5, Chicago, IL

Attendees:	
Bharat Mathur – USEPA	Tony DeSimone – FHWA
Ken Westlake – USEPA	Tom Sharp – INDOT
Virginia Laszewski – USEPA	Michelle Hilary – INDOT
Tom Kenney – USEPA	Ben Lawrence – INDOT
Cathy Garra – USEPA	Tom Seeman – INDOT
Jerri-Anne Garl – USEPA	Bill Malley – Akin Gump (via conf. call, exited meeting at 11:20 a.m. CDT)
Robert Tally – FHWA	Kent Ahrenholtz – BLA

Introductions

Welcome, Introductions, and Opening Remarks were made.

Bob Tally Remarks:

Purpose of the meeting is to discuss the Tier 1 Re-evaluation, answer questions and talk about the next steps for Tier 1 and Tier 2, Re-evaluation goals, and look at toll funding option.

Tom Sharp Remarks:

- I-69 in the Indiana scheme – 10 year funded plant ($12 billion and money in the bank),
- Funding the highway with taxes or tolls, leased toll road and money all going back into transportation. June 2008 is construction start date,
- Expect to build the highway with toll funds, because there is no other money,
- Timing is very critical
    - 5-6% increase in construction monies,
    - Emphasis on freight – higher growth area

Bharat Mathur Remarks:

- USEPA is holding up its end of the bargain and is committed to not disrupting the Indiana economic development.
- USEPA's emphasis on environmental – Initial reactions, but revisions on-going:
    - Toll booths – totally, electronic or still manned and how it relates to footprint
    - Flexibilities – going in wrong direction especially
    - Patoka River Crossing
    - Southwest Monroe County interchanges
    - Receive funding

- Opportunity to reduce diesel emission – INDOT requires clean diesel fuel, retro-fit, etc. Committed to expedited reviews, whatever it takes to complete the project.

Changes to I-69, Evansville to Indianapolis

Effect of Major Moves Legislation

- Re-evaluation preceded Major Moves.
  - Consideration of use of tolls within weeks of SAFETEA-LU passage
  - SAFETEA-LU allows tolling on new interstate
  - Work started in early autumn, 2005
- Not in response to language in Major Moves.
- Major Moves allows INDOT to consider P3 (public-private partnerships) for I-69.

Q: *If tolled, will any federal monies be involved?* (Laszewski, USEPA)

A: INDOT has opportunities to use federal funds. (FHWA)
A: We will not know until the concessionaire is onboard. This highway will not be built without toll money. (INDOT)

C: I-69 earmarks in SAFETEA-LU being used; earmarks being used for NEPA, planning, etc. (Westlake, USEPA)

Q: *Where would mitigation monies come from? (Laszewski, USEPA)*

A: It depends on when it occurs, maybe with the concessionaire cost. (FHWA)
A: Mitigation, a cost to concessionaire. Concessionaire will be told what to build – mitigation will be defined in the proposal.

Consideration of Toll Option

- Same alternatives for Tier 2 Studies
- Two Options – Non-toll and Toll
- Characteristics of Toll Option
  - Fully electronic toll collection system,
  - Assumed toll rate structure,
  - Traffic diversion with tolls
  - Possible changes to footprint with less traffic – Sections 5 & 6

Q: *Tolling incentives for clean diesel vehicles? (Garl, USEPA)*

A: Will have a bike trail the full length of I-69. Force economic development into the communities, will not have service plazas, only rest areas. Truck parking for full state – so, looking at truck parking only, Trucks going to small auxiliary power units, no need for electricity at the park areas, these truck parks will be placed an hour out from urban areas.

C: It is a rather big assumption that this will be fully electronic, suggest adding more information to "beef up" and support assumption. (Kenney, USEPA)

Revised Schedule for Tier 2

- Re-evaluation of Tier 1 EIS
  - Tier 1 EIS Re-evaluation Report – Issued June 20, 2006
  - Official Comment Record – Deadline July 24, 2006
  - Amended Tier 1 Record of Decision – mid to late August 2006
- Refinement of Tier 2 Studies
  - Delay in Issuance of Draft EISs
  - Incorporation of Toll Options
  - Staggered EIS Reviews
- Accelerated Project Development Activities
  - Permitting

Q: Are there any other projects with EIS documents or major documents? (Laszewski, USEPA)

A: US 231 in Dubois County (FEIS), US 31 in Kokomo, IN (Supp. DEIS).

Procurement Process

- Major Moves provided Legislative Approval for use of P3 for I-69
- Concession
  - Design
  - Construction
  - Operation
  - Maintenance
- RFQ to determine "Qualified Bidders"
- RFP to identify Proposed Concessionaire

Q: Will the same concessionaire do all components? (Mathur, USEPA)
A: There will be a team that will do all components, all 6 sections together. P3 – real value to get done sooner than later, get environment done, and reduce risk to INDOT. (INDOT)

I-69 Tier 1 EIS Re-evaluation

- Two basic questions:
  - Would tolling have changed Tier 1 choice?
  - Does tolling have significant impacts not considered in the Tier 1 FEIS?
- Developed as a non-toll road, will have to go back and make some adjustments
- Accelerate other parts of this project, including permitting

Why Consider Tolling Now

- Major Legislative Changes
  - Six-year federal transportation bill (SAFETEA-LU) signed August 10, 2005

  - Much greater flexibility to mix toll and non-toll funding
  - Not an option during Tier 1
- Major Toll Collection System Improvements
  - "Open road" tolling – fully electronic,
  - Eliminate toll booth congestion and backups.
- Is this the "last word?"
  - A high altitude review of Toll Options: uniform toll rates, no variation by location or time.
- Comparison at a Tier 1 (Big Picture) level of detail.
- More detailed Tier 2 Studies.
- Toll funding decision as part of Tier 2 RODs.

Q: What does "last word" mean? (Laszewski, USEPA)
A: It allows us to consider a toll option, funding decision part of the Tier 2 Studies in which more study and alignment.

Q: Is there a possibility that this might not be a toll way? (Laszewski, USEPA)
A: This highway cannot/won't be built without toll. (INDOT)

C: USEPA's role is to review the environmental documents for option. (Mathur, USEPA)

C: Financial feasibility: funding decision in Tier 2, where need to be able to ROD and fund what is in the ROD performance requirements that need to be met, set toll rate in order. (FHWA)

C: It is possible to end up with segments with the non-tolling option. (Akin Gump)

Q: What is the process for tolling? (Garra, USEPA)
A: Work with general assembly to put max of toll rate. Concessionaire will market and pull traffic onto the highway, but that is not part of this study. (INDOT)

Process

- Draft EIS "Preferred Alternatives": 2C, 3B, 4B, & 4C
- Alternative 3B was dropped – found "environmentally unacceptable" in Tier 1 FEIS
- Alternative 1 was added – non-preferred status reconsidered in Tier 1 FEIS, plus high level of public support.
- Concession
  - Design
  - Construction
  - Operation
  - Maintenance
- Identification of Characteristics of Toll Option
  - Fully Electronic Toll Collection System
  - Assumed toll rate structure,
  - Traffic diversion with tolls
  - Possible changes to footprint with less traffic
- Re-estimation of performance measures – utilizing the Indiana Statewide Toll Model
- Reassessment of Alternatives

- Re-evaluation of environmental impacts – mostly traffic-related impacts
- Documentation

Highlights - I-69 Tier 1 EIS Re-evaluation

Toll Option Performance

- Tier 1 goals and performance measures
- More current traffic forecasting model
    - Year 2030 forecast year (vs. Year 2025 in Tier 1)
    - Significant technical enhancements
    - Show non-toll performance along with toll options

Comparison with Non-Toll Option

- Performance on some goals unaffected by tolling
    - Evansville-to-Indianapolis travel time
    - Personal accessibility
- Performance on other goals reduced by tolling
    - Interstate and international freight movement
    - Crash reduction
    - Congestion relief
    - Economic development

Timing Tradeoffs

- Receive benefits many years sooner
- Receive some in reduced magnitude

Impact Changes from Non-toll Option

- Traffic Impacts
    - More traffic on other roads
    - Near US 41 and SR 37 – more significant
    - Some roads have more traffic than No Build
    - Only a few experience a change in the level of service
- Environmental Justice Impacts
    - Identifies potential issue to low-income persons
    - Would exist for most alternatives considered
    - Will need to be evaluated in Tier 2 studies
- Air Quality Impacts
    - Repeats Tier 1 assessment
    - Emissions in Vanderburgh and Marion counties remain within SIP budget
    - Cites additional issues for Tier 2
- Noise Impacts
    - Noise impacts diminished from non-toll
    - Less traffic = less noise

- Indirect and Cumulative Impacts
  - Non-toll is "worst case"
  - Development in toll case would be no greater than non-toll

Q: *Cumulative indirect impacts in Tier 2 Studies: how will we handle noise indirect impacts on local roads due to toll diversion? (Laszewski, USEPA)*
A: This is something we have wrestled with – working on models for Tier 2.

- Clarification of Tier 1 ROD
  - Location of interchanges and access roads outside of corridor boundaries
  - Commitment regarding an interchange at Monroe/Greene County line
  - Commitment to bridge Patoka River floodplain

Official Comment Period

- Agency Review & Input
  - Agency Coordination Meetings with Federal & State Agencies
- Public Review & Input
  - Public Open Houses
  - Web Site
  - I-69 Project Offices & Libraries
  - Other Input Activities

Questions/Comments

C: The corridor for I-69 and access road outside the corridor – could only be refined at Tier 1 (FHWA)

Q: *Impacts could be increased due to access roads? Any additional significant impacts? (Laszewski, USEPA)*
A: No, we have been able to steer away from wetlands, etc. (BLA/FHWA)
A: All Tier 2 Studies have shown access impacts – and impacts are running on par with Tier 1.

C: Noticed that some parts of the road have veered out of the corridor. (Garra, USEPA)
A: Tier 1 gave the right to do this in order to avoid resources.

Immediate Next Steps

- Completion of Tier 1 Re-evaluation
- Continuation of I-69 Tier 2 Studies
- Agency Coordination Meetings concerning Toll Options & Schedules

Next Meetings

- Agency Coordination Meetings concerning Tier 1 Re-evaluation – July 2006
  - U. S. Fish & Wildlife Service

  - State Environmental Agencies
  - U. S. Army Corps of Engineers – declined having a meeting
- Overall Agency Coordination Meeting – August 1 & 2, 2006
- Environmental Streamlining Package Conference Calls/Webcasts – ongoing

Other Items

- There was brief discussion regarding the funding agreement. INDOT informed USEPA that they may have figured out how the funding issue will work.

Details discussed in this meeting are subject to change, but are a reflection of how things stood at the close of the meeting.

These meeting minutes represent my understanding of the events that occurred. Please forward any comments or revisions to my attention, Carol Hood, chood@blainc.com.

Carol Hood

From: Carol Hood
Sent: Thursday, July 13, 2006 9:33 AM
To: anthony.desimone@fhwa.dot.gov; robert.tally@fhwa.dot.gov; andrew_king@fws.gov; scott_pruitt@fws.gov; JGUSTIN@indot.in.gov; tseeman@indot.in.gov; tsharp@indot.in.gov
Cc: WMalley@akingump.com; MGrovak@aol.com; Kent Ahrenholtz; Tom Cervone; Vince Bernardin; blawrence@indot.in.gov; josadczuk@indot.in.gov; mhilary@indot.in.gov; rsmutzer@indot.in.gov
Subject: I-69 Tier 1 Reevaluation Meeting w/USFWS - Agenda

Everyone,

Attached is the tentative agenda for the meeting that is scheduled for next Monday (July 17th) concerning the Tier 1 Re-evaluation for the I-69 Evansville to Indianapolis project. The purpose of this meeting is to review the results of the Re-evaluation and answer any preliminary questions or concerns from USFWS.

Please review and let me know if there are any additional items that need to be covered.

If anyone has questions, please let me know as soon as possible.

Thanks,

Carol (for Kent Ahrenholtz)

Carol D. Hood
Project Coordinator
Bernardin Lochmueller & Associates
6200 Vogel Road
Evansville, IN 47715
(812) 479-6200/Fax: (812) 479-6262
Email: chood@blainc.com

I-69 Tier 1 Reeval Meeting wUS...

Master Milestone Schedule_Mont...

I-69 Evansville to Indianapolis
Tier 2 Studies

AGENDA

I-69 Agency Coordination Meeting Concerning Tier 1 Reevaluation

INDOT Central Office N755, Indianapolis IN
Monday, July 17, 2006, 1:00 p.m. EDT

I. Introductions & Opening Remarks — *B_Tally, FHWA Division Administrator & T_Sharp, INDOT Commissioner*
(5-10 minutes)

II. Changes to I-69, Evansville to Indianapolis — *K_Ahrenholtz, PMC Project Manager*
(15 minutes)

A. Effect of Major Moves Legislation
B. Consideration of Toll-Funded Option – *Same Alternatives, But Two Options – Non-toll and Toll*
C. Re-evaluation of Tier 1 EIS
D. Refinement of Tier 2 Studies
E. Revised Schedule for Tier 2 Studies
F. Procurement Process

III. I-69 Tier 1 EIS Reevaluation — *K_Ahrenholtz, PMC Project Manager*
(30-45 minutes)

A. Report – Highlights
B. Schedule
C. Public Involvement

IV. Questions/Issues from USFWS — *All Participants*
(30 Minutes)

V. Immediate Next Steps — *K_Ahrenholtz, PMC Project Manager*
(15 Minutes)

A. Completion of I-69 Tier 1 Reevaluation
B. Continuation of I-69 Tier 2 Studies
C. Overall Agency Coordination Meeting

VI. Section 7 Consultation — *T_Cervone, PMC Environmental Manager*
(20-30 Minutes)

A. Biological Opinion
B. Bridging of the Patoka River
C. County Line Interchange
D. Tier 2 Biological Assessments
E. Other Topics

VII. Next Meeting(s)

A. Overall Agency Coordination Meeting, August 1-2 2006
B. Environmental Streamlining Package Conference Calls/Webcasts, Ongoing

MEETING MINUTES

Tier 1 Re-evaluation Meeting with USFWS
Monday, July 17, 2006 – 1:00 p.m. EDT
INDOT Central Office Room N755, Indianapolis, IN

Attendees:	
Scott Pruitt – USFWS	Tom Seeman – INDOT
Andy King – USFWS	Michelle Hilary – INDOT
Robert Tally – FHWA	Kent Ahrenholtz – BLA
Tony DeSimone – FHWA	Tom Cervone – BLA
Rick Smutzer – INDOT	Mike Grovak – BLA
Janice Osadczuk – INDOT	

Introductions

Welcome, Introductions, and Opening Remarks were made.

Bob Tally Remarks:

Purpose of the meeting is to discuss the Tier 1 Re-evaluation, answer questions and talk about the next steps for Tier 1 and Tier 2, Re-evaluation goals, and look at toll funding option.

Tom Sharp Remarks:

- I-69 in the Indiana scheme – 10 year funded plan ($12 billion and money in the bank),
- Funding the highway with taxes or tolls, leased toll road and money all going back into transportation. June 2008 is construction start date,
- Expect to build the highway with toll funds, because of funding considerations,
- Timing is very critical
    - 5-6% increase in construction monies,
    - Emphasis on freight – higher growth area

Scott Pruitt Remarks:

USFWS has a very good relationship with INDOT and FHWA, and commits to continuing such relations in the future.

Changes to I-69, Evansville to Indianapolis

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    - Consideration of use of tolls within weeks of SAFETEA-LU passage
    - SAFETEA-LU allows tolling on new interstate
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    - Delay in Issuance of Draft EISs
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Why Consider Tolling Now

- Major Legislative Changes

  - Six-year federal transportation bill (SAFETEA-LU) signed August 10, 2005
  - Much greater flexibility to mix toll and non-toll funding
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- Major Toll Collection System Improvements
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- Is this the "last word?"
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- More detailed Tier 2 Studies.
- Toll funding decision as part of Tier 2 RODs.

Process

- Draft EIS "Preferred Alternatives": 2C, 3B, 4B, & 4C
- Alternative 3B was dropped – found "environmentally unacceptable" in Tier 1 FEIS. Based upon DEIS comments by USFWS.
- Alternative 1 was added – non-preferred status reconsidered in Tier 1 FEIS, due to high level of public support.
- Concession
  - Design
  - Construction
  - Operation
  - Maintenance
- Identification of Characteristics of Toll Option
  - Fully Electronic Toll Collection System
  - Assumed toll rate structure,
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  - Possible changes to footprint with less traffic
- Re-estimation of performance measures – utilizing the Indiana Statewide Toll Model
- Reassessment of Alternatives
- Re-evaluation of environmental impacts – mostly traffic-related impacts
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Highlights - I-69 Tier 1 EIS Re-evaluation

Toll Option Performance

- Tier 1 goals and performance measures
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  - Year 2030 forecast year (vs. Year 2025 in Tier 1)
  - Significant technical enhancements
  - Show non-toll performance along with toll options

Comparison with Non-Toll Option

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- Performance on other goals reduced by tolling
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    - Congestion relief
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- Receive benefits years sooner
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    - More traffic on other roads
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- Environmental Justice Impacts
    - Identifies potential issue to low-income persons
    - Would exist for most alternatives considered
    - Will need to be evaluated in Tier 2 studies
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    - Repeats Tier 1 assessment
    - Emissions in Vanderburgh and Marion counties remain within SIP budget
    - Cites additional issues for Tier 2
- Noise Impacts
    - Noise impacts diminished from non-toll
    - Less traffic = less noise
- Indirect and Cumulative Impacts
    - Non-toll is “worst case”
    - Development in toll case would be no greater than non-toll
- Clarification of Tier 1 ROD
    - Location of interchanges and access roads outside of corridor boundaries
    - Commitment regarding an interchange at Monroe/Greene County line
    - Commitment to bridge Patoka River floodplain

Official Comment Period

- Agency Review & Input
    - Agency Coordination Meetings with Federal & State Agencies
- Public Review & Input
    - Public Open Houses

- Web Site
- I-69 Project Offices & Libraries
- Other Input Activities

Immediate Next Steps

- Completion of Tier 1 Re-evaluation
- Continuation of I-69 Tier 2 Studies
- Agency Coordination Meetings concerning Toll Options & Schedules

Next Meetings

- Agency Coordination Meetings concerning Tier 1 Re-evaluation – July 2006
  - U. S. Environmental Protection Agency – *Held July 7, 2006*
  - State Environmental Agencies
  - U. S. Army Corps of Engineers – *Declined having a meeting*
- Overall Agency Coordination Meeting – *August 1 & 2, 2006*
- Environmental Streamlining Package Conference Calls/Webcasts – *Ongoing*

Section 7 Consultation

This portion of the meeting is to update everyone on the Tier 1 Biological Assessment (Addendum), to address any portion of the document that the USFWS wanted to discuss, and to address the schedule of the Biological Opinion.

Cave within the Winter Action Area

FHWA and INDOT agreed to expand the Winter Action Area to include Cave, including tree cover within a 5 mile radius from Cave. The information demonstrated that there is a potential for some induced development within the foraging area of Cave. The reduction of tree cover within the area though due to induced development, considering the amount of tree cover available, is minimal. Therefore, it was the contention of INDOT and FHWA that induced development from I-69 is not likely to adversely affect critical habitat. FHWA and INDOT requested that USFWS consider this data in its Biological Opinion.

Patoka River Crossing

FHWA and INDOT reported at the meeting that they will not change the commitment to bridge the Patoka River floodplain in its entirety, and that they will work with the USFWS during Tier 2 studies to provide adequate bridge height for wildlife crossings and bridge drainage, while considering the effects to the nearby historic district.

Greene County/Monroe County Interchange

- INDOT and FHWA stated at the meeting that they did not currently believe that the connector road from the Greene County / Monroe County Line interchange to SR 445 is a feasible option which is also 4.6 miles from Cave. This option is the southernmost connector road in yellow on the map in Appendix A page 39 of the Addendum to the Biological Assessment and

elsewhere in the document. The connector road in white which connects to SR 45 further to the north provides fewer impacts and is located 5.2 miles from Cave. They also identified the following information related to the location of the Greene County / Monroe County interchange.

- Current traffic modeling of the non-tolled scenarios shows that relocating the interchange compared to other interchange combinations at SR- 54 and SR-45 would reduce traffic on SR-45 near the Garrison Chapel Valley by 3,800 vehicles and a reduction of 7,100 vehicles from the I-69 "No-Build". This reduction would greatly reduce the need to upgrade SR-45 to a 4-lane facility in that area. The Tolling scenario analysis has not been completed at this time, but modeling experts believe that traffic will still be reduced on SR-45 similar to the original SR-54 and SR-45 combination.
- The modelers also predicted that under any scenario, it is unlikely there would be additional induced development in the Garrison Chapel Valley or Cave area due to relocation of an interchange to the Greene County / Monroe County location. It may even attract some of the development away from the Garrison Chapel Valley area, but it would not add development in the TAZ associated with Cave. Basically, it is believed that this interchange will result in development being concentrated near the Cincinnati area rather than having it more dispersed in Greene County or Monroe County.
- FHWA and INDOT also offered that if they could not reasonably demonstrate that this interchange and mitigation measures would not impact the Indiana Bat any more than the SR-54 and SR-45 interchange combinations as the detailed Tier 2 studies are developed and data is available, they would no longer consider the potential for placing an interchange at this location.
- At the meeting, the agencies agreed to extend the time needed for USFWS to complete the Biological Opinion. USFWS agreed that they would have a DRAFT Biological Opinion by July 28, 2006 for review by FHWA and INDOT, and if no significant comments were forthcoming, the formal Biological Opinion would be submitted by August 4, 2006.
- The meeting was of great help to organize a schedule and discuss outstanding issues for the completion of a Biological Opinion by USFWS. In addition, FHWA and INDOT requested that BLA continue to work with USFWS and to discuss, as appropriate, an outline for Tier 2 Biological Assessment with USFWS.

Other Topics

- The bridge fencing is a mitigation measure that the USFWS feels is a benefit to the species. It keeps the species protected from human disturbance. We are pleased with the information being obtained in the monitoring.
- A 19.65 acre property (property) has been purchased with INDOT's assistance. This property is an excellent habitat for the Indiana bat, including a roost tree that revealed during an emergence count to shelter over 100 bats.

Details discussed in this meeting are subject to change, but are a reflection of how things stood at the close of the meeting.

These meeting minutes represent my understanding of the events that occurred. Please forward any comments or revisions to my attention, Carol Hood, chood@blainc.com.

BERNARDIN • LOCHMUELLER & ASSOCIATES, INC.
PLANNERS • ENGINEERS • SURVEYORS • ENVIRONMENTAL SERVICES
6200 VOGEL ROAD, EVANSVILLE, INDIANA 47715-4006
PHONE: (812) 479-6200 / FAX: (812) 479-6262

TRANSMITTAL

DATE: July 19, 2006

TO: Tony DeSimone
EIS Manager
Federal Highway Administration
575 N. Pennsylvania Street Room 254
Indianapolis, IN 46204

RE: I-69 Tier 2 Studies
Section 4 & 5 Draft Karst Reports

BLA PROJECT NO.: 103-0001-1PL

We Transmit:

☒ Attached ☐ Under Separate Cover ☐ In Accordance With Your Request

Via:

☐ UPS Ground ☒ UPS Next Day Air ☐ First Class Mail ☐ Pick-Up ☐ Messenger

No. Copies	Dated	Description
3	July, 2006	Section 4 Draft Karst Report
3	July, 2006	Section 5 Draft Karst Report

REMARKS: Enclosed are 3 copies each of the Section 4 and 5 "Draft" Karst Reports: One copy of each report is for INDOT, and the other copies are for transmittal to the Karst MOU signatory agencies (USEPA and USFWS).

Sincerely,

BERNARDIN • LOCHMUELLER & ASSOCIATES, INC.

Laxne A. Conner for:

By: Tom Cervone, Ph.D.
I-69 Tier 2 PMC Deputy Project Manager

/

Copies to: File

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The information identified in the tables below for portions of the Section 4 and Section 5 karst reports is CONFIDENTIAL, as it pertains to limestone caves and related features. This information should not be further disseminated without having consultation with the Indiana Department of Transportation.

CONFIDENTIALITY ITEMS IDENTIFIED IN SECTION 4 DRAFT

PAGE/ILLUSTRATION #	TYPE OF DATA
29	Wrinklepeck Cave remove coordinates
Figures 5, 6, 7	Caves on maps
Appendix D	Cave/Spring coordinates
Figure 8	Caves on maps
Figures 8-19	Caves on maps
Figures 29, 30, 31	Springs on maps
Table 6	Springs w/coordinates
Figure 34	Ashcraft Cave on map
Appendix B	Cave/Springs w/coordinates. Field forms not to be printed
Appendix G, Figure G-4	Caves on maps
Figures G5, G7, G8, G9	Caves on maps
Figures G17, G21, G22, G23, G28	Caves on maps

CONFIDENTIALITY ITEMS IDENTIFED IN SECTION 5 DRAFT

PAGE/ILLUSTRATION #	TYPE OF DATA
Table 3	Spring/Cave coordinates Exclude May, Stoney, others associated with caves
Figures 7, 8, 9, Possibly only 7	Spring/Cave locations on maps
Figure 10 May Cave & Well Cave	Dye Lines and Springs/Caves
Figure 11	Dye Sample Sites (some are springs)
Figures 12, 13, 14, 15, Possibly on 13	Dye Lines and Springs (includes several active mitigation sites)
Figure 16	Cave Locations
Figure 17	Dye Trace Lines for Springs/Caves
Appendix H	Cave location on map and entrance photos

BERNARDIN • LOCHMUELLER & ASSOCIATES, INC.
PLANNERS • ENGINEERS • SURVEYORS • ENVIRONMENTAL SERVICES
6200 VOGEL ROAD, EVANSVILLE, INDIANA 47715-4006
PHONE: (812) 479-6200 / FAX: (812) 479-6262

TRANSMITTAL

DATE: July 19, 2006

TO: Michelle Hilary
Environmental Services
INDOT
100 North Senate Avenue RoomN642
Indianapolis, IN 46204

RE: I-69 Tier 2 Studies
Section 4 & 5 Draft Karst Reports

BLA PROJECT NO.: 103-0001-1PL

We Transmit:

☒ Attached ☐ Under Separate Cover ☐ In Accordance With Your Request

Via:

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Sincerely,

BERNARDIN • LOCHMUELLER & ASSOCIATES, INC.

Tadne A. Bonner for:

By: Tom Cervone, Ph.D.
I-69 Tier 2 PMC Project Manager

/

Copies to: File

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COPY

July 19, 2006

Ms. Christie Stanifer
Division of Fish & Wildlife Office
Indiana Department of Natural Resources
402 West Washington Street – W273
Indianapolis, IN 46204

Re: **I-69 Draft Karst Features Reports for Section 4 and Section 5**

Dear Ms. Stanifer:

A draft of the Survey of Karst Features Report for Section 4 (US231 to SR37) and the Karst Features and Groundwater Flow Investigation Report for Section 5 (SR37 south of Bloomington to SR39) have been prepared for the I-69 Tier 2 Studies. The primary purpose of the study has been to identify and characterize the karst features (i.e., caves, springs, sinkholes, etc.), determine groundwater flow paths based on literature research and study area specific dye tracing, and propose potential measures to offset karst impacts.

The I-69 Team requests that your agency review this draft report and provide comments in a timely manner. Questions and comments should be directed to Jason DuPont, Chief of Environmental Studies, Bernardin, Lochmueller and Associates, Inc. either via mail at 6200 Vogel Road Evansville, IN 47715 or e-mail at jdupont@blainc.com.

Please be advised that this report includes confidential information concerning cave entrance and passage locations (select Tables, Figures, and Appendices) which should be carefully protected. Should your agency feel the need to have others in the karst community review this document, the Indiana Department of Transportation (INDOT) requests that they be notified for approval prior to any such dissemination of this material. The point of contact at INDOT for any such request is Michelle Hilary at (317) 232-5417 or at mhilary@indot.in.gov.

As always, your participation and contribution to the review of survey results for the I-69 Tier 2 project is always appreciated.

Sincerely,

Kent Ahrenholz, P.E.
Project Manager

Enclosures (Section 4 Karst Report, Section 5 Karst Report)

Cc: T. DeSimone (FHWA)
M. Hilary (INDOT)

COPY

July 19, 2006

Ms. Martha Clark-Mettler
Branch Chief of Planning & Reservation
Indiana Department of Environmental Management
100 North Senate Avenue
Indianapolis, IN 46204

Re: **I-69 Draft Karst Features Reports for Section 4 and Section 5**

Dear Ms. Martha Clark-Mettler:

A draft of the Survey of Karst Features Report for Section 4 (US231 to SR37) and the Karst Features and Groundwater Flow Investigation Report for Section 5 (SR37 south of Bloomington to SR39) have been prepared for the I-69 Tier 2 Studies. The primary purpose of the study has been to identify and characterize the karst features (i.e., caves, springs, sinkholes, etc.), determine groundwater flow paths based on literature research and study area specific dye tracing, and propose potential measures to offset karst impacts.

The I-69 Team requests that your agency review this draft report and provide comments in a timely manner. Questions and comments should be directed to Jason DuPont, Chief of Environmental Studies, Bernardin, Lochmueller and Associates, Inc. either via mail at 6200 Vogel Road Evansville, IN 47715 or e-mail at jdupont@blainc.com.

Please be advised that this report includes confidential information concerning cave entrance and passage locations (select Tables, Figures, and Appendices) which should be carefully protected. Should your agency feel the need to have others in the karst community review this document, the Indiana Department of Transportation (INDOT) requests that they be notified for approval prior to any such dissemination of this material. The point of contact at INDOT for any such request is Michelle Hilary at (317) 232-5417 or at mhilary@indot.in.gov.

As always, your participation and contribution to the review of survey results for the I-69 Tier 2 project is always appreciated.

Sincerely,

Kent Ahrenholz, P.E.
Project Manager

Enclosures (Section 4 Karst Report, Section 5 Karst Report)

Cc: T. DeSimone (FHWA)
M. Hilary (INDOT)

The information identified in the tables below for portions of the Section 4 and Section 5 karst reports is CONFIDENTIAL, as it pertains to limestone caves and related features. This information should not be further disseminated without having consultation with the Indiana Department of Transportation.

CONFIDENTIALITY ITEMS IDENTIFIED IN SECTION 4 DRAFT

PAGE/ILLUSTRATION #	TYPE OF DATA
29	Wrinklepeck Cave remove coordinates
Figures 5, 6, 7	Caves on maps
Appendix D	Cave/Spring coordinates
Figure 8	Caves on maps
Figures 8-19	Caves on maps
Figures 29, 30, 31	Springs on maps
Table 6	Springs w/coordinates
Figure 34	Ashcraft Cave on map
Appendix B	Cave/Springs w/coordinates. Field forms not to be printed
Appendix G, Figure G-4	Caves on maps
Figures G5, G7, G8, G9	Caves on maps
Figures G17, G21, G22, G23, G28	Caves on maps

CONFIDENTIALITY ITEMS IDENTIFED IN SECTION 5 DRAFT

PAGE/ILLUSTRATION #	TYPE OF DATA
Table 3	Spring/Cave coordinates Exclude May, Stoney, others associated with caves
Figures 7, 8, 9, Possibly only 7	Spring/Cave locations on maps
Figure 10 May Cave & Well Cave	Dye Lines and Springs/Caves
Figure 11	Dye Sample Sites (some are springs)
Figures 12, 13, 14, 15, Possibly on 13	Dye Lines and Springs (includes several active mitigation sites)
Figure 16	Cave Locations
Figure 17	Dye Trace Lines for Springs/Caves
Appendix H	Cave location on map and entrance photos

U.S. Department
of Transportation

**Federal Highway
Administration**

Indiana Division

575 North Pennsylvania Street, Room 254
Indianapolis, Indiana 46204

July 20, 2006

HDA-IN

Ms. Virginia Laszewski
Environmental Scientist
US EPA, Region 5
OSEC, NIS
77 W. Jackson Blvd. (mail code: B-19J)
Chicago, IL 60604-3590

Dear Mrs. Laszewski:

Enclosed for your agency's review in cooperation with the Federal Highway Administration in the development of Tier 2 Environmental Impact Statements for the I-69 corridor in southwest Indiana is the draft karst studies for Section 4 and Section 5. These technical studies supplement the information that will be provided in the Tier 2 Draft EISs for these sections.

A draft of the Survey of Karst Features Report for Section 4 (US231 to SR37) and the Karst Features and Groundwater Flow Investigation Report for Section 5 (SR37 south of Bloomington to SR39) have been prepared for the I-69 Tier 2 Studies. The primary purpose of the study has been to identify and characterize the karst features (i.e., caves, springs, sinkholes, etc.), determine groundwater flow paths based on literature research and study area specific dye tracing, and propose potential measures to offset karst impacts.

The I-69 Team requests that your agency review this draft report and provide comments in a timely manner. Questions and comments should be directed to Jason DuPont, Chief of Environmental Studies, Bernardin, Lochmueller and Associates, Inc. either via mail at 6200 Vogel Road Evansville, IN 47715 or e-mail at jdupont@blainc.com.

Please be advised that this report includes confidential information concerning cave entrance and passage locations (select Tables, Figures, and Appendices) which should be carefully protected. Should your agency feel the need to have others in the karst community review this document other than a contractor hired by your agency to assist with the review, the Indiana Department of Transportation (INDOT) requests that they be notified for approval prior to any such dissemination of this material. The point of contact at INDOT for any such request is Michelle Hilary at (317) 232-5417 or at mhilary@indot.in.gov.

We believe this information should be kept confidential in accordance with 5 USC Section 552(b)(9) which protects sensitive information related to "geological and geophysical

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information and data, including maps, concerning wells" due to the potential relationship of karst to the groundwater in the area. Part of this information was obtained by the Indiana Department of Transportation (INDOT) and its consultants by promising knowledgeable members of the Indiana caving community that the information they disclosed to INDOT would be protected to avoid destruction of the resources through recreational use.

As with all preliminary or potentially sensitive information related to this project that is being provided to your agency in the spirit of cooperation and early consultation, we request that your agency inform and consult with us in the event that there is a request that the information be released so that we can provide you any additional information you may need to assist in making the decision to grant a request.

If you require further information please contact Tony DeSimone of this office at (317) 226-5307 (e-mail: Anthony.desimone@fhwa.dot.gov).

Sincerely yours,

for Robert F. Tally, Jr., P.E.
Division Administrator

Enclosures

cc:
Ms. Michelle Hilary (INDOT N642)
Kent Ahrenholtz (BLA)
Kenneth Westlake, USEPA Region 5
FHWA:HDA-IN: amd/jaw
Project file: I-69 Tier 2 Correspondences with Agencies
Location: L:\Projects\EISs\69-Tier 2\Correspondence with agencies\Karst Tier 2 studies Submittal to USEPA.doc

U.S. Department
of Transportation

**Federal Highway
Administration**

Indiana Division

575 North Pennsylvania Street, Room 254
Indianapolis, Indiana 46204

July 21, 2006

HDA-IN

Bharat Mathur
Acting Regional Administrator
US EPA, Region 5
77 W. Jackson Blvd. (mail code: B-19J)
Chicago, IL 60604-3590

Dear Mr. Mathur:

Enclosed for your review and approval is the Interagency Funding Agreement which has been developed in cooperation between the Federal Highway Administration (FHWA), the Indiana Department of Transportation (INDOT), and your staff and as permitted by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users of 2005 (SAFETEA-LU) Section 6002 and 23 USC Section 139(j). The purpose of this agreement is to assist your agency in fulfilling its role in the NEPA process while meeting the State of Indiana's desire to accelerate the development of this project.

The intent of this funding is for your agency to hire a contractor who is an expert in the field of karst evaluation to aid in your review of the NEPA studies and other related studies for I-69 from Evansville to Indianapolis in Indiana, which will be provided. Also, funding is being provided for travel expenses to aid in the participation of your staff in meeting with FHWA and INDOT to help streamline the development of this project in many aspects including NEPA documentation, Clean Water Act permitting and compliance, air quality conformity requirements and other regulatory responsibilities.

Your staff, particularly Mrs. Virginia Laszewski, has provided much time and effort in assisting us in developing this agreement and working out the technical details to make it happen. We wish to thank them for the great effort that was put into the development of this agreement and look forward to continue working with them on the development of this major project in Indiana.

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We ask that you sign and return this agreement to our office at your earliest convenience. Once we have a fully executed agreement, we will send you a copy for your records.

If you require further information please contact Tony DeSimone of this office at (317) 226-5307 (e-mail: Anthony.desimone@fhwa.dot.gov).

Sincerely,

Robert F. Tally, Jr., P.E.
Division Administrator

Enclosures

cc:
Ms. Michelle Hilary (INDOT N642)
Kenneth Westlake, USEPA Region 5
FHWA:HDA-IN: AMDeSimone:lsb:5307:07-20-2006
Project file: I-69 Tier 2 Correspondences with Agencies
Location: L:\Projects\EISs\69-Tier 2\Correspondence with agencies\agency agreement to EPA.doc

INTERAGENCY AGREEMENT

Between The

FEDERAL HIGHWAY ADMINISTRATION

ENVIRONMENTAL PROTECTION AGENCY

And The

INDIANA DEPARTMENT OF TRANSPORTATION

RELATIVE TO EXPEDITING AND IMPROVING
THE ENVIRONMENTAL REVIEW PROCESS FOR I-69

July 21, 2006

PREAMBLE: This Interagency Agreement between the Indiana Department of Transportation (INDOT), the Federal Highway Administration (FHWA), and the United States Environmental Protection Agency (EPA) sets forth the responsibilities of the signatory agencies (Parties) relative to travel to meetings in Indiana concerning the project and the review of environmental studies and documents including karst information in the Environmental Impact Statements for Sections 4 & 5 of I-69 Evansville to Indianapolis Tier 2, an INDOT, project with the goal of achieving timely design and construction of adequate, safe and economical highway improvements while also assuring such design and construction is sensitive to the protection of natural resources for which the EPA is responsible under federal statute and regulation.

WHEREAS, this Agreement is entered into under the authority of 23 U.S.C. § 139(j) ("Section 139(j)"); and

WHEREAS, pursuant to Section 139(j), funds made available under Title 23 may be provided to a Federal agency, such as EPA, "to support activities that directly and meaningfully contribute to expediting and improving transportation project planning and delivery for projects in that State"; and

WHEREAS, the Parties have determined that supplementing the EPA staffing with travel funds and expert contractor services, as provided in this Agreement and the Appendix which includes the Scope of Services, would provide expedited review by the EPA for the I-69 Evansville-to-Indianapolis highway project; and

WHEREAS, this expedited review would enable the I-69 within Indiana to proceed with expedited project review, analysis and consultation by the EPA; and

WHEREAS, the FHWA and INDOT are willing to provide funding to the EPA for travel for project involvement and contractor services relative to the review of karst studies for Sections 4 & 5 of I-69 Evansville to Indianapolis - Tier 2; and

WHEREAS, Section 139(j) allows for a State to request to use funds made available under Title 23, United States Code, to provide resources to affected Federal agencies necessary to conduct such activities; and

WHEREAS, the FHWA has indicated and agrees that INDOT's allocated discretionary Federal-aid Highway funds are eligible to support this Agreement; and

NOW, THEREFORE, in consideration of the mutual promises and agreements contained herein, the signatory parties to this Agreement concur with the following responsibilities and terms.

SCOPE OF WORK

1. Background

The Evansville-to-Indianapolis section of I-69 is part of the 1,600 mile I-69 High Priority Corridor, which runs from the U.S.-Canada border to the U.S.-Mexico border. Its development was originally supported by ISTEA in 1991 and more recently by TEA-21 in 1998

The Indiana Division of FHWA serves as the lead Federal agency for the project. FHWA provides support and oversight to INDOT, the State lead. In this capacity, FHWA is establishing environmental streamlining partnerships with the EPA. The goal of this partnership is the expeditious delivery of I-69, in a manner that is safe, timely, cost-effective, and environmentally sound.

The timeline for development of the Indiana portion of I-69 increases the need for expedited environmental review. This interagency Agreement sets forth the responsibilities of the parties relative to the provision of additional resources for expedited environmental review of I-69. The goal is to achieve timely design and construction of adequate, safe and economical highway improvements while also assuring such design and implementation is sensitive to the protection of the environment.

2. INDOT and FHWA responsibilities. INDOT and FHWA will:

   A. Provide funding to the EPA in the amount of $95,300.00 over the two-year term of this Agreement for the costs contemplated by this Agreement. This agreement shall not be interpreted to require FHWA or INDOT to pay EPA any amount in excess of $95,300.00, unless later amended.

   B. Review EPA documentation for expenditures for contractor services as drawn against this account in support of work under this agreement which is included in the Appendix.

   C. Review EPA documentation for travel expenditures

   D. Approve or dispute EPA documentation for expenditures and negotiate with EPA in good faith toward reconciliation of any disputed amount.

3. EPA responsibilities. EPA will:

   A. Seek to hire an experienced contractor to undertake work contemplated by this Agreement to fulfill Part A of the Scope of Service in the attached appendix.

   B. Ensure that the contractor contemplated by this Agreement is dedicated to work on only I-69.

C. Attend required project meetings and web cast/conference calls to expedite review of environmental studies and documents. Reimbursement of travel expenses will be in compliance with Federal Travel Regulations and as defined in Part B of the Scope of Services in the attached Appendix.

D. EPA will submit semi-annual expenditure reports to INDOT and FHWA and use the funds provided under this Agreement to defray the costs of the contractor services and travel associated with this project. EPA will only submit expenditures for contractor services or travel spent on work performed under this Agreement.

E. EPA will ensure that the contractor maintains time records identifying the hours spent on each specific task relative to this Agreement. These records shall be available to FHWA and INDOT for at least four (4) years after the final billing is submitted.

F. At the completion of this agreement or upon termination, the EPA will reimburse the INDOT all unexpended funds within 90 days of the termination date.

4. General Terms

A. Length of Agreement. This Agreement is two years from the date of signature of the last signing party or July 31, 2008, whichever comes last, unless extended or terminated as provide in 4B and 4C.

B. Modification and Extension. This Agreement may be modified, amended or extended by the agreement of the signatory parties, for an additional two years.

C. Termination. This Agreement may be terminated by INDOT, FHWA or EPA upon 30 days written notice to the Signatory of the other parties. All costs incurred by EPA prior to termination date will remain valid to be applied against this Agreement.

D. The point of contact/project manager in each signatory agency is as listed below unless such responsibilities are delegated by this individual.

EPA:

Kenneth Westlake
Chief, NEPA Implementation Section
U.S. EPA Region 5
77 W. Jackson Blvd.
Chicago, IL 60604
Phone: 312-886-2910

Fax: 312-353-5374
westlake.kenneth@epa.gov

FHWA:

Anthony DeSimone
I-69 Project Manager
Federal Highway Administration
575 N. Pennsylvania Street, Room 254
Indianapolis, IN 46204
(317) 226-5307 Fax No.: (317) 226-7341
Anthony.DeSimone@fhwa.dot.gov

INDOT:

Michelle C. Hilary
INDOT, Office of Environmental Services
100 N. Senate Ave., Room N642
Indianapolis, IN 46204
(317) 232-5417
mhilary@indot.in.gov

E. Nothing in this Agreement may be construed to obligate FHWA to provide, or entitle the EPA to receive, any current or future expenditure of funds in advance of the availability of appropriations from Congress or in excess of the funds provided to EPA pursuant to this Agreement.

F. During the performance of this Agreement, the parties agree to abide by the terms of Executive Order 11246 on non-discrimination and will not discriminate against any person because of race, color, religion, sex or national origin. The participants will take affirmative action to ensure that applicants are employed without regard to their race, color, religion, sex or national origin.

G. No member of or delegate of Congress, or appointed transportation official or commissioners, shall be admitted to any share or part of this Agreement or any benefit that may arise there from; but this provision shall not be construed to extend to this Agreement if made with a corporation for its general benefit.

H. The parties to this Agreement are acting in an independent capacity in the performance of their respective functions under this agreement. Regardless of the funding source for any staff employed by EPA, such staff shall not be construed as an officer, agency or employee of the FHWA or INDOT. In the event of a liability claim, each party shall defend their own interests. Neither party shall be required to provide indemnification of the other party.

I. In no way do INDOT, EPA or FHWA intend to abrogate through this Agreement any obligations or duties assigned by law to their agencies.

J. This Agreement does not preclude the signatory agencies from entering into other interagency agreements relative to their respective roles and responsibilities; however, such other agreements shall not alter any party's obligations under this Agreement and must be consistent with the duties and responsibilities established under this agreement if the other agreement relates to the Scope of Work of this Agreement.

IN WITNESS WHEREOF, each Party has caused this Agreement to be executed by an authorized official on the date and year set forth next to their signature.

SIGNATURES OF THE PARTIES TO THE AGREEMENT

FOR THE ENVIRONMENTAL PROTECTION AGENCY

_____

Bharat Mathur, Acting Regional Administrator — DATE
US Environmental Protection Agency, Chicago, Illinois

FOR THE US FEDERAL HIGHWAY ADMINISTRATION

Robert F Tally Jr — 7/21/06

Robert F. Tally, Jr., P.E., Division Administrator — DATE
Federal Highway Administration, Indianapolis, Indiana

FOR THE INDIANA DEPARTMENT OF TRANSPORTATION

_____

Thomas O. Sharp, Commissioner — DATE
Indiana Department of Transportation

APPROVED BY THE INDIANA DEPARTMENT OF ADMINISTRATION

_____

Earl Goode, Commissioner — DATE
Indiana Department of Administration

APPROVED BY THE INDIANA OFFICE OF BUDGET AND MANAGEMENT

_____

Charles Schalliol, Director — DATE
Indiana State Budget Agency

APPROVED AS TO FORM AND LEGALITY

_____(FOR)
Stephen Carter, Attorney General

Date:_____

APPENDIX

Scope of Services:

PURPOSE AND OBJECTIVE:
The general purpose of this Scope of Services is to provide support for EPA's comprehensive technical and NEPA review of the Tier 2 EISs and supporting documentation for the I-69 project and EPA's further consultation during the Section 404 permitting process. The first objective is to provide for contractor assistance and expertise in the field of Karst geology/hydrogeology for review of the Tier 2 EISs and supporting documentation (Tier 2 studies) for Sections 4 and 5 of the I-69 project. The information will be used by the EPA in developing its comments on the Tier 2 EISs for Sections 4 and 5 of the I-69 project pursuant to Section 309 of the Clean Air Act. The second objective is to provide the EPA the flexibility to participate in I-69 project related meetings in the State of Indiana beyond the normal NEPA and permitting consultation to help accelerate the project and open pathways of communication.

STATEMENT OF WORK:

PART A: EPA Karst Contractor Services

The EPA shall perform the following tasks in Part A of the Statement of work by the hiring of a contractor using $70,000 of the funding provided by the Federal Highway Administration and the Indiana Department of Transportation. No additional tasks will be added without the consent of the Federal Highway Administration and the Indiana Department of Transportation. The definition of the tasks may be adjusted by the EPA during their contract negotiations. Any remaining funds at the competition of this part of the statement of work or cancellation of the Agreement and payment of any outstanding expenses prior to cancellation will be reimbursed in accordance with the Agreement.

The contractor shall <u>not</u> directly contact the project proponents (FHWS/INDOT), other federal/state agencies or their contractors for any information or clarification relative to preparing comments and information on the Tier 2 studies, without the permission of the EPA. All information needs shall be directed to the EPA. As necessary, the EPA will arrange for meetings or teleconferences between FHWA/INDOT and contractor to facilitate the exchange of information or clarification of data/assumptions, and will participate in all such informational exchanges.

The contractor may be required to travel by the EPA and these funds may be used for those purposes.

The contractor shall review and independently assess the adequacy of the Karst related information in the I-69 Tier 2 EISs and supporting documentation (Tier 2 studies) for Sections 4 and 5, and provide narrative reports as identified below to the EPA summarizing their findings.

The focus of the contractor reviews of the Tier 2 studies and the contractor reports/comments to EPA shall be to:

(1) assess the adequacy of the analysis methods/assumptions/data collection used to develop the Karst information to determine the potential for direct, indirect/secondary and cumulative impacts (impacts) to Karst geology/ hydrogeology and Karst related resources (resources), potential effects to Superfund site remedies, and safety concerns;

(2) independently analyze and identify the project's potential impacts to resources and Superfund site remedies, and safety concerns;

(3) identify potential for significant impacts and any additional Karst related concerns/issues;

(4) identify whether the Tier 2 EISs adequately identify Karst geology/hydrogeology and the potential and level of impacts to resources, Superfund site remedies and safety concerns, and identify adequate mitigation measures to protect Karst resources, Superfund site remedies and public safety concerns; and

(5) identify feasible additional measures to avoid and/or reduce potential impacts.

The contractor shall also be responsible for review and comment to EPA on the relevance/merit of any additional Karst information and/or potential safety and/or resources impact concerns brought to EPA's attention by the public, elected officials or resource agencies during I-69 Tier 2 Studies for Sections 4 and 5.

Task 1 - Meetings

Task 1a - Kickoff Teleconference - The contractor may participate in a teleconference with the EPA to:

1) review the scope of this project;
2) review the EPA Karst related concerns/issues for the I-69 Tier 2 studies for Sections 4 and 5;
3) discuss the materials identified in paragraph 7 below; and
4) identify materials and information that EPA has already collected;
5) discuss materials that EPA believes needs to be collected; and
6) provide technical direction for collecting the required information.

Prior to the meeting the contractor will submit a 1 to 2 page bulleted summary of any issues identified. Following the meeting the contractor will submit a 2 to 3 page summary of the issues, decisions made, and the agreed upon process to complete this project for the EPA's review and approval.

Task 1b - Technical Work Sessions - The contractor may participate in technical work sessions/web cast/conference calls with EPA and others involved with the I-69 project to be scheduled by the EPA. This will include approximately 6 (six) periodic review meetings/web cast/conference calls with EPA, FHWA, INDOT, and the Tier 2 PMC and the Engineering and Environmental Assessment Consultants (EEACs). It is anticipated the contractor will travel to EPA Region 5 offices up to three (3) times to attend technical

work sessions. The contractor may be required to prepare presentations and handouts for the meetings.

Prior to the meetings the contractor will submit a 1 to 2 page bulleted summary of any issues identified. Following the meetings the contractor will submit a 2 to 3 page summary of the issues, decisions made, and action items for the EPA's review and approval.

Task 2 – Karst Background Data Collection
The contractor may gather and become familiar with all appropriate documentation and materials pertaining to the conduct of the Tier 2 Studies and their specific Karst Geology/Hydrogeology investigations. This information will include, but not be limited to, the Karst Memorandum of Understanding between INDOT and other resource agencies, the I-69 Tier 2 Studies Guidance Manual section(s) concerning Karst Geology investigations, and background information on the Karst Geology in south-central Indiana particularly the counties associated with, or that may be impacted by, the construction, operation and/or maintenance of the I-69 roadway or by construction, operation and/or maintenance of induced/secondary development associated with the I-69 project from Evansville to Indianapolis. Some of the documentation and materials may be provided during meetings and field visits identified below in Task 3.

The contractor will prepare a summary list report of all materials collected and a list of any known materials yet to be collected and provide the EPA with both printed copies and an electronic copy, and update these lists on an "as needed" basis.

Task 3 – I-69 Tier 2 Studies Orientation
The contractor along with the EPA may participate in a one-day orientation on the I-69 Tier 2 Studies with the FHWA/INDOT Tier 2 Project Management Consultant (PMC) (i.e., Bernardin, Lochmueller and Associates) where the PMC will share Karst information gathered as part of the Tier 2 Studies including Karst features (caves, springs, sinkholes, etc.), pollutant loading, and dye tracings. The contractor may also travel to the appropriate I-69 Section Project Offices with EPA to meet with the EEACs and their Karst specialists to discuss the ongoing Karst Geology investigations. The contractor will have an opportunity to meet with the hydrogeologists that are conducting the Karst investigations, and be able to accompany them into the field with EPA to review the Karst features, if appropriate. It is anticipated that up to four (4) trips to Southwest Indiana will be required for completion of this project.

The contractor will prepare summary reports of each of the meetings/field visits and update the summary list report of all materials collected and a list of any known materials yet to be collected and provide the EPA with both printed copies and an electronic copy.

Task 4 – Review and Independent Analysis of Karst Investigations
The contractor will review and analyze the information obtained during Tasks 2 and 3 above, and summarize issues associated with the technical adequacy of the Karst

investigations for identification of Karst geology and hydrogeology and provide EPA with comments on, but not limited to, the following:

a. Appropriateness and technical adequacy of the analytical methods and assumptions used, with suggestions for additional analyses, when appropriate.
b. Appropriateness and technical adequacy of the supporting information, with suggestions for additional information, when appropriate.
c. Appropriateness and technical adequacy of the scope of the analysis in that all potential direct, indirect/secondary and cumulative impact areas/resources were considered and, if not, identify what additional areas/resources and issues should be considered and explain why.

The contractor will provide two printed copies and an electronic copy of the summary report on the technical adequacy of the Karst investigations to the EPA.

Task 5 – Karst Investigation Reports Review

The contractor may review the final reports documenting the Karst Geology and hydrogeology studies completed by the Engineering and Environmental Assessment Consultants (EEACs) in areas of the I-69 Corridor where Karst is present and prepare comments for EPA's consideration. The EEACs will have adhered to Items 1-4 of the INDOT Karst MOU, completed Karst studies within a boundary as set by the reach of potential impacts of the project within their section, evaluated all Karst features (e.g., sinkholes, sinking stream basins, caves, springs, etc.) and performed dye tracing or additional hydrogeologic analyses.

It is anticipated that the reports will include, but may not be limited to, the following:

a. Inventory of Caves by the I-69 Tier 2 PMC with Indiana Geological Survey.
b. Karst Geology Investigation Report for I-69 Tier 2 Sections 4 and 5.
c. Biological Surveys of Cave Fauna for I-69 Tier 2 Sections 4 and 5.
d. Autumn, winter and Spring Indiana bat Cave Surveys for 2004 to 2006.

The contractor will analyze and summarize the issues associated with the technical adequacy of the Karst information and will provide EPA with comments on, but not limited to, the following:

a. Appropriateness and technical adequacy of the analytical methods and assumptions used, with suggestions for additional analyses, when appropriate.
b. Appropriateness and technical adequacy of the supporting information, with suggestions for additional information, when appropriate.
c. Appropriateness and technical adequacy of the scope of the analysis in that all potential direct, indirect/secondary impact areas/resources were considered and, if not, identify what additional areas/resources and issues should be considered and explain why.
d. Identify any additional potential Karst related resources issues/concerns that EPA has not anticipated.

The contractor will provide two printed copies and an electronic copy of the summary reports on the technical adequacy of each of the Karst Reports reviewed to the EPA.

Task 6 – Alternatives Screening Analysis Packages Review
The contractor may review the alternatives screening analysis packages and based on the contractor's knowledge of the Karst information obtained from Tasks 2, 3 and 4 provide EPA with a report that summarizes the Karst issues associated with each alternative, and:

a. Identifies the alternatives that pose the greatest risk of adversely impacting Karst features/resources, Superfund site remedies, and public safety, through direct and/or indirect/secondary impacts associated with each alternative, explaining why.
b. Identifies the alternatives that would pose the lowest risk of adversely impacting Karst features/resources, Superfund remedies and public safety, through direct and/or indirect/secondary impacts, explaining why.
c. Identifies additional alternatives and/or modifications to each alternative to avoid and/or minimize direct, indirect/secondary impacts to Karst features/resources, Superfund site remedies and public safety, explaining why. Additional alternatives identified should be reasonable and feasible (e.g., an alternative that is practical in the technical, economic, and social sense, even if the alternative is outside the jurisdiction of the lead agency). Measures to reduce impacts could include, but are not limited to, relocation of an alternative roadway alignment or a portion of that alignment (including relocation outside the Tier 1 preferred study corridor), and elimination and/or relocation of associated I-69 interchanges and frontage roads.
d. Comments on the adequacy of the Karst information and the methods and assumptions used for the alternatives screening analysis. If applicable, identify additional Karst information, methods and/or assumptions that should be used for the screening analysis, explaining why.

The contractor will provide two printed copies and an electronic copy of the summary reports on each of the alternatives screening analysis packages reviewed to the EPA.

Task 7 – Tier 2 Draft Environmental Impact Statements (DEISs) Review
The contractor may review the Karst Geology sections of the DEISs for Tier 2 Sections 4 and 5 documenting the Karst Geology and hydrogeology studies and prepare comments for EPA's consideration. This will most likely include EIS Karst Geology sections within Chapter 4, Affected Environment; Chapter 5, Environmental Consequences; and Chapter 7, Mitigation, Appendices and DEIS referenced supporting documents.

The contractor will analyze and summarize the issues associated with the technical adequacy of the Karst information and will:

a. Comment on the appropriateness and technical adequacy of the analytical methods and assumptions used, with suggestions for additional analyses, when appropriate.
b. Comment on the appropriateness and technical adequacy of the supporting information, with suggestions for additional information, when appropriate.
c. Comment on the appropriateness and technical adequacy of the scope of the analysis in that all potential impact areas were considered and, if not, identify

what additional areas and issues should have been considered.

d. Identify the alternatives that have the potential for violation of national or state environmental standards or significant impacts not subject to standards. For example, identify the alternatives that have the potential for violating Indiana's Ground Water Quality Standards (GWQS) found at http://www.in.gov/idem/water/dwb/groundwater. If impacts associated with the Tier 2 alternatives have the potential for violation of national or state environmental standards or significant impacts not subject to standards, identify measures including other feasible alternatives that may reduce impacts. Additional alternatives identified should be reasonable and feasible (e.g., an alternative that is practical in the technical, economic, and social sense, even if the alternative is outside the jurisdiction of the lead agency). Measures to reduce impacts could include, but are not limited to, relocation of an alternative roadway alignment or a portion of the alignment (including relocation outside the Tier 1 preferred corridor), and elimination or relocation and/or new design of interchanges and frontage roads that are part of an alternative alignment.

e. Identify the alternatives that would pose the lowest risk to adversely impacting Karst features/resources, Superfund remedies and public safety, and explain why.

f. Identify the alternatives that have the greatest potential risk to adversely impacting Karst/features/resources, Superfund site remedies and public safety, and explain why.

g. Identify all alternatives that could potentially have a significant impact on Karst resources, Superfund site remedies, and/or public safety, explain why.

h. Provide suggestions for mitigation measures, if appropriate, with recommendations oriented toward mitigation measures that are technically feasible, of long term effectiveness, or have a high likelihood of being implemented.

The contractor will provide two printed copies and an electronic copy of the summary report on each of the Draft Environmental Impact Statements reviewed to the EPA.

Task 8 – Tier 2 Pre-FEIS Mitigation Packages Review

The contractor may review the Karst Geology sections of the Tier 2 pre-FEIS mitigation packages for Segments 4 and 5 and prepare comments for EPA's consideration.

The contractor will analyze and summarize the issues associated with the technical adequacy of the Karst information and will:

i. Comment on the adequacy of the direct, indirect/secondary impacts mitigation being proposed for the Tier 2 Preferred Alternative identified for protecting Superfund site remedies, public safety, and Karst related resources [i.e., surface/ground water (quality, quantity, direction of flow), public/private drinking water supplies, surface/subsurface aquatic and terrestrial wildlife (including federal and state listed species) and their Karst associated habitats (e.g., caves, spring fed wetlands).

j. Provide suggestions for additional mitigation measures, if appropriate, with recommendations oriented toward mitigation measures that are technically feasible, of long term effectiveness, or have a high likelihood of being

implemented.

The contractor will provide two printed copies and an electronic copy of the summary report on each of the Pre-FEIS Mitigation Packages reviewed to the EPA.

Task 9 – Tier 2 Final Environmental Impact Statements (FEISs) Review
The contractor may review the Karst related sections of the Tier 2 FEISs for Sections 4 and 5 documenting the Karst geology and hydrogeology studies, impacts analysis, and mitigation; and prepare comments for EPA's consideration. This will most likely include Tier 2 FEIS Karst Geology sections within Chapter 4, Affected Environment; Chapter 5, Environmental Consequences; and Chapter 7, Mitigation. The review and comments will substantially focus on how well EPA's Karst issues/concerns/recommendations made on the Tier 2 DEISs and Pre-FEIS Mitigation Packages have been addressed in the Tier 2 FEISs.

The contractor will:

k. Provide comments on any outstanding issues associated with the technical adequacy of the Karst information and impacts analysis.
l. Identify the potential for the Tier 2 Preferred Alternative to have irreparable (significant) impacts to resources, Superfund site remedies and safety concerns.
m. Provide suggestions for mitigation, if necessary to further reduce impacts, with recommendations oriented toward mitigation measures that are technically feasible, of long term effectiveness, or have a high likelihood of being implemented.

The contractor will provide two printed copies and an electronic copy of the summary report on each of the Final Environmental Impact Statements reviewed to the EPA.

Task 10 – Tier 2 Record of Decisions (RODs) Review
The contractor will review the Tier 2 RODs for Sections 4 and 5 for Karst information related to mitigation and comment to EPA on the adequacy of the mitigation for protecting Karst resources, Superfund site remedies, safety concerns and any additional Karst concerns/issues identified through the NEPA process.

The contractor will provide two printed copies and an electronic copy of the summary report on each of the Record of Decisions reviewed to the EPA.

PART B: EPA Travel for Participation in I-69 Meetings Planned by FHWA and/or the Indiana Department of Transportation

For the implementation of Part B of this Scope of Services, $25,300 of the funding provided to the EPA shall be used for the following tasks and any remaining funds at the competition or cancellation of the Agreement will be reimbursed in accordance with the Agreement. Any additional travel outside these tasks will receive prior concurrence from the FHWA and INDOT.

Task 1 – EPA Attendance at I-69 Interagency Coordination Meetings
EPA staff will travel to and participate in Interagency Coordination Meetings for I-69 as scheduled by INDOT and FHWA. It is anticipated that these meetings will occur two times a year and will be two full days. It is anticipated that the EPA will send 4 to 6 staff members to these meetings. The EPA staff will be reimbursed from this funding for MI&E and Lodging and other miscellaneous expenses associated with normal travel and appropriate for reimbursement. EPA will be responsible for furnishing the mode of transportation which is anticipated to be by Government provided vehicle. The deliverable will consist of EPA's participation in the meeting and so documented in the meeting notes and minutes completed by FHWA, INDOT or their Consultant.

Task 2 – EPA Attendance at I-69 Meetings/Workshops, in General
This task is to provide the EPA the travel funds necessary to participate in meetings and Workshops scheduled by the INDOT and FHWA to discuss individual issues and improve processes related to the I-69 project. These issues could be related to a variety of topics which may include NEPA processes or Clean Water Act issues and Permitting. It is anticipated that there may be 15 of these meetings and EPA would send 1 to 3 individuals to these meetings. The same deliverables and reimbursement for travel would be as is defined in Task 1 of this Part of this Scope of Services. If air transportation is necessary due to special circumstances, EPA will request concurrence from FHWA and INDOT for use of funds provided in this Agreement.

From: <ezform@cinergycom.com>
To: <comment@i69indyevn.org>
Date: 7/23/06 10:26AM
Subject: I-69 Tier 1 Reevaluation Comment

Name = Rep. Matt Pierce, Rep. Peggy Welch, Senator Vi Simpson
Address = State House, 200 West Washington St.
City = Indianapolis
State = IN
ZIP = 46204
Email = H61@in.gov, H60@in.gov, S40@in.gov
Phone = 800-382-9842
Comment = July 21, 2006

Mr. Michael Grovak
Bernardin, Lochmueller & Associates
6200 Vogel Road
Evansville, IN 47715

Dear Mr. Grovak:

Please let this letter serve as comments on the "Reevaluation of Final Environmental Impact Statement (Tier 1) for I-69 between Evansville and Indianapolis, Indiana" [FHWA-IN-EIS-02-01-F].

The Tier 1 Reevaluation's conclusion that tolling should be considered as an option for I-69 is not supported by its own analysis. That analysis finds a toll road will cause increased congestion, reduced safety and diminished economic development compared to a free highway. Further, the report significantly underestimates the severity of the many negative impacts it identifies for a corridor 3C toll scenario that converts State Road 37 from a free highway to a limited access toll road. The logical conclusion from the Reevaluation should have been not to pursue a toll road scenario because of its tremendous negative impact on the people who live along the selected corridor.

The report openly admits that a toll road scenario will significantly reduce the touted benefits of an interstate extension and create negative impacts on local communities. However, while claiming "these impacts can be adequately addressed and mitigated"
(p. 8), the report fails to explain in any meaningful way how they will be mitigated. It simply pushes the negative impacts off for further study during the Tier 2 process.

When the Reevaluation is not dodging the negative impacts it identifies by suggesting they should be further studied in Tier 2, the report assures the public that those negative impacts are out-weighed by the benefits of constructing the I-69 extension more quickly. The Reevaluation repeatedly refers readers to Section 3.5 for an explanation of how accelerating the construction of an I-69 extension provides benefits that out-weigh the costs of increased congestion, reduced safety and diminished economic development that would result from building a toll road. The entire justification for considering tolls for the proposed I-69 extension rests on section 3.5.

After pages and pages of promises that Section 3.5 will explain why building I-69 more quickly transcends all the negative impacts of tolling, the Reevaluation acknowledges that INDOT has no idea how much tolling might accelerate construction or how the suggested benefits of early construction compare to the catalogue of negatives associated with tolling. The Reevalution's own words make this clear:

"There is a great deal of uncertainty about the timing of construction under the non-toll and various toll scenarios.... Accordingly, this Reevaluation does not quantify the tradeoff between the magnitude of benefits and the timing of benefits." (Tier 1 Reevaluation Report, page 47; emphasis added)

The complete lack of analysis in Section 3.5 of the Reevaluation report is a smoking gun. INDOT has not reached the most minimum threshold required to justify considering a toll scenario for State Road 37 and a new terrain I-69 without performing a more detailed Tier 1 Supplemental Environmental Impact Statement.

Further, the Reevaluation's conclusions rest on the assumption that baseline toll rates on an I-69 extension would likely be only 75% of the projected tolls on the Indiana Toll Road. The only hint of a rationale for this assumption is that the Indiana Toll Road is the only toll road currently located in our state. This assumption ignores the fact that the Indiana Toll Road rates were negotiated based on higher traffic counts for a road that is already constructed and producing revenues. It seems to us much more likely that tolls will have to be significantly higher to cover the costs of construction and provide a satisfactory rate of return to the private investors who are expected to build and operate the proposed extension that will carry less traffic than the Indiana Toll Road.

The toll rate assumption is critical to the conclusions reached in the Reevaluation, yet the report offers no real basis for the estimates it uses. Higher tolls mean more cars on local roads, increased congestion, reduced safety and diminished economic development. The use of an unjustifiable estimate of toll rates underestimates these negative impacts. Higher tolls that would yield better financial returns to the private operators will undoubtedly push more cars off existing State Road 37 onto local roads.

State Road 37 is an integral part of local traffic patterns. It is more than a road to get from one city to another. As the Reevaluation suggests, charging tolls to use State Road 37 would cause our constituents to suffer increased congestion on city and county roads when drivers try to avoid paying tolls on a road that has always been free. Adding tolls on State Road 37 will disrupt those local traffic patterns, resulting in more accidents and a significantly increased burden on local governments that will have to deal with those accidents and pay for major upgrades of local roads. The Reevaluation also fails to recognize the very real economic harm a toll road will cause the greater Bloomington area.

While the Reevaluation recognizes any purported economic benefits of an I-69 extension will be reduced under a toll scenario, its economic development analysis is weak at best. The Reevaluation as much as admits it cut corners to meet a self-imposed time frame by choosing to use "statistical techniques" rather than the more thorough Regional Economic Model, Inc. (REMI) forecasting tool. A more complete analysis would likely reveal not just reduced economic development benefits from a toll road scenario, but real damage to the Bloomington area economy.

Tourism is a vital part of the Monroe County economy. Lake Monroe and the Hoosier National Forest are among the many recreation destinations for people who live in the Indianapolis area. The City of Bloomington has launched initiatives to lure more people to cultural events in the area. Indiana University is a major destination for people attending cultural and sporting events.

Converting State Road 37 into a limited access toll road will add a real additional cost for people who want to visit Bloomington. The toll will likely push many tourists to seek alternate routes to Bloomington, causing increased travel times and reduced safety. This "hassle" factor will deter many visitors. It will also reduce the likelihood that motorists will spontaneously exit the toll road to visit businesses along the corridor.

Placing Monroe County on a toll road with no alternate routes will hobble local efforts to recruit new industries to the area. Monroe County will have to overcome the added expense of tolls when competing with other communities that are located on free interstates. The Reevaluation fails to recognize how this will do real economic harm to the area.

Finally, we must comment on the public input process that has been used. It appears that INDOT is doing everything it can to limit public scrutiny of its intention to proceed with a toll road scenario.

First, the public meetings to explain the Reevaluation were announced less than a week before they were

held and scheduled during the day when most people were at work. Second, legislators and most members of the public did not have access to the 163-page report until a few days before the meetings. Finally, INDOT chose an "open house" format that appeared designed to avoid the public asking difficult questions in a wider forum where the media could report on concerns being raised by citizens.

The proposed I-69 extension as a toll road will have profound negative affects on the residents of Monroe County. The Reevaluation merely hints at these negative impacts. It does not adequately assess their true magnitude. Officials making a decision that will affect multiple generations should more thoroughly consider the consequences of that decision and better include the public in that process.

We respectfully urge the Federal Highway Administration to reject the Tier 1 Reevaluation and end any further consideration of a toll road scenario for the I-69 project.

Respectfully submitted,

Matt Pierce
State Representative
District 61

Peggy Welch
State Representative
District 60

Vi Simpson
State Senator
District 40

103-0001-IPL

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

JUL 21 2006

REPLY TO THE ATTENTION OF:

R-19J

Keith Nicole
Vince Carol
Dean Mike G.
Kent Rusty
tom
Jim G
Daniel
Jason
Carl
Jeremy

Robert F. Tally, Jr., Division Administrator
Federal Highway Administration – Indiana Division
575 N. Pennsylvania St. - Room 254
Indianapolis, Indiana 46204

Thomas O. Sharp, Commissioner
Indiana Department of Transportation
100 North Senate Avenue – Room N758
Indianapolis, Indiana 46204-2216

Re: *Interstate 69 Evansville to Indianapolis, Tier 1 Re-evaluation Report, June 2006.*

Dear Mr. Tally and Mr. Sharp:

Thank you for providing the U.S. Environmental Protection Agency (EPA) the opportunity to review and comment on the I-69 Tier 1 Re-evaluation Report (Report). I appreciate our July 7, 2006, meeting in Chicago to present and discuss the findings of the Report. Based on those discussions and our review, I offer the following comments for your consideration.

- We concur with your decision to maintain the Federal Highway Administration (FHWA) and Indiana Department of Transportation (INDOT) Tier 1 Record of Decision (Tier 1 ROD) commitment to fully bridge the entire Patoka River floodplain.

- We recommend that FHWA and INDOT fully evaluate interchange options southwest of Bloomington (southwestern Monroe County and eastern Greene County) that avoid or minimize impacts to sensitive karst geology, associated water resources, and protected species habitat.

- We encourage FHWA and INDOT to include a more thorough description of fully electronic tolling methods in the Tier 2 Environmental Impact Statements (EIS). The Report's assumptions on the use of electronic tolling are a basis for its conclusions that no toll barriers or plazas, with their associated footprints and air quality impacts from queuing, will be part of project design.

- We recommend FHWA and INDOT pursue opportunities to implement EPA's Clean Diesel Initiative for this project (for example, use of clean diesel equipment, vehicles, and fuels in construction and operation). We will be happy to provide technical assistance to you in this effort.

RECEIVED

JUL 28 2006

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Air Quality Analysis

Our discussion touched on air quality issues. Let me take this opportunity to provide additional information on that subject. Since the Tier 1 ROD was signed in March 2004, there have been major changes to the air quality designations in the I-69 project area. Currently, the entire 9-county Indianapolis metropolitan area is designated as non-attainment for the 8-hour ozone standard. Vanderburgh, Warrick, and Greene Counties are now maintenance areas for 8-hour ozone and have 8-hour mobile source budgets. Also, Dubois County and a number of counties in the Evansville and Indianapolis metropolitan areas have been designated as non-attainment for fine particulates (PM2.5).

The 8-hour ozone and PM 2.5 pollutants were not evaluated in the original Tier 1 EIS. These pollutants need to be thoroughly evaluated in each of the Tier 2 EISs, including a discussion of the non-attainment areas, recent monitoring and conformity requirements. The Tier 1 Re-evaluation Report compared the expected emissions with the 1-hour ozone budgets; however, this is no longer relevant since the 1-hour ozone standard has been revoked and new 8-hour ozone planning requirements are in place. The Tier 2 EISs should compare project impacts against the 2002 baseline emissions for 8-hour ozone and PM2.5, and also with any approved maintenance plan budgets in the 8-hour ozone maintenance plans. A hotspot evaluation for PM 2.5 will need to be conducted. The average daily traffic and percentage of diesel traffic are important factors to review in analyzing air quality impacts, including diesel PM2.5 emissions, for both tolling and non-tolling options.

Thank you for the opportunity to comment on the Re-evaluation Report. If you have any questions regarding our comments, please feel free to contact me or have your staff contact Kenneth Westlake of my staff at (312) 886-2910. We look forward to continuing our good working relationship with FHWA and INDOT, and appreciate your ongoing coordination as this project progresses on an expedited timeline.

Very truly yours,

Bharat Mathur
Acting Regional Administrator

cc: Michael Grovak
Bernardin, Lochmueller & Associates, Evansville, IN

United States Department of the Interior
OFFICE OF THE SECRETARY
Washington, DC 20240

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JUL 25 2006

Robert F. Tally, Jr., P.E.
Division Administrator
Federal Highway Administration
Room 254, Federal Office Building
575 North Pennsylvania Street
Indianapolis, Indiana 46204

Dear Mr. Tally:

The Department of the Interior (Department) has reviewed the June 2006 Reevaluation of the Tier 1 Final Environmental Impact Statement (EIS) for the ***I-69, Evansville to Indianapolis Study***, **Indiana**, approved on December 5, 2003. The Department offers the following comments and recommendations for your consideration.

Background

The Tier 1 Record of Decision (ROD) was issued by the Federal Highway Administration (FHWA) on March 24, 2004. Among the key points that the ROD determined were that a "build" alternative was selected for an Interstate Highway, I-69, between Evansville and Indianapolis. The selected alternative is the Alternative 3C corridor, as depicted in the Final EIS, Volume III, Environmental Atlas. The Reevaluation Report indicates that the Tier 1 ROD approved I-69 based on analyses that assumed I-69 would be a non-toll facility. After the Tier 1 ROD was issued and Tier 2 studies had begun, the Indiana Department of Transportation (INDOT) determined that funding this project with toll revenues could significantly accelerate its construction. Accordingly, beginning in mid-2005, INDOT and FHWA began discussing the steps necessary to introduce tolling as a funding option in the Tier 2 studies. Those discussions resulted in the decision to prepare the Tier 1 Reevaluation.

ENDANGERED SPECIES ACT COMMENTS

As stated in the Department's comments of November 2002 addressing the I-69 Tier 1 Draft EIS, "The Department has significant objections to 3C." The Department continues to support Alternative 1 over all other alternatives, particularly 3C. Furthermore, the U.S. Fish and Wildlife Service (FWS) believes that selection of Alternative 1 would best fulfill FHWA's responsibility to use its authorities to conserve endangered and threatened species as set forth in Section 7(a)1 of the Endangered Species Act.

When considering the project in its entirety, the FWS generally agrees that tolling alternatives should have fewer direct and, perhaps, indirect impacts to federally endangered Indiana bats and federally threatened bald eagles in southwestern Indiana. However, in some instances, it is possible that the predicted toll-induced traffic increases on other existing routes could directly and/or indirectly cause significant adverse effects (i.e., take) to federally listed species that may occur along portions of these routes. The Tier 1 Reevaluation Report did not identify or investigate this as being a potential result of tolling. If a supplemental Tier 1 EIS is prepared, INDOT and FHWA should clearly map and identify areas where diverted traffic would be significantly increased (e.g., where any additional lanes or improvements might be needed), which may also spur additional development. Potential impacts to Indiana bats and bald eagles should be assessed in such areas. If a supplemental Tier 1 EIS is not prepared, INDOT and FHWA should assess such toll-induced impacts in Tier 2 National Environmental Policy Act studies and other agency reports (e.g., Tier 2 biological assessments).

"Other Issues" To Be Included in Amended Tier 1 ROD

The Department objects to two of the proposed changes that FHWA intends to include in the forthcoming Amended Tier 1 ROD regarding what it considers to be "minor" issues. These issues are discussed in Chapter 7 of the Reevaluation Report.

First, the Department objects to the newly proposed interchange near the county line area between Monroe and Greene Counties. As originally proposed in the Tier 1 Draft EIS and Final EIS, there were no proposed interchanges between SR 54 in eastern Greene County and SR 37 in Monroe County. It was our understanding that this was not an oversight but rather a deliberate, collective decision among reviewing agencies to avoid karst and groundwater impacts and to avoid indirect/secondary impacts to endangered Indiana bats and the caves in this area that are very important to this species' survival and recovery. To be protective of karst-dependent fauna and resources and the federally endangered Indiana bat, the Department respectfully recommends that INDOT and FHWA maintain their original commitment by withdrawing the Monroe-Greene County line interchange from further consideration.

Second, the Department objects to the proposed shortening of the bridge across the Patoka River floodplain. Again, we ask that INDOT and FHWA maintain their original commitment made in the Tier 1 ROD to bridge the floodplain "in its entirety."

The Department has a continuing interest in working with FHWA and INDOT to ensure that project impacts to resources of concern to the Department are adequately addressed. For matters related to fish and wildlife resources and federally listed threatened and endangered species, please continue to coordinate with Scott Pruitt,

Field Supervisor, or Andrew King, project biologist, U.S. Fish and Wildlife Service, 620 South Walker Street, Bloomington, Indiana 47403-2121, telephone: (812) 334-4261.

We appreciate the opportunity to provide these comments.

Sincerely,

Willie R. Taylor
Director, Office of Environmental
Policy and Compliance

cc: Ms. Janice Osadczuk, Chief
Division of Environment, Planning & Engineering
Indiana Department of Transportation
100 North Senate Avenue, Room N 848
Indianapolis, Indiana 46204

From: RANDOLPH, JASON
Sent: Thursday, July 27, 2006 11:40 AM
To: Osadczuk, Janice; Tom Cervone; Kent Ahrenholtz; 'Jeremy Kieffner'
Cc: CLARK METTLER, MARTHA; LEVENHAGEN, ERIC; KOONTZ, CAROLYN
Subject:
Janice:
I received the following emails from interagency staff in regards to the I-69 reevaluation. Is this is in reference to the materials INDOT submitted to the IDEM Commissioners Office dated June 2006? If it is in regards to this material then based on the discussion on Environmental Consequences in Section 5 page 51 there would be no environmental consequences from an electronic tolling station. Therefore IDEM has no specific comments related to the reevaluation of the Tier 1 report as long as you use an electronic tolling system.
Please keep in mind that any road upgrades to accommodate the traffic that will not be using the proposed I-69 will need to apply for and receive Section 401 Water Quality Certifications and Isolated wetland permits for any wetland and stream impacts associated with the upgrades.
For future reference, all documents related to I-69 should be submitted to the project manager for IDEM.
Jason Randolph
IDEM-OWQ
317-233-0467

From: KOONTZ, CAROLYN
Sent: Thursday, July 27, 2006 10:16 AM
To: CLARK METTLER, MARTHA; RANDOLPH, JASON
Subject: FW: Phone message
See below. Eric Levenhagen said to refer the below phone message to you. Are you the contact for I-69?

From: EASTERLY, THOMAS
Sent: Wednesday, July 26, 2006 1:41 PM
To: KOONTZ, CAROLYN
Subject: FW: Phone message
?? Tom

From: BELL, JANET
Sent: Wednesday, July 26, 2006 1:27 PM
To: EASTERLY, THOMAS
Subject: Phone message
Janice Osadczuk
INDOT
2-5468
INDOT is reevaluating the I-69 – Indy to Evansville highway. She wants to know if IDEM has a comment regarding this.
If I should forward this to someone else, please let me know.
Janet
Janet Bell
Assistant to Matt Klein & Scott Nally
Indiana Department of Environmental Management
100 North Senate Avenue, Room 1301
Indianapolis, IN 46204

0724053 IDEM.doc

Phone: (317) 233-2359
Fax: (317) 233-6647

I-69 Evansville to Indianapolis
Tier 2 Studies

MEMORANDUM

To: All Resource Agencies

From: Federal Highway Administration and
Indiana Department of Transportation

Date: August 1, 2006

Re: Proposed Cumulative Impact Analysis for I-69 Studies in Tier 2 EIS's

The Federal Highway Administration (FWHA) and the Indiana Department of Transportation (INDOT) provide the following information to the resource agencies on Cumulative Effects Analysis in I-69 (Tier 2). The purpose of this memorandum is to coordinate and receive comments as required by NEPA on methodology, documentation and selection of resources for such analysis.

Please review this memorandum regarding the proposed cumulative impact analysis for the Tier 2 studies of I-69 and provide us with your comments by September 1, 2006. Environmental coordination is an on-going and helpful process in the development of each EIS. Your involvement and insights are most welcome. Please contact Tony DeSimone at (317)226-5307 or by email at Anthony.desimone@fhwa.dot.gov if you have any questions.

METHODOLOGY:

The Tier 1 FEIS addressed cumulative impacts of the entire I-69 Evansville-to-Indianapolis project as a whole, in the context of the 26-county Tier 1 study area. This analysis was done in consultation with various resource agencies. Cumulative impacts for three resources, i.e., farmland, forests and wetlands were analyzed in Tier 1. The findings from the Tier 1 analysis concluded that losses due to I-69 would account for a very small percentage of overall losses for these three resources. The selected alternative (Alternative 3C) accounted for an additional 0.2% loss in farmland, 0.1% loss in forest, and 0.04% loss in wetlands throughout the 26-county project area. These losses reflect direct, indirect and cumulative impacts.

The geographic scope for the cumulative impact analysis in a Tier 2 EIS will be more localized than the Tier 1 cumulative impact analyses, which covered a 26-county Study

Area in Southwestern Indiana. For example, the cumulative impact analysis for Section 1 will focus on the geographic area surrounding Section 1. This means that each Tier 2 EIS will have a different geographic scope for its cumulative impact analysis. This approach to cumulative impact analysis reflects the basic difference between Tier 1 and Tier 2: the Tier 1 study considered issues across a broad 26-county study area, while each Tier 2 study considers issues within a smaller area surrounding a specific Tier 2 section.

Each EIS will compare Tier 1 to Tier 2 direct impacts on a section-by-section basis. Specifically, each Tier 2 DEIS will include a summary table comparing the Tier 1 and Tier 2 direct impact data for the preferred alternative in that section. This summary table will follow the basic format of the tables included in Section 6.5.1 of the Tier 1 FEIS. (For example, see Table 6-26 on page 6-53 of the Tier 1 FEIS). If the Tier 2 results for a section differ markedly from the Tier 1 results, we will provide an explanation of the reason for the change. In addition, impacts to resources will be reported in acreage units or linear units (such as for stream impacts) where a quantitative analysis is appropriate. The cumulative impacts analysis will be based in part on input from the expert land use panel discussions, along with traffic modeling and traffic analysis zone (TAZ) data, which take into account corridor-wide traffic data.

Tier 2 documentation will present detailed cumulative impacts analysis for resources impacted in each section. Impacted resources that are addressed in a cumulative impacts analysis may differ depending upon the sections. For example, some sections may impact karst features (e.g., springs, sinkholes, and caves) and others may not.

The Tier 2 studies will follow the guidance from FHWA and EPA concerning analyses for cumulative impacts. According to the FHWA guidance on cumulative impacts (Questions and Answers Regarding the Consideration of Indirect and Cumulative Impacts in the NEPA Process – Environmental Guidebook – Environment and Planning – FHWA), "Cumulative impact analysis is resource specific and generally performed for the environmental resources directly impacted by a Federal action under study, such as a transportation project. However, not all of the resources directly impacted by a project will require a cumulative impact analysis. The resources subject to a cumulative impact assessment should be determined on a case-by-case basis early in the NEPA process, generally as part of early coordination or scoping."

Also, additional guidance in "Consideration of Cumulative Impacts in EPA Review of NEPA Documents" – May 1999, states that "While a broad consideration of resources is necessary for the adequate assessment of cumulative impacts, the analysis should be expanded for only those resources that are significantly affected. In similar fashion, ecosystem components should be considered when they are significantly affected by cumulative impacts. The measure of cumulative effects is any change to the function of these ecosystem components."

The cumulative impacts analysis for each Tier 2 section will follow such guidance. In general, the detailed cumulative impacts analysis will focus on resources that are significantly impacted by that section of the project. The significance of the impact will

consider the amount of the resource available, meaning, if there is a small impact but there is only a small amount of the important resource remaining in the project area, then it may require a full cumulative impacts analysis.

The cumulative impact analysis will look at a more refined study area or region of influence along the selected corridor and related to the specific section. It may be appropriate to consider the adjacent sections as other committed projects in the defined project area to fully consider the cumulative impacts within that area. A corridor-wide cumulative impacts analysis (as was completed in Tier 1) will not be conducted in the Tier 2 documents. When a detailed cumulative impact analysis is completed for a resource, all past, present and reasonably foreseeable future projects that have been identified will be considered, irrespective of the public or private entity responsible for those projects.

The following basic methodology is being used to determine cumulative impacts for each Tier 2 Section. The methodologies and information contained in the FHWA guidance and publications listed at the end of this memo will also be utilized in the cumulative impact analyses.

Basic outline for the DEIS:

1. Define terms
    a. Direct impacts
    b. Indirect impacts
    c. Other impacts
    d. Cumulative impacts
2. Identify significant human and natural resources and focus the discussion on these resources
    a. Document meetings or discussions with resource agencies to show their agreement with the significant resources
3. Describe the Geographic Scope or Study Area for the project and resources
    a. Include map
4. Discuss the Time frame for the analysis
5. Discuss the approach for determining the amount and location of impacts
    a. Impacts include
        i. Direct impacts
        ii. Indirect impacts
        iii. Other impacts
        iv. Cumulative impacts
    b. Reference the role of the travel models and the expert panels in this analysis
    c. Other Actions, e.g. timber harvest, residential development, mineral extraction
6. Describe the affected environment for the significant resources
        i. Past history

            1. Use figures or tables to show the trends (see Tier 1 FEIS for examples)
        ii. Future trends
            1. May want to use mathematical tools to forecast future trends of a particular resource
7. Present the analysis
    a. Include a table showing the impacts by resource
    b. Include the No-Build Alternative and all Build Alternatives
8. Determine the environmental consequences of the cumulative effects on these resources
    a. Will the impacts result in the loss of that resource
9. Summarize the information on the Preferred Alternative if one has been determined

The proposed methodology will utilize input from local expert land use panels as well as various land use models to help identify indirect impacts that are the result of the I-69 project. One such model forecasts the acreages of indirect impacts at proposed interchange locations. This model was developed for a national study entitled Commercial Development at Rural and Small-Town Interstate Exits (Hartgen and Kim, 1998). This model takes factors such as traffic data, surrounding land use, nearest towns, populations of nearest towns and how far the area is from other interchanges and estimates the amount of development that will take place at that area. This model was used in Tier 1 to estimate the employment shifts from along existing roads to around I-69 interchanges. By following this process, the indirect impacts to various resources can be estimated and included in the analysis of cumulative impacts.

RESOURCES CONSIDERED:

The level of detail for the analysis of each resource may differ within a section For example, land use in Section 1 is primarily agriculture, and farmland is likely to be significantly impacted in this section. Direct, indirect, and cumulative impacts to farmland will be analyzed in detail. Direct, indirect, and cumulative impacts to other resources will be addressed too, but at a more general level of detail.

After initial analysis and coordination with the Environmental and Engineering Assessment Consultants in each section, INDOT and FHWA provided the following guidance regarding potential resources to include in the cumulative impact analysis for I-69 :

- Farmland
- Forest
- Wetlands
- Streams and Floodplains
- Wellhead Protection Areas
- Karst and Groundwater

As discussed below, not all these resources will receive a detailed cumulative impacts assessment in each Tier 2 section.

RESOURCES SELECTED FOR CUMULATIVE ANALYSIS BY SECTION:

At this point in project development, the individual Tier 2 Sections have selected the following resource areas for a detailed cumulative impact analysis to be included in the DEIS. Included is a brief explanation of the justification for selecting these particular resources and why certain resources were not selected for further analysis.

Section 1:

Resource selected for detailed cumulative analysis:

1. Farmland

Farmland is the only resource selected for a detailed cumulative impact analysis within Section 1. This is a significant resource within this section and it is significantly impacted by the I-69 project. Other resources, such as wetlands, streams and floodplains and forest, were evaluated for cumulative effects, but these resources are not expected to be significantly impacted by the I-69 project in Section 1. Also, based upon information received from local expert land use panels, it was determined that future development is not likely to occur in areas where these resources will be negatively impacted.

Section 2:

Resources selected for detailed cumulative analysis:

1. Farmland

Farmland is the only resource selected for a detailed cumulative impact analysis within Section 2. Farmland is a significant resource within Section 2 and it would be significantly directly impacted by building the I-69 project. Also, the indirect development anticipated to occur in Section 2 is expected to occur on farmland. While wetlands, forests, and streams would be affected directly by building I-69, these resources would not be significantly affected by indirect development, based on information received from a local expert land use panel; and therefore, they are not included in the cumulative impact evaluation. While the Section 2 alternatives would cross the Patoka River and the East Fork of the White River, these crossings are proposed to be made on an elevated structure so that their floodplains would not be adversely affected. Section 2 has no wellhead protection areas or karst topography.

Section 3:

Resources selected for detailed cumulative analysis:

1. Farmland

Farmland is the only resource selected for a detailed cumulative impact analysis within Section 3. This is a significant resource within this section and it is significantly impacted by the I-69 project. Other resources such as wetlands, streams and floodplains, wellhead protection areas, karst, and forests were evaluated for cumulative effects, but these resources are not expected to be significantly impacted by the I-69 project in Section 3. Also, based upon information received from local expert land use panels, it was determined that future development is not likely to occur in areas where these resources will be negatively impacted.

Section 3 does not expect to include wellhead protection area analysis as part of the cumulative discussion, but will obtain wellhead protection plans from utilities that contain wellhead areas. At this time the project is not expected to have significant impacts on wellhead protection areas. The expert land use panel in section 3 only projected 0.8 acres of indirect development in each of the quadrants of the SR 58 interchange near the wellhead protection area. No other cumulative development is expected at that location. A discussion of the wellhead location and potential mitigation measures will be provided in the DEIS/FEIS.

Section 4:

Resources selected for detailed cumulative analysis:

1. Farmland
2. Forest
3. Karst and Groundwater

Section 4 expects to complete a cumulative analysis on farmland, forest, and karst/groundwater. These three resources are important resources within the Section 4 project area and may be significantly impacted as a result of the proposed action. Per the expert land use panels assembled to provide input on potential future development, it is their opinion that such potential development within the Section 4 project area will be sparse and of limited locale. Furthermore, the location of such potential development will be constrained by the moderate to steep terrain found throughout most of the project area and by the limited land accessibility provided by the state and local road networks. While farmland generally occurs throughout the project area and primarily consists of small parcels of pasture, some farmland of larger acreage does exist in the western one-third of the project area. Forest is a primary land cover in Section 4 and is found mostly on the moderate to steep terrain. Forest may be suitable for some low density, small scale residential development. Karst features such as caves, sinkholes, swallows and sinking streams are abundant throughout the eastern one-half of the Section 4 project area. Karst features in Monroe County are protected by local ordinance which requires a karst investigation for any proposed development. A detailed cumulative analysis will be performed for these three resources.

Very few wetlands occur in the Section 4 project area, and those wetlands that are present primarily occur as narrow riparian wetlands adjacent to streams. Likewise, the streams and floodplains within the Section 4 project area are limited in number and generally narrow in spatial definition. Because of the limited amount of wetlands and streams along with the adjacent moderate to steep terrain, no significant impacts to these two resources are anticipated. There are no wellhead protection areas in the Section 4 project area.

Section 5:

Resources selected for detailed cumulative analysis:

1. Farmland
2. Forest
3. Wetlands
4. Streams (water quality)
5. Karst (water quality)

Section 5 expects to complete a cumulative analysis on Farmland, Forest, Wetlands, and Water Quality (Streams and Karst). Due to the nature of theses four important resources and the likelihood of direct impact, they will be included in evaluations for cumulative analysis. There is a great deal of development taking place and being planned along SR 37 according to information received from the expert land use panels. The cumulative impacts resulting from proposed I-69 and private development plans will be analyzed to determine impacts to these four resources.

Although Section 5 will not specifically provide wellhead protection analysis as part of the cumulative discussion, Section 5 will obtain Wellhead Protection Plans from utilities that contain wellhead areas. The project will have no significant impact on wellheads. A discussion of the wellhead location and potential mitigation measures will be provided in the DEIS/FEIS. Section 5 will not have significant impacts on groundwater other than as part of the karst evaluation.

Section 6:

Resources selected for detailed cumulative analysis:

1. Farmland
2. Forest
3. Wetlands
4. Streams/Floodplains

Section 6 expects to complete a cumulative analysis on Farmland, Forest, Wetlands, and Streams/Floodplains. All four of these resources are significant resources that may be

significantly impacted within the Section 6 project limits. There is a great deal of development taking place and being planned along SR 37 according to information received from the expert land use panels. The cumulative impacts resulting from proposed I-69 and private development plans will be analyzed to determine impacts to these four resources.

Although Section 6 will not specifically provide wellhead protection area analysis as part of the cumulative discussion, Section 6 will obtain Wellhead Protection Plans from utilities that contain wellhead protection areas. The project will have no significant impact on wellhead protection areas. A discussion of the wellhead protection area locations and potential mitigation measures will be provided in the DEIS/FEIS. Section 6 contains no karst geology and will not have significant impacts on groundwater.

FHWA GUIDANCE AND PUBLICATIONS:

1. Questions and Answers Regarding the Consideration of Indirect and Cumulative Impacts in the NEPA Process –
http://environment.fhwa.dot.gov/guidebook/qaimpact.htm

2. FHWA Position Paper: Secondary and Cumulative Impact Assessment in the Highway Project Development Process – April 1992
www.fhwa.dot.gov/environment/guidebook/index.htm

*3. Considering Cumulative Effects Under the National Environmental Policy Act – Council on Environmental Quality, January 1997.
http://ceq.eh.doe.gov/nepa/ccenepa/ccenepa.htm
*Describes 11-step process

4. NCHRP Report 403, Guidance for Estimating the Indirect Effects of Proposed Transportation Projects, 1998 www.nationalacademies.org/trb/bookstore/ (can be ordered for $51.00)

5. NCHRP Report 466, Desk Reference for Estimating the Indirect Effect of Proposed Transportation Projects. http://www4.trb.org/trb/onlinepubs.nsf

6. Consideration of Cumulative Impacts in EPA Review of NEPA Documents, USEPA 315-R-99-002, May 1999 www.epa.gov/Compliance/resources/policies/nepa/index.html

7. Executive Order 13274, Indirect and Cumulative Impacts Work Group, Draft Baseline Report, March 15, 2005

Overall Agency Coordination Meeting

AGENDA

August 1-2, 2006
9:00 AM to 5:00 PM/8:30 AM to 2:00 PM (EDT/Indy Time)
AMVETS, The Gathering Bloomington, IN

Day 1: Tuesday, August 1

Morning Session (9:00 AM to 11:30 AM)

9:00 a.m. – Welcome & Introductions		Janice Osadczuk/Tom Seeman (INDOT) Anthony DeSimone (FHWA)
9:15 a.m. – Project Schedules		Kent Ahrenholtz – PMC PM (BLA)
9:30 a.m. – Tier 1 Re-evaluation & Comments		K. Ahrenholtz /M. Grovak – PMC (BLA)
9:45 a.m. – Tier 2 Agency Review Packages		Mike Grovak – PMC Deputy PM (BLA)
10:00 a.m. – P3 Team Discussion		Kent Ahrenholtz/Tom Seeman (BLA/INDOT)
10:20 a.m. – Project Status	Section 1	Roger Wade (Qk4)
	Section 2	Victor Modeer (HWC/Jacobs Civil Team)
	Section 3	David Pluckebaum (Corradino Group)
	Section 4	Bruce Hudson (DLZ)
	Section 5	Jim Peyton (Michael Baker)
	Section 6	Tim Miller (HNTB)
11:15 a.m. – Open Informal Discussion with Agencies		Kent Ahrenholtz (BLA)

Lunch (11:30 AM to 1:00 PM): Local Restaurants *(See attached list/map)*

Afternoon Session (1:00 PM to 5:00 PM)

1:00 p.m. – Introduction to Afternoon — Tom Cervone, Ph.D. (BLA)

1:05 p.m. –Cumulative Impacts — Sara Dyer / Kia Gillette (BLA)

Introduction and Discussion of White Paper
Section Update on Cumulative Impacts
Questions

2:05 p.m. – Break (10 minutes)

2:15 p.m. – Water Resources — Jeremy Kieffner / Jaime Sias (BLA)

Introduction on Water Resources
Technical Reports for Streams and Wetlands

Methodology
Progress and Update on each Section
Permitting Process
Mitigation Sites
Questions

3:20 p.m. – Break (10 minutes)

3:30 p.m. – Karst Session

3:40 p.m. – Section 4 Karst Report — Jason Krothe (Hydrogeology, Inc.)

Summary on Karst in Section 4
Questions

4:10 p.m. – Section 5 Karst Report — Jim Peyton (Michael Baker)

Summary on Karst in Section 5
Questions

4:40 p.m. – Wrap Up and Additional Questions

5:00 p.m. – Conclusion — Tom Cervone, Ph.D. (BLA)

Day 2: Wednesday, August 2

Morning/Afternoon Session (8:30 AM to 2:00 PM)

Tour of I-69 Sections 4, 5, and 6

Cumulative Impact Analyses

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

I-69 Evansville to Indianapolis Tier 2 Studies

Purpose of Today's Session

- Provide you with the current thinking and efforts to address cumulative impacts within each Tier 2 Section.

- We are not here to give you a [redacted] your questions, but to start a dialogue and [redacted] receive your input regarding the issues and [redacted] resources of utmost concern to you [redacted]

Cumulative Impact Analyses

- The Tier 1 FEIS addressed cumulative impacts of the entire I-69 Evansville-to-Indianapolis project as a whole, in the context of the 26-county Tier 1 study area. Cumulative impacts for three resources, farmland, forests and wetlands were analyzed in Tier 1.

- The findings from the Tier 1 analysis [illegible] losses due to I-69 would account [illegible] percentage of overall losses for these three resources. The selected alternative (Alternative 3C) accounted for an additional 0.2% loss in farmland, 0.1% loss in forest, and 0.04% loss in wetlands throughout the 26-county project area. These losses reflect direct, indirect and cumulative impacts.

Geographic Scope

- The geographic scope for the cumulative impact analysis in a Tier 2 EIS will be more localized than the Tier 1 cumulative impact analyses, which covered a 26-county Study Area in Southwestern Indiana. For example, the cumulative impact analysis for [redacted] focus on the geographic area surrounding Section 1. This means that each Tier 2 EIS will [redacted] different geographic scope for its cumulative impact analysis. [redacted]

Methodology

- The memorandum outlines the 9 basic steps that will be utilized for the Tier 2 evaluations.

- The proposed methodology [redacted] input from local expert land use panels a[redacted] models to help identify cumulative impacts that are the result of the I-69 project.

- The cumulative impacts analysis will be based in part on input from the expert land use panel discussions, alo[redacted]h traffic modeling and traffic anal[redacted]ne (TAZ) data, which take into acco[redacted]de traffic data.

- Tier 2 documentation will present detailed cumulative impacts analysis for certain resources impacted in each section. Impacted resources that are addressed in a cumulative impacts analysis depending upon the sections. For example, some sections may impact karst features and others may not.

FHWA Guidance

- "Cumulative impact analysis is resource specific and generally performed for the environmental resources directly impacted by a Federal action under study, such as a transportation project. However, not all of the resources directly impacted by a project will require cumulative impact analysis. The resource [illegible] cumulative impact assessment should be determined on a case-by-case basis early in the NEPA process, generally as part of early coordination or scoping."

EPA Guidance

- "While a broad consideration of resources is necessary for the adequate assessment of cumulative impacts, the analysis should be expanded for only those resources that are significantly affected. In similar fashion, ecosystem components should be considered when they are significantly affected by cumulative impacts. The measure of cumulative effects is any change to the function of these ecosystem components."

Resources

- After initial analysis and coordination with the Environmental and Engineering Assessment Consultants in each section, INDOT and FHWA agreed that the following resources were most likely to require a detailed cumulative impact analysis:
- Farmland
- Forest
- Wetlands
- Streams and Floodplains
- Wellhead Protection Areas
- Karst and Groundwater

Section 1

- 1. Farmland
- Farmland is the only resource selected for a detailed cumulative impact analysis within Section 1. It is a significant resource within this section and it is significantly impacted by the I-69 project.
- Other resources, such as wetlands, streams, floodplains and forest, were evaluated for cumulative effects and are not expected to be significantly impacted in Section 1. Also, based upon information received from local expert land use panels, it was determined that future growth is not likely to occur in areas where these resources will be negatively impacted.

Section 2

- 1. Farmland

- Farmland is the only resource selected for a detailed cumulative impact analysis within Section 2. It is a significant resource within Section 2 and it would be significantly directly impacted by building the I-69 project. Also, the indirect development anticipated to occur in Section 2 is expected to occur on farmland.
- While wetlands, forests, and streams would be impacted by building I-69, these resources would not be impacted by indirect development, based on information received from a local expert land use panel; and therefore, they are not included in the cumulative impact evaluation. While the Section 2 alternatives would cross the Patoka River and the East Fork of the White River, these crossings are proposed to be made on elevated structure so that their floodplains would not be adversely affected.

Section 3

- 1. Farmland

- Farmland is the only resource selected for a detailed cumulative impact analysis within Section 3. It is a significant resource within this section and it is significantly impacted by the I-69 project. Other resources such as wetlands, streams and floodplains, wellhead protection areas, karst, and forests were evaluated for cumulative effects, but these resources are not expected to be significantly impacted by the I-69 project in Section 3. In addition, received from local expert land use panels, it was determined that future development is not likely to occur in areas where these resources will be negatively impacted.
- Section 3 does not expect to include wellhead protection area analysis as part of the cumulative discussion but will obtain wellhead protection plans from utilities that contain wellhead areas.

Section 4

- 1. Farmland
- 2. Forest
- 3. Karst and Groundwater

- Farmland generally occurs throughout the [redacted]rea and primarily consists of small parcels of pasture, som[redacted]farmland of larger acreage does exist in the western one-th[redacted]roject area.
- Forest is a primary land cover in Section [redacted]te to steep terrain. Forested [redacted]or some low density, small scale residential development [redacted]
- Karst features such as caves, sinkholes, swallows and sinking s[redacted]re abundant throughout the eastern one-half of the Section 4 project area. Karst features in Monroe County are protected by local ordinance which requires a karst investigation for any [redacted]ed development.

Section 4 (continued)

- These three resources are important resources within the Section 4 project area and may be significantly impacted as a result of the proposed action. It is the opinion of the expert land use panels that potential development within the Section 4 project area will be sparse and of limited locale. Furthermore, the location of such potential development will be constrained [redacted]derate to steep terrain found throughout most of the pro[redacted] area and by the limited land accessibility provided by the state a[redacted]ad networks. [redacted]

- [redacted]etlands occur in the Section 4 [redacted] wetlands that are present primarily occur [redacted] wetlands adjacent to streams. Likewise, [redacted]s within the Section 4 project area are limited in number and generally narrow in spatial definition. [redacted]

[redacted]

Section 5

- 1. Farmland
- 2. Forest
- 3. Wetlands
- 4. Streams and Floodplains (water quality only)
- 5. Karst (water quality only)

- Due to the nature of these important reso[redacted] the likelihood of direct impact, they will be included in eva[redacted] a[redacted]here is a great deal of develo[redacted] and being planned along SR 37 according to in[redacted] from the expert land use panels. The cumulative impacts resulting from p[redacted]I-69 and private development plans will be analyzed to determine impacts to these four resources[redacted]

Section 6

- 1. Farmland
- 2. Forest
- 3. Wetlands
- 4. Streams/Floodplains
- All four of these resources are significant r that may be significantly impacted within the Section 6 project limits. There is a great deal of development taking place a anned along SR 37 according to information received from panels. The cumulative impacts resulting d private development plans will be analyzed to determine impacts to these four resources.
- Although Section 6 will not specifically provide wellhead protection area analysis as part of the cumulative discussion, Section 6 will obtain Wellhead Protection Plans from util ntain wellhead protection areas

Resource Agency Input

- We are required to make a reasonable effort to address cumulative impacts. It is an on-going effort for each section and your input is important to us.
- Please review the memo and get back to us in the next 30 days with your comments and concerns.

MEETING MINUTES

I-69 Overall Agency Coordination Team Meeting

AMVETS The Gathering, Bloomington, IN
August 1, 2006, 9:00 a.m. – 5:00 p.m. EDT

Attendees:	
1. Katie Gremillion-Smith – IDNR Div. of Fish & Wildlife	34. Tom Kenney – USEPA , ORC
2. Susan Branigin – INDOT/Env. Serv./Cultural Resources	35. Newton Ellens – USEPA
3. Patricia Morris – USEPA Air Division	36. Bill Malley – Akin Gump lawfirm w/INDOT
4. Henry Nodarse – BLA Engineer	37. Noel C. Krothe – Hydrogeology, Inc./Section 4
5. Dan Ernst – IDNR Forestry	38. Richard Ray – Corradino/Section 3 DPM
6. Franklin Lewis – USDA Forest Serv./Hoosier Nat'l Forest	39. Mike Tackett – Corradino/ Section 3
7. Janice Osadczuk – INDOT Environmental Services	40. Sara Dyer – Dyer Environmental/PMC
8. Michelle Hilary – INDOT Environmental Services	41. Doug Shelton – Corps of Engineers
9. Ben Lawrence – INDOT Environmental Services	42. Mike Neyer – IDNR Water Division
10. Christopher Koeppel – INDOT/Env. Serv./Cultural Resources	43. Rusty Yeager – BLA/PMC
11. Tony DeSimone – FHWA	44. Carol Hood – BLA/PMC
12. Jay DuMontelle – FHWA	45. Jason Stone – DLZ Indiana/Section 4 Environ.
13. Tom Cervone – BLA/PMC	46. Brian Arterbery – DLZ Indiana/Section 4 DPM
14. Ken Westlake – USEPA	47. Tom Seeman – INDOT Project Management
15. Virginia Laszewski – USEPA	48. Bruce Hudson – DLZ Indiana/Section 4 PM
16. Cathy Garra – USEPA	49. Jason Randolph – IDEM OWQ
17. David Franklin – FHWA	50. Matt Buffington – IDNR
18. Pamela S. Drach – INDOT Vincennes District	51. Christie Stanifer – IDNR
19. Karl Leet – INDOT Feasibility Engineering	52. Scott Pruitt – USFWS
20. Mary Jo Hamman – Michael Baker Jr. Inc./Section 5 PM	53. Andy King – USFWS
21. Jim Peyton – Michael Baker Jr. Inc./Section 5 DPM	54. Mark Eckert – Beam, Longest & Neff/TPA
22. Nick Batta – INDOT Feasibility Engineering	55. Chad Costa – Beam, Longest & Neff/TPA
23. David A. Butts – INDOT Feasibility Engineering	56. Kia Gillette – BLA/PMC
24. James Ude – INDOT Seymour District	57. Jaime Sias – BLA/PMC
25. Brock Hoegh – HNTB/Section 6 DPM	58. John Bacone – IDNR/Nature Preserves
26. Tim Miller – HNTB/Section 6 PM	59. Eris S. Johanson – IDEM
27. Henry Huffman – IDNR Nature Preserves/Heritage Prog.	60. Rebecca Travis – IDEM
28. Kevin Allison – Corradino/ Section 3 PM	61. James Sullivan – IDEM
29. David Pluckebaum – Corradino/Section 3 PM	62. Jeremy Kieffner – BLA/PMC
30. Vic Modeer – Jacobs/Section 2 PM	63. Jane Wehner – Qk4/Section 1 DPM
31. Tracey Lober – S Jacobs/Section 2 Asst. PM	64. Roger Wade – Qk4/Section 1 PM
32. Michael Grovak – BLA/PMC	65. Jason Krothe – Hydrogeology, Inc./Section 4
33. Kent Ahrenholtz – BLA/PMC	66. Garre Conner – BLA/PMC

Welcome and Opening Remarks **Tom Seeman and Tony DeSimone**

Introductions

Project Schedules **Kent Ahrenholtz**

- Revised Schedule:
  - Re-evaluation of Tier 1 EIS
    - Tier 1 EIS Re-evaluation Report – Issued June 23, 2006
    - Official Comment Period – Deadline July 24, 2006
    - Amended Tier 1 Record of Decision – mid to late August 2006
  - Refinement of Tier 2 Studies
    - Delay in Issuance of Draft EISs
    - Incorporation of Toll Option
    - Staggered EIS Reviews – Section 1 DEIS issued by 1st part of September 2006, followed by another Section DEIS every 30 days.
      (Section 1 DEIS is now slated for release at the end of September 2006, possibly longer.)
      - Information in the DEIS will include toll and non-toll option and the preferred alternative.
      - By the middle of 2007, the RODs will be ready.
  - Accelerated Project Development Activities
    - Permitting

Q: *Has the schedule changed much since the July 2006 schedule? (USEPA)*
A: It changed by only a week or two since that schedule was developed.

Q: *Will we be given advance notice on the DEIS? (USEPA)*
A. Yes we will try to give you 2 weeks notice. There is a possibility that portions of the DEIS will be provided in draft form for advanced review.

Tier 1 EIS Re-evaluation & Comments **Mike Grovak**

- Why Consider Tolling Now:
  - Major Legislative Changes
    - Six-year federal transportation bill (SAFETEA-LU) signed August 10, 2005
    - Much greater flexibility to mix toll and non-toll funding
    - Was discussed internally; could not be considered as an option during Tier 1
  - Major Toll Collection System Improvements
    - "Open road" tolling – fully electronic
    - Eliminate toll booth congestion and backups
- Tier 1 Re-evaluation was not the "last word":
  - A "high altitude" review of Toll Options
    - Uniform toll rates
    - No variation by location or time
  - Comparison at a Tier 1 (Big Picture) level of detail
  - More detailed Tier 2 Studies
  - "Toll Funding" decision as part of Tier 2 RODs

- Tier 1 Re-evaluation - Highlights:
    - Toll Option Performance Evaluation
        - Tier 1 goals and performance measures
        - More current traffic forecasting model
            - Year 2030 forecast year (vs. Year 2025 in Tier 1)
            - Significant technical enhancements to traffic model
            - Show non-toll performance on project goals along with that of toll options
    - Comparison with Non-Toll Option
        - Performance on some goals unaffected by tolling
            - Evansville to Indianapolis travel time
            - Personal accessibility
        - Performance on other goals reduced by tolling
            - Interstate and international freight movement
            - Crash reduction
            - Congestion relief
            - Economic development
        - Tradeoff between receiving benefits sooner vs. smaller magnitude of benefits
    - Impact Changes from Non-toll Option
        - Traffic Impacts
            - More traffic on other roads
            - Near US 41 and SR 37 – more significant
            - Some roads have more traffic than No Build
            - Very few experience a change in the level of service
        - Environmental Justice Impacts
            - Identifies potential issue to low-income persons
            - Would exist for most alternatives considered
            - Will need to be evaluated in Tier 2 Studies
        - Air Quality Impacts
            - Repeats Tier 1 assessment
            - Emissions in Vanderburgh and Marion counties remain within SIP budget
            - Cites additional issues for Tier 2
                - Additional areas in non-conformance
                - Additional emissions analyses (PM2.5 and 8-hour ozone)
        - Noise Impacts
            - Noise impacts diminished from non-toll
            - Less traffic means less noise
        - Indirect & Cumulative Impacts
            - Non-toll is worst case
            - Development in toll case would be no greater than non-toll
- Tier 1 Re-evaluation – Overall Findings
    - Tolling compresses performance range of alternatives
    - Alternative 3C remains the preferred alternative
        - Best performer on project goals
        - Lowest aquatic-resource impacts among alternatives satisfying project purposes
    - No new significant impacts identified
- Tier 1 Re-evaluation – Other Issues
    - Clarification of Tier 1 ROD
        - Location of interchanges and access roads outside of corridor boundaries
        - Commitment regarding an interchange at Monroe/Greene County line

- Commitment to bridge Patoka River floodplain
  - Has been follow up coordination with USFWS
  - Determined that there will be no change to this commitment.

Q: What will the comment period be for the DEIS documents? (EPA)
A: The schedule includes the standard 60 days for comments on the DEIS; however longer comment periods may be considered – for example, if two I-69 Tier 2 documents are circulating simultaneously.

Tier 2 Agency Review Packages **Mike Grovak**

- The Purpose and Need/Preliminary Alternatives Packages for all Sections has gone out and meetings with the resource agencies have been held and comments have been received from agencies.
- The Preliminary Alternatives Analysis and Screening Package was sent out to the agencies for Section 4 on July 26th. A Webcast/Conference Call meeting is scheduled on August 31st at 9:30 EDT/8:30 CDT to allow agencies to ask questions and go over the Section 4 Screening Package. Formal comments are due to the PMC from the agencies on Tuesday, September 26, 2006.
- In order to keep with the schedule there will not be a third Agency Review Package from the EEACs on Preferred Alternative and Mitigation. The PAMP will be incorporated into the DEIS. There will probably be a Webcast/Conference Call meeting held to discuss mitigation and responses to agency comments.
- Responses to the agencies comments will be a separate coordination with the agencies.

Q: Will the Agency members receive a copy of the CAC input and meeting minutes? (USFWS)
A: These will be made available.

Q: Are there any CAC members who represent environmental justice communities? (USEPA)
A: Yes, for example, in Section 5.

Q: Are there any I-69 opponents on the CACs? (USEPA)
A: All major groups have been invited. Some have agreed to participate and are represented. However, others have declined to participate.

Public/Private Partnerships **Kent Ahrenholtz/Tom Seeman**

- Major Moves:
  - Restrictions on I-69 from Martinsville to Indianapolis: "may not carry out any of the following activities under this (chapter/article) unless the general assembly enacts a statute authorizing the activity".
    - Approve location of a private-public partnership, other than I-69 between I-64 and I-465
    - Construct I-69 in Perry Township
    - Impose tolls on motor vehicles for use of I-69 between Martinsville and Indianapolis

    - Major Moves provided Legislative Approval for use of Public/Private Partnership for I-69
- Procurement Process:
    - Running Parallel to NEPA Process
    - INDOT Proposing to Utilize "Concession"
        - Design
        - Construction
        - Operation
        - Maintenance
    - RFQ to determine "Qualified Bidders"
    - RFP to identify Proposed Concessionaire
- Key P3 Members:
    - Technical Procurement Advisor
        - Design Oversight
        - Construction Oversight
    - Financial Advisor
    - Traffic & Revenue Consultant
    - "Concessionaire"
    - Once the Tier 2 process is completed, I-69 will move forward as one project.
- Environmental Commitments:
    - Technical Procurement Advisor
        - Post-NEPA Environmental Activities
        - Mitigation Right-of-Way
    - "Concessionaire"
        - Post-Permitting Activities & Issue Resolution
        - Project & Mitigation Design
        - Project & Mitigation Construction

Q: *Has the toll been decided? (USEPA)*

A: No final decision has been made. INDOT is seeking to develop I-69 as a toll project, with a public-private partnership (PPP). The PPP procurement process will occur in parallel with NEPA. The non-toll option will remain under consideration and will be documented in the Tier 2 DEISs.

C: *We need to make sure that we are all working together and everyone has information about the teams. (USFWS)*

A: All efforts will be made to that extent.

Q: *Who will be doing the Right-of-Way acquisition (for a PPP)? (USEPA)*

A: If a PPP is used, the responsibility for ROW will be shared by INDOT and the Concessionaire. Depending on the terms of the concession agreement, the concessionaire could handle the bulk of the ROW acquisition work.

Q: *If the tolling decision is being made in Tier 2, how will you account for the possibility that some sections will be tolled and others could be non-tolled? (USEPA)*

A: The traffic modeling will produce forecasts for two "book-end" scenarios: one with all six sections tolled, and one with all six sections non-tolled. If some are tolled and others non-tolled, the forecasts would fall between these two scenarios. The Tier 2 DEISs will

provide additional explanation of the methodology for tolled traffic forecasts and the justifications for that methodology.

Q: Will there be individual mitigation packages for each Tier 2 section?
A: Mitigation will be in each Tier 2 Section's DEIS and FEIS.

Section Status Reports

Section 1 Presentation **Roger Wade, Project Manager**

- Section 1 of the approved corridor is 13 miles long.
- Begins at junction of I64 / I-164 / SR 57 and continues northward to SR 64 west of Oakland City.
- Work tasks include environmental studies and analysis, preliminary design, and interchange locations and configurations
    - Tasks completed or nearly completed:
    - Initiate Public Outreach
    - Identify property owners
    - Survey for endangered Indiana Bats, Wetlands & Streams, Cultural Resources
    - Agency Coordination, including Purpose & Need and Alternatives Screening packages
    - Develop preliminary alternative alignments
    - Refine alternative alignments
    - Prepare Draft EIS with a preferred alignment recommended
    - Tasks ahead:
    - Public Hearing
    - Final Environmental Impact Statement
    - Record of Decision from FHWA
    - Alternative Evaluation Considerations
    - All Alignments: satisfy Purpose & Need, have some beginning and ending points, have interchanges with same crossroads, and approximately at same locations
    - Primary screening tolls were: potential social, economic, & environmental impacts
    - Public and Agency Input
    - Costs
    - Alternative 4 is the recommended preferred alternative.
    - Recommended Preferred Alternative 4 encounters:
    - Agricultural land in ROW - 630 acres (87.5% of total corridor area)
    - Residential relocations - 18
    - Business displacements - 0
    - Forests - 33 acres (8% of forest in corridor)
    - Open water (ponds) - 0.7 acres (4% of open water in corridor)
    - Wetland (emergent) - 1.3 acres (11% of wetlands in corridor)
    - Floodplain - 36 acres
    - Streams - 14,000 linear feet, incl. 2,900 linear feet relocation
    - Section 4(f) resources - 0 in corridor or otherwise impacted
    - Historic resources - 0 in APE
    - Archaeology resources - Phase 1a work in progress
    - Cost estimate - $200 million (in 2010 dollars)

Section 2 Presentation **Victor Modeer, Project Manager**

- Section 2 of the approved corridor is 29 miles long.
- Section 2 begins at SR 64 west of Oakland City and continues northward US 50 east of Washington.
- Work tasks:
    - Environmental studies and analysis
    - Preliminary design
    - Interchange locations and configurations
- Tasks completed or nearly completed:
    - Identifying property owners within/adjacent to the project corridor
    - Indiana bat surveys
    - Identifying the locations, sizes, and types of wetlands
    - Identifying cultural resources
    - Developing preliminary alternatives within the project corridor
    - Refining alternatives based on environmental analysis, engineering feasibility, input from regulatory agencies and the public and cost
    - Preliminary Draft Environmental Impact Statement
- Section 2 tasks ahead:
    - Selection of Preferred Alternative
    - Draft and Final Engineer's Report
    - Public Hearing
    - Final Environmental Impact Statement
    - Record of Decision from FHWA
- Preliminary Alignment Concepts
    - Environmental Impacts
        - Wetlands, Farmland, Forests, and Stream Crossings
    - Agency and public input
    - Engineering feasibility
    - Cost
- Notable Natural Features
    - 323 acres (5%) of wetlands within the corridor
        - Alternatives impact 27.8 to 50.7 acres
    - Primarily agricultural and rural residential lands
        - Alternatives impact 891 to 1,072 acres
    - 1,029 acres (15%) of forest within the corridor
        - Alternatives impact 231 to 330 acres
    - Major Streams
        - Keg Creek Patoka River, Mud Creek, East Fork of the White River, Veale Creek and Hurricane Branch
        - Ephemeral Intermittent and Perennial stream impacts range from approximately 35,700 feet to 49,200 feet

Section 3 Presentation **Dave Pluckebaum, Project Manager**

- Section 3 of the approved corridor is 26 miles long.
- Section 3 begins north of the US 50 Interchange east of Washington and it continues northward to US 231 northwest of Crane NSWC.
- Work tasks:
    - Environmental studies and analysis
    - Preliminary design

    - Interchange locations & configurations
- Tasks completed or nearly completed:
    - Identifying property owners within/adjacent to the project corridor
    - Indiana bat surveys
    - Identifying the locations, sizes, and types of wetlands
    - Identifying cultural resources
    - Developing preliminary alternatives within the project corridor
    - Refining alternatives based on environmental analysis, engineering feasibility, input from regulatory agencies and the public and cost
- Tasks ahead:
    - Selection of Preferred Alternative
    - Draft Environmental Impact Statement
    - Draft and Final Engineer's Report
    - Public Hearing
    - Final Environmental Impact Statement
    - Record of Decision from FHWA
- Local Purpose & Need
    - Increase personal accessibility for area residents
    - Improve traffic safety
    - Support local economic development initiatives
    - Purpose and Need will not be used in screening alternatives but will be used to select a preferred alternative
- Preliminary Alignment Concepts
    - Alternative Evaluation Considerations
        - Environmental impacts
            - Floodplain impacts
            - Forest impacts
            - Residential relocations
            - Neighborhood
        - Impacts to agricultural land
        - Agency and public input
        - Engineering feasibility
        - Cost
- Notable Natural Features
    - Primarily agricultural and rural residential lands
        - Approximately 89% of the corridor is agricultural
        - Residential relocations range from 13 to 30
    - 514 AC (6%) of forest within the corridor
        - Alternatives impact 77 to 144 AC
    - 167 AC (0.2%) of wetlands within the corridor
        - Alternatives impact 9.5 to 27.2 AC
    - Major Streams
        - North and South Forks of Prairie Creek, First Creek, and Doans Creek
    - Rest Area
        - Will probably be located between Elnora and the Odon area

C: Aesthetics should be considered in more thoroughly than was done in the Tier 1 EIS. This analysis should focus on the view of the road; the view from the road should not be as important in the NEPA analysis. (IDNR)

A: Comment noted. Aesthetics will be addressed in the Tier 2 DEISs as appropriate.

Q: What type of land will be used for the rest area? (INDOT)
A: Agricultural land will be used.

Section 4 Presentation **Bruce Hudson, Project Manager**

- Begins at US 231 and ends at SR 37, 26.5 miles long.
- Rolling to hilly terrain.
- The landscape is over 60% forested/undeveloped.
- Several creeks are present: Doan's Creek, Black Ankle Creek, Plummer, and Indian Creek.
- Section 4 Webcast/Conference Call scheduled for August 31st at 9:30 a.m. EDT covering the Screening Agency Review Package.
- Preliminary
    - Historic Properties
    - Wetlands
    - Cemeteries
    - Caves
    - Major Springs
- Screening
    - Lengths & Cost Estimates
    - Forests & Core Forests
    - Agricultural Lands & Prime Farmland
    - Managed Properties: Floodplains
    - Streams
    - Ponds
    - Subsurface Drainage Features
    - Residential & Business Displacements
- Recommendations
    - Mainline
        - Single Alignment Along Five subsections
        - Two Alignments Along One Subsection
        - Three Alignments Along One Subsection
        - Four Alignments Along One Subsection
    - Minor Alignment Shifts
    - Hybrid Alignment Along Subsection E
    - Interchanges
        - US 231 & SR 37
        - One or two Intermediate Interchanges (SR 45, SR 54, County Line)
- Technical Studies
    - Stream Evaluations (QHEI/HHEI)
    - Wetland Functional Assessments (InWRAP)
    - Karst Study
    - Cave and Springs Biota Survey
    - Historic Effects
    - Archaeological Records Review
    - Hazardous Materials Screening
    - Farmland Conversion
    - Mainline and Interchange Engineering Development

Section 5 Presentation **Mary Jo Hamman, Project Manager**

- Local Purpose & Need identified in Tier 2 for Section 5:
  - Complete Section 5 of I-69 between Victor Pike South of Bloomington and SR 39 in Martinsville
  - Reduce existing and forecasted traffic congestion
  - Improve traffic safety
  - Support local economic development initiatives
- Studies and Status
  - Cultural Resources
    - Architectural (Above ground resources)
      - Historic Properties Report – submitted
      - COE in progress
    - Archaeological (Below ground resources)
      - Field review – September 2004
      - Background Report – submitted
    - Cemeteries
      - Baseline Report – submitted
  - Natural Science
    - Threatened and Endangered Species
      - Indiana bat mist netting report – completed
      - Mussels, crayfish, and fishes – report pending
    - Wetlands – fieldwork completed, report in progress
      - Fieldwork completed – report in progress
    - Biological Pedestrian Survey
      - Fall and Spring Survey – completed
    - Stream Analysis
      - Fieldwork completed – report in progress
    - Floodplains/Floodways Analysis
      - Updated and incorporated
  - Physical Science
    - Karst Report – submitted July 2006
    - Hazardous waste, groundwater, geology, oil and gas, mines – in progress
  - Miscellaneous – in progress
    - Utilities relocation coordination
    - Air Quality
    - Noise
- Alternative Development and Screening
  - Incorporation of Tier 1 Corridor and evaluation of Tier 1 access issues
  - Alternative development criteria include: P&N, spacing, functional classification, cost, public input, INDOT long range plan, et al.
  - Environmental constraints include: land use, environmental justice, karst, streams, wetlands, floodplains, et al.
  - Community and agency outreach

Section 6 Presentation **Tim Miller, Project Manager**

- Section 6 is 26 miles.
- Section 6 Local Purpose & Need:
  - Complete Section 6 located between SR 39 in Martinsville and I-465 in Indianapolis
  - Reduce forecasted traffic congestion
  - Improve traffic safety
  - Facilitate and maintain east/west connectivity
- Continuous public involvement/outreach
- Status of Environmental Studies:
  - Wetland & Stream study – completed; additional studies will occur in September 2006 for areas outside the study corridor within ROW of three reasonable alternatives
  - Threatened and Endangered Species surveys – completed
  - Fish and Mussel surveys – complete
  - 1 historic district and 7 eligible properties located within APE – identification of Effects Report in progress
  - Archaeological resources (below ground) – previously recorded and literature review completed Fall 2004 – Draft background report completed
  - Continued baseline fieldwork and coordination with stakeholders in the study corridor, including utilities, communities, landowners, etc.
- Alternative Development and Screening
  - Incorporation of Tier 1 Corridor and Evaluation of Tier 1 access issues
  - Alternative development criteria includes: P&N, spacing, functional classification, cost, INDOT long range plan, traffic volume, et al
  - Environmental Constraints include: land use, environmental justice, cemeteries, wetlands, utilities, parks, schools, farmlands, forests, et al

Q: *What are the wetland impacts? (IDEM)*
A: The wetland impacts in Section 6 are expected to be 20-25 acres or less. More specific calculations will be presented in the Tier 2 DEIS.

Q: *Is there a possibility of a rest area which includes traveler services such as restaurants?*
A: We are currently only looking at rest areas. Current legislation does not allow for additional amenities in a rest area.

C: *Section 5 & 6 need to address urban forests (USEPA).*
A: Impacts to forests in urban areas will be addressed in the DEIS documents for Sections 5 and 6.

Q: *How will you handle invasive weeds?*
A: This will be discussed in the DEIS on how to handle the spread of weeds, etc.

C: *Need to address animal crossings and their design. (IDNR)*
A: INDOT and FHWA will work with appropriate agencies to address this aspect of the study.

Q: *What is the status of the Community Planning Grants (a Tier 1 mitigation commitment)? (USEPA)*

A: A Phase I contract has been signed with a consultant. The consultant is working with communities to plan for the grant process. Phase II will include the actual distribution of the community planning grants.

Introduction to Afternoon Session **Tom Cervone, Ph.D.**

Cumulative Impact Analyses **Sara Dyer**

- Purpose of this session: to provide attendees with the current thinking and efforts to address cumulative impacts within each Tier 2 Section and also to give everyone a chance to ask questions and give input on the issues and resources.
- Cumulative Impact Analysis (CIA):
  - Tier 1 FEIS addressed cumulative impacts of the entire I-69 Evansville to Indianapolis project as a whole, in the context of the 26- county Tier 1 study area. Cumulative impacts for three resources (farmland, forests and wetlands) were analyzed in Tier 1.
  - The findings from the Tier 1 analysis concluded that losses due to I-69 would account for a very small percentage of overall losses for these three resources.
- Geographic Scope
  - CIA in Tier 2 EIS is more localized than the Tier 1 CIA
  - Each Tier 2 EIS will have a different geographic scope for its CIA
- Methodology
  - A memo to all resource agencies was included in handout packages: the memo outlines the 9 basic steps that will be used for the Tier 2 evaluations. All comments should be submitted by September 1, 2006.
  - Proposed methodology will use input from local expert land use panels and various land use models (traffic modeling and traffic analysis zone data) to help identify cumulative impacts that are the result of the I-69 project.
  - Tier 2 documentation will present detailed CIA for key resources impacted in each section.
- FHWA Guidance:
  - "CIA is resource specific and generally performed for the environmental resources directly impacted by a Federal action under study, such as a transportation project. However not all of the resources directly impacted by a project will require a CIA, but determined on a case-by-case basis early in the NEPA process, generally as part of early coordination or scoping".
- EPA Guidance:
  - "While a broad consideration of resources is necessary for the adequate assessment of cumulative impacts, the analysis should be expanded for only those resources that are significantly affected. In similar fashion, ecosystem components should be considered when they are significantly affected by cumulative impacts. The measure of cumulative effects is any change to the function of these ecosystem components".
- Resources
  - After initial analysis and coordination with the EEACs in each section, INDOT and FHWA agreed that the following resources were most likely to require a detailed CIA:
    - Farmland
    - Forest
    - Wetlands

        - Streams and Floodplains
        - Wellhead Protection Areas
        - Karst and Groundwater
- Section Update:
    - Section 1
        - Only resource selected for detailed CIA is farmland.
        - Other resources (wetlands, streams, etc.) were evaluated for cumulative effects, but these resources are not expected to be significantly impacted by the I-69 project.
    - Section 2
        - Only resource selected for detailed CIA is farmland.
        - Other resources (wetlands, forests, streams, etc.) would be affected directly by building I-69; these resources would not be significantly affected by indirect development, based on information received from a local expert land use panel, therefore not included in the cumulative impact evaluation.
    - Section 3
        - Only resource selected for detailed CIA is farmland.
        - Other resources (wetlands, streams, etc.) were evaluated for cumulative effects, but these resources are not expected to be significantly impacted by the I-69 project.
        - Wellhead Protection area analysis will not be included as part of the cumulative discussion, but wellhead protection plans will be obtained from utilities that contain wellhead areas.
    - Section 4
        - Resources selected for detailed CIA are farmland, forest, karst/groundwater.
        - Farmland occurs throughout the project area.
        - Forest is primary land cover and is found on the moderate to steep terrain
        - Karst features (caves, sinkholes, etc.) are abundant throughout the eastern one-half of Section 4. Karst features in Monroe County are protected by local ordinance which requires a karst investigation for any proposed development.
        - The three resources may be significantly impacted as a result of the proposed action. The opinion of the land use expert panel is that potential development will be sparse and limited.
        - Very few wetlands in the section, and those wetlands primarily are narrow riparian wetlands adjacent to streams.
    - Section 5
        - Resources selected for detailed CIA are farmland, forest, wetlands, streams/floodplains (water quality only), karst (water quality only)
        - Due to the nature of these important resources and the likelihood of direct impact, these resources will be included in evaluations for cumulative analysis.
        - There is a great deal of development taking place and being planned along SR 37. The cumulative impacts resulting from proposed I-69 and private development plans will be analyzed to determine impacts to these resources.
    - Section 6
        - Resources selected for detailed CIA are farmland, forest, wetlands, and streams/floodplains.
        - These resources are significant resources that may be significantly impacted within the project limits.
        - There is a great deal of development taking place and being planned along SR 37.

- The cumulative impacts resulting from proposed I-69 and private development plans will be analyzed to determine impacts to these resources.
- Wellhead Protection area analysis will not be included as part of the cumulative discussion, but wellhead protection plans will be obtained from utilities that contain wellhead areas.

- Attendees were informed to submit comments on the Cumulative Impacts memo mentioned earlier in 30 days (September 1, 2006).

Q: *Why has so much importance been given to the local expert land use panels? (USFWS)*
A: We have found that the best and most accurate information about local land use is available from local officials, developers, and others. The expert panels provide a way to gather information from these individuals. The DEIS will describe the expert panel process. In addition, the land use panels served only to ***allocate*** growth forecasted by a economic forecasting model. This model is the same one used to forecast growth in population and employment in the Tier 1 FEIS.

Q: *What guarantee do you have that no one will ask for a permit to build in a sensitive area?*
A: There can be no such guarantee. The panels are assessing what they feel is likely to occur in the future.

Q: *Why isn't wellhead protection a part of the cumulative impact process?*
A: Wellhead protection areas are being analyzed but at this time it doesn't appear that we are significantly impacting the wellhead protection areas in Sections 3 and 6, and future development plans do not appear to be impacting these areas.

Q: *Define the distinction between indirect and cumulative impacts. (IDNR)*
A: Indirect impacts are those caused by development induced by the project; indirect impacts are studied for all resources. Cumulative impacts are all direct and indirect impacts of the project, plus the effects of all other reasonably foreseeable actions. Cumulative impact analysis focuses on significant issues, rather than being performed for all resources. The scope of the cumulative impact analysis for this project is being developed in consultation with resource agencies.

Q: *Have we looked at the degree to which some resources already have been impacted in the past centuries? (IDNR)*
A: Our cumulative impact analysis includes consideration of past trends, including the amount of a resource that has been lost over time. The level of detail of this work depends on the amount of existing data that is available.

Q: *Why aren't wetlands addressed in the cumulative impact analysis for Section 2?*
A: The impact on wetlands in Section 2 is not considered significant. *(Note: subsequently the determination was made to include wetlands in an analysis of cumulative impacts for the Section 2 DEIS, in response to EPA's request).*

C: *You should have an analysis that sums up all impacts to all resources in all sections. (USEPA)*
A: An overall calculation was performed in Tier 1 for the corridor as a whole. The impacts analysis in Tier 2 will be completed on the Tier 2 sections.

C: *Information gathering on future land use trends needs to rely on more than just the land use expert panel. (IDNR)*
A: The analysis is not based solely on input from the expert panels. Additional input from the public will be considered in each section.

Q: *Will we (the agencies) be able to limit access on the roads that come up?*
A: This is something that has to be looked at. However, land use is basically a local and county decision, and the ability of state agencies to intervene in these decisions is limited.

C: *Wording on the impacts needs to be more specific and not glossed over so much. (IDNR)*
A: Appropriate wording will be used in the EISs and all efforts will be made to address issues in an environmentally sensitive manner.

C: *We must consider the visual effects of light pollution. For example, the Milky Way no longer is visible at night several miles from the newly-constructed SR 46 extension between Bloomington and Ellettsville. (IDNR)*
A: Comment noted.

Interagency Water Resources **Jeremy Kieffner/Jamie Sias**

- Coordination with Agencies:
  - Field visits with IDEM and USACE have been completed in each Section.
  - Field work is completed in all Sections
  - Existing 1993 Biota Surveys were used in Sections 1 - 4
  - Additional Biota Data – has been gathered as part of Tier 2 Studies
  - Formal data requests – sent to IDNR, IDEM, and USFWS
  - Data received to date – from IDNR, IDEM, and USFWS
- Technical Reports
  - Methodology: Draft Reports in the DEIS may not include preferred alternative wetland delineations. Progress Reports for each Section are below:
    - Section 1
      - Wetlands: Expected to impact 1 to 5 acres
      - Streams: Majority impacted are intermittent and ephemeral
      - Minimization Efforts: Corridor narrows at the crossing of Pigeon Creek and its perennial tributary to avoid wetlands and forests; proposed wildlife corridor beneath the bridge over the two perennial streams; alternatives were designed to cross streams at a perpendicular angle wherever possible to reduce stream and floodplain impacts; alternatives were shifted to avoid lengthy stream relocations wherever possible
    - Section 2
      - Rivers & Streams: Major stream crossings at Keg Creek, Patoka River, Mud Creek, East Fork of White River, Veale Creek, and Hurricane Branch; Intermittent and perennial streams range from small to large; most headwater habitat streams contain no water or only isolated pools; silt and sand were the predominant substrates identified
      - Wetlands: Expected to impact 30 to 35 acres

    - Minimization Efforts: As appropriate, shifting of the alternatives to avoid large wetland complexes, bridging floodplains and oxbows, minimizing channel clearing and relocation, and utilizing erosion control devices; FHWA and INDOT have committed to bridging the entirety of the floodplains of the Patoka River and Flat Creek
- Section 3
    - Wetlands & Streams: Wetland impacts are anticipated to be between 10 to 15 acres
    - Alternatives were created to avoid wetland areas where possible and to minimize the impacts where avoidance was not possible
    - InWRAP study showed that majority of wetlands are of medium quality with those in the First Creek basin are of medium to poor quality
    - QHEI/HHEI study showed that majority of streams are of low quality
    - Alternatives were designed to cross streams at a perpendicular angle to minimize impacts
    - Alternatives were developed and adjusted to avoid the large forested wetlands adjacent to South Fork of Prairie Creek as well as other wetland areas
- Section 4
    - Wetlands: Anticipated to impact 10 to 15 acres. Many wetlands are in riparian areas which span the entire corridor; some impacts are unavoidable.
    - Alternatives being developed to avoid 70% of the wetlands identified within the corridor
    - InWRAP performed on wetlands within alternatives showed the majority of wetland impacts are of fair quality wetlands
    - Majority of streams crossed are intermittent and ephemeral. Section 4 does cross 7 perennial streams
    - QHEI evaluations performed at all crossing locations indicated that all of the perennial streams crossed are warmwater habitat streams; stream qualities are low to medium
    - Intermittent and ephemeral streams: QHEI Evaluations performed where stream watershed exceeded 1 square mile at crossing location; these indicated that they are of low to medium quality
    - Minimization: Maximum allowable grades, minimized fills; bridge structures; preserve/provide riparian buffers; minor shifts in alignment to avoid wetlands wherever possible; design alternatives to cross streams at a perpendicular angle wherever possible
- Section 5
    - Streams: The biota surveys completed in Section 5 identified no federal or state listed aquatic species; all streams classified as warmwater fisheries; 64% of streams assessed have been previously impacted by SR 37 and/or other roads present within the Study Corridor; all streams exhibit some degree of biological or physical impairment due to commercial, industrial, residential, or agricultural activities.
    - Wetlands: Anticipated to impact 10 to 15 acres
    - No Class III wetlands will be impacted by the alternatives carried forward for detailed analysis
    - No farmed wetlands or farmed wetland pastures were identified

        - The majority of the wetlands assessments with InWRAP were rated as "medium" quality, only 2 were rated as "good" quality
    - Section 6
        - Wetlands were identified in a 2,000 foot Study Corridor
        - Additional wetland and stream assessments will be conducted this fall for areas outside the 2,000 foot Study Corridor for impacts caused by access roads
        - Wetlands: Anticipated to impact 20 to 25 acres
        - NWI wetlands were used in conjunction with the detailed wetland determinations using InWRAP to depict the quality of the wetlands within the Study Corridor
        - Alternatives were created to avoid wetland areas where possible and to minimize the impacts where avoidance was not possible
        - Most streams identified are drainage ditches or smaller headwater streams leading to the larger named streams (i.e. Indian Creek, West Fork Clear Creek, Stotts Creek)
        - Heavy dominance of existing SR 37, agriculture, and urban development in the watershed is evidenced by the modification of most of the streams in the Study Corridor
        - QHEI/HHEI showed that the majority of the streams within Section 6 have been modified and are of low to medium quality
        - Class I is the lowest quality of stream habitat
        - Biota studies in Section 6 identified no federal or state listed aquatic species
- Watershed Permitting Process
    - Coordination with Permitting Agencies
        - Coordination meetings have been held with each permitting agency (IDNR, IDEM, USACE) to discuss the permitting processes
        - Tier 2 Sections will apply for permits individually
        - Various levels of design detail will be used for permit applications; the level required will be determined in consultation with permitting agencies
        - We are working with INDOT and the EEACs at the current time to identify Environmentally Sensitive Water Resource areas within the corridor. These are the areas where the USACE stated that additional design work may be necessary
            - We plan to "over mitigate" in these areas to offset impacts to these specific areas with the assumption that the USACE will be comfortable with the level of design were are using in these areas, and not request additional design work be completed
            - Most, if not all of these areas will require IDNR Construction in a Floodway Permits and therefore, hydraulic studies will need to be completed in these areas anyway which will require additional design
            - Once INDOT and the EEACs have reviewed the list of Environmentally Sensitive Water Resources areas we will be sending them to the regulatory agencies for review and concurrence
- Mitigation
    - Mitigation Site Primary Focus Areas
        - 13 primary mitigation site focus areas have been identified
        - Mitigation may be complete outside of these 13 sites if suitable mitigation cannot be completed within the 13 sites

- INDOT must have purchase property from willing sellers for mitigation sites
- Environmentally attractive areas have been identified within these 13 sites and property ownership information is being researched in these areas
- Mitigation sites should be developed to incorporate multiple mitigation requirements

Q: *Can you use eminent domain to purchase property for mitigation? (USEPA)*
A: INDOT policy is that the owner has to be willing, and the price has to be at fair market value. It is unknown as to whether INDOT could prevail in an eminent domain case for mitigation property, as the proof of public need/use would be great.

Q: *What and how was InWRAP used? (IDEM)*
A: We did not use analysis procedures developed for northern Indiana. We worked with Taylor University to develop an analysis procedure customized for Southwestern Indiana.

Q: *What is the mechanism to add additional primary mitigation sites?*
A: We will attempt to obtain mitigation property within the initially-identified 13 sites; other sites will be identified if the original 13 cannot provide enough suitable land for mitigation.

Q: When will the *Wetland Assessment information for Section 6 be out?*
A: This is being worked on now, no specific date yet.

C: *Please keep USEPA aware of all Water Resource meetings. (USEPA)*
A: INDOT and FHWA will keep USEPA and other agencies aware of all Water Resource meetings.

C: *Near the town of Waverly there is land well-suited for mitigation. Would like to see all agencies brought together to start to discuss mitigation and impacts, and not just meetings with individual agencies. (IDEM)*
A: Thank you and we will contact IDEM for additional information for mitigation in the Waverly area, and work with all other agencies, as appropriate, for mitigation sites.

Section 4 & 5 Karst Session

Section 4 Karst **Jason Krothe**

Overview

- Dye tracing tests of karst features determined groundwater flow paths in the project area: twenty-eight (28) dye tracing tests were conducted and 31 groundwater flowpaths were identified. Eight (8) groundwater flowpaths were shown to cross the Section 4 corridor; four dye traces showed flowpaths to multiple discharge points from a single injection point. The lengths of groundwater flowpaths vary greatly within Section 4. Over 200 dye tracing sampling locations were established, and over 5000 samples were analyzed
- Additional studies were proposed for select features, including additional dye tracing and biota surveys

- Background resources include: Indiana Geological Survey, Indiana Cave Survey, Indiana Karst Conservancy, National Speleological Society, and local karst experts knowledgeable about the area.

Karst Feature Mapping

- Field checks were conducted to verify and map previously recorded karst features
- Field reconnaissance was conducted to determine the presence of, and map previously unrecorded karst features
- Field mapping was conducted within the 27-mile length of Section 4 Corridor and appropriate areas outside the corridor to identify potentially related karst features that may be associated with the corridor via karst groundwater flowpaths or surface run-off
- Features identified within the corridor include: 14 caves, 296 sinkholes, 19 swallets, 6 sinking streams, and 113 springs

Important Features

- Cave, Cave, Cave, Cave, Cave, Spring, Cave, Cave, Interchange Area, Karst

Conclusion

- Karst feature mapped:
  - 63 caves, 14 within the corridor
  - 984 sinkholes, 296 within the corridor
  - 62 swallets, 19 within the corridor
  - 341 springs, 113 within the corridor
- Further studies:
  - Additional dye tracing studies
  - Biota surveys on selected karst features

Q: Are the biota studies ready for review?
A: No we are still working on these.

Q: Will additional studies be done?
A: Yes, with the concurrence of INDOT and FHWA.

Q: What do you look for in runoff water?
A: Contaminants, et al.

Section 5 Karst **Jim Peyton**

Setting

- Three areas of relevant karst in Section 5: Bloomington, Bloomington North, and Simpson Chapel
- 60 % of relevant karst already has been developed

- Local planners anticipate an additional 12.6% development by 2030 without construction of I-69

Methodology

- Karst investigations are consistent with the requirements for such investigations from the 1993 Memorandum of Understanding, Items 1 through 4
- Public and Private Research Sources included: Indiana Geological Survey, Indiana Cave Survey, karst professionals, Indiana University, Bloomington repositories/libraries City of Bloomington, previous INDOT studies, USDA et al.
- Results:
    - Three distinct areas of karst were identified for a total of approximately 11.5 linear miles of karst along SR 37
    - 374 sinkholes, 5 losing/sinking stream basins, and 27 filled or appreciably modified sinkholes were documented within or adjacent to the 2,000 foot corridor
    - Field investigations revealed 164 springs with 138 previously unreported; relevant springs included 10 springs with flows of 20 to 600 gallons per minute (gpm) and 113 springs with 1 to 10 gpm
    - Previously unreported cave and 2 karst windows were identified and documented
    - 197 dye trace sampling stations, 2,800 samples analyzed and 28 dye introductions demonstrated 38 karst groundwater flowpaths and 18 relevant dye traces from other sources were evaluated for a total of 56 groundwater flowpaths
    - Flow velocities ranged from 20 to over 48,000 feet per day and flowpaths ranged from 315 feet to one mile
    - 11 groundwater flowpaths illustrated transfer across sub-watershed boundaries and 9 karst flowpaths were shown to cross under SR 37
    - The Illinois Central Spring recharge area was revised, and preliminary recharge areas were identified for Cave
    - Four areas of special concern were identified: and Superfund sites, Street Interchange, and Cave
    - Following selection of a preferred alternative Annual Pollutant Load Estimates for pre, during, and post construction will be completed
    - No federally listed species were identified in Section 5 caves; however, three state listed threatened/endangered species were identified from cave biological surveys at and caves
- Summary and Conclusion
    - Significant current and planned development within Section 5 regardless of I-69.
    - Although some particular karst features may be avoided, karst geology cannot be avoided within the Section 5 corridor
    - None of the dye traces demonstrated discrete recharge from insurgence features without surface expression
    - The only significant cave system linked hydrologically to the Section 5 corridor is the Cave System
    - Areas of special concern:
        - Landfill – PCB leakage/runoff
        - Interchange at Street and SR 37 – buried sinkholes
        - Cave – existing and planned development within the recharge area

C: *You want to underscore the importance of Cave; there are G1 - G3 rated species ((Fontigens cryptica), the Indiana cave springtail (Sinalla alata), and a spring plant that was found in the cave. (IDNR)*

A: It is correct that Cave is listed as an Outstanding cave in the Indiana Heritage Database, and has state listed species. The preferred alternative does not directly affect the entrance nor its subterranean caverns. Presently, roadside drainage is directed to Cave, but with I-69, opportunities exist for detaining and filtering roadway contaminants. The possibility of diversion of run-off is another option. INDOT and FHWA are committed to working with the agencies for avoiding and minimizing impacts to Cave, and improving conditions from today. Adjacent to SR 37 in this area is a hospital that is being constructed. Run-off from the new Monroe County Hospital complex are planned to ultimately enter into Cave which is part to the Cave system.

Q: *Did you figure out where the stormwater is going? (USEPA)*

A: Drainage areas were determined for each of the karst insurgance features (sinkholes and sinking streams) within the immediate area of the highway upgrades. Stormwater/runoff can also enter the karst environment via buried insurgance features that may "re-open" with changes in surface drainage patterns or engineered drainage systems.

In addition an initial recharge area for the Cave system was determined as well as larger area "maximum recharge area" based on topography and other dye trace results. Stormwater from within this recharge area was demonstrated to enter the Cave system from dye traces, cave maps, and local topography.

Questions/Comments taken from The Index Cards distributed at the meeting:

C: *The EISs should provide detailed information about aquatic habitat for pollutant intolerant fish. The EISs should also describe cold water streams (or trout streams) in detail. In addition, the EISs should provide a cumulative impact analysis for impaired streams. (e.g. – streams impaired by siltation should include a CIA analysis accounting for siltation impacts from the project – if possible). (USEPA – Newton Ellens)*

A: The EIS's will include discussions on aquatic habitat. There are no cold water streams (trout streams) in the project area. All streams are warm-water from QHEI evaluations. Some HHEI evaluations show spring fed ephemeral headruns.

C: Under "methodology" the impact is glossed over as being insignificant overall to the area. You should also acknowledge that this is the largest construction project in Indiana in the last 30 years and its impacts also the largest. (IDNR – Dan Ernst)

A: The EISs will include a description on the magnitude of the study.

Q: *What is the threshold for "significant development"? Why is forest not considered for further analysis in the cumulative impacts analysis in Section 2? (IDNR – Dan Ernst)*

A: *(Note: Following the Overall Agency meeting and based on comments received, a decision was made to add wetlands, forests, and streams/floodplains to the detailed cumulative analysis for Section 2. Wetlands were also added to the detailed cumulative analysis for Section 3.)*

Q: Is the driver for further analysis the potential indirect affects? Is that why forests in Section 2 (which are greater than Section 6) are not considered for further analysis? (IDNR – Dan Ernst)

A: *(Following the Overall Agency meeting and based on comments received, a decision was made to add wetlands, forests, and streams/floodplains to the detailed cumulative analysis for Section 2. Wetlands were also added to the detailed cumulative analysis for Section 3.)*

Q: Will an assessment be made of Direct, Indirect, and Cumulative impacts to 8-digit watersheds from I-69? (USFWS – Andy King)

A: Streams and floodplains in smaller watersheds will be used in the analysis which will give a more comparable description. Meetings will be held with USFWS and other agencies to determine the appropriate watershed size.

Q: Will resource agencies be able to recommend limited access from roads that lead from I-69 interchanges to try to preclude indirect impacts such as housing developments and shopping malls in nearby forests and natural areas? (IDNR – John Bacone)

A: Presently, representatives are working with IDNR on this issue.

C: Please send a copy of biological surveys – plant and animal – for all sections. Have not seen, was even unaware of many if not most of survey work being done. (IDNR- Hank Huffman)

A: *(Note: On August 8, 2006, INDOT and FHWA hand-delivered all special reports to IDNR. Such correspondence was appropriately documented with all appropriate IDNR departments*.)

C: Was unaware of survey work being done on Bean Blossom, Griffy Creeks, and other creeks. Have not seen any Indiana Bat survey work. Have seen mussel, fish, plants survey for Patoka crossing and Jerry Lewis report on Bloomington section. (IDNR – Hank Huffman)

A: *(Note: Reports were hand-delivered to IDNR on August 8, 2006. At that time, representatives went over these reports for use by IDNR.)*

Meeting Conclusion/Closing Remarks **Tom Cervone, Ph.D.**

Details discussed in this meeting are subject to change, but are a reflection of how things stood at the close of the meeting.

These meeting minutes represent my understanding of the events that occurred. Carol Hood/PMC

Overall Agency Coordination Meeting

I-69 Evansville to Indianapolis Tier 2 Studies

August 1, 2006

Opening Remarks

- Welcome
  - *Tom Seeman, Indiana DOT*
  - *Tony DeSimone, FHWA-IN Division*
- Introductions

Agenda

- Introductions & Opening Remarks
- Project Schedules
- Tier 1 EIS Reevaluation & Comments
- Tier 2 Agency Review Pac
- Public/Private Partnerships
- Section Project Status
- Questions/Issues

Schedule Update

Kent Ahrenho

I-69 Project Managemen

Revised Schedule

- Reevaluation of Tier 1 EIS
  - *Tier 1 EIS Re-evaluation Report – Issued June 20, 2006*
  - *Official Comment Period – Deadline July 24, 2006*
  - *Amended Tier 1 Record of Decision – mid to late August 2006*

Revised Schedule

- Refinement of Tier 2 Studies
  - *Delay in Issuance of Draft EISs*
  - *Incorporation of Toll Option*
  - *Staggered EIS Reviews*
- Accelerated Project Development Activities
  - *Permitting*

Tier 1 Reevaluation

Michael Grov

I-69 Project Managemen

I-69 Tier 1 EIS Reevaluation

- Two basic questions
  1. Would tolling have changed Tier 1 choice?
  2. Does tolling have ***significant*** impacts not considered in the Tier 1 FEIS?
- Why consider tolling now?
- Is this analysis the “last word?”

Why Consider Tolling Now?

- Major Legislative Changes
  - *Six-year federal transportation bill (SAFETEA-LU) signed August 10, 2005*
  - *Much greater flexibility to mix toll and non-toll funding*
  - *<u>Not an option</u> during Tier 1*

Why Consider Tolling Now?

- Major Toll Collection System Improvements
  - *"Open road" tolling – fully electronic*
  - *Eliminate toll booth congestion and backups*

Tier 1 Reevaluation was *not* the "[redacted]ord."

- A "high altitude" review of Toll Options
  - *Uniform toll rates*
  - *No variation by location or time*
- Comparison at a Tier 1 ("Big Pictu[redacted]l of detail
- More detailed Tier 2 Studies [redacted]
- "Toll Funding" decision as part of [redacted]

I-69 Tier 1 EIS Reevaluation – *Highlight*[redacted]

- Toll Option Performance Evaluation
  - *Tier 1 goals and performance measures*
  - *More current traffic forecasting model*[redacted]
    - *Year 2030 forecast year (vs. Year 2025 in Tier 1)*
    - *Significant technical enhancemen*[redacted]
    - *Show non-toll performance along*[redacted]

I-69 Tier 1 EIS Reevaluation – *Highlight*[redacted]

- Comparison with Non-Toll Option
  - *Performance on some goals unaffected by tolling*
    - *Evansville-to-Indianapolis travel time*
    - *Personal accessibility*
  - *Performance on other goals red*[redacted] *tolling*
    - *Interstate and international freight*[redacted]
    - *Crash reduction*
    - *Congestion relief*
    - *Economic development*

I-69 Tier 1 EIS Reevaluation – *Highlight*[redacted]

- Impact Changes from Non-toll Option
  - *Traffic Impacts*
    - *More traffic on other roads*[redacted]
    - *Near US 41 and SR 37 – m*[redacted]*significant*[redacted]
    - *Some roads have more traff*[redacted]
    - *Only a few experience a change in the level of service*[redacted]

I-69 Tier 1 EIS Reevaluation – *Highlight*[redacted]

- Impact Changes from Non-toll Option
  - *Environmental Justice Impacts*
    - *Identifies potential issue to lo*[redacted]*e persons*
    - *Would exist for most altern*[redacted]*sidered*
    - *Will need to be evaluated in*[redacted]

I-69 Tier 1 EIS Reevaluation – *Highlight*[redacted]

- Impact Changes from Non-toll Option
  - *Air Quality Impacts*
    - *Repeats Tier 1 assessment* [redacted]
    - *Emissions in Vanderburgh* [redacted] *Marion counties remain within SIP budget* [redacted]
    - [redacted] *additional issues for Tier 2*
      - *Additional areas in non-conformance* [redacted]
      - *Additional emissions analyses (PM 2.5, 8-hour ozone)* [redacted]

I-69 Tier 1 EIS Reevaluation – *Highlight*[redacted]

- Impact Changes from Non-toll Option
  - *Noise Impacts*
    - *Noise impacts diminished fro*[redacted]*oll*
    - *Less traffic = less noise*

I-69 Tier 1 EIS Reevaluation – *Highlight*[redacted]

- Impact Changes from Non-toll Option
  - *Indirect & Cumulative Impacts*
    - *Non-toll is "worst case"*[redacted]
    - *Development in toll case w*[redacted]*d be no greater than non-toll*[redacted]

Tier 1 Reevaluation – Overall Findings

- Tolling "compresses" performance range of alternatives
- Alternative 3C remains the preferred alternative
  - Best performer on project goals
  - Lowest aquatic-resource impacts among alternatives satisfying project purposes
- No new significant impacts identified

I-69 Tier 1 EIS Reevaluation – *Other Iss*

- Clarification of Tier 1 ROD
  - *Location of interchanges and access roads outside of corridor boundari*
  - *Commitment regarding an interchange at Monroe/Greene County lin*
  - *Commitment to bridge Patoka River floodplain*

Agency Review Packages

Michael Grov

I-69 Project Managemen

Agency Review Packages

- Purpose & Need/Preliminary Alternatives Package
- Preliminary Alternatives Analysis and Screening Package
- Preferred Alternative and Package – *included within Draft EIS*
- Responses to Comments – *separate coordination with agencies*

I-69 Public/Private Partnership

Tom Seeman & Kent

INDOT & I-69 P

Major Moves

- Restrictions on I-69 from Martinsville to Indianapolis
  - "…may not carry out any of the following activities under this [chapter/article] unless the general assembly enacts a statute authorizing the activity:
    - Approve location of a tollway, other [illegible] between I-64 & Martinsville
    - Carry out construction for I-69 in [illegible]
    - Impose tolls on motor vehicles for use of I-69 between Martinsville and Indianapolis
- Major Moves provided Legislative Approval for use of Public/Private Partnership for [illegible]

Procurement Process

- Running Parallel to NEPA Process
- INDOT Proposing to Utilize “Concession”
  - *Design*
  - *Construction*
  - *Operation*
  - *Maintenance*
- RFQ to determine “Qualified Bidders”
- RFP to identify Proposed Concessionaire

New P3 Players

- Technical Procurement Advisor
  - *Design Oversight*
  - *Construction Oversight*
- Financial Advisor
- Traffic & Revenue Consultant
- "Concessionaire"

Effect on Environmental Commitm[redacted]

- Technical Procurement Advisor
  - *Post-NEPA Environmental Activities*
  - *Mitigation Right-of-Way*
- "Concessionaire"
  - *Post-Permitting Activities & Issu[redacted]*
  - *Project & Mitigation Design*
  - *Project & Mitigation Construction*

Questions/Comments

Section Status Reports

Environmental and E

Assessment Cons

Section 1

Qk4

Environmental and Engineering Assessment Consultant

Tier 2—Section 1

Section 1 of the approved corridor. . .

- Is 13 miles long
- Begins at junction of I-64 / I-164 / SR 57 north of Evansville
- Continues northward to SR 64 west of Oakland City

Work tasks for Section 1 include . . .

- Environmental studies and analysis
- Preliminary design
- Interchange locations & configurations

I-69 Tier 1 EIS Reevaluation – *Highlight*[redacted]

- Comparison with Non-Toll Option
  - *Performance on some goals unaffected by tolling*
    - *Evansville-to-Indianapolis travel time*
    - *Personal accessibility*
  - *Performance on other goals red*[redacted] *tolling*
    - *Interstate and international freight*[redacted]
    - *Crash reduction*
    - *Congestion relief*
    - *Economic development*

Tier 2—Section 1 (cont.)

Section 1 tasks [redacted]d or nearly completed include . . .

- Initiate Public Outreach
- Identify property owners
- Survey for endangered Indiana Bats, Wetlands & Streams, Cultural Resources
- Agency Coordination, including Purpose & Need and Alternatives Screening packages
- Develop preliminary alternative alignments
- Refine alternative alignments
- Prepare Draft EIS with a preferred alignment recommended

Section 1 tasks ahead include . . .

- [redacted]
- Final Environmental Impact Statement
- Record of Decision (ROD) from FHWA

Tier 2—Section 1 (cont.)

Preliminary Alignments in Each Segment—

South — 1-S1, 1-S2, 1-S3, 1-S4
Central — 1-C1, 1-C2, 1-C3
North — 1-N1, 1-N2, 1-N3

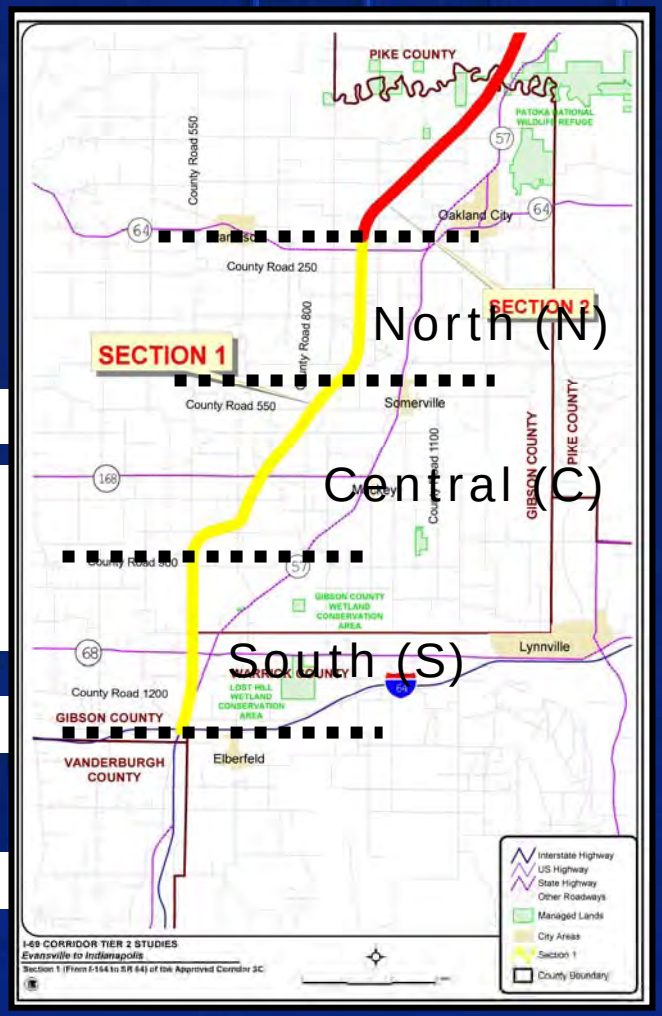
Alternative Evaluation Considerations—

All alignments in Section 1. . .

- **Similarly satisfy Purpose and Need**
- **Have same beginning & ending points**
- **Have interchanges with same crossroads, approximately at same locations**

Therefore, the primary screening tools were. . .

- **Potential Social, Economic, & Environmental Impacts**
- **Public & Agency Input**
- **Costs**



Tier 2—Section 1 (cont.)

Alignments selected for further study:

South: 1-S1 & 1-S3 **Central** 1-C1 & 1-C3 **North** 1-N1, 1-N1 Modified, & 1-N2

Combined to Form 8 Build Alternatives:

- Alternative 1 — S1 + C1 + N1 — [illegible] mi.
- Alternative 2 — S1 + C3 + N1 Modified — 13.01 mi.
- Alternative 3 — S1 + C1 + N2 — [illegible] mi.
- **Alternative 4 — S1 + C3 + N2 — 13.01 mi.**
- [illegible] 5 — S3 + C1 + N1 — 13.07 mi.
- Alternative 6 — S3 + C3 + N1 Modified — [illegible]
- [illegible] e 7 — S3 + C1 + N2 — 13.03 mi.
- Alternative 8 — S3 + C3 + N2 — [illegible] mi.

Tier 2—Section 1 (cont.)

Recommended Preferred Alternative 4 encounters . . .

• Agricultural land in ROW	630 AC (87.5% of total corridor area)
• Residential relocations	18
• Business displacements	0
• Forests	33 AC (8% of corridor)
• Open water (ponds)	0.7 AC (4% open water in corridor
• Wetland (emergent)	1.3 AC (11%
• Flo	36 AC
• Streams	14,700 LF, inc 2,900 LF n
• Se resources	0 in corridor or otherwise impacted
• Historic resources	0 in APE
• Archaeological resources	Phase 1a work in progress
• Cost estimate	$200 million

Section 2

Hannum Wagle & Cline

Environmental and Engineering Assessment Consultant

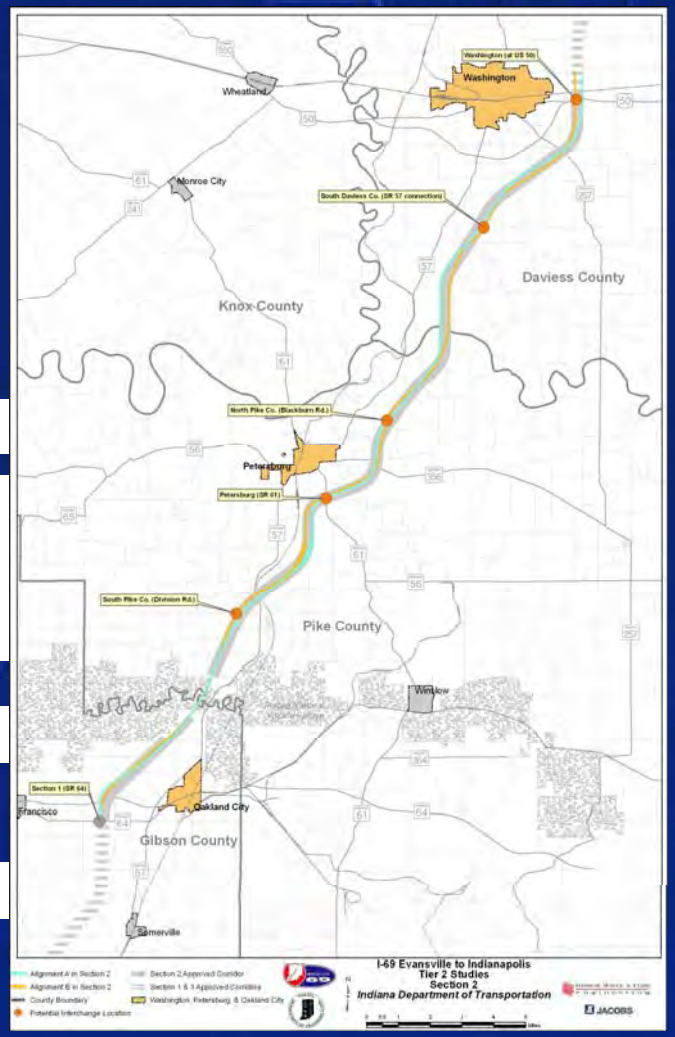
Tier 2—Section 2

Section 2 of the approved corridor. . .

- Is 29 miles long
- Begins at SR 64 west of Oakland City
- Continues northward to US 50 east of Washington

Work tasks for Section 2 include . . .

- Environmental studies and analysis
- Preliminary design
- Interchange locations & configurations



Tier 2—Section 2 (cont.)

Section 2 tasks [redacted] or nearly completed include . . .

- Identifying property owners within / adjacent to the project corridor
- Indiana bat surveys
- Identifying the locations, sizes, and types of wetlands
- Identifying cultural resources
- Developing preliminary alternatives within the project [redacted]
- Refining alternatives based on environmental analyses, engineering feasibility, input from regulatory agencies and the public, and cost [redacted]
- Preliminary Draft Environmental Impact Statement [redacted]

[redacted] tasks ahead include . . .

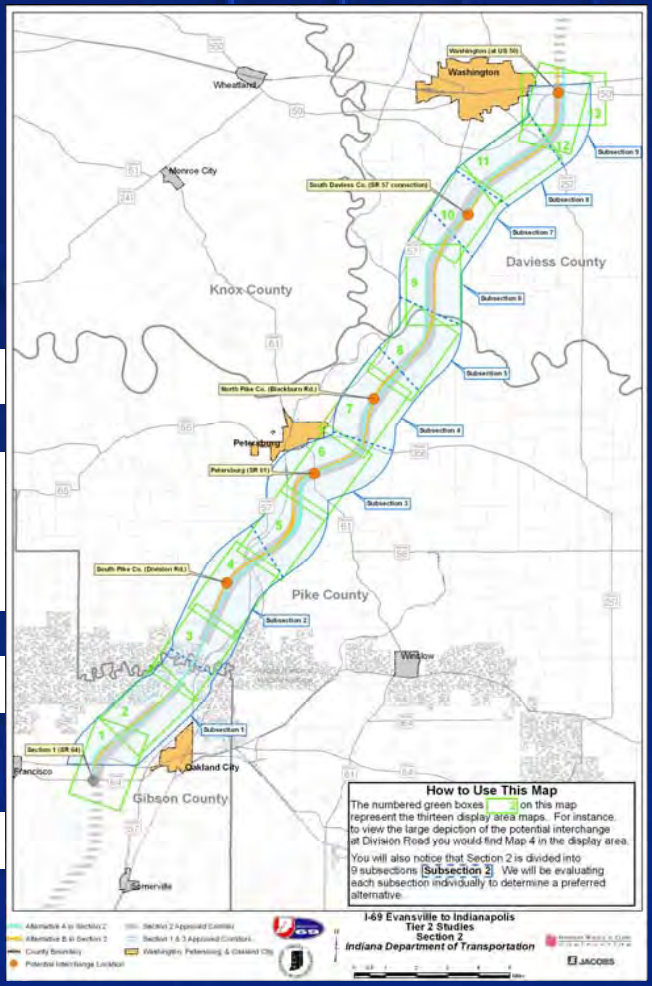
- Selection of Preferred Alternative [redacted]
- [redacted]nal Engineer's Report
- Public Hearing [redacted]
- Final Environmental Impact Statement
- [redacted] Record of Decision (ROD) from FHWA

Tier 2—Section 2 (cont.)

- **Preliminary Alignment Concepts:**

How to Identify Alternatives on Exhibits—

- The numbered **green** boxes on this map represent the 13 display area maps. 2
- Section 2 is divided into 9 subsections which are shown on this map with a **blue** outline and light blue shading. Subsection 2
- Each alternative will be evaluated individually in each of the 9 subsections to determine a preferred alternative.
- Interchanges will be provided at Petersburg and Washington, and three optional interchanges will be evaluated.



Tier 2—Section 2 (cont.)

- Preliminary Alignment Concepts . . .
- Alternative Evaluation Considerations—

- Environmental impacts
  - Wetlands
  - Farmland
  - [redacted]
  - Stream Crossings
- [redacted] and public input
- Engineering feasibility
- [redacted]

Tier 2—Section 2 (cont.)

- **Section 2's Notable Natural Features**
- 323 acres (5%) of wetlands within the corridor
  - Alternatives impact 27.8 to 50.7 acres
- Primarily agricultural and rural residential lands
  - Alternatives impact 891 to 1,072 acres
- 1,029 acres (15%) of forest within the corrid
  - es impact 231 to 339 acres
- Major Streams
  - Reg Creek, Patoka River, Mud Creek, East Fork of the White River, Veale Creek, and Hurricane Branch
  - Ephemeral, Intermittent, and Perennial stream impacts range from approx. 00' to 49,200'

Section 3

The Corradino G[redacted]

Environmental and En[redacted]

Assessment Consultant[redacted]

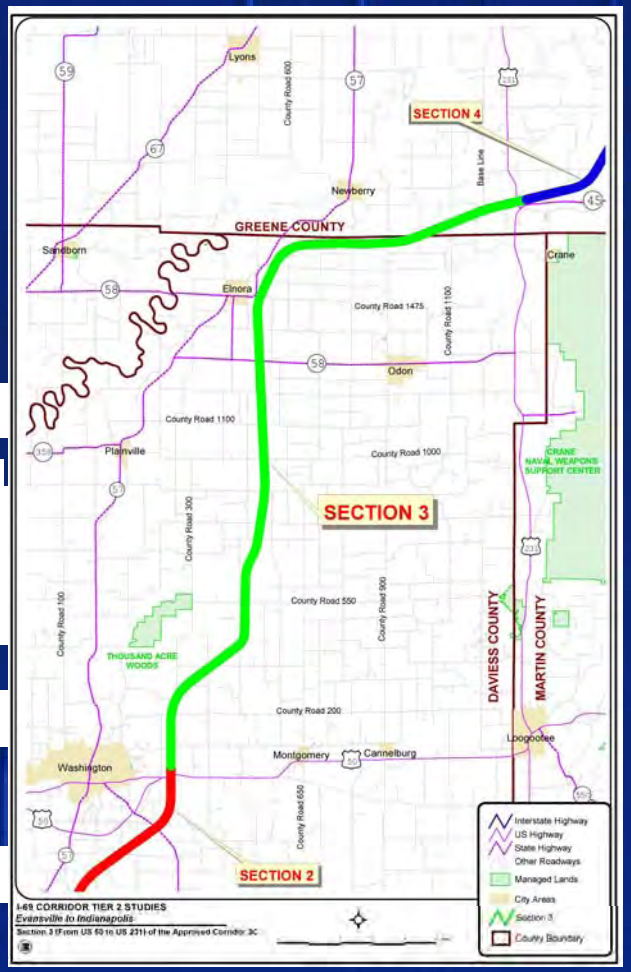
Tier 2—Section 3

Section 3 of the approved corridor. . .

- Is 26 miles long
- Begins north of the US 50 Interchange east of Washington
- Continues northward to US 231 northwest of Crane NSWC

Work tasks for Section 3 include . . .

- Environmental studies and analysis
- Preliminary design
- Interchange locations & configurations



Tier 2—Section 3 (cont.)

Section 3 tasks completed or nearly completed include . . .

- Identifying property owners within / adjacent to the project corridor
- Indiana bat surveys
- Identifying the locations, sizes, and types of wetlands
- Identifying cultural resources
- Developing preliminary alternatives within the project corridor
- Refining alternatives based on environmental analyses, engineering feasibility, input from regulatory agencies and the public, and cost

Section 3 tasks ahead include . . .

- Selection of Preferred Alternative
- Draft Environmental Impact Statement
- Engineer's Report
- Public Hearing
- Final Environmental Impact Statement
- Record of Decision (ROD) from FHWA

Tier 2—Section 3 (cont.)

PURPOSE & NEED

- Increase personal accessibility for area residents
- Improve traffic safety
- Support local economic development initiatives

- All alternatives satisfy local purpose and need in a similar manner
- Purpose and Need will *not* be used in screening alternatives but will be used to select a preferred alternative

Tier 2—Section 3 (cont.)

Preliminary Alignment Concepts . . .

Alternative Evaluation Considerations—

- Environmental impacts
  - Wetland and stream impacts
  - Floodplain impacts
  - Forest impacts
  - Residential relocations
  - borhood
- Impacts to agricultural land
- Agency and public input
- ring feasibility
- Cost

Tier 2—Section 3 (cont.)

Section 3's Notable Natural Features

- Primarily agricultural and rural residential lands
  - Approximately 89% of the corridor is agricultural
  - Residential relocations range from 13 to 30

- 514 acres (6%) of forest within the corrid
  - Alternatives impact 77 to 144 acre

- 167 acres (0.2%) of wetlands within the
  - Alternatives impact 9.5 to 27.2 acres

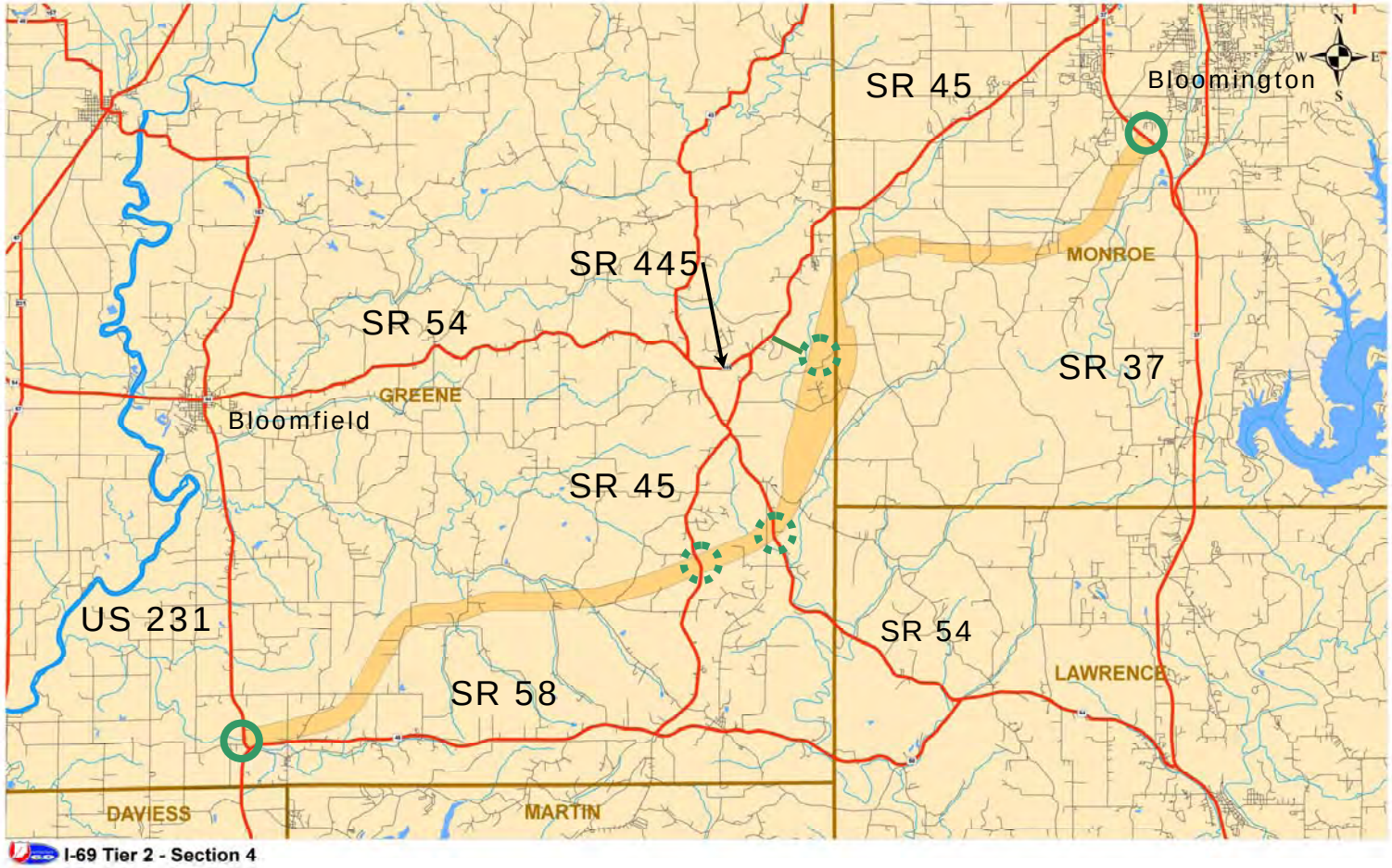
- Major streams
  - North and South Forks of Prairie Cre eek, and Deans Creek

Section 4

DLZ Indiana, [redacted]

Environmental and [redacted]

Assessment Consultant



I-69 Evansville to Indianapolis Tier 2 Studies

Tier 2—Section 4 (cont.)

Preliminary

Historic Properties
Wetlands
Cemeteries
Cav[redacted]
Major Springs
[redacted]
[redacted]

Tier 2—Section 4 (cont.)

Preliminary

Historic Properties
Wetlands
Cemeteries
Caves
Major Springs

Screening

Lengths & Cost Estimates
Forests & Core Forests
Agricultural Lands & Prime Farmland
Managed Properties
Floodplains
Streams
Ponds
Subsurface Drainage Features
Residential & Business Displacements

Tier 2—Section 4 (cont.)

Recommendations

Mainline

- Single Alignment Along Five subsections
- Two Alignments Along One Subsection
- Three Alignments Along One Subsection
- Four Alignments Along One Subsection

Minor Alignment Shifts

Hybrid Alignment Along Subsection E

Interchanges

- 1 & SR 37
- One or Two Intermediate Interchanges (SR 45, SR 54, County Line)

Tier 2—Section 4 (cont.)

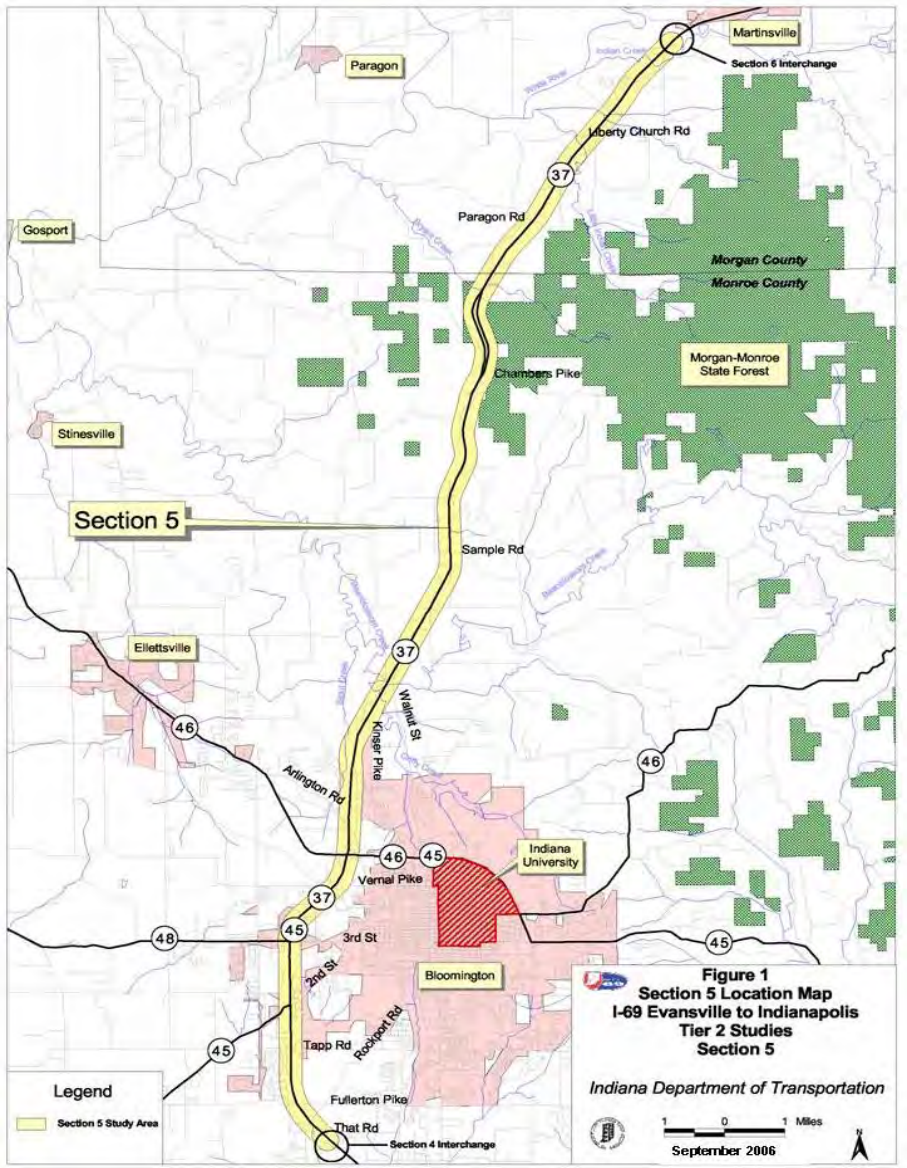
Technical Studies

Stream Evaluations (QHEI/HHEI)
Wetland Functional Assessments (InWRAP)
Karst Study
Cave and Spring Biota Survey
Historic Effects
Archaeological Records Review
Hazardous Materials Screening
Farmland Conversion
Mainline and Interchange Engineering Development

Section 5

Michael Baker, J[redacted]

Environmental and Engineering Assessment Consultant



Section 5

Project Office - One City Centre
120 W. 7th Street, Suite 106
Bloomington, IN 47404
812-355-1390

The local Purpose and Need ident[redacted]2 for Section 5 include:

- [redacted]ion 5 of I-69 Between Vict[redacted]d SR[redacted]
- Re[redacted]sted Traffic Congestion
- Imp[redacted]afety
- Support Local Economic Development Initiatives

I-69 Evansville to Indianapolis Tier 2 Studies

Section 5
Studies and Status

- Cultural Resources
  - Architectural (Above Ground Resources)
    - Historic Properties Report - Submitted
    - COE in progress
  - Archaeological (Below Ground Resources)
    - Field review- September 2004
    - Background Report- Submitted
  - Cemeteries
    - Baseline Report - Submitted
- [redacted]
  - Threatened and Endangered Species
    - Indiana bat mist netting report – [redacted]mpleted
    - Mussels, Crayfish and Fishes – Report Pending

[redacted]

- Natural Science- Con't
  - Wetlands-
    - Fieldwork completed, Report in progress
  - Biological Pedestrian Survey-
    - Fall and Spring Survey - Completed
  - Stre[redacted]
    - [redacted]mpleted, Report in [redacted]progress
  - [redacted]dways Analysis
    - [redacted]
- Physic[redacted]
    - Karst Report Submitted July 2006
    - [redacted]water, [redacted]s – in progress
- Miscellaneous – in progress
  - Util[redacted]Coordination
  - Air [redacted]
  - Noise

I-69 Evansville to Indianapolis Tier 2 Studies

Section 5
Alternative Development and Screening

- Incorporation of Tier 1 Corridor and evaluation of Tier 1 access issues

- Alternative Development Criteria
  - Purpose and Need
  - Spacing
  - Functional Classification
  - Jurisdiction/Designation
  - INDOT Long-Range Plan
  - Traffic Volume
  - Impact Minimization
  - Topography
  - Cost
  - Trip Time/Adverse Travel
  - Local Infrastructure/Network
  - Conflict & EMA Routes
  - Growth Patterns
  - Local Community Plans
  - Public Input

- Environmental Constraints
  - Land Use
  - Environmental Justice
  - Cemeteries
  - Karst
  - Streams
  - Wetlands
  - Floodplains
  - Threatened and Engendered Species
  - [illegible]
  - Hazardous Sites
  - Section 4(f) Properties
  - Historic Resources
  - Schools
  - Farmlands
  - Forests

- Community and Agency Outreach

Section 5 Alternatives 4 and 5 Summary

Location	Alternative 4	Alternative 5
That	East/West access via frontage roads to Rockport; access to I-69 via frontage roads to Fullerton interchange	
Rockport	[redacted] access; I-69 access via frontage roads to Fullerton interchange	
Mainline	Mainline shifts to the east to reduce impacts to the hospital, cemetery, and residences	
Fullerton	Interchange with east/west and I-69 access; partial diamond interchange with loop to the northwest; shift east to reduce impacts to the hospital, cemetery, and residences	
Tapp	Overpass for east/west access; access to I-69 via existing roads to Fullerton or 2nd St/SR 45 interchanges	Interchange with east/west and I-69 access; split interchange with 2nd St/SR 45 with connecting frontage roads on both east and west sides
2nd St/ SR 45	Interchange with east/west and I-69 access	Interchange with east/west and I-69 access; split interchange with Tapp Rd. with connecting frontage roads on both east and west sides
3rd St/ SR 48	Interchange with east/west and I-69 access; tight diamond interchange type	Interchange with east/west and I-69 access; single point urban diamond interchange
Vernal	Underpass for east/west access; I-69 access via existing roads to SR 46	
SR 46	Interchange with east/west and I-69 access	
Arlington	Overpass for east/west access; I-69 access via [redacted] 46	
Acuff	No east/west or I-69 access; access via existing roads [redacted] Pike	
Mainline	Mainline shifts to the east to avoid in[redacted] the MGRRHD	
Kinser	Interchange with east/west and I-69 access; medium diamond interchange type	Overpass for [redacted] ess via west side frontage road to [redacted] erchange
Walnut	Overpass for east/west access; I-69 access via frontage roads to either Sample or Kinser interchanges; Bridge [redacted] of access road to Bottom Rd and Kinser	Interchange with [redacted] interchange; B[redacted] ad
Mainline	[redacted] hifts to the east and then west to reduce impacts to cemeteries, businesses, potential hazardous waste site, and Hoosier Energy Operations facility	
Sample	Interchange with east/west and I-69 access; medium rural interchange	Interchange with e[redacted] change
M[redacted]	Mainline shifts to the east to existing SR 37 to reduce impacts to forest, businesses, and Hoosier Energy substation	
Ch[redacted]	Overpass for east/west access; I-69 access via east side frontage to Sample interchange	
Mainline	Mainline follows existing SR 37 split lanes/wide median to reduce impacts to forest, stream and wetland	
Bryant Crk	No east/west or I-69 access; east side properties to be acquired for fo[redacted] m mitigation areas	
Paragon [redacted]	Interchange with east/west and I-69 access; medium rural interchange	Overpass for east/west access; I-69 access via east and west side frontage roads to Liberty Church interchange
Liberty Church	Overpass for east/west access; I-69 access via east and west side frontage roads to Paragon interchange	Interchange with east/west and I-69 access; medium rural interchange

I-69 Evansville to Indianapolis Tier 2 Studies

Section 5 Alternatives 4 and 5

Initial Potential Impacts Estimates (within ROW)

Evaluation Factors	Alternative 4	Alternative 5		Alternative 4	Alternative 5
Length (miles)			**Access: Road Crossings/Closures**[3]	14 / 34	14 / 34
Interstate	21.1	21.1	**Farmland Impacts**		
Non-interstate (frontage, access, local service roads)	26.2	26.1	Row crop, pasture, orchard, grove, specialty crops, agricultural operations (acres)	122	142
Estimated Construction Cost (millions)[1]	$258	$257	**Threatened/Endangered Species**	(PMC)	(PMC)
Required Right-of-Way (ROW)			**Historic Resources (Section 106)**		
Use of Existing INDOT ROW (acres)	996	996	Architectural (NRHP listed and Eligible sites)	0-6	0-6
Approximate ROW to be acquired (acres)	567	574	Archaeological (NR Eligible sites)[4]		(
Total ROW required (acres)[2]	1,563	1,570	**Section 4(f) R s**	0	0
Relocations (based on physical ROW)			**Hazardous Materia**	2 - 6	2 - 6
Residences - Multi Unit	4	5	**Mineral Resource** (Possible Sites)		
	135	132	**Forest Impacts**		
Commercial	65	63	Forested Areas- Total Land Cover (acres)	317	284
Churches	5	5	Morgan-Monroe St		117
Floodplains Encroachment (	68	69	**Karst Impacts**		
Wetlands (acres)	11	15	Springs	21	22
Jurisdictional Streams (linear feet)			Sinkholes (acres)	93	90
	46,751	46,126	Sinking Streams (acres)	258	261
	7,944	6,680	**Wellhead Protection Areas** (sites)	1	1
Ephemeral	5,275	5,272			

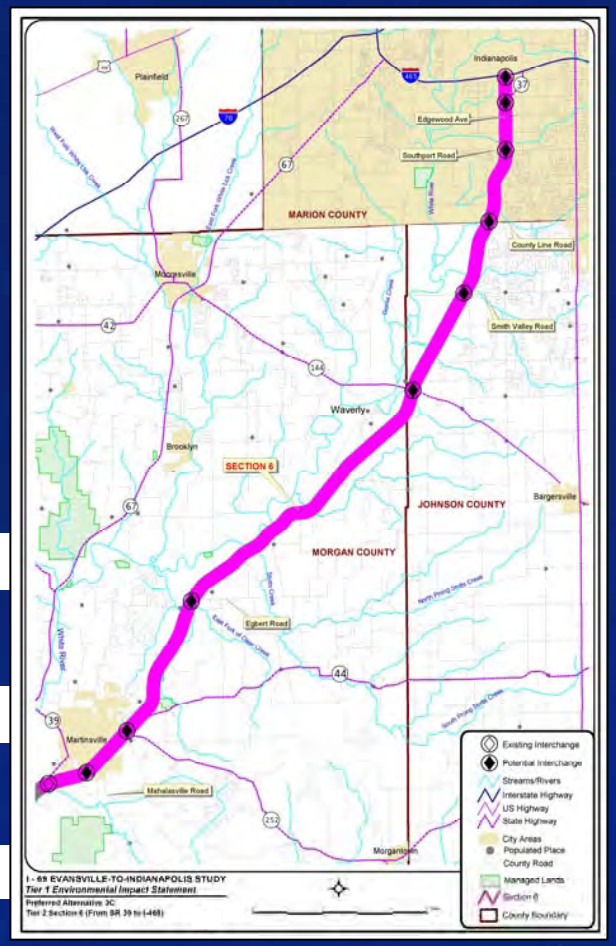
I-69 Evansville to Indianapolis Tier 2 Studies

Section 6

HNTB Corporation

Environmental and Engineering Assessment Consultant

I-69 Tier 2 EIS, Section 6, SR 39 to I-[redacted]



Section 6 Purpose & Need

* Complete Section 6 of I-69 between SR 39 in Martinsville and I-465 in Indianapolis
* Reduce forecasted traffic conges[redacted]n the Section 6 Study [redacted]
* Improve traffic safety within the Section [redacted]
* Facilitate and maintain east/we[redacted]ity within the Section 6 Study Area.

Section 6
Status of Environmental Studies

- Wetland & Stream identification and delineations within Section 6 2,000-foot Study Corridor completed. Additional wetland & stream identification and delineations will occur in September for areas outside of the 2,000-ft Study Corridor within right-of-way of the three reasonable alternatives
- Threatened and Endangered Species Surveys Completed
- Fish and Mussel Surveys Completed
- One Historic District and Seven Eligible propert
  AP ation of Effects Report currently
- Archaeological Resources (Below Ground Resou rded
  and review completed fall of 2004. Draft Background Report completed.
- Co baseline fieldwork and coordination with stakeholders in the Study Corridor, including utilities, communities, landowners, etc.

Section 6
Alternative Development and Screening

- Incorporation of Tier 1 Corridor and evaluation of Tier 1 access issues
- Alternative Development Criteria
  - Purpose and Need
  - Spacing
  - Functional Classification
  - Jurisdiction/Designation
  - INDOT Long-Range Plan
  - Traffic Volume
  - Impact Minimization
  - Cost
  - Trip Time/Adverse Travel
  - Local Infrastructure/Network
  - School & EMA Routes
  - Growth Patterns
  - Local Community Plans
- Environmental Constraints
  - Land Use
  - Environmental Justice
  - Cemeteries
  - Streams
  - Wetlands
  - Floodplains
  - Threatened and Engendered Species
  - Utilities
  - Hazmat
  - Section 4(f) Resources
  - Parks
  - Historic Resources
  - Schools
  - Farmland
  - Forests
- Community and Agency Outreach

Section 6
Preliminary Ra[redacted]vironmental Impacts

Section 6 Alternatives — Preliminary Range of Environmental Impacts			
EVALUATION FACTORS	Alt 1	Alt 2	Alt 3
Length (miles)			
Interstate	26	26	26
Non-Interstate (frontage, access, local service roads)	21.7	20.9	23.1
Required Right-of-Way (ROW)			
Use of Existing INDOT ROW (acres)	900 - [redacted]	950 - 1,000	800-900
Approximate ROW to be Acquired (acres)	1,540 - 1,[redacted]	[redacted] - 1,425	1,375-1,425
Relocations (based on physical ROW)	[redacted]	[redacted]	[redacted]
Single [redacted]al	280 – 315	275 - 310	288-308
Apartment Units	217 - 267	[redacted]	[redacted] - 217
Comm[redacted]	95 - 105	100 - 110	85 - 95
Churches	2	1	1
Total	594-689	[redacted]	571-621
Floodpla[redacted]nment (acres)	190 - 210	240 - 270	195 - 240
Wetlands - Acquired for ROW (acres)	11	7	15

Section 6
Preliminary Ra[illegible]vironmental Impacts

Section 6 Alternatives — Preliminary Range of Environmental Impacts			
•EVALUATION FACTORS	Alt 1	Alt 2	Alt 3
Jurisdictional Streams (linear feet)			
Perennial	23,075 – 25,075	23,075 – 25,075	23,075 – 25,075
Intermittent	7,809 – 9,809	7,809 – 9,809	7,809 – 9,809
Ephemeral	13,415 – [illegible]	[illegible] – 15,415	13,415 – 15,415
Access: Road Crossings / (Closures)	10 [illegible]	7	7
Farmland Impacts Acquired for ROW (acres - by land use)	500 [illegible]	[illegible] - 600	500 - 600
Threatened/Endangered Species	PM[illegible]	[illegible]	[illegible]
National [illegible] Eligible Properties in Area of Potential [illegible]	8	[illegible]	8
Potential Archaeological Sites within Section 6 Study Corridor	10 [illegible]	[illegible]	7
Hazardous [illegible] ssible Sites	10 - 15	10 - 15	10
Mineral Resources: Possible Sites (Mining Operations)	6 (156 ac[illegible] ROW)	[illegible]res in ROW)	10 (101 acres in ROW)
Forested [illegible]s)	190 – 230	175 – 200	195 - 230
Wellhead Protection Boundary Areas Located in ROW	4	4	4

Questions/Comments

Tier 2 Studies Contacts

For project information, or to provide input:

FHWA – Indiana Division
575 N. Pennsylvania St., Rm N254
Indianapolis, IN 46204
Ph. 317/226-5307
Contacts: **Tony DeSimone**

Indiana DOT
100 North Senate Avenue
Indianapolis, IN 46204
317/232-5

Tom Seeman

I-69 PMC – Bernardin Lochmueller & Associ
62 ad
Evansville, IN 47715
Ph. 812/479-6200
C **Kent Ahrenholtz**

Web Site: www.i69indyevn.org

THANK YOU!

AGENCY	FIRST	LAST	Dept./Title	RSVP for August 1 Meeting
INDOT	Tom	Seeman	Project Management	Attending Aug. 1 Meeting
INDOT	Janice	Osadczuk	Environmental Services	Attending Aug. 1 Meeting
INDOT	Michelle	Hilary	Environmental Services	Attending Aug. 1 Meeting
INDOT	Ben	Lawrence	Environmental Services	Attending Aug. 1 Meeting
INDOT	Chris	Koeppel	Cultural Resources Section	Attending Aug. 1 Meeting
INDOT	Karl	Kleet	Engineering	Attending Aug. 1 Meeting
INDOT	Susan	Branigin	Cultural Resources Section	Attending Aug. 1 Meeting
INDOT	Nick	Batta	Section 1 & 2, Engineering	Attending Aug. 1, morning only
INDOT	Mary	Kennedy	Cultural Resources Section	Attending Aug. 1 Meeting
INDOT	Dave	Butts	Engineering	Attending Aug. 1, morning only
INDOT	Kevin	Knoke	Section 2, Engineering	Attending Aug. 1 Meeting
INDOT	Pam	Drach	INDOT Vincennes District	Attending Aug. 1 Meeting
INDOT	Sam	Sarvis	INDOT Vincennes District	Attending Aug. 1 Meeting
INDOT	Jim	Ude	INDOT Seymour District	Attending Aug. 1 Meeting
AKINGUMP	Bill	Malley	INDOT Outside Legal Counsel	Attending Aug. 1 Meeting
FHWA	Tony	DeSimone		Attending Aug. 1 Meeting
USEPA	Kenneth	Westlake	Chief, NEPA Implementation Section	Attending Aug. 1 Meeting
USEPA	Virginia	Laszewski	NEPA Implementation Section	Attending Aug. 1 Meeting
USEPA	Cathy	Garra	Wetlands and Watersheds	Attending Aug. 1 Meeting
USEPA	Wendy	Melgin	Wetlands and Watersheds	Attending Aug. 1 Meeting
USEPA	Newton	Ellis	NEPA Implementation Section	Attending Aug. 1 Meeting
USEPA	Tom	Kenney	Ofc. of Regional Council	Attending Aug. 1 Meeting
USEPA	Patricia	Morris	Air & Radiation Division	Attending Aug. 1 Meeting
USEPA	Tom	Alcamo	Superfund	**TBD**: Attending Aug. 1 Meeting
USACE	Doug	Shelton		Attending Aug. 1 Meeting
USFWS	Scott	Pruitt	Bloomington Field Office	Attending Aug. 1 Meeting
USFWS	Andy	King	Bloomington Field Office	Attending Aug. 1 Meeting
IDNR	Mike	Neyer	Director, Division of Water	Attending Aug. 1 Meeting
IDEM				
PMC	Kent	Ahrenholtz	BLA, I-69 Project Manager	Attending Aug. 1 Meeting
PMC	Carol	Hood	BLA, Project Coordinator	Attending Aug. 1 Meeting
PMC	Mike	Grovak	BLA, DPM, Technical Review	Attending Aug. 1 Meeting
PMC	Tom	Cervone	BLA, DPM, Environmental Services	Attending Aug. 1 Meeting
PMC	Kia	Gillette	BLA, Sec. 4-6 Environ. Coord.	Attending Aug. 1 Meeting
PMC	Jaime	Sias	BLA, Environmental Justice	Attending Aug. 1 Meeting
PMC	Garre	Connor	BLA, Geology	Attending Aug. 1 Meeting
PMC	Henry	Nodarse	BLA, Engineering	Attending Aug. 1 Meeting
PMC	Jeremy	Kieffner	BLA, Section 1-3 Environ. Coord.	Attending Aug. 1 Meeting
PMC	Sara	Dyer	Dyer Environmental Services	Attending Aug. 1 Meeting
Section 1	Roger	Wade	Qk4	Attending Aug. 1 Meeting
Section 2	Vic	Modeer	HWC/Jacobs Civil	Attending Aug. 1 Meeting
Section 2	Tracey	Lober	HWC/Jacobs Civil	Attending Aug. 1 Meeting
Section 3	Dave	Pluckebaum	PM, Corradino	Attending Aug. 1 Meeting
Section 3	Dave	Cleveland	DPM Engineering, Corradino	Attending Aug. 1 Meeting
Section 3	Richard	Ray	DPM Environmental, Corradino	Attending Aug. 1 Meeting
Section 3	Kevin	Allison	Corradino, Environmental	Attending Aug. 1 Meeting
Section 3	Mike	Tackett	Corradino	Attending Aug. 1 Meeting

Section 4	Bruce	Hudson	PM, DLZ	Attending Aug. 1 Meeting
Section 4	Brian	Arterbery	DPM, DLZ	Attending Aug. 1 Meeting
Section 4	Jason	Stone	DLZ, Environmental	Attending Aug. 1 Meeting
Section 4	Jason	Krothe	Hydrogeology, In.	Attending Aug. 1 Meeting
Section 4	Noel	Krothe	Hydrogeology, In.	Attending Aug. 1 Meeting
Section 5	Mary Jo	Hamman	PM, MBC	Attending Aug. 1 Meeting
Section 5	Jim	Peyton	DPM, MBC	Attending Aug. 1 Meeting
Section 5	Allison	Rogers		Attending Aug. 1 Meeting
Section 5	Tom	Aley	Ozark Underground Laboratory	Attending Aug. 1 Meeting
Section 6	Tim	Miller	PM, HNTB	Attending Aug. 1 Meeting
Section 6	Brock	Hoegh	HNTB, DPM	Attending Aug. 1 Meeting
TPA	Chad	Costa	BLN	Attending Aug. 1 Meeting
TPA	Mark	Eckert	BLN	Attending Aug. 1 Meeting

TOTAL for August 1 Meeting: 59

RSVP LIST: Overall Agency Coordination Meeting August 1-2, 2006

AGENCY	FIRST	LAST	Dept./Title	RSVP Response/Reply
INDOT	Tom	Seeman	Project Management	Attending Both Days
INDOT	Janice	Osadczuk	Environmental Services	Attending Both Days
INDOT	Michelle	Hilary	Environmental Services	Attending Both Days
INDOT	Ben	Lawrence	Environmental Services	Attending Both Days
INDOT	Chris	Koeppel	Cultural Resources Section	Attending Both Days
INDOT	Nick	Batta	Section 1 & 2, Engineering	Attending Aug. 1, morning only
INDOT	Mary	Kennedy	Cultural Resources Section	Attending Aug. 1
INDOT	Dave	Butts	Engineering	Attending Aug. 1, morning only
INDOT	Kevin	Knoke	Section 2, Engineering	Attending Aug. 1
INDOT	Karl	Kleet	Engineering	Attending Both Days
INDOT	Michelle	B. Allen	Section 1	Not planning to attend
INDOT	Bob	Buskirk		Not planning to attend
INDOT	Susan	Branigin	Cultural Resources Section	Attending Both Days
INDOT	Pam	Drach	INDOT Vincennes District	Attending Both Days
INDOT	Sam	Sarvis	INDOT Vincennes District	Attending Both Days
INDOT	Ron	Burcham	INDOT Seymour District	Not planning to attend
INDOT	Jim	Ude	INDOT Seymour District	Attending Both Days
AKINGUMP	Bill	Malley	INDOT Outside Legal Counsel	Attending Aug. 1
FHWA	Tony	DeSimone		Attending Both Days
USACE	Amy	Babey		Not Attending, in Wyoming
USACE	Doug	Shelton		Attending Aug. 1
USEPA	Kenneth	Westlake	Chief, NEPA Implementation Section	Attending Both Days
USEPA	Virginia	Laszewski	NEPA Implementation Section	Attending Both Days
USEPA	Cathy	Garra	Wetlands and Watersheds	Attending Both Days
USEPA	Wendy	Melgin	Wetlands and Watersheds	Attending Both Days
USEPA	Tom	Kenney	Ofc. of Regional Council	Attending Both Days
USEPA	Patricia	Morris	Air & Radiation Division	Attending Both Days
USEPA	Newton	Ellis	NEPA Implementation Section	Attending Both Days
USEPA	Tom	Alcamo	Superfund	**Not Confimed**: Attending Both Days
USFWS	Scott	Pruitt	Bloomington Field Office	Attending Both Days
USFWS	Andy	King	Bloomington Field Office	Attending Both Days
USFWS	Bill	McCoy	Patoka National Wildlife Preserve	
Crane	David	Poynter	Administrator	
DOAg/HNF	James	Lowe	Acting Supervisor	
DOAg/HNF	Ross	Taylor		
NRCS	Jane	Hardisty	State Resource Conservationist	Not planning to attend
IDEM	Martha	Clark-Mettler	Branch Chief of Planning & Reserv.	
IDEM	Dennis	Clark	Branch Chief of Water Assessment	Not planning to attend
IDEM	Jason	Randolph	Wetland Section	
IDEM	Jim	Sullivan		
IDNR	Christie	Stanifer	Division of Fish & Wildlife Service	
IDNR	Jon	Eggen	Division of Fish & Wildlife Service	
IDNR	Jim	Hebenstreit		
IDNR	Mike	Neyer	Director, Division of Water	Attending Both Days
IDNR	Rick	Jones	DHPA	Not planning to attend
IDNR	Jon	Carr	DHPA	Not planning to attend
IDNR	Karie	Brudis	DHPA	Not planning to attend
PMC	Kent	Ahrenholtz	BLA, I-69 Project Manager	Attending Aug. 1
PMC	Carol	Hood	BLA, Project Coordinator	Attending Aug. 1
PMC	Mike	Grovak	BLA, DPM, Technical Review	Attending Aug. 1
PMC	Tom	Cervone	BLA, DPM, Environmental Services	Attending Both Days
PMC	Garre	Connor	BLA, Geology	Attending Aug. 1
PMC	Nicole	Minton	BLA, DPM, Public Involvement	
PMC	Jim	Gulick	BLA, DPM, Engineering	
PMC	Henry	Nodarse	BLA, Engineering	Attending Aug. 1
PMC	Kia	Gillette	BLA, Section 4-6 Environmental Coord.	Attending Both Days
PMC	Jeremy	Kieffner	BLA, Section 1-3 Environmental Coord.	Attending Aug. 1
PMC	Sara	Dyer	Dyer Environmental Services	Attending Aug. 1
Section 1	Roger	Wade	Qk4	Attending Aug. 1

As of Thursday, July 20, 2006

RSVP LIST: Overall Agency Coordination Meeting August 1-2, 2006

Section 2	Vic	Moderer	Jacobs Civil	Attending Aug. 1
Section 2	Tracey	Lober	Jacobs Civil	Attending Aug. 1
Section 3	Dave	Pluckebaum	Corradino	Attending Aug. 1 & 1st part of Aug. 2
Section 3	Dave	Cleveland	Corradino	Attending Aug. 1
Section 3	Richard	Ray	Corradino	Attending Aug. 1
Section 3	Kevin	Allison	Corradino	Attending Aug. 1
Section 3	Mike	Tackett	Corradino	Attending Aug. 1
Section 4	Bruce	Hudson	DLZ, PM	Attending Both Days
Section 4	Brian	Arterbery	DLZ, DPM	Attending Both Days
Section 4	Jason	Stone	DLZ, Environmental	Attendubg Both Days
Section 4	Jason	Krothe	Hydrogeology, Inc.	Attending Aug. 1
Section 4	Noel	Krothe	Hydrogeology, Inc.	Attending Aug. 1
Section 5	Mary Jo	Hamman	MBC, PM	Attending Aug. 1
Section 5	Jim	Peyton	MBC, DPM	Attending Both Days
Section 5	Allison	Rogers		Attending Aug. 1
Section 5	Tom	Aley	Ozark Underground Laboratory	Attending Breakout session only
Section 6	Tim	Miller	HNTB, PM	Attending Both Days
Section 6	Brock	Hoegh	HNTB, DPM	Attending Aug. 1
TPA	Chad	Costa	BLN	Attending Aug. 1
TPA	Mark	Eckert	BLN	Attending Aug. 1

Total for August 1: 59

Total for August 2: 30

Introduction of Section 5 Karst Studies Team

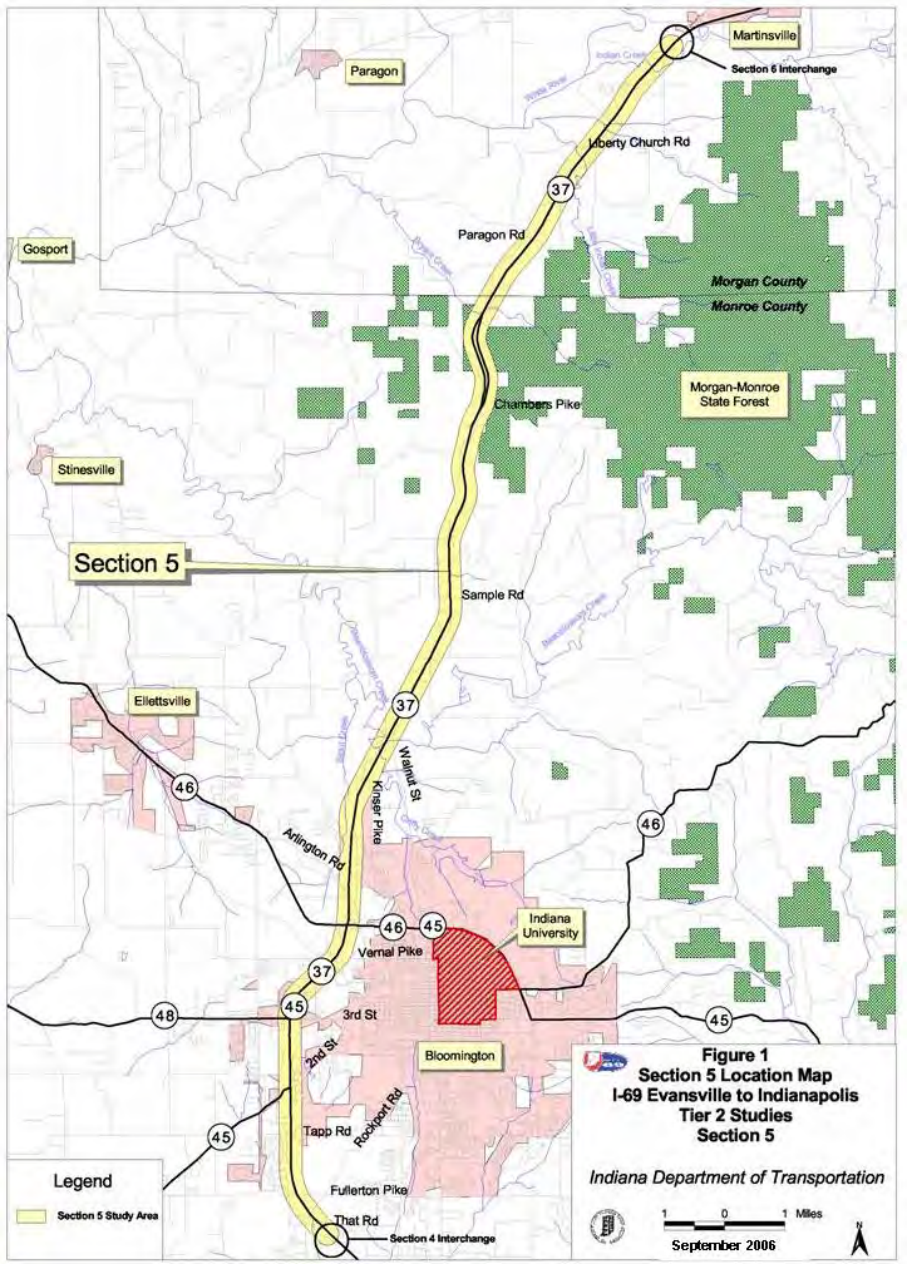
Michael Baker Jr

Ozark Underground L

Baker

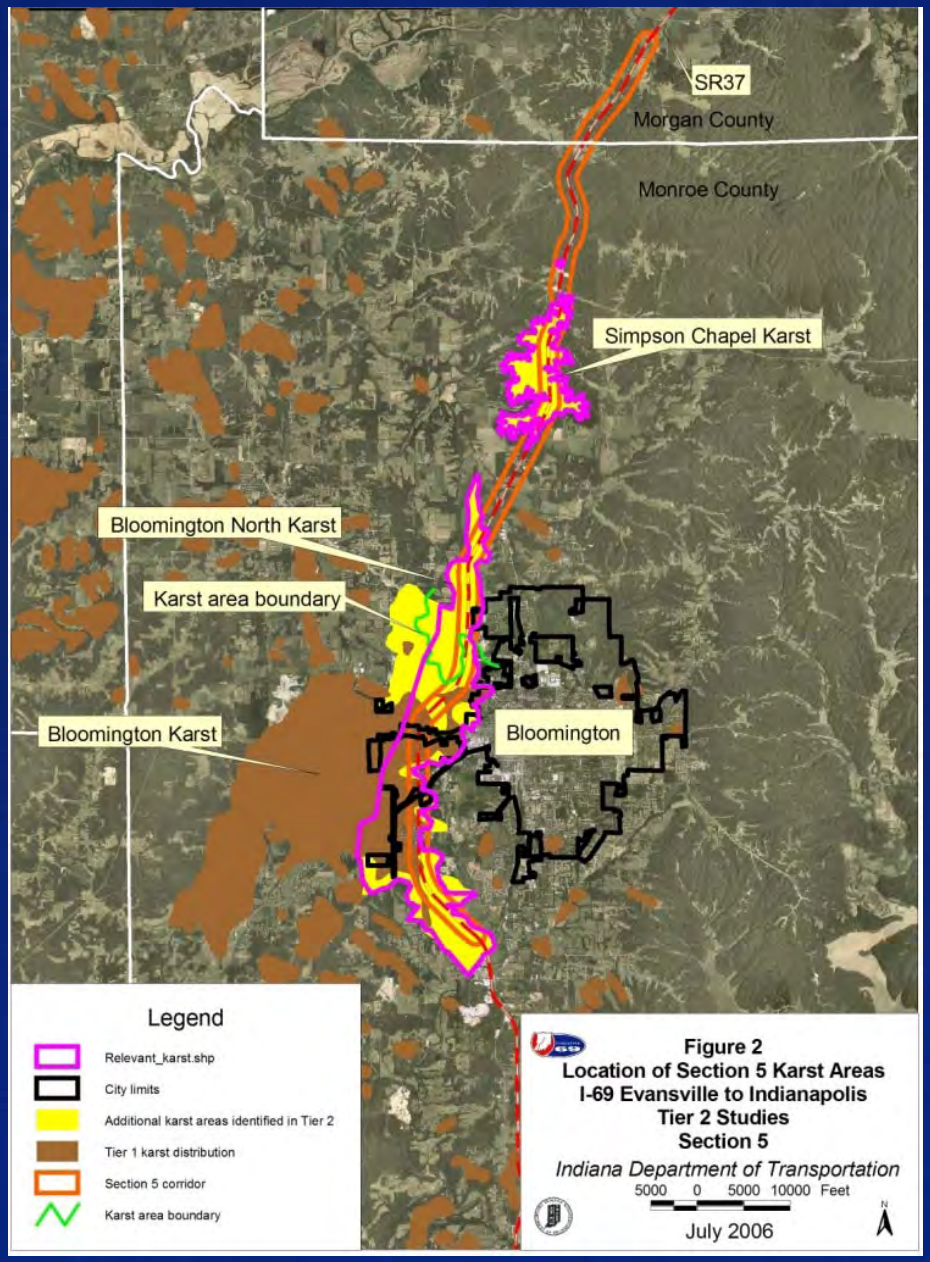
Ozark UNDERGROUND LABORATORY

I-69 Evansville to Indianapolis Tier 2 Studies



Setting

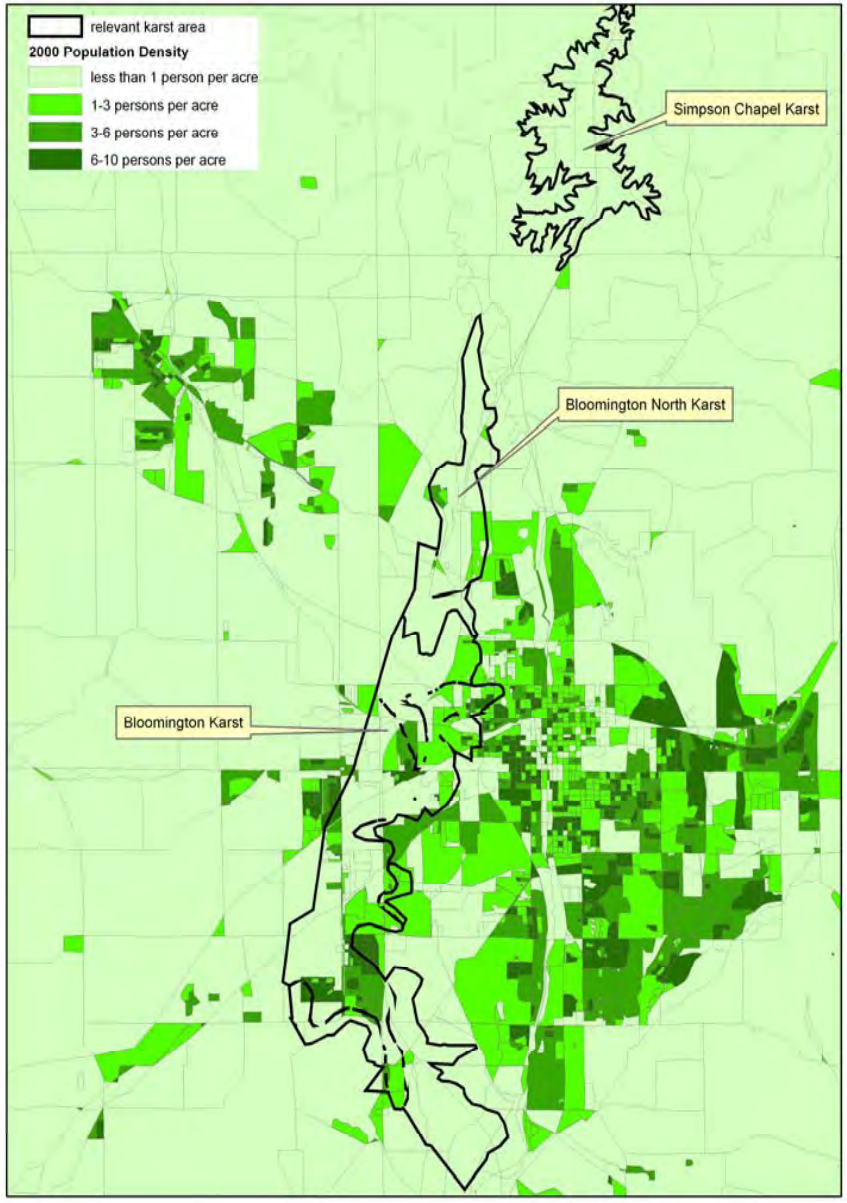
- Upgrade of Existing SR 37
- Extends from That Road south of Bloomington to SR [redacted] just south of Martinsville



Setting

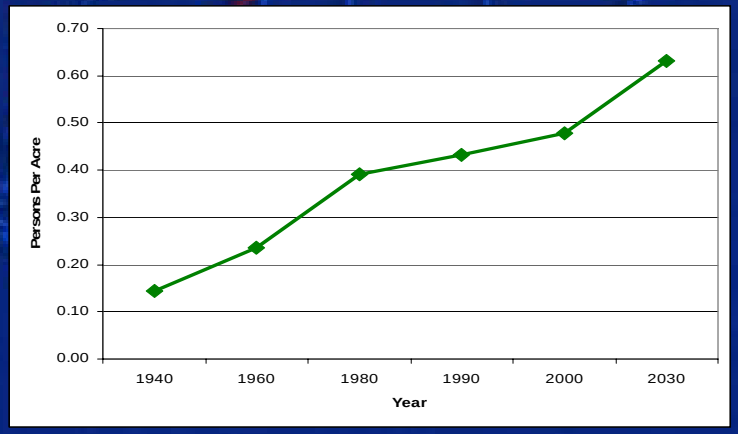
Three Areas of Relevant Karst in Section 5:

- [redacted]gton Karst
- [redacted]gton North Karst
- [redacted]t
- [redacted]



Setting

- 60% of Relevant Karst in Section 5 is developed
- Local Planners anticipate additional 12.6% [illegible] by 2030 [illegible] I 69



Setting

Land Use in 2004	Bloomington Karst (acres)	Bloomington North Karst (acres)	Simpson Chapel Karst (acres)	Acreage of Land Use in Relevant Karst	Percentage of Land Use in Relevant Karst
Agricultural	480	219	374	1,073	14.9%
Nonresidential/ Industrial	819	41	98	958	13.3%
Public Use and Institutional	47	38	4	89	1.2%
Mines and Quarries	32	101	-	133	1.8%
Residential	1,526	193	362	2,081	28.8%
Water	13	16	2	31	0.4%
Transportation, Communication and Utilities	672	253	136	1,061	14.7%
Upland and Wetland Habitat	1,024	409	359	1,792	24.8%
Totals	4,613	1,271	1,334	7,219	100%
Acres of Planned Development anticipated by 2030	465	388	57	910	12.6%

Methodology

The karst investigations reported herein are consistent with the requirements for such investigations from the 1993 Memorandum of Understanding (MOU), Items 1 through 4, and included:

- Public and private research sources,
- Karst feature field check (sinkholes, sprin flowpaths, caves, and others),
- Dye tracing,
- Annual pollutant load estimates (to be completed following selection of a preferred alternative), and
- Biological survey of caves.

Methodology

Pu[redacted]rivate Research Sources

Documents regarding previous karst investigation in and around Bloomington were gathered, including: general mapping of spring and cave locations and karst areas from the Indiana Geological Survey (IGS); development or hazardous waste mitigation documents conducted by various consultants; and academic research studies and identification of significant numbers of karst features by cavers, as recorded by the Indiana Cave Survey (ICS). [redacted]

Interviews were conducted with knowledgeable lo[redacted]sionals, Indiana University, IGS, and Bloomington repositories/librari[redacted] local literature, master and doctorial theses, USEPA[redacted]e s[redacted]

[redacted]

The IGS database showing relevant cave entrances, City of Bloomington two-foot c[redacted]storm water management mapping, six-inch resolution aerial photography (from INDOT), 1939 and 1980 stereo pair aerial phot[redacted]he USDA, and previous INDOT studies were obtained and incorporated as part of the data set. [redacted]

Results

The Section 5 [redacted]tigation produced the following results:

• The karst relevant to the Section 5 Environmental Impact Study was determined. The relevant karst is the portion of karst within the I-69 Section 5 corridor, and associated areas outside of the corridor, that has been demonstrated to have corridor-derived water passing through it, or is linked by logical inference based on the best available geographic, geologic, and hydrologic data, including the Tier 2 investigation. It does not include areas outside the corridor that co[redacted]r to the corridor.

• Three distinct areas of karst (Bloomington Karst, [redacted]North Karst, and Simpson Chapel Karst) were identified for a total of [redacted]of karst along SR 37.

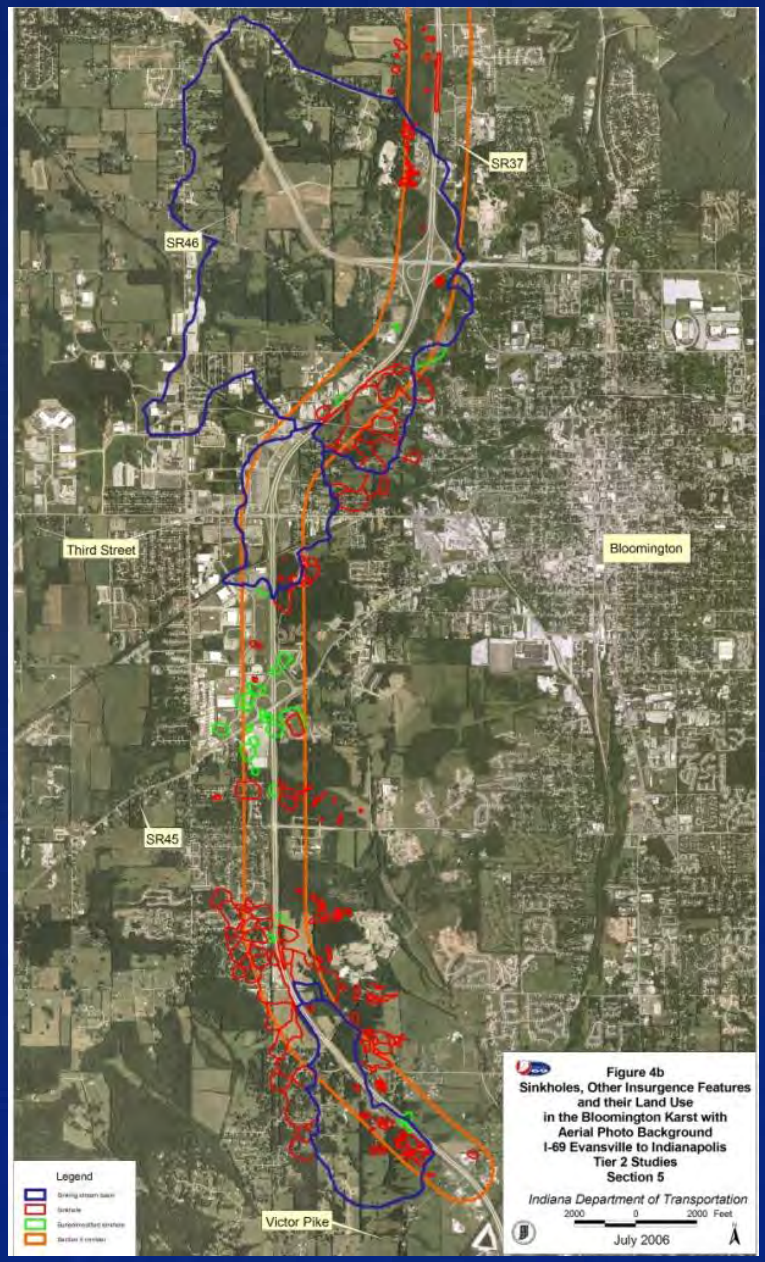
• 374 sinkholes, 5 losing/sinking stream basins, and [redacted]odified sinkholes were documented within or adjacent to the [redacted]drainage a[redacted]d use corresponding to each feature was determined.

• Field investigations revealed 164 springs with 138 [redacted]ported; relevant [redacted]cluded 10 springs with 20 to 600 gpm and 113 springs with 1 to 10 gpm.

• A previously unreported cave and 2 karst windows were identified and documented.

Results

- 197 dye trace sampling stations, 2,800 samples analyzed and 28 dye introductions demonstrated 38 karst groundwater flowpaths and 18 relevant dye traces from other sources were evaluated for a total of 56 groundwater flowpaths.
- Flow velocities ranged from 20 to over 48,000 feet per day and flowpaths ranged from 315 feet to one mile.
- 11 groundwater flowpaths illustrated transfer acros shed boundaries and 9 karst flowpaths were shown to cross under SR 37
- The Illinois Central Spring recharge area was revi areas were identified for May Cave.
- Four areas of special concern were identified: Lem ump Superfund sites, 2nd Street Interchange, and May Cave.
- Annual Pollutant Load Estimates for pre, during, and post construction will be completed following selection of a preferred alterna
- No federally listed species were identified in Section 5 caves; however, three state listed threatened/endangered species were identified from cave biological surveys at May and Well caves.



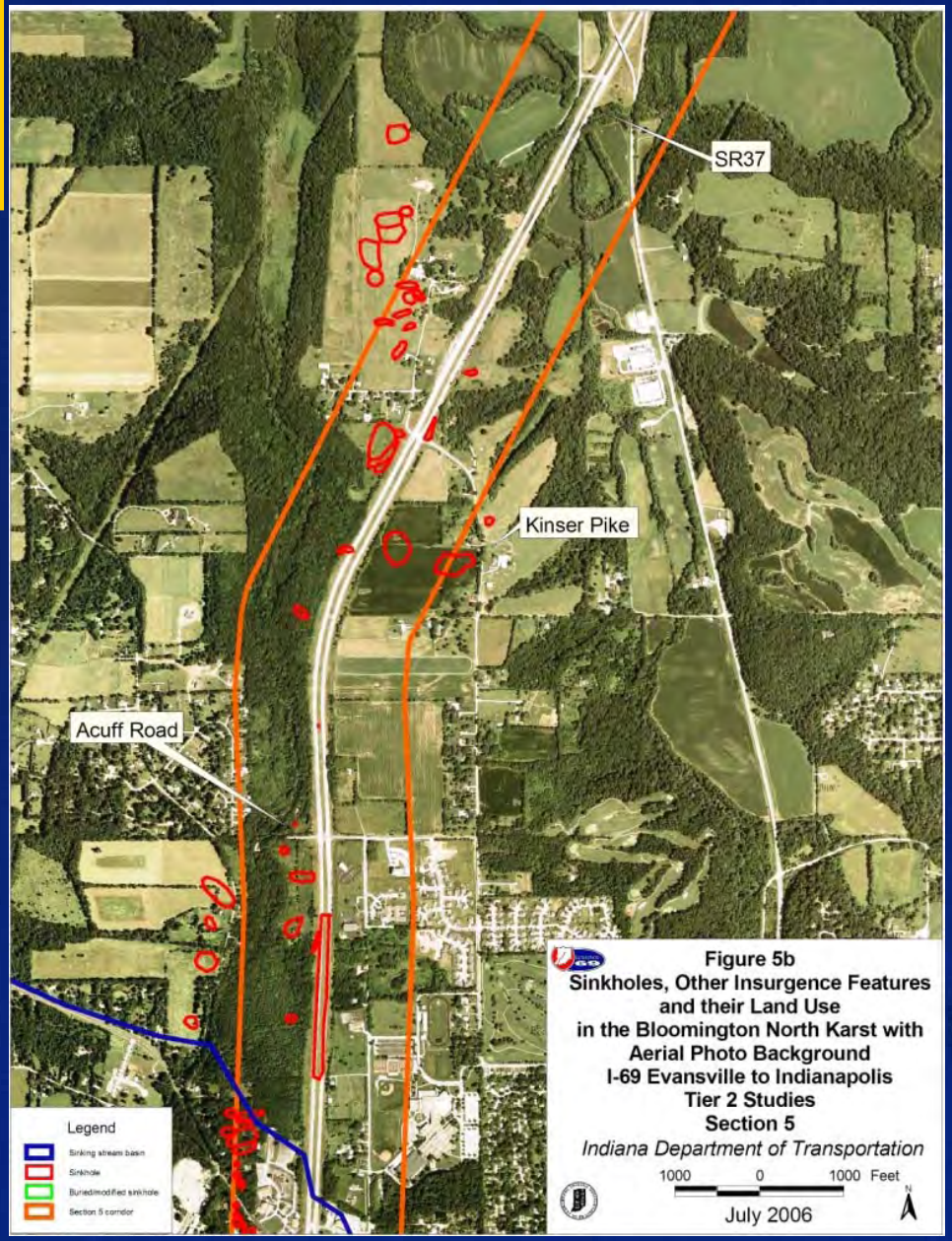
Results

Bloomington Karst

- Sinkh[redacted]ed)
- Bu[redacted]es (in green)
- Sin[redacted]blue)

[redacted]

[redacted]



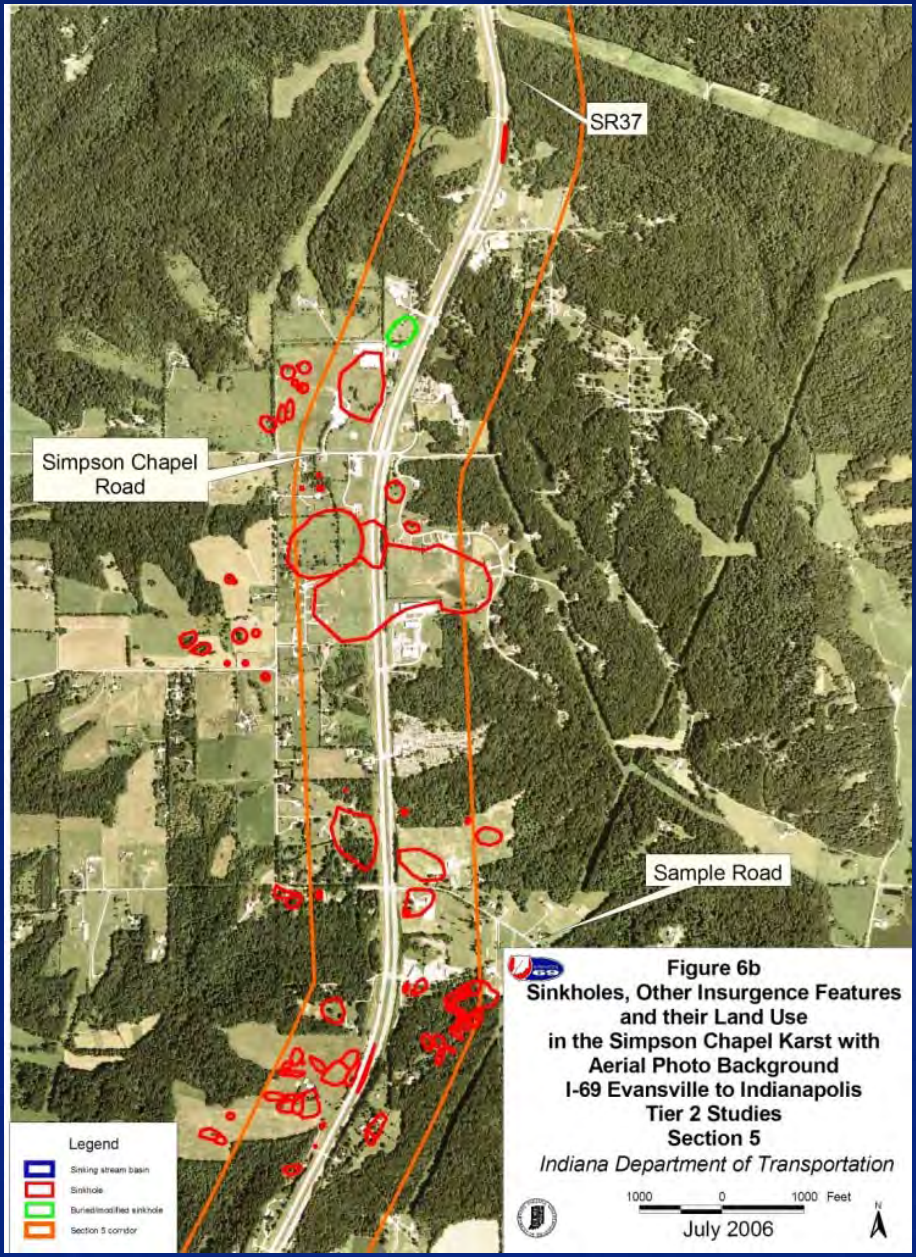
Results

Bloomington North Karst

- Si[redacted]n red)
- [redacted]holes (in green)
- S[redacted] (in blue)

[redacted]

[redacted]



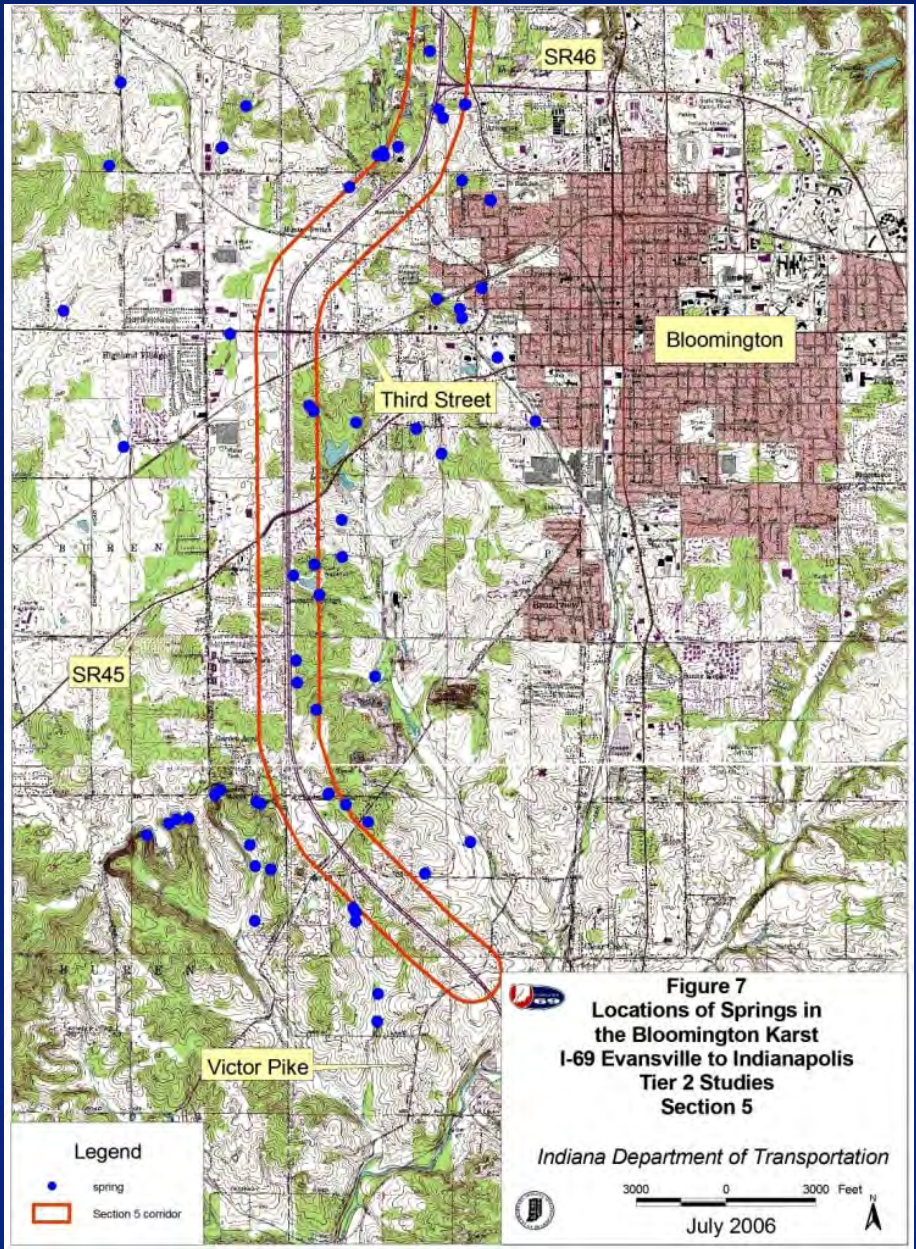
Results

Simpson Chapel Karst

- Si[redacted]n red)
- [redacted]holes (in green)
- S[redacted](in blue)

[redacted]

[redacted]



Results

Bloomington Karst

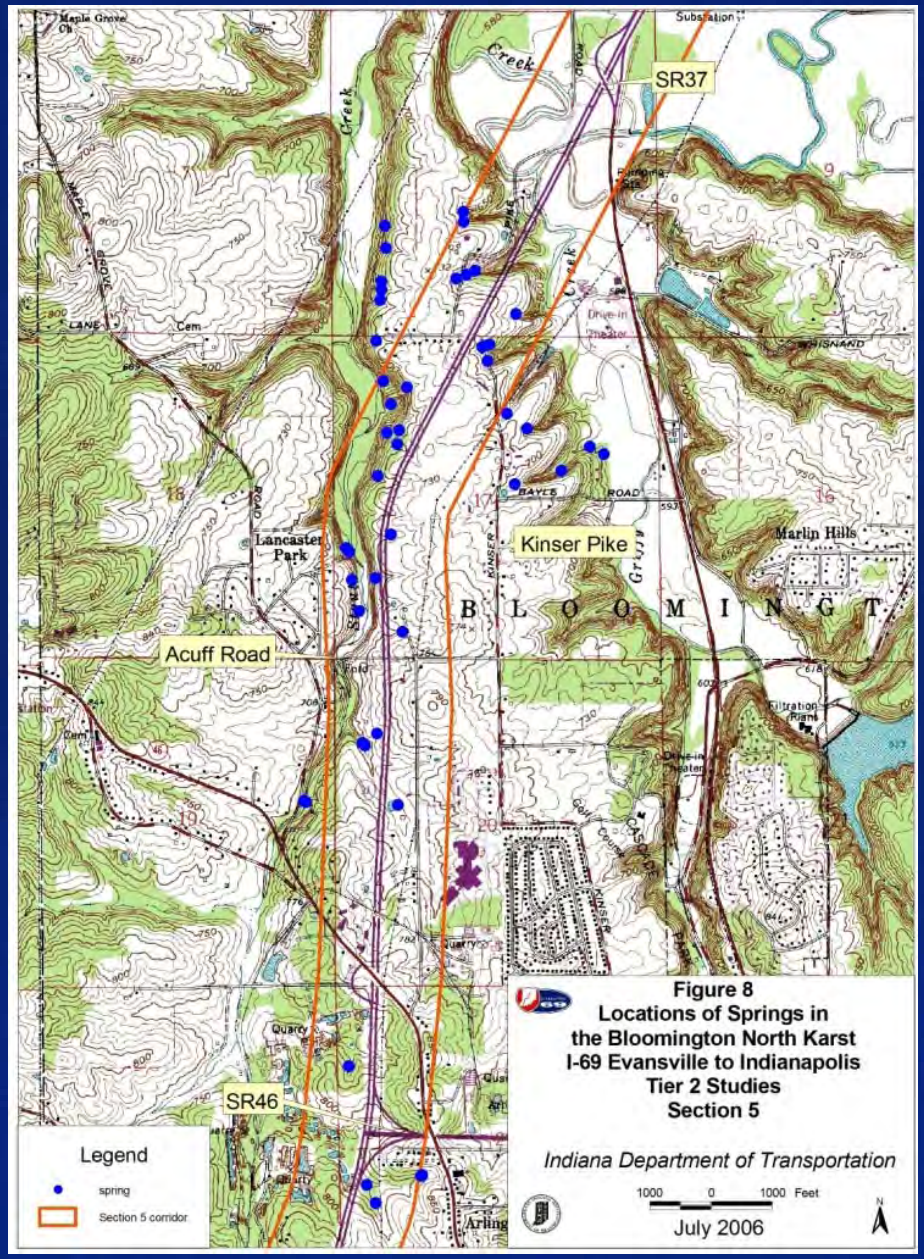
- [redacted]pography

[redacted] (blue points)

[redacted]

[redacted]

[redacted]



Results

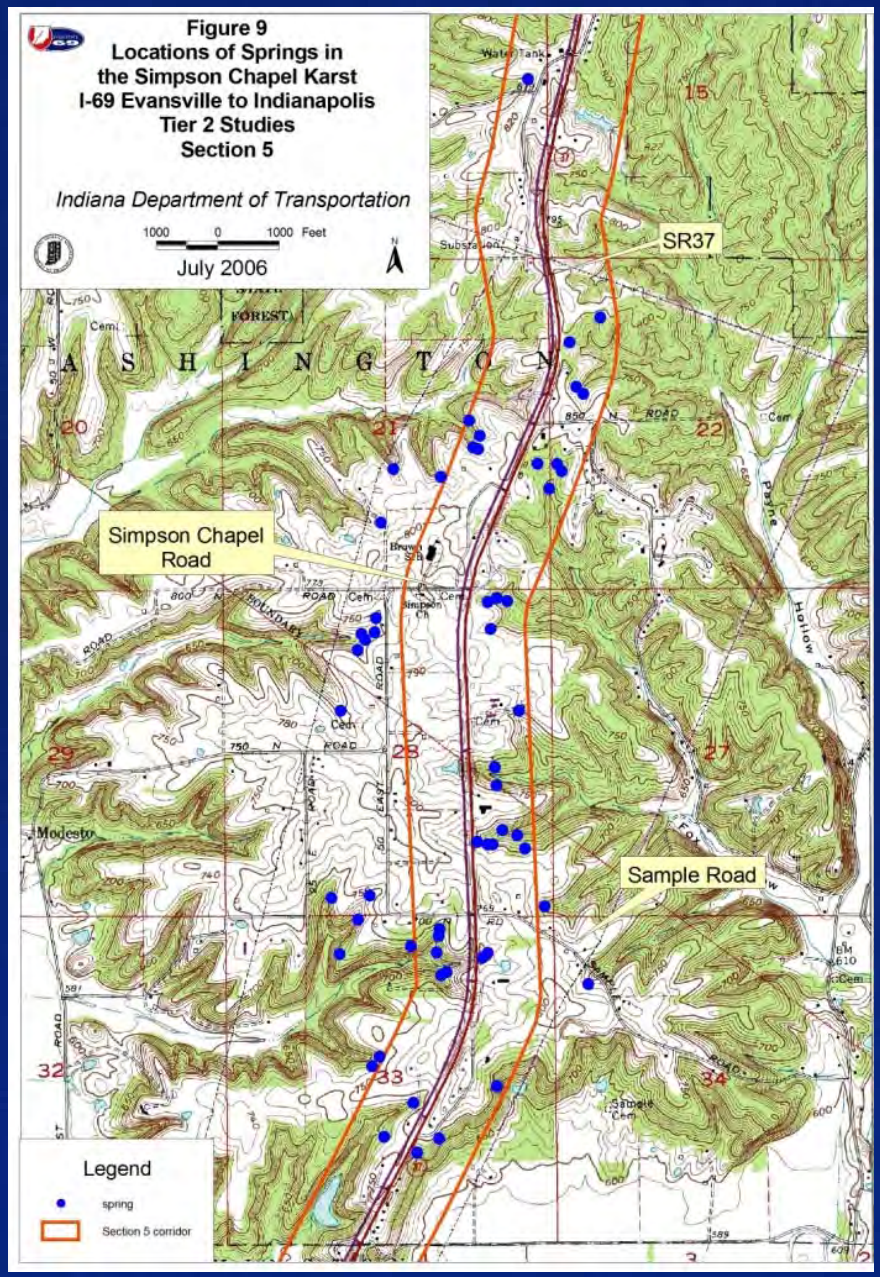
Bloomington North Karst

[redacted]

- Local Topography
- [redacted]

[redacted]

[redacted]



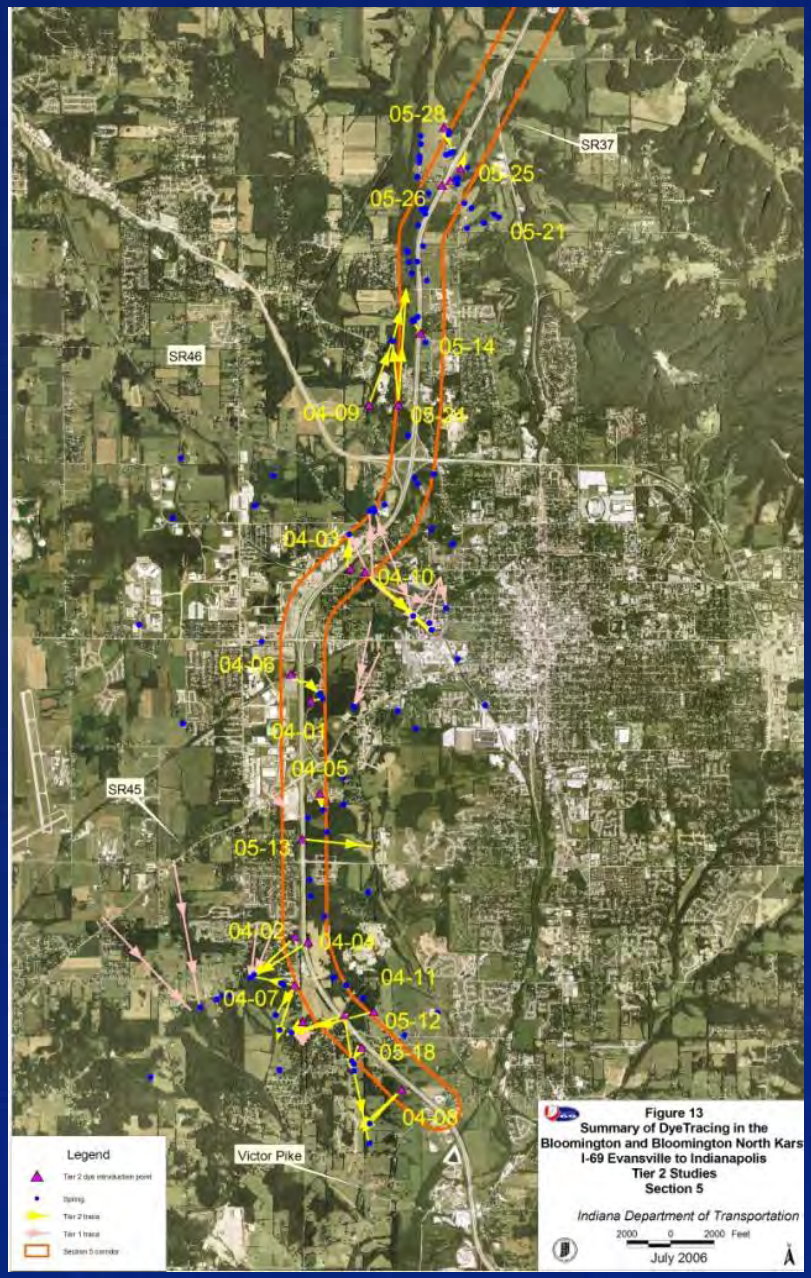
Results

Simpson Chapel Karst

- [redacted]ography
- [redacted]lue points)

[redacted]

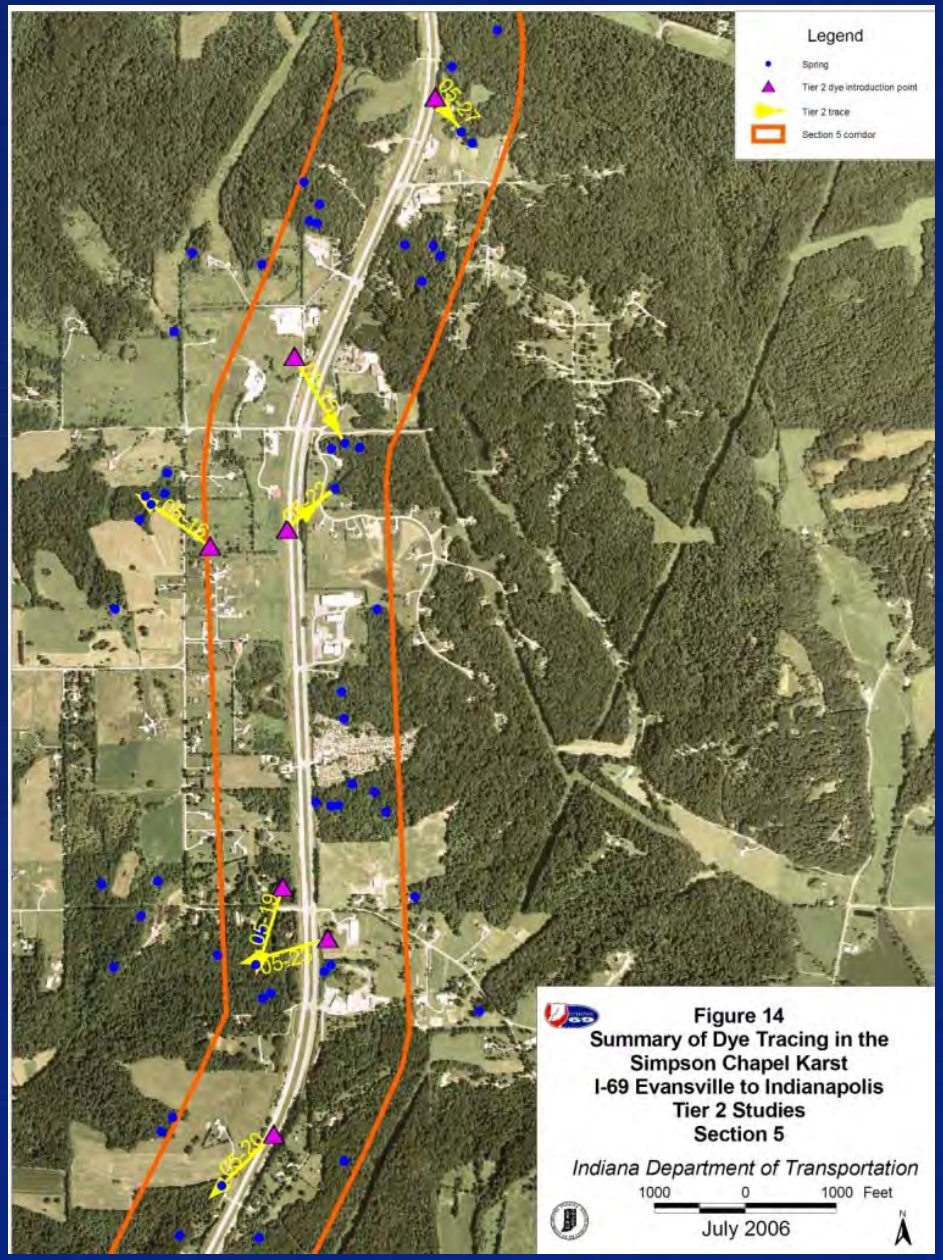
[redacted]



Results

Bloomington and Bloomington North [redacted]rst

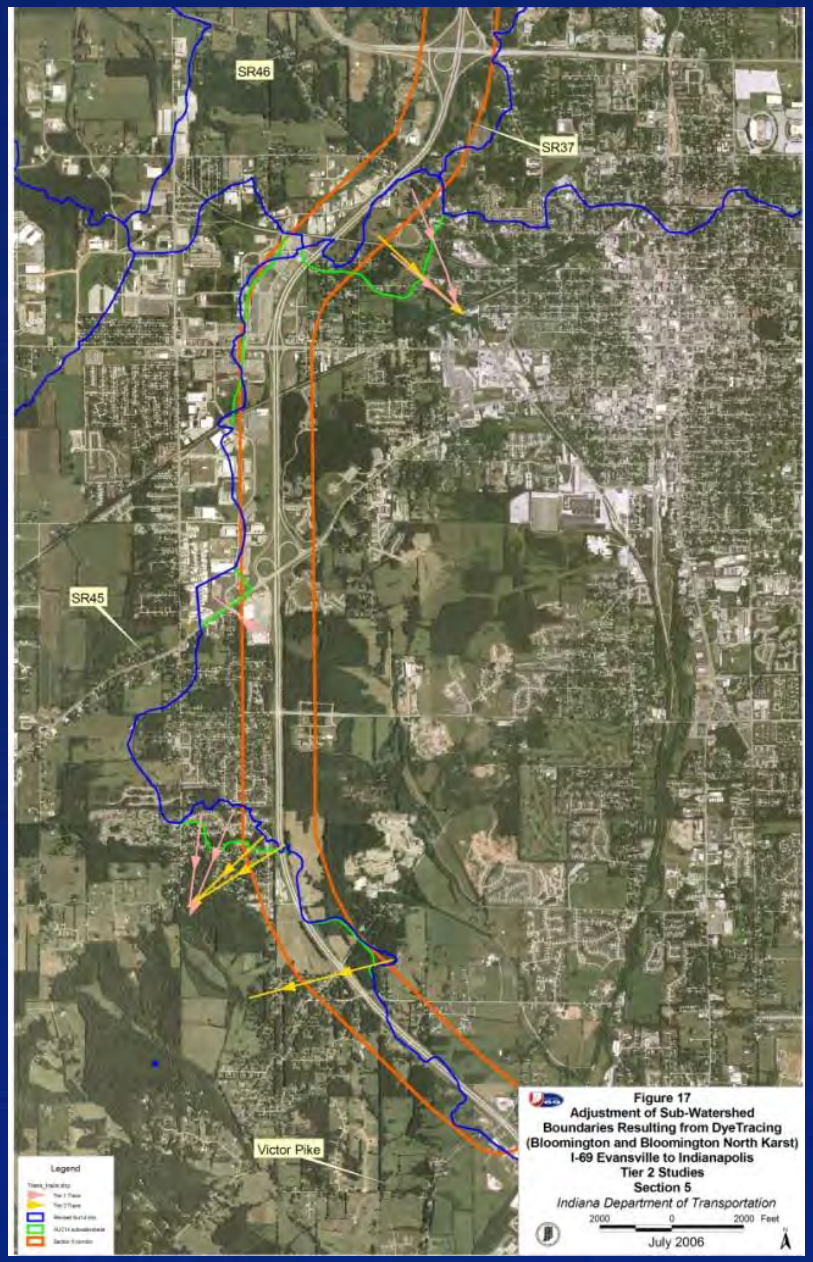
- [redacted]tion Point (pu[redacted]
- Generalized flowpath for Tier [redacted] arrow)
- Ge[redacted]wpath for dye trace form other sources (pink arrow)



Results

Simpson Chapel Karst

- [redacted]duction Point (purple triangle)
- [redacted] arrow) [redacted]
- Generalized flowpath for dye trace form other sources (p[redacted]



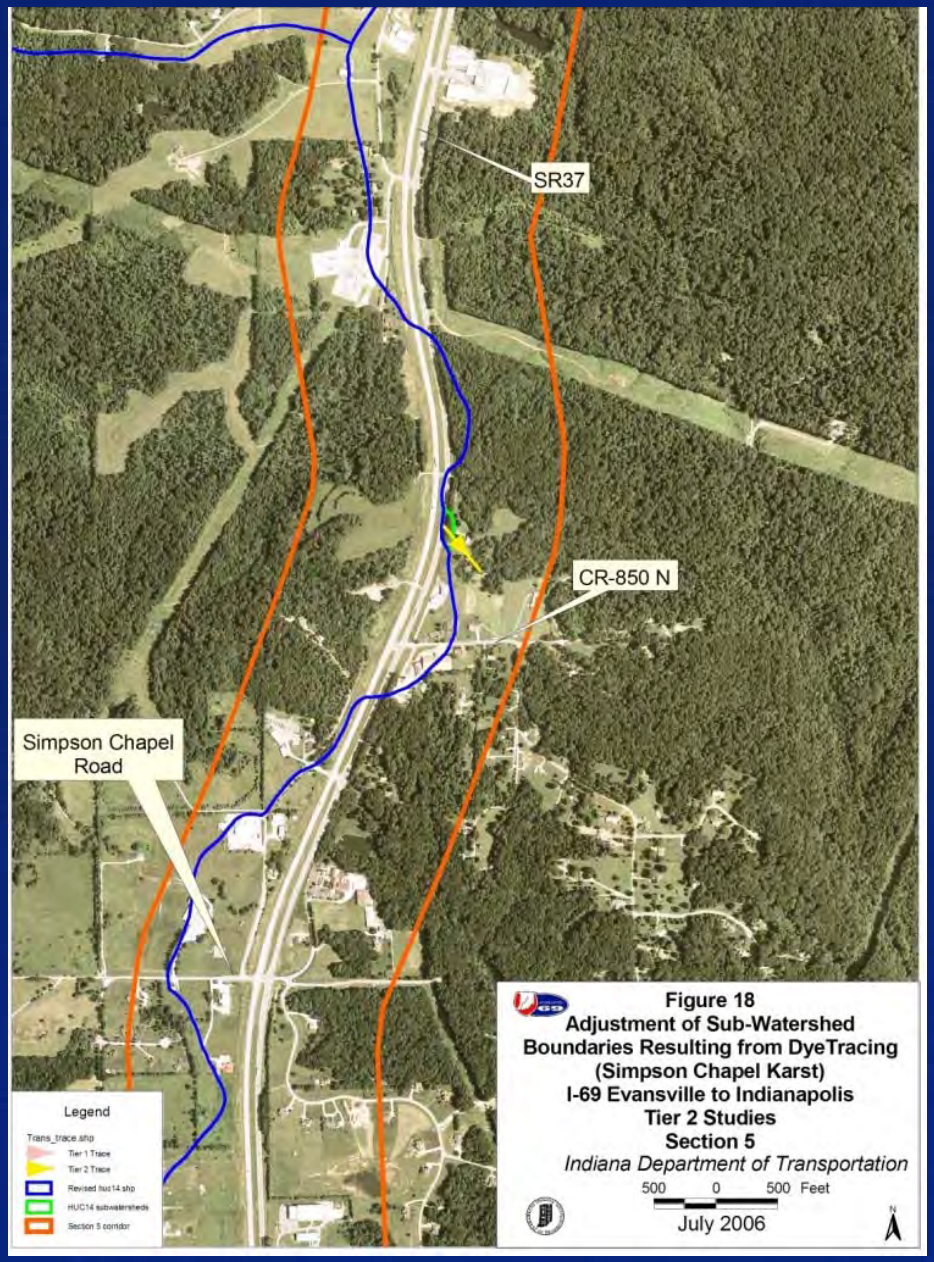
Results

Bloomington and
Bloomington North
[redacted]rst

- [redacted]ed boundary
adj[redacted]
dye[redacted]

[redacted]

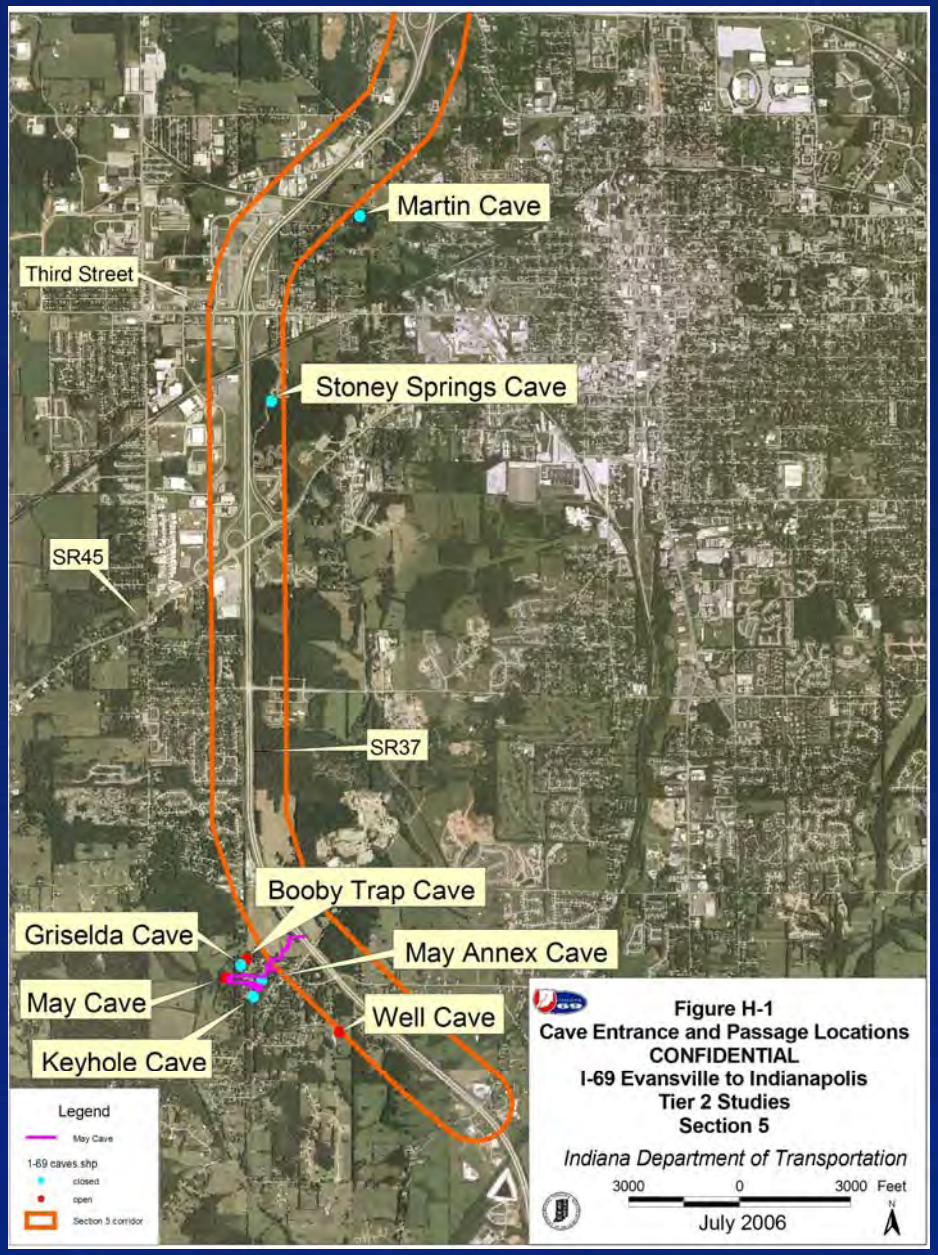
[redacted]



Results

Simpson Chapel Karst

- [redacted]rshed boundary [redacted]ustments determined by [redacted] (in green) [redacted]



Results

Section 5 Caves

- [redacted]/karst window
- [redacted] complex ([redacted])
- [redacted] (buried)
- [redacted] (buried)

Results

[redacted] Cave Biological Survey

OUL and its subcontractor, Lewis & Associates, conducted the survey and concluded the following:

- There were no federally listed species identified as part of the biological surveys.

- 5 troglobitic species were identified in [redacted] Cave and 1 State-listed Threatened Species (cave crayfish [*Orconectes inermis testii*]).

- [redacted] cave had 1 troglobitic species that was not designated rare or protected.

- [redacted] had 11 troglobitic species, 8 globally rare, 2 State-listed Rare Species, 1 State-listed Threatened Species (cave crayfish [*Orconectes inermis testii*]), and 2 State-listed Endangered Species (hidden spring snail [*Fontigens cryptica*] and Mayfield cave beetle [*Pseudanophthalmus shilohensis mayfieldensis*]).

Summary and Conclusions

General

- Significant current and planned development within Section 5 regardless of I 69.

- Although some particular karst features may be avoided, karst geology cannot be avoided within the Section 5 corridor.

- None of the dye traces demonstrated discrete recharge from insurgence features without surface expression.

- In general terms, SR 37 is near both the topographic and groundwater divides with generally the headwaters of drainage s

- The karst groundwater systems tend to be small and relatively isolated; therefore, a single spill along the roadway, even if uncontained, would generally impact a single, r all groundwater system.

- The only significant cave system linked hyrologically to the Section 5 corridor is the System.

- About 80% of the springs in Section 5 were found at or near geologic contacts. Spring discharges varied by at least two orders of magnitude.

Summary and Conclusions

[redacted] characteristics by Area

• Bloomington Karst: Recharge to springs generally includes SR 37, and springs were being impacted from road use, maintenance, and development. The Bloomington Karst has longer and slower groundwater flowpaths, with velocities ranging from hundreds to thousands of feet per day and a typical travel time from one to two days.

• Bloomington North Karst: About half of the insurgence features and some of the springs in the corridor were at higher elevations than the SR 37 grade. Sinkholes and springs were smaller on average than those found [redacted] the other two karst areas and reflected the thin nature of the karst that terminated [redacted]

• [redacted]pel Karst: Most insurgence features were above the SR 37 grade, therefore, many springs were not receiving road runoff. SR 37 was cut into the limestone through most of this area and essentially has been redirecting runoff to o[redacted]elevation karst features or off the karst entirely.

The flowpaths in the Bloomington North and Simpson Chapel Karst [redacted] tend to be shorter [redacted] than Bloomington Karst, with velocities up to 48,000 feet per day and typical travel times ranging from minutes to a single day.

Summary and Conclusions

[redacted]eneral Concerns

• Karst systems are capable of transporting sediment and contaminants quickly into caves and to springs that may be relatively far from their source.

• Collapse of filled sinkholes can threaten adjacent or overlying structures. There are filled/modified sinkholes by people/natural processes throughout Section 5. Roadways can be eroded by passing over a spring with drainage [redacted]ural fill that is not properly engineered.

•Road surfaces can change patterns of runoff/infiltra[redacted]d water can destabilize sinkholes. Unlined water dete[redacted]lic h[redacted]porting earthen materials and lead to failures. Numerous instances of reopening sinkholes and soil piping were observed th[redacted]crete-lined ditches along SR 37.

• Potential alteration of existing groundwater flow/qua[redacted]k competency concerns are associated with groundwater flow within the Section 5 karst. Interbasin [redacted] water is common; during a spill containment failure, the location for an effective response might not be obvious. Runoff redirection maybe perceived as aggravating existing flooding downstream of SR 37.

Areas of Special Concern

Bennett's Dump

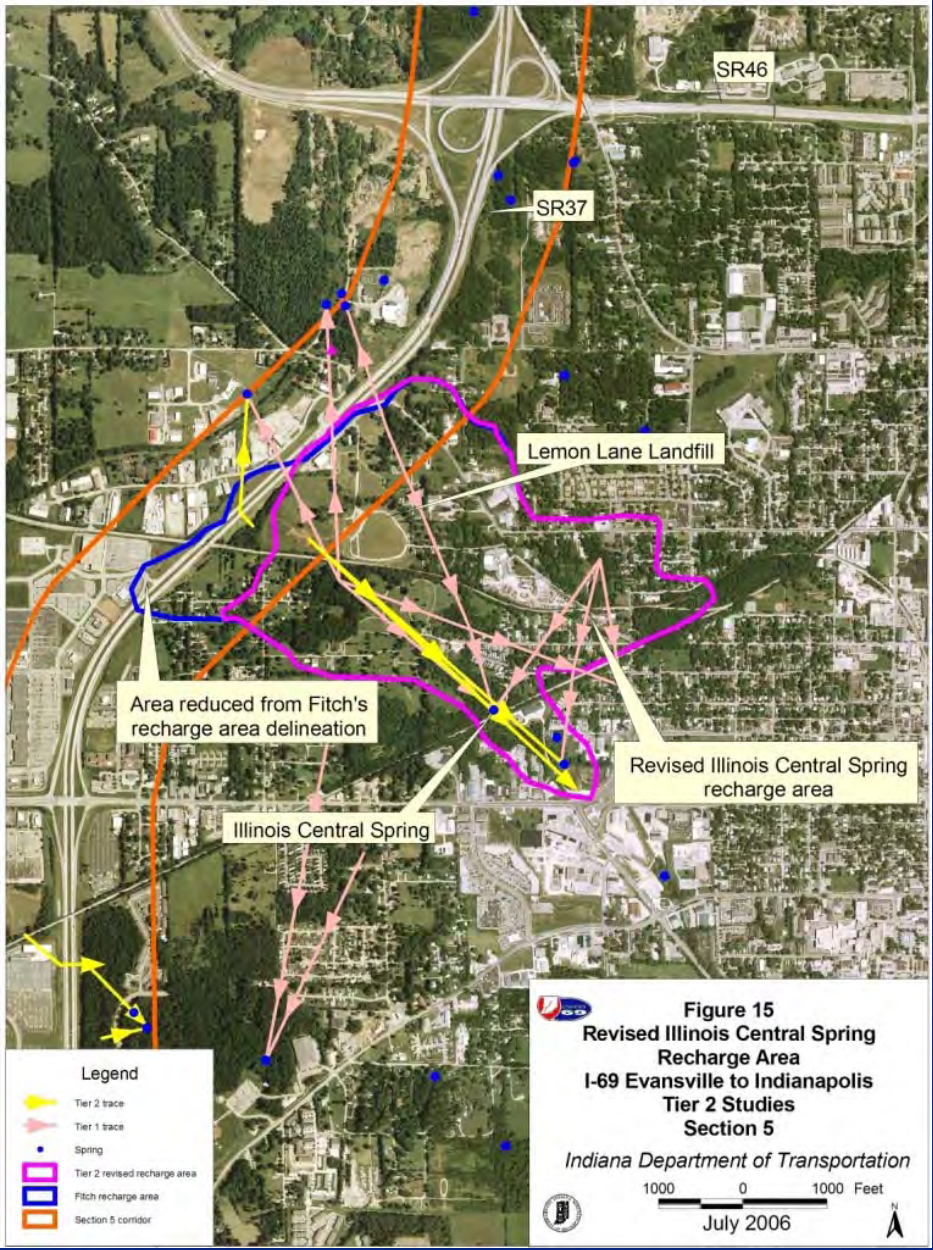
[redacted]

[redacted]unerfund Site

[redacted]46 interchange

[redacted]

- Avoid introduction of additional groundwater/ s[redacted]r to the site



Areas of Special Concern

Lemon Lane Landfill

[redacted]

[redacted]uperfund Site

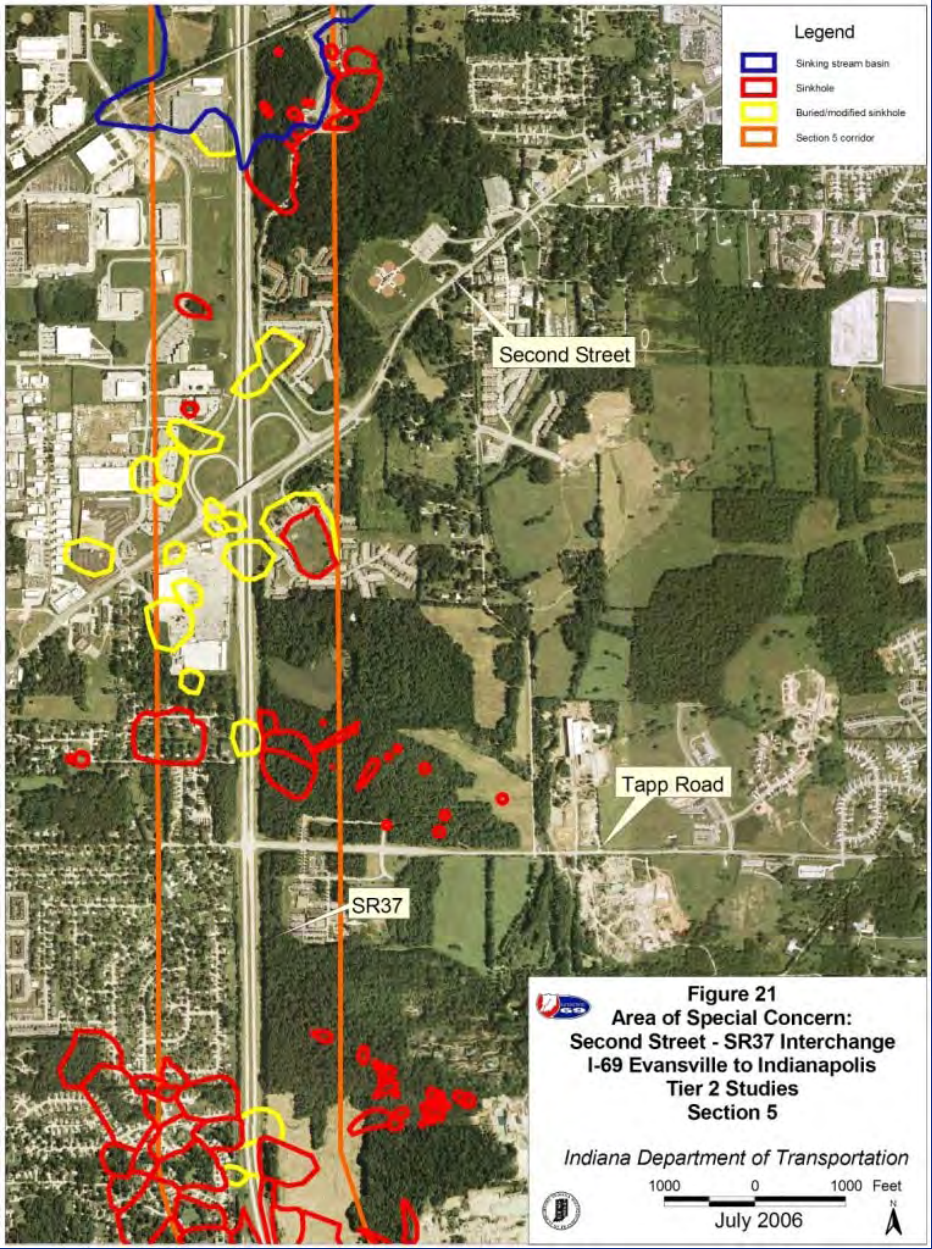
[redacted]

• [redacted]

[redacted] discharge

[redacted]

• Avoid introduction of additional groundwater/ su[redacted]r to the site

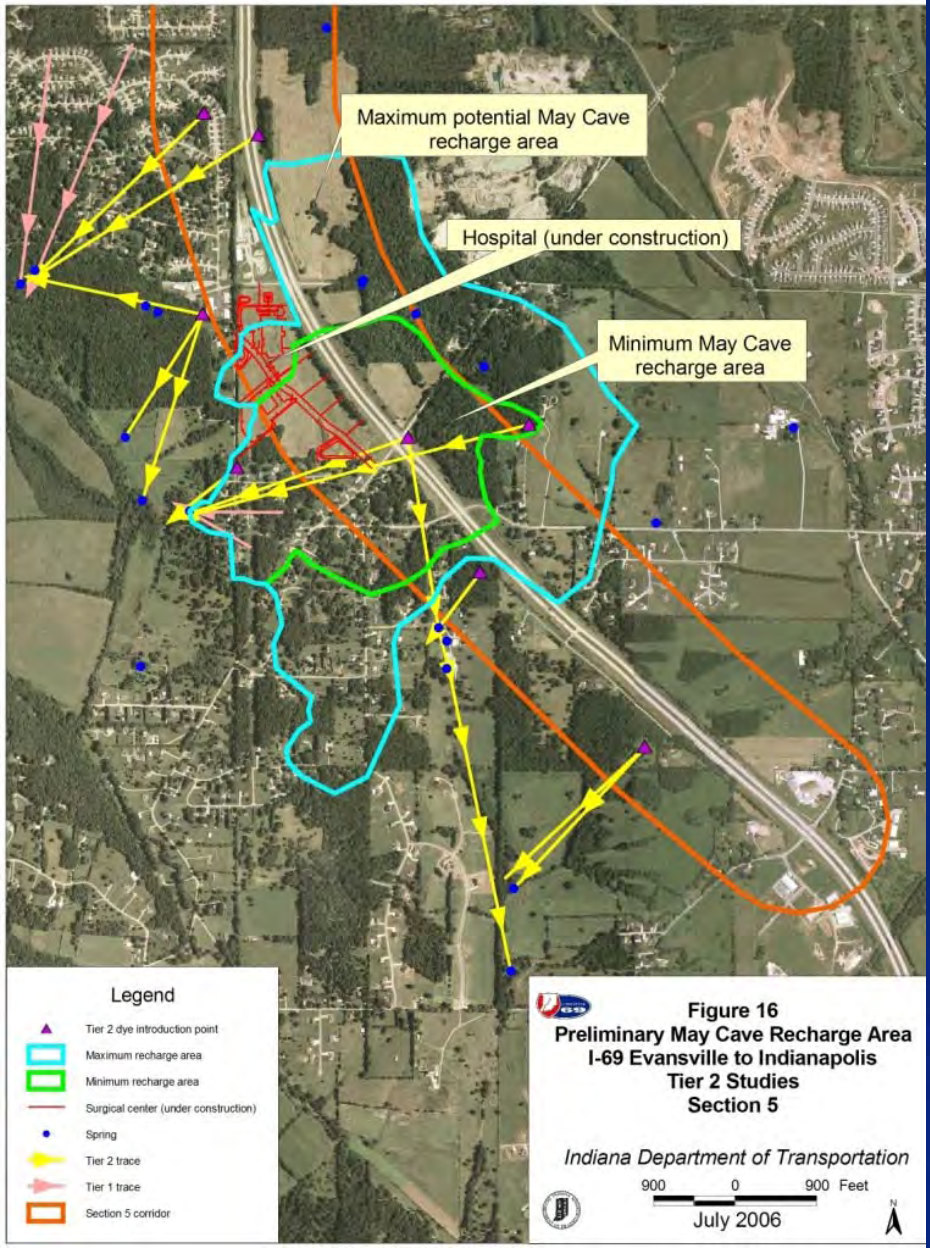


Areas of Special Concern

Interchange at Second [redacted]t and SR 37

[redacted]

- [redacted]t concentration [redacted]
- Localized flooding [redacted]er Road and Wapahani former reservoir/lake [redacted]



Areas of Special Concern

May Cave

- [redacted]xisting/planned d[redacted]nt within the r[redacted]
- Minimum vs Maximum re[redacted]
- State listed species [redacted]
- SR 37 crosses over historically mapped cave passages

I-69 Evansville to Indianapolis
Tier 2 Studies

Overall I-69 Agency Coordination Meeting ***Attendance Sheet***

August 1, 2006, 9:00 a.m.- 5:00 p.m. (EDT), AMVETS, Bloomington, IN

NAME	AGENCY	PHONE NUMBER/EMAIL
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2. Susan Branigin	INDOT-DES, Cult. Resources	317-234-0142
3. Patricia Morris	USEPA - Air Division	312-353-8656 morris.patricia@epa.gov
4. Henry Nodorse	BLA	(812)-479-6200 hnodorse@blainc.com
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6. FRANKLIN LEWIS	USDA FOREST SERVICE HOOSIER NF	812 277 3580 flewis@fs.fed.us
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8. Michelle Hilary	INDOT - Env. Services	317/232-5417 mhilary@indot.in.gov
9. Ben Lawrence	INDOT - Env. Services	317-233-1164 blawrence@indot
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11. Tony DeSimone	FHWA	317 226-5307 ~~[illegible]~~ Anthony.desimone@fhwa.dot.gov
12. Jay DoMonkelle	FHWA	317 226-7491 JAY.DOMONKELLE@FHWA.DOT.GOV
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15. VIRGINIA LASZEWSKI	US EPA	312-886-7501 laszewski.virginia@epa.gov
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20. MARY JO HAMMAN	MICHAEL BAKER	317-581-8592 mhamman@mbakercorp.com
21. Jim Peyton	Michael Baker Jr, Inc.	812-355-1390 jpeyton@mbakercorp.com
22. Nick Batta	INDOT - Feasibility Engr	317-234-2359 nbatta@indot.in.gov
23. David A. Butts	INDOT - Feasibility Engineering	317-232-3767 dbutts@indot.in.gov
24. James Ude	INDOT - Seymour District	812-524-3729 jude@indot.in.gov

I-69 Evansville to Indianapolis
Tier 2 Studies

Overall I-69 Agency Coordination Meeting *Attendance Sheet*

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NAME	AGENCY	PHONE NUMBER/EMAIL
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28. Kevin Allison	Corradino	812-257-0083 kallison@corradino.com
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35. Newton Ellens	U.S. EPA, Region 5	312-353-5562 ELLENS.NEWTON@EPA.gov
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39. Mike Tackett	Corradino	" " " mtackett@corradino.com
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41. DOUG SHELTON	CORPS OF ENGINEERS	502 315 6678
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43. Rusty Yeager	BLA - Evansville	
44. Carol Stood	BLA	
45. Jason Stone	DLZ Indiana LLC	574-236-4400 + 812-334-8869
46. Brian Arterbery	DLZ Indiana LLC	574-236-4400 / barterbery@dlz.com
47. Tom Seeman	INDOT	317-232-5336 tseeman@indot.in.gov
48. BRUCE HUDSON	DLZ INDIANA	SECTION 4 PROJECT OFFICE

I-69 Evansville to Indianapolis
Tier 2 Studies

Overall I-69 Agency Coordination Meeting ***Attendance Sheet***

August 1, 2006, 9:00 a.m.- 5:00 p.m. (EDT), AMVETS, Bloomington, IN

NAME	AGENCY	PHONE NUMBER/EMAIL
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* 51. Christie Stanifer	IDNR	317-232-8163 cstanifer@dnr.in.gov
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53. Andy King	USFWS	812-334-4261 x216 Andrew_King@fws.gov
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64. ROGER WADE	QK4	812-9[illegible] rwade@qk4.com
65. Jason Krothe	Hydrogeology, Inc	
66.		
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72.		

I-69 Water Resources Update

I-69 Agency Coordination Meeting

August 1, 2006

Introduction

Coordination with Agencies

- Field visits with IDEM and USACE completed in each Section
- Field work has been completed in all 6 Sections
- Existing 1993 Biota Surveys
- Additional Biota Data compete as part of Tier 2 Studies
- Formal data requests were sent to IDNR, IDEM, and USFWS
- Data received to date from IDNR, IDEM, and USFWS

Surveys Completed in 1993

(Evansville to Bloomington Only)

- Bats - 21 sites and recorded 7 species (Netted *Myotis sodalis*)
- Fish - 93 sites and recorded 71 species
- Mussels - 41 sites and 12 species
- Birds - 30 sites and recorded 101 species
- Mammals – 20 species (trapping and observations, excluding bats)
- Amphibians – 5 species (Drift Fence Array)
- Reptiles – 4 species (Drift Fence Array)
- Plants – 361 species recorded from walking the alignment, birds sites, wetland delineations, and Patoka River botanical survey (*Panicum dichotomum* - SE, *Diodia virginiana* – ST, *Taxodium distichum* – ST, *Carex socialis* - Rare)
- Forest Plots (5 lowland and 6 upland sites – 39 species of trees including DBH's within a 20 meter diameter sampling plot)

Additional Biota Data

Additional Biota Surveys

- Biota Surveys completed in Sections 5 and 6
- Additional Biota Surveys completed in Patoka River Wildlife Refuge Area and in the East Fork of the White River

Additional Information From Environmental Agencies

- Formal data requests were sent to IDNR, IDEM, and USFWS
- Data received to date from IDNR, IDEM, and USFWS

Technical Reports

Methodology

- “Draft” Reports in the DEIS may not include Preferred Alt. Delineations

Progress Reports for Each Section

- **Section 1**
- **Section 2**
- **Section 3**
- **Section 4**
- **Section 5**
- **Section 6**

I-69 Agency Coordination Meeting

August 1, 2006

Section 1
Water Resources Update

Section 1 Water Resources

Wetlands. . . ***Wetland Assessment (InWRAP) completed***

Section 1 is anticipated to impact between 1 to 5 acres of wetlands

Wetland Identified in Section 1 included only Emergent and Forested Wetlands

The Quality of the majority of the Wetlands in Section 1 Rated Poor to Fair using InWRAP

Section 1 will also impact a number of open water areas, which include mainly ponds and a lake.

Section 1 Water Resources

Streams. . . *HHEI / QHEI Assessment completed*

The Majority of streams impacted in Section 1 are intermittent and ephemeral streams

Most of the streams crossed in Section 1 are classified as legal drains in Gibson County.

Pigeon Creek and a Tributary of Pigeon Creek are the only perennial streams crossed in Section 1

QHEI Assessments indicated that neither perennial stream is likely to provide suitable habitat to sustain plants and animals typically found in the region, which generally means low quality.

Minimization Efforts

- *The Section 1 corridor narrows at the crossings of Pigeon Creek and the perennial Tributary of Pigeon Creek to avoid wetlands and forests*
- *A wildlife corridor is proposed beneath the bridge over the two perennial streams*
- *The alternatives were designed to cross streams at a perpendicular angle wherever possible to reduce stream and floodplain impacts*
- *The alternatives were shifted to avoid lengthy stream relocations wherever possible*

I-69 Agency Coordination Meeting

August 1, 2006

Section 2
Water Resources Update

Tier 2—Agency Coordination

Section 2 – Water Resources

Rivers and Streams

- Field surveys completed in January 2006
- Major Stream Crossings: Keg Creek, Patoka River, Mud Creek, East Fork of the White River, Veale Creek, and Hurricane Branch
- Intermittent and perennial streams ranged from small (the unnamed tributary of Hurricane Branch) to large (the East Fork of the White River)
- Most of the headwater habitat streams contain no water or only isolated pools
- Silt and sand were the predominate substrates identified in the streams in Section 2

Tier 2—Agency Coordination

Section 2 – Water Resources (continued)

Wetlands

- Section 2 is anticipated to impact between 30 to 35 acres of wetlands
- The palustrine forest type comprises the majority of the total wetland areas that would be impacted
- The Section 2 corridor includes several ponds of various sizes
- Mining ponds can be found in the study area
- InWRAP wetland quality assessments indicated that forested wetlands most often scored good to fair
- Emergent marshes in disturbed, agricultural settings most often scored poor to fair

Tier 2—Agency Coordination

Section 2 – Water Resources (continued)

Minimization Efforts

- Rivers and Streams / Wetlands
  - Minimization efforts will include, as appropriate, minor shifting of the alternatives to avoid large wetland complexes, bridging floodplains and oxbows, minimizing channel clearing and relocation, and utilizing erosion control devices
  - FHWA and INDOT have committed to bridging the floodplains in their entirety of the Patoka River and Flat Creek

I-69 Agency Coordination Meeting

August 1, 2006

Section 3
Water Resources Update

Section 3 Wetlands and Streams

- Section 3 is anticipated to impact between 10 to 15 acres of wetlands
- Wetlands were field identified in the Section 3 corridor and the majority of the wetlands can be found in First Creek, Prairie Creeks and Doans Creek basins.
- Alternatives were created to avoid wetland areas where possible and to minimize the impacts where avoidance was not possible.
- The field work completed in Section 3 using INWRAP showed that the majority of wetlands are of medium quality with those in the First Creek basin showing medium to high quality and those in the Doans Creek basin showing medium to poor quality.
- The field work completed using QHEI and HHEI showed that the majority of the streams are of low quality.
- South Fork Prairie Creek, North Fork Prairie Creek, and First Creek are listed as impaired streams.

Section 3 Wetlands and Streams

- The vast majority of the streams in Section 3 have been channelized to drain farmland, including some of the larger perennial streams such as the Prairie Creeks. Only First Creek, Doans Creek, a Doans Creek tributary, and a few minor streams still retain their natural course.

- Where practical, alternatives were created to cross streams at a perpendicular angle to minimize impacts.

Section 3 Wetlands and Streams

- Alternatives were developed and adjusted to avoid the large forested wetlands adjacent to South Fork Prairie Creek as well as other wetland areas in the Section 3 corridor.

I-69 Agency Coordination Meeting

August 1, 2006

Section 4
Water Resources Update

Wetlands

Most of the wetlands in Section 4 are associated with riparian/floodplain corridors in seasonally inundated channels. Primarily forested and emergent, with some scrub/shrub.
Other wetlands in Section 4 area associated with springs or seeps, as well as termini of crop field drainages.
PEMAd Wetland west of CR 600E, Greene County

Wetlands

Section 4 is anticipated to impact between 10 to 15 acres of wetlands

The Alternatives being Development avoid 70 percent of the wetlands identified within the corridor

Some Wetland impacts were unavoidable

Minimization Efforts

- Maximum allowable grades, minimized fills
- Minor alignment shifts
- Preserve/provide riparian buffers

Wetlands

Wetland Qualitative Evaluation

InWRAP performed on the Wetlands within the Alternatives showed that the majority of wetland impacts in Section 4 are of Fair quality

Man-Made Ponds

Streams

The majority of streams crossed by Section 4 are Intermittent and ephemeral streams

Section 4 does cross 7 perennial streams

Perennial Streams

Perennial Streams

Stream Habitat Evaluation:

QHEI Evaluations performed at all crossing locations indicated that all of the perennial streams crossed in Section 4 are Warmwater Habitat Streams. The quality of these streams is low to medium.

Intermittent and Ephemeral Streams

I-69 Evansville to Indianapolis Tier 2 Studies

Intermittent and Ephemeral Streams

Stream Habitat Evaluation:

QHEI Evaluations performed where stream watershed exceeded 1 square mile at crossing location. These streams indicated low to medium quality.

HHEI performed for other crossings.

- 32% were Class I Primary Headwater Habitat
- 53% were Class II Primary Headwater Habitat
- 15% were Class III Primary Headwater Habitat

Minimization Efforts

Impact Minimization

- Maximum allowable grades, minimized fills
- Bridge structures
- Preserve/provide riparian buffers
- Minor shifts in alignment to avoid wetlands wherever possible
- Design alternatives to cross streams at a perpendicular angle wherever possible to reduce stream and floodplain impacts

I-69 Agency Coordination Meeting

August 1, 2006

Section 5
Water Resources Update

Streams Surveys in Section 5

Stream Assessment Methodology

- Fish, crayfish, and unionid surveys were conducted on Griffey, Beanblossom, Bryant, Little Indian, and Indian Creeks. These studies were completed to match the studies done in Sections 1 – 4 in the early 1990's.
- QHEI and HHEI habitat quality assessments were conducted on all streams potentially impacted by the Alternatives Carried Forward for Detailed Analysis.

Stream Surveys Cont.

Stream Assessment Results

- No federal or state listed aquatic species were found.
- Bryant Creek, Little Indian Creek, and Indian Creek exhibited the best and most diverse habitat.
- All streams are classified as warmwater fisheries.
- 64 percent of the streams assessed have been previously impacted by SR 37 and/or other roads present within the Study Corridor.
- All streams exhibit some degree of biological or physical impairment resulting from commercial, industrial, residential, and agricultural development.

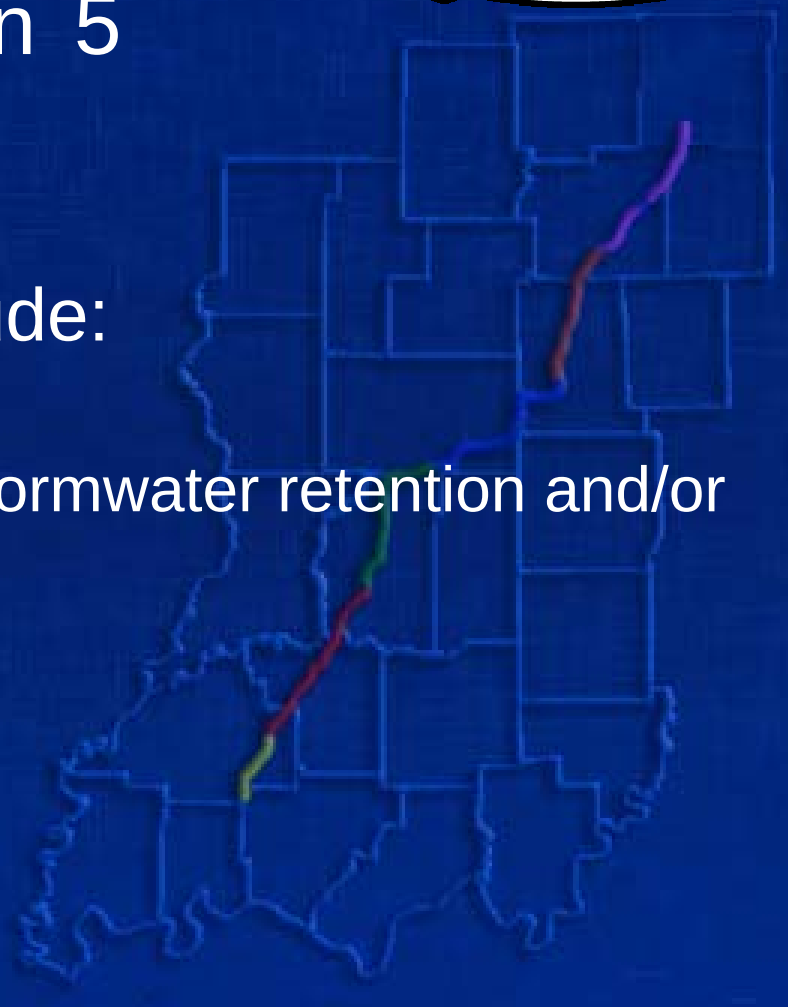
Examples of Section 5 Streams

I-69 Evansville to Indianapolis Tier 2 Studies

Wetlands in Section 5

Study Corridor Wetlands

- General wetland types include:
  - Floodplain wetlands
  - Artificial impoundments for stormwater retention and/or recreational use
  - Artificial ponds for farm use
  - Sinkhole ponds



Wetlands in Section 5 Continued

Wetland Assessment Results

- Section 5 is anticipated to impact between 10 to 15 acres of Wetlands
- Wetlands were concentrated in the floodplains of Beanblossom, Bryant, and Indian Creeks.
- 61 percent of the palustrine wetlands are less than 1-acre.
- No Class III wetlands will be impacted by the Alternatives Carried Forward for Detailed Analysis.
- No farmed wetlands or farmed wetland pastures were identified.
- The majority of the wetlands assessed with InWRAP were rated as “medium” quality, only two (2) were rated as “good” quality.

Examples of Section 5 Wetlands

I-69 Agency Coordination Meeting

August 1, 2006

Section 6
Water Resources Update

Section 6 Wetlands and Streams

- Wetlands were identified in a 2,000-foot study corridor in Section 6
- Additional wetland and stream assessments will be conducted this fall for those areas outside of the 2,000-foot study corridor due to access considerations

Section 6 Wetlands and Streams

- NWI wetlands were used in conjunction with the detailed wetland determinations using INWRAP to accurately depict the quality of the wetlands within the study corridor.
- Alternatives were created to avoid wetland areas where possible and to minimize the impacts where avoidance was not possible. Section 6 is anticipated to impact between 20 to 25 acres of wetlands

Section 6 Wetlands and Streams

- Section 6 is located in the Upper White River Watershed
- The West Fork of the White River and its tributaries drain the Upper White River watershed, feeding the White River, which flows into the Wabash and eventually the Ohio River. The interstate does not cross the West Fork of the White River.
- Most of the streams identified in the study corridor are drainage ditches or smaller headwater streams leading to the larger named streams
- Larger streams include Indian Creek, West Fork Clear Creek, Clear Creek, Stotts Creek, Pleasant Run Creek, Orme Ditch, and Little Buck Creek. All of these creeks and more feed into the West Fork White River

Section 6 Wetlands and Streams

- The heavy dominance of existing SR 37, agriculture, and urban development in the watershed is demonstrated by the modification of most of the streams in the study corridor
- These modifications include channelization, relocation, dredging, snagging, or straightening

Section 6 Wetlands and Streams

- The field work completed using QHEI and HHEI showed that the majority of the streams are within the classes I and II, with most of them being modified streams
- Class I are the lowest quality stream habitats, meaning that they have the lowest potential to support a diverse array of flora and fauna typically found in stream environments

I-69 Agency Coordination Meeting

August 1, 2006

Watershed Permitting Process

Permitting Process

Coordination with Permitting Agencies

- Coordination meetings have been held with each permitting agency to discuss how to approach the permitting process
- Each Section will be permitted individually
- Design level to be used for permitting process
- Environmentally Sensitive Water Resource Areas

I-69 Agency Coordination Meeting

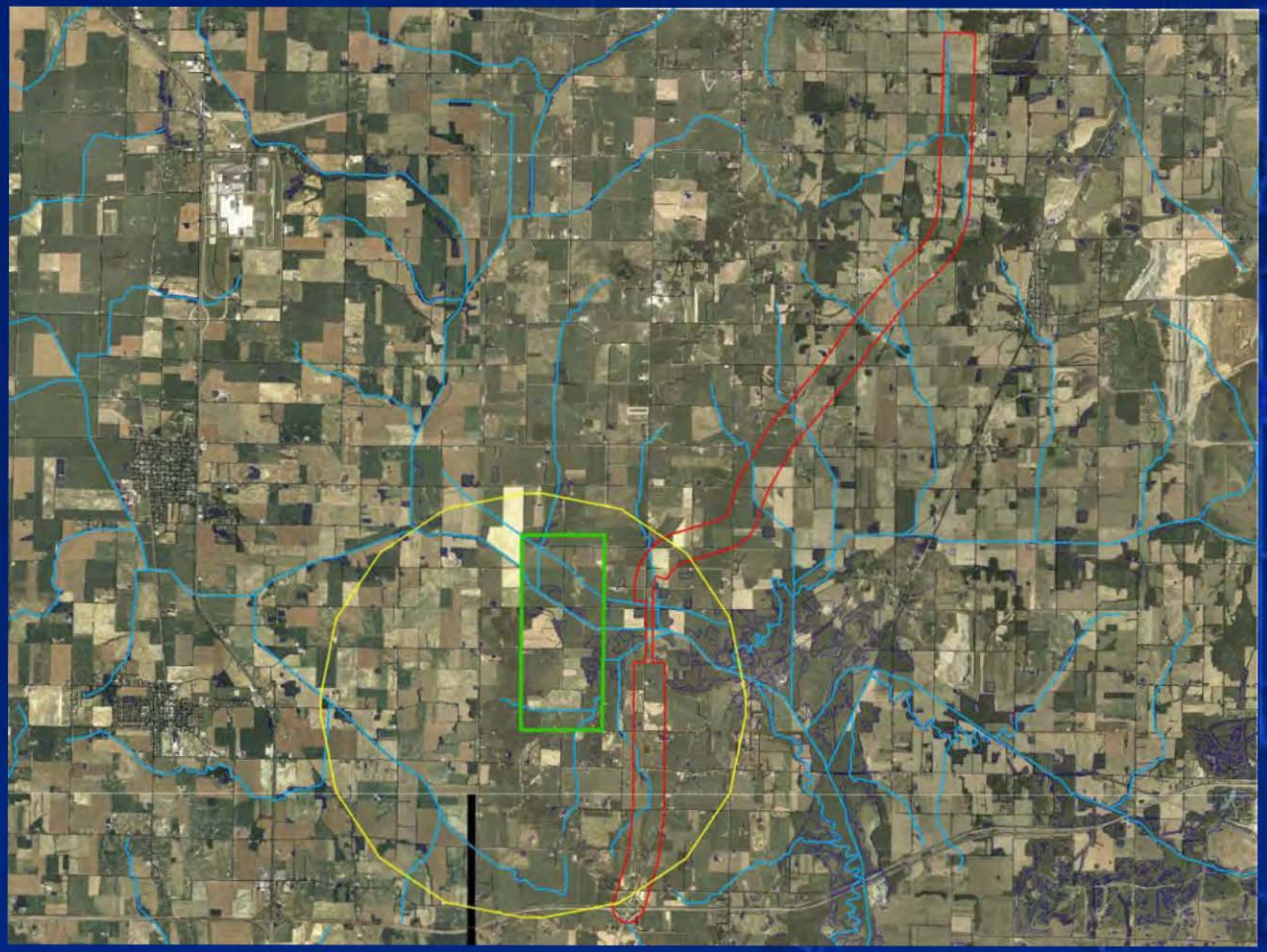
August 1, 2006

Mitigation

Mitigation Efforts

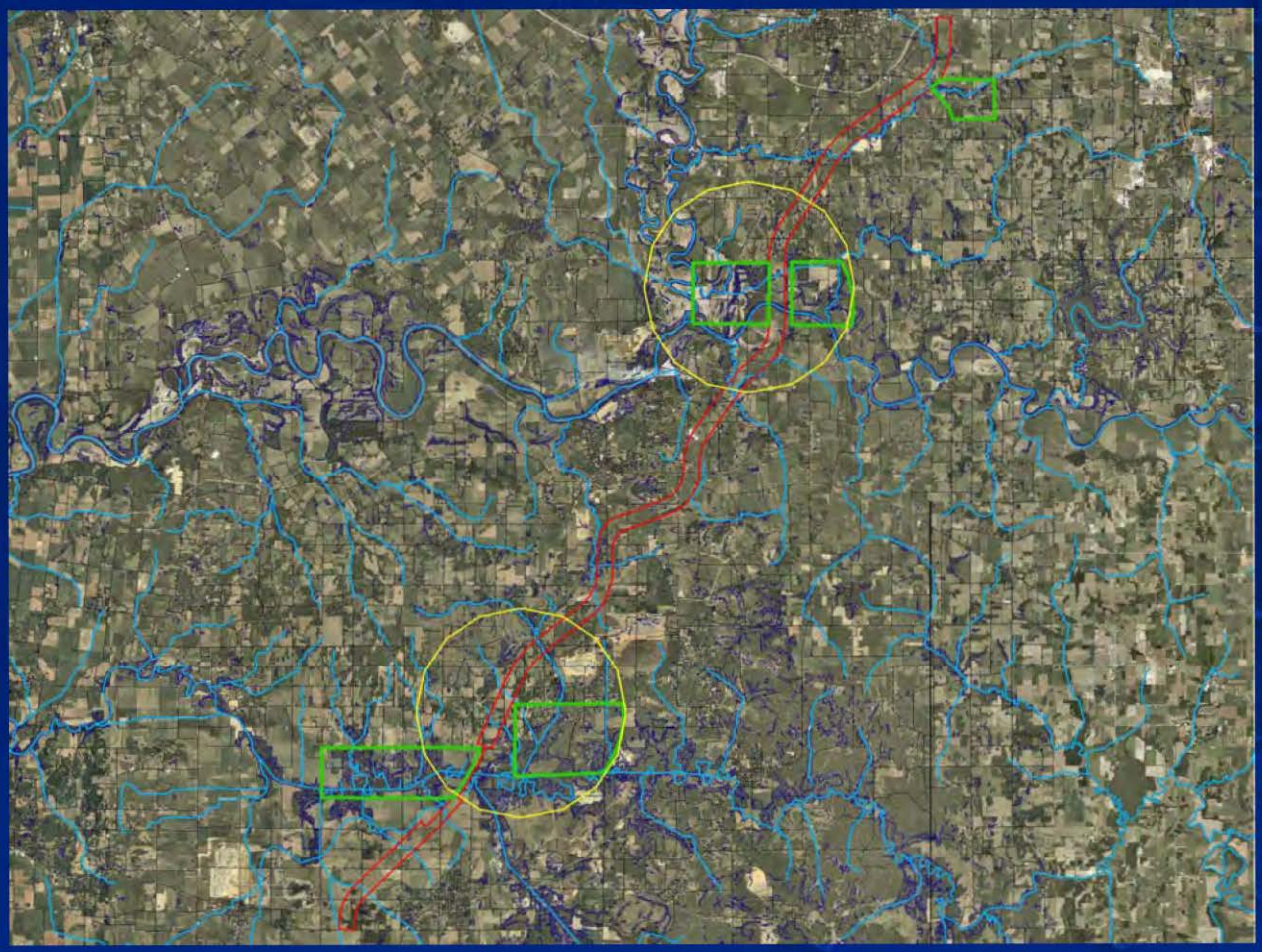
Mitigation Site Primary Focus Areas

- 13 Primary Mitigation Site Focus Areas have been identified
- Mitigation may be complete outside of these 13 sites if suitable mitigation cannot be completed within these 13 sites
- INDOT must have “Will Sellers” for mitigation sites
- Environmentally attractive areas have been identified within these 13 sites and property owner information is being researched in these areas
- Mitigation sites should be developed to incorporate a multitude of mitigation requirements.



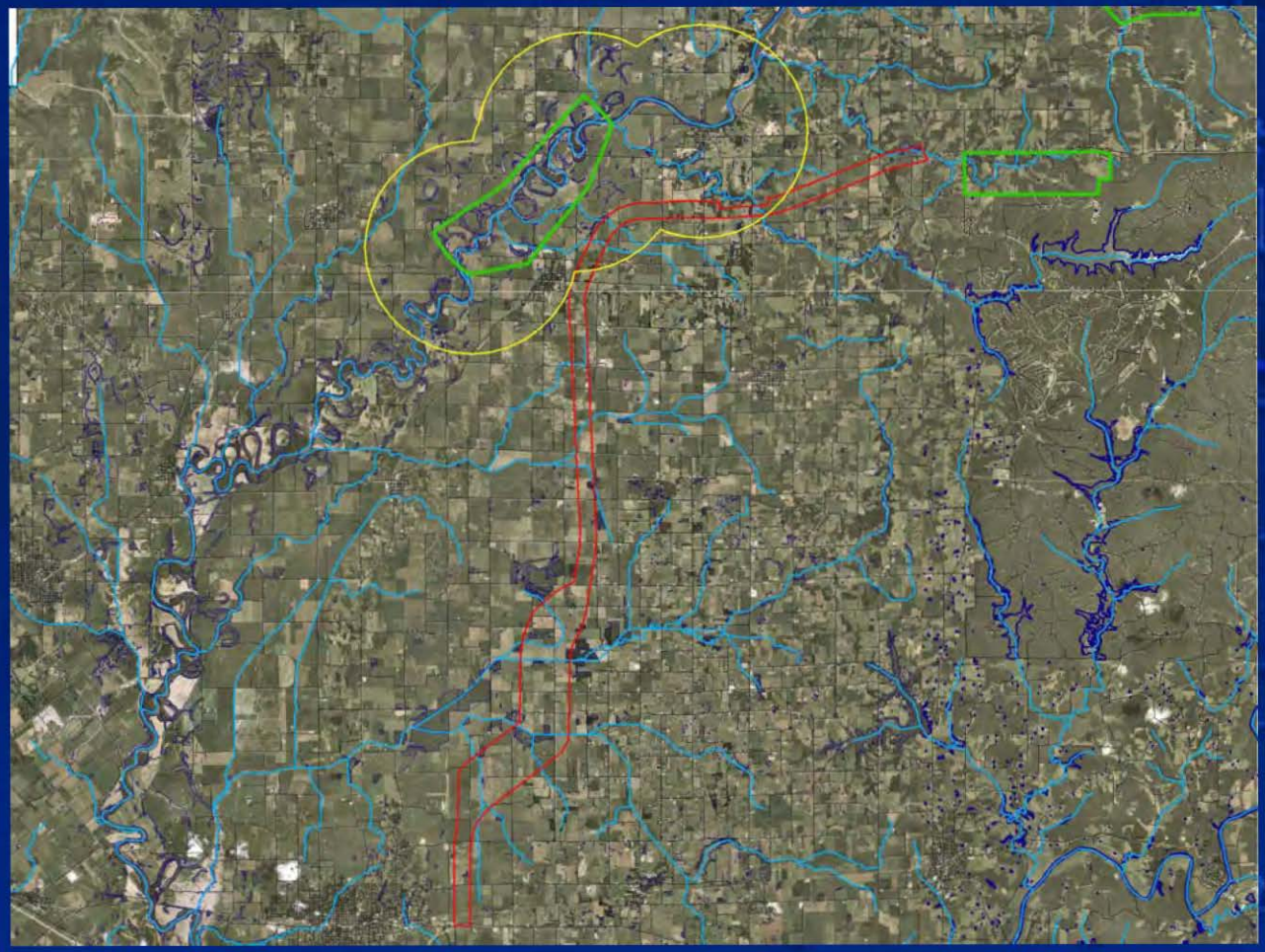
Section 1 Mitigation Site Locations

I-69 Evansville to Indianapolis Tier 2 Studies



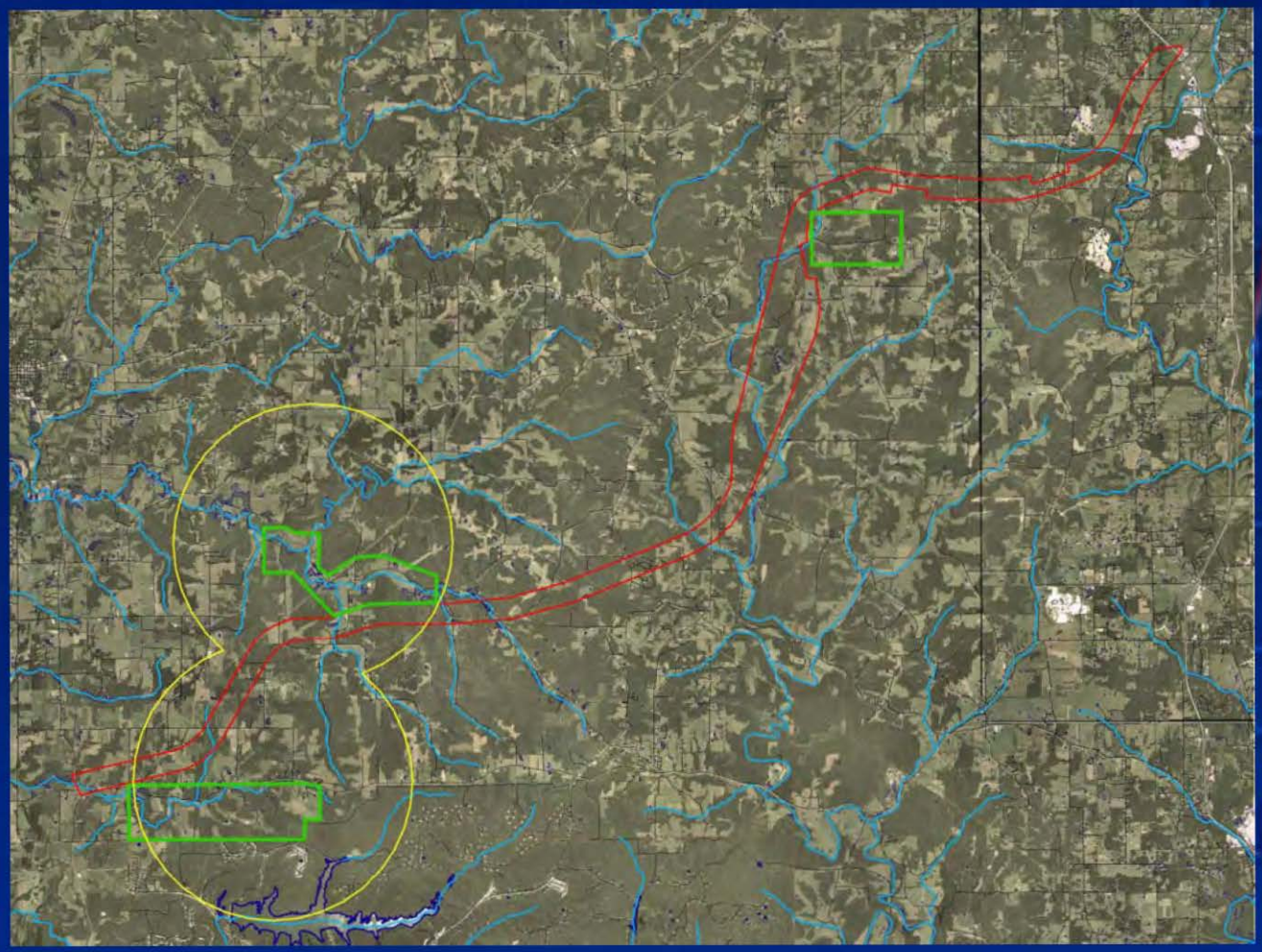
Section 2 Mitigation Site Locations

I-69 Evansville to Indianapolis Tier 2 Studies



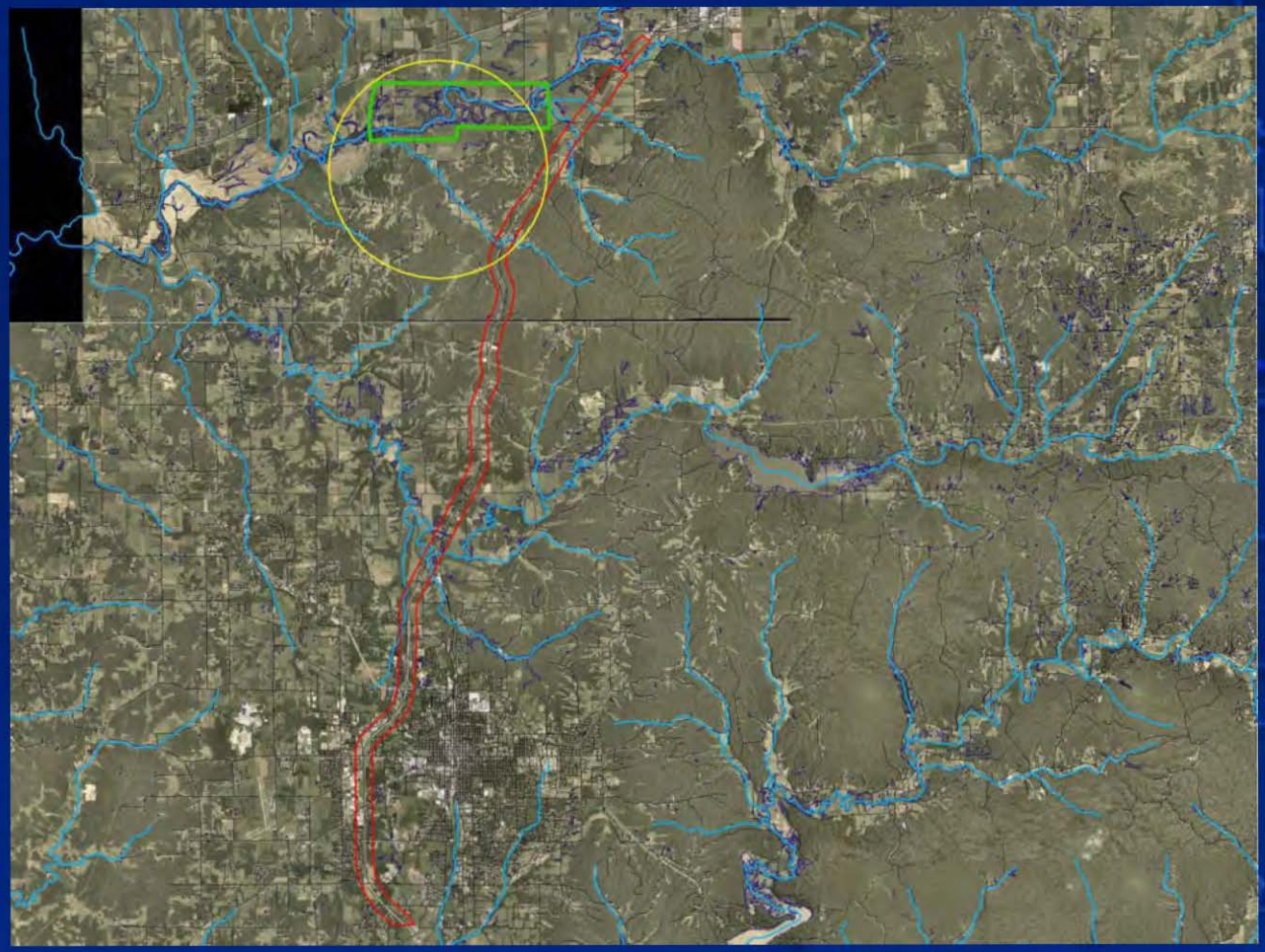
Section 3 Mitigation Site Locations

I-69 Evansville to Indianapolis Tier 2 Studies



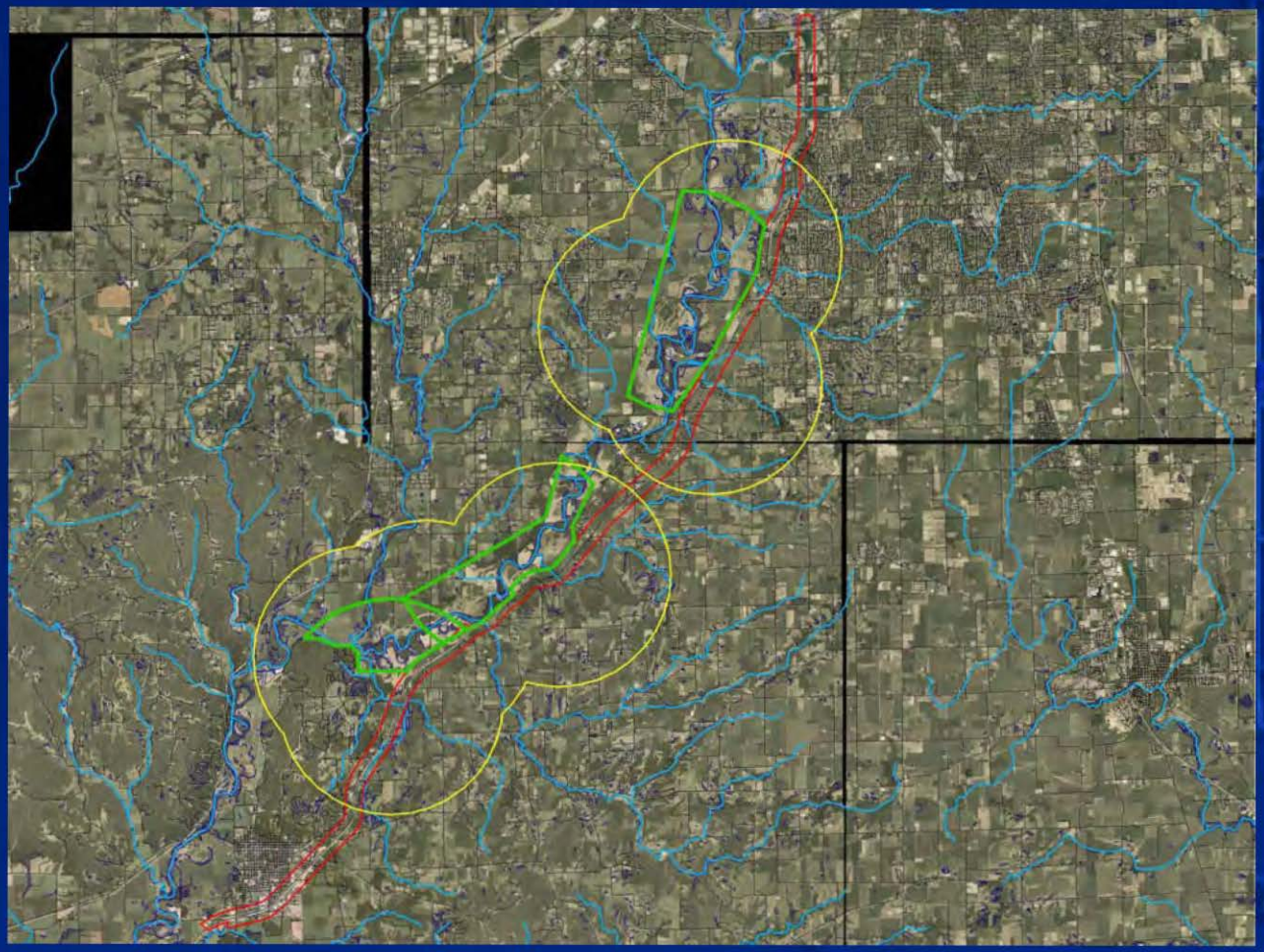
Section 4 Mitigation Site Locations

I-69 Evansville to Indianapolis Tier 2 Studies



Section 5 Mitigation Site Locations

I-69 Evansville to Indianapolis Tier 2 Studies



Section 6 Mitigation Site Locations

I-69 Evansville to Indianapolis Tier 2 Studies

THANK YOU!

I-69 Evansville to Indianapolis
Tier 2 Studies

Overall I-69 Agency Coordination Meeting Tour *Attendance Sheet*

August 2, 2006, 8:30 a.m.-2:00 p.m. (EDT), *Sections 4-6 Tour (Bus Loading at AMVETS, Bloomington, IN)*

NAME	AGENCY
1. Carol Hood	BLA
2. Karl Leet	INDOT
3. Tom Seeman	INDOT
4. Tony DeSimone	FHWA
5. Ken Westlake	USEPA
6. Virginia Czaszewski	USEPA
7. Janice Osadczuk	INDOT
8. Michelle Hilary	INDOT
9. Chris Koppel	INDOT
10. Jeremy Kiessner	BLA
11. Jared Branigin	INDOT
12. Rusty Yeager	BLA
13. DAVID FRANKLIN	FHWA
14. Tim Peyton	Michael Baker Jr.
15. Brian Arterbery	DLZ Indiana
16. JAY DUMONTELLE	FHWA
17. Cathy Garra	USEPA
18. JASON RANDOLPH	IDEM
19. Ben Lawrence	INDOT
20. Katie Gremillion-Smith	IDNR
21. Newton Ellens	USEPA
22. Patricia Morris	USEPA
23. Matt Buffington	IDNR
24. Christie Stanifer	IDNR
25. Andy King	USFWS
26. Tom Cervone	BLA
27. Kia Gillette	BLA
28. Jaime Sias	BLA
29. Jason Stone	DLZ
30. Bruce Hudson	DLZ
31 Carrie Connor	BLA

INDIANA DEPARTMENT OF TRANSPORTATION
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Room N758
Indianapolis, Indiana 46204-2216
(317) 232-5533 FAX: (317) 232-0238
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JUN 27 2006
8th COAST GUARD DISTRICT
BRIDGE BRANCH

MITCHELL E. DANIELS, JR., Governor
THOMAS O. SHARP, Commissioner

Writer's Direct Line

June 23, 2006

Re: **Reevaluation of Final Environmental Impact Statement (Tier 1) for I-69 between Evansville and Indianapolis, Indiana. [FHWA-IN-EIS-02-01-F]**

Dear Sir or Madam:

Enclosed is a copy (either paper or CD) of a Reevaluation of the Final EIS (Tier 1) for the above referenced project. It has been submitted to the Federal Highway Administration to request amendment of the Tier 1 Record of Decision (ROD) for this project. It is being submitted to you for your review and/or comments. Copies submitted to libraries are for the general public to view and receive information on the proposed project. Please keep these on display for the appropriate time.

This study involves the proposed extension of I-69 through the southwest portion of Indiana and connecting to additional segments of the roadway beyond Indiana. A Final Environmental Impact Statement (Tier 1) was approved on December 5, 2003, and a Record of Decision (Tier 1) was issued on March 24, 2004.

This study is a Reevaluation of the Final Environmental Impact Statement (FEIS) for the Evansville-to-Indianapolis section of I-69 in Indiana. It is conducted pursuant to the National Environmental Policy Act (NEPA) and the NEPA regulations issued by the Council on Environmental Quality (CEQ), 40 CFR Part 1500, and the Federal Highway Administration (FHWA) 23 CFR 771.

In mid-2005, the Indiana Department of Transportation determined that toll financing had the potential to significantly accelerate the completion of this project. Accordingly, it undertook this Reevaluation to determine 1) whether the consideration of tolling would have changed the findings in the Tier 1 Final EIS and Record of Decision and 2) whether toll financing would result in significant impacts which were not already evaluated in the Tier 1 FEIS.

INDOT and FHWA will consider public comments on the Reevaluation for a comment period extending through Monday, July 24, 2006. Comments should be submitted to Michael Grovak at Bernardin, Lochmueller & Associates; 6200 Vogel Road; Evansville IN 47715. Comments may also be submitted through the I-69 project web site at www.i69indyevn.org.

Sincerely,

R S for

Janice Osadczuk
Manager, Office of Environmental Services

Pursuant to the Coast Guard Authorization Act of 1982, it has been determined this is not a waterway over which the Coast Guard exercises jurisdiction for bridge administration purposes. A Coast Guard bridge permit is not required.

8/2/06
ROGER K WIEBUSCH **(Date)**
Bridge Administrator
Eighth Coast Guard District (obr)

OB ROUTING				
	INFO	ACTION	FILE	INITIALS
OB				RKW
SEC				
CLERK				
BR SPEC		DS		
BR SPEC				
BR SPEC				
BR SPEC				
COMMENTS:				

RSVPs for Overall Agency Coord. Tour: Aug. 2, 2006

AGENCY	FIRST	LAST	Dept./Title	RSVP for August 2 Tour
INDOT	Tom	Seeman	Project Management	Attending Tour
INDOT	Janice	Osadczuk	Environmental Services	Attending Tour
INDOT	Michelle	Hilary	Environmental Services	Attending Tour
INDOT	Ben	Lawrence	Environmental Services	Attending Tour
INDOT	Chris	Koeppel	Cultural Resources Section	Attending Tour
INDOT	Karl	Kleet	Engineering	Attending Tour
INDOT	Susan	Branigin	Cultural Resources Section	Attending Tour
INDOT	Pam	Drach	INDOT Vincennes District	Attending Tour
INDOT	Sam	Sarvis	INDOT Vincennes District	Attending Tour
INDOT	Jim	Ude	INDOT Seymour District	Attending Tour
FHWA	Tony	DeSimone		Attending Tour
FHWA	David	Frankling		Attending Tour
FHWA	Jay	DuMontelle		Attending Tour
USEPA	Kenneth	Westlake	Chief, NEPA Implementation Section	Attending Tour
USEPA	Virginia	Laszewski	NEPA Implementation Section	Attending Tour
USEPA	Cathy	Garra	Wetlands and Watersheds	Attending Tour
USEPA	Wendy	Melgin	Wetlands and Watersheds	Attending Tour
USEPA	Tom	Kenney	Ofc. of Regional Council	Attending Tour
USEPA	Patricia	Morris	Air & Radiation Division	Attending Tour
USEPA	Newton	Ellens	NEPA Implementation Section	Attending Tour
USFWS	Scott	Pruitt	Bloomington Field Office	Attending Tour
USFWS	Andy	King	Bloomington Field Office	Attending Tour
IDEM	Jason	Randolph		Attending Tour
IDNR	Mike	Neyer	Director, Division of Water	Attending Tour
IDNR	Dan	Ernst		Attending Tour
IDNR	5 more people			5 Attending Tour
PMC	Tom	Cervone	BLA, DPM, Environmental Services	Attending Tour
PMC	Kia	Gillette	BLA, Environmental Services	Attending Tour
PMC	Jeremy	Kieffner	BLA, Environmental Services	Attending Tour
PMC	Rusty	Yeager	BLA, Environmental Services	Attending Tour
PMC	Neal	Schroeder	BLA, Environmental Services	Attending Tour
PMC	Garre	Connor	BLA, Environmental Services	Attending Tour
PMC	Jaime	Sias	BLA, Environmental Services	Attending Tour
PMC	Carol	Hood	BLA, Environmental Services	Attending Tour
PMC	Sara	Dyer	Dyer Environmental Services	Attending Tour
Section 4	Bruce	Hudson	PM, DLZ	Attending Tour
Section 4	Brian	Arterbery	DPM, DLZ	Attending Tour
Section 4	Jason	Stone	DLZ, Environmental	Attending Tour
Section 5	Mary Jo	Hamman	PM, MBC	Attending Tour
Section 5	Jim	Peyton	DPM, MBC	Attending Tour
Section 6	Tim	Miller	PM, HNTB	Attending Tour

TOTAL for August 2 Tour: 43

RSVPs for Overall Agency Coord. Tour: Aug. 2, 2006

FYI: Bus will pickup/drop-off passengers at the AMVETs parking lot (on the gravel section)

Sections 4, 5, and 6 Agency Tour Itinerary

August 2, 2006

8:30 a.m.	-	Meet at AMVETS, The Gathering
8:40 a.m.	-	Depart AMVETS, Begin Section 4 tour
11:00 a.m.	-	Complete Section 4 tour, Start Section 5 tour
11:15 a.m.	-	Quick stop at Section 4 project office
11:30 a.m.	-	Resume Section 5 tour
12:00 p.m.	-	Start Section 6 tour
12:45 p.m.	-	Reach Indianapolis and head back to Bloomington
2:00 p.m.	-	Arrive at AMVETS, The Gathering

THANK YOU!

Carol Hood

From: Buffington, Matt [MBuffington@dnr.IN.gov]
Sent: Friday, August 11, 2006 2:37 PM
To: Oliger, Alysson
Subject: part 2- I-69 section 5 karst report comments

Project: ER-11895-2, Stream: Multiple, County: Multiple
Biologist(s) conducting Assessment: Matt Buffington, Statewide Environmental Biologist
Date of Assessment: August 7, 2006
Date Comments Prepared: August 11, 2006

Brief Project Description:
I-69 Section 5 karst report.

Assessment of Project Site:
Previous reviews of ER-11895 have addressed numerous features of the project area. Based on this report, karst topography is extensive throughout the corridor.

Impacts of Proposed Project:
The information presented in this report could influence what alternatives are recommended within Section 5. However, such decisions cannot be made because the karst information is not presented in context of the various alternatives being pursued. The potential impacts of the various interstate alternatives on karst resources are difficult to determine from this report. Before a final alternative is selected for this section, the information provided in this report (location of caves, sinkholes, swallets, direction of groundwater flow, etc.) must be overlaid with the various alternatives. Providing the information piecemeal is not adequate. The information contained in the karst report is highly valuable but needs to be viewed in conjunction with the other resources being reviewed for this project.

Recommendation:

The following comments relate only to the Section 5 karst report.

Overlay the karst data with the different alternatives being reviewed for Section 5. This will allow further and more thorough analysis of the alternatives. The Recommendations portion of the Section 5 karst report includes a variety of suggestions and practices. Some information provides a framework for additional investigation that should be performed prior to construction, perhaps prior to final alternative selection. The material presented in this part of the report should drive further action in Section 5 as the project proceeds.

Designate no spray/salt sections through areas where road run-off could infiltrate karst resources. Use vegetation and/or engineered treatment systems to improve water quality prior to run-off entering caves, sinkholes, recharge areas, and other karst features. Avoid impacts (direct and indirect) to the Indiana bat.

Additional dye tracing is required as described in the report. A cumulative impacts analysis for karst resources is recommended.

The MOU must be followed, especially the strategies for minimizing the effects of highway construction and operation on karst resources. Avoidance of karst features is critical. Evidence that shows avoidance to karst impacts is required. Ensure pre-construction drainage connections to caves and recharge areas are maintained during and post construction. Do not allow construction activities to fill the entrance of caves through sedimentation or impervious cover.

Because May Cave possesses globally significant, state rare, threatened, and endangered species, extreme care must be taken during and post construction to avoid direct and indirect impacts to this area. Additional studies, as suggested in the karst report, may be required to determine the BMPs in this area.

Matt Buffington, Statewide Environmental Biologist
Indiana Dept. of Natural Resources
Division of Fish & Wildlife
402 W. Washington St., Room W273
Indianapolis, IN 46204

Phone: 317-234-0586
Cell: 317-430-4350
Email: mbuffington@dnr.IN.gov

United States Department of the Interior
Fish and Wildlife Service

Bloomington Field Office (ES)
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273

24 August 2006

Robert F. Tally, Jr.
Division Administrator, Indiana Division
U.S. Department of Transportation
Federal Highway Administration
575 North Pennsylvania Street, Room 254
Indianapolis, IN 46204

Dear Mr. Tally:

The enclosed document transmits the U.S. Fish and Wildlife Service's (Service) Revised Programmatic Biological Opinion (BO) regarding the proposed construction, operation, and maintenance of Alternative 3C of Interstate 69 (I-69) from Indianapolis to Evansville, Indiana and its effects on the Federally endangered Indiana bat (*Myotis sodalis*) and the Federally threatened bald eagle (*Haliaeetus leucocephalus*). The original non-jeopardy BO for this project was issued on 3 December 2003. Formal consultation was reinitiated with the Federal Highway Administration (FHWA) for this project so that new information regarding additional impacts to Indiana bat maternity colonies and hibernacula could be appropriately analyzed and to ensure that this project was still in compliance with section 7(a)(2) of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 et seq.). Based upon our analysis of the new and previously existing information, we again concluded that this project is still not likely to jeopardize the continued existence of the Indiana bat nor will it adversely modify any Critical Habitat. Formal consultation was not reinitiated for the bald eagle and our previous non-jeopardy conclusion for the bald eagle still stands. The Revised Programmatic BO and Incidental Take Statement (ITS) (dated 24 August 2006) replaces and supersedes the original programmatic BO for this project (dated 3 December 2003).

Analyses summarized within the Revised Programmatic BO were primarily based on information provided within 1) the Tier 1 Biological Assessment Addendum [dated March 7, 2006; submitted by FHWA, prepared by Bernardin, Lochmueller and Associates, Inc.(BLA)], 2) I-69 NEPA documents, 3) scientific literature, 4) unpublished survey reports of Indiana bat and bald eagle research conducted in the action area (and elsewhere) during Tier 2, and 5) many meetings, phone calls, and written correspondence with FHWA, INDOT, and their consultants. Limited field investigations were also conducted by Service personnel from the Bloomington, Indiana Field Office (BFO). This Revised Programmatic BO considers the broad impacts of the entire action (50 CFR §402.14(k)) and was prepared in accordance with section 7 of the ESA.

To ensure that the impacts of take associated with the final alignments chosen for each of the six forthcoming Tier 2 Project Sections of I-69 are appropriately minimized and that the exemption of incidental take is appropriately tracked and documented, the FHWA and the Service will implement an appended programmatic consultation approach for this project. Under this approach, the Service's Revised Programmatic BO and ITS for I-69 have considered and quantified reasonable amounts of anticipated incidental take for Indiana bats and bald eagles for the entire I-69 project from Evansville to Indianapolis. All impacts associated with a Tier 2 Project Section will be analyzed in a Tier 2 Biological Assessment and individually reviewed by the Service to determine if the effects are consistent with those analyzed in the Revised Programmatic BO and addressed by the ITS's reasonable and prudent measures and associated terms and conditions. This approach will ensure that once specific alignments are identified, that the site-specific impacts of the resulting incidental take are minimized. If an individual Tier 2 Project Section is found to be consistent with the programmatic consultation it will be appended to the Revised Programmatic BO and ITS, along with any project section-specific reasonable and prudent measures and terms and conditions that the Service believes are needed to fulfill the requirements of section 7(a)(2). More details on how specific impacts associated with each Tier 2 Project Section are to be reported and documented are included in the enclosed ITS.

If you have any questions about the revised BO or ITS or how subsequent Tier 2 consultations should proceed, please contact Andy King at 812-334-4261, extension 216.

Sincerely yours,

Scott E. Pruitt
Field Supervisor

cc: Tony DeSimone, FHWA-Indiana Division
Janice Osadczuk, FHWA-Indiana Division
Tom Seeman, INDOT
Ben Lawrence, INDOT
Michelle Hilary, INDOT
Kent Ahrenholtz, BLA
Tom Cervone, BLA
Catherine Gremillion-Smith, IDNR
Bill Malley, Akin Gump
Jennifer Szymanski, USFWS
T.J. Miller, USFWS

enclosure

REVISED PROGRAMMATIC BIOLOGICAL OPINION

on the

PROPOSED CONSTRUCTION, OPERATION, AND MAINTENANCE OF ALTERNATIVE 3C OF INTERSTATE 69 (I-69) FROM EVANSVILLE TO INDIANAPOLIS

FOR THE FEDERALLY ENDANGERED INDIANA BAT (*Myotis sodalis*) AND THE FEDERALLY THREATENED BALD EAGLE (*Haliaeetus leucocephalus*)

traversing portions of
GIBSON, WARRICK, PIKE, DAVIESS, GREENE, MONROE, MORGAN, JOHNSON, AND MARION COUNTIES, INDIANA

Submitted to the Federal Highway Administration

August 24, 2006

Prepared by:
R. Andrew King
U.S. Fish and Wildlife Service
Bloomington Field Office
620 S. Walker Street
Bloomington, IN 47403
(812) 334-4261

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EXECUTIVE SUMMARY

This document is a partial revision to the original programmatic Biological Opinion (BO) dated December 3, 2003 for the proposed extension of I-69 from Evansville to Indianapolis Indiana. Following the recommendation of the U.S. Fish and Wildlife Service (Service), the Federal Highway Administration (FHWA) reinitiated formal consultation on Tier 1 of the proposed I-69 extension on March 7, 2006 and submitted an addendum to the original Biological Assessment that detailed significant new information regarding potential impacts to the Federally endangered Indiana bat (*Myotis sodalis*) that were not known or available for analysis during the original formal consultation period in 2003. Because there was not any significant new information regarding the Federally threatened bald eagle (*Haliaeetus leucocephalus*), the Service did not deem it necessary and the FHWA did not request to reinitiate formal consultation on this species. Although this revised BO only contains substantive revisions involving impacts to the Indiana bat, we have incorporated the original analysis and sections pertaining to the bald eagle for continuity and clarity. As requested in the FHWA's March 7, 2006 reinitiation letter, the Service now confirms our previous concurrence with the determination that the I-69 project is *not likely to adversely affect* the eastern fanshell mussel (*Cyprogenia stegaria*) and the project is still *likely to adversely affect, but not jeopardize*, the bald eagle.

Even though the proposed extension of I-69 from Evansville to Indianapolis will have greater impacts to Indiana bats than were originally considered, based on our current analysis of the updated information, the Service still concludes that this project is not likely to jeopardize the continued existence of the Indiana bat and is not likely to adversely modify the bat's designated Critical Habitat. A revised Incidental Take Statement has been included at the end of the BO with its non-discretionary Reasonable and Prudent Measures and associated Terms and Conditions to further minimize the incidental take of both Indiana bats and bald eagles.

Lastly, we concur with FHWA's determination (as stated in its letter dated 20 July 2006) that the proposed I-69 project is *not likely to adversely affect* Cave in Greene County, Indiana, which is designated Critical Habitat for the Indiana bat under the Endangered Species Act.

When Cave was designated as Critical Habitat for the Indiana bat on September 24, 1976, the federal rule did not identify constituent elements associated with the conservation value of this particular cave, nor did it for any of the other caves or mines that were designated at that time. Therefore, we have had to identify the physical and biological features that make Cave essential to the conservation of Indiana bats ourselves. We believe the essential features include the cave's physical structure, configuration, and all openings that create and regulate suitable microclimates for hibernating bats within, its associated karst hydrology and cave stream recharge area/watershed, and the amount and condition of surrounding forested habitat (extending 5 miles from the cave's entrances) that is used by the bats during the pre-hibernation swarming period each fall. Because the Proposed Action for I-69 1) will not have any direct impacts on cave itself or its important conservation features identified above, 2) indirect impacts to the surrounding forest habitat are likely to be relatively far removed from the cave's main entrance and insignificant in size (24 acres of forest impacts/32,353 acres of surrounding forest = a 0.07% loss), and 3) it is extremely unlikely (i.e., discountable) that I-69 would cause an increased risk of someone physically altering or vandalizing the cave itself in some way, the Service, by way of this BO, has

concurred with the FHWA's "not likely to adversely affect" determination. While our concurrence technically concludes the need for further informal consultation on Cave as Critical Habitat for I-69, we respectfully request that FHWA and INDOT continue to investigate any and all potential effects of the Proposed Action that we have yet to envision and thoroughly explore and include such additional analysis within the Tier 2 BA for Section 4.

INTRODUCTION

This document transmits the U.S. Fish and Wildlife Service's (Service or USFWS) biological opinion, which was primarily based on our review of two documents, the Tier 1 Biological Assessment for Threatened and Endangered Species, Interstate 69, Indianapolis to Evansville (dated July 18, 2003, revised October 27, 2003) (hereafter referred to as the Tier 1 BA or BA), and the Tier 1 Biological Assessment Addendum (dated March 7, 2006) (hereafter referred to as the Tier 1 BA Addendum, BAA, or Addendum). The Tier 1 BA was originally submitted by the Federal Highway Administration (FHWA) and was received at the Service's Bloomington, Indiana Field Office (BFO) on July 21, 2003 along with a letter requesting us to initiate formal consultation on the proposed construction, operation, and maintenance of Alternative 3C of Interstate 69 (I-69) from Indianapolis to Evansville, Indiana and its effects on the Federally endangered Indiana bat and the Federally threatened bald eagle. The original formal consultation for Tier 1 of I-69 was concluded with the issuance of the Service's programmatic Bioloical Opinion on December 3, 2003. On March 7, 2006, the FHWA requested to reinitiate formal consultation for the Indiana bat and submitting a Tier 1 BA Addendum that detailed additional impacts to Indiana bats stemming from significant new information regarding this species' presence and abundance within the project's action areas, as revealed during Tier 2 field studies. Formal consultation was not reinitiated for the bald eagle. This revised BO replaces the December 3, 2003 BO.

This programmatic BO is prepared in accordance with section 7 of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.) and is the culmination of formal section 7 consultation under the Act. The purpose of formal section 7 consultation is to insure that any action authorized, funded, or carried out by the Federal government is not likely to jeopardize the continued existence of any listed species or result in the destruction or adverse modification of any officially designated critical habitat of such species. This BO covers the proposed actions of the FHWA, as this agency will partially fund the road construction associated with this project.

Road construction that will occur as part of this proposed project will also require a permit(s) from the U.S. Army Corps of Engineers (COE). However, the COE permits will not result in any impacts to Indiana bats or bald eagles beyond those addressed in this consultation with the FHWA. Therefore, the Service intends to provide a copy of this BO to the COE to demonstrate that the FHWA has fulfilled its obligations to consult with the Service.

This BO is primarily based on information provided from the following sources:

1) an original I-69 Tier 1 BA [dated July 18, 2003, revised October 27, 2003; prepared by Bernardin-Lochmueller and Associates, Inc.(BLA)],
2) a Tier 1 BA Addendum (dated March 7, 2006; prepared by BLA),

3) Tier 1 National Environmental Policy Act (NEPA) documents for the I-69 project (Draft EIS, Final EIS and ROD),
4) The I-69 Evansville to Indianapolis Tier 1 (tolling option) Re-evaluation Report (dated June 23, 2006; prepared by BLA),
5) numerous technical reports from I-69 Tier 2 field surveys and related studies,
6) reports and scientific literature on Indiana bat and bald eagle research conducted in the action area and elsewhere, and
7) meetings, phone calls, e-mails, other written correspondence with FHWA, INDOT, and their consultants. A limited number of field visits and site investigations were also conducted by personnel from the Service's BFO. A complete administrative record of this consultation is on file at BFO.

CONSULTATION HISTORY

The proposed action has a background that encompasses several decades of planning and planning studies by INDOT and is outlined in Chapter 1 of the Tier 1 DEIS. Studies since 1990 have been focused on the currently proposed project area. The 1996 DEIS for the Southwest Indiana Highway Project follows the currently proposed 3C alignment very closely.

In 1989-90, the Southwest Indiana Highway Feasibility Study (Indianapolis to Evansville, Rockport, or Tell City) (Donohue study) addressed three feasible north-south routes, all of which used SR 37 from Bloomington to Indianapolis. That study found Alternative A, from Evansville to Indianapolis, economically feasible based on optimistic assumptions for business attraction.

An environmental study for the Indianapolis to Evansville Highway was done in 1990. This study was based on Alternative A from the 1989-90 feasibility study. The corridor was separated into three sections and did not consider upgrading SR 37 to an Interstate. Section 1 (Bloomington to Newberry) was developed as an EIS, while section 2 (Newberry to Petersburg) and section 3 (Petersburg to Evansville) were developed as preliminary overviews for detailed studies to come later. In 1992, the decision was made to consolidate all three sections of the 1990 study into a single DEIS between Evansville and Bloomington.

The DEIS for the Southwestern Indiana Highway Project (Evansville to Bloomington) was published in 1996. The preferred route studied in the 1996 DEIS closely followed what is now known as Alternative 3C, the preferred alternative for proposed I-69. For the 1996 study, karst features were investigated, forest plots were surveyed, and wetlands were delineated, in addition to other standard NEPA elements. That document included extensive fish, wildlife, and plant field surveys; and literature review.

In 1998, INDOT decided to expand the scope of the EIS for the Southwest Indiana Highway Project to include consideration of the need for an Evansville-to-Indianapolis link in the context of the planned extension of I-69. With the major change in scope, new corridor alternatives were evaluated. The result of this expanded study culminated in FHWA and INDOT initiating a two-tiered NEPA process and the release of the Tier 1 DEIS for proposed I-69 in July 2002 and the subsequent July 2003 submittal of a Tier 1 Biological Assessment with FHWA's request to initiate formal section 7 consultation on Alternative 3C, INDOT's preferred alternative. The Tier 1 DEIS and BA only summarized existing data as no new field studies were conducted as part of Tier 1. The Service issued its original programmatic BO on December 3, 2003, which concluded that the

project was not likely to jeopardize the continued existence of the Indiana bat or bald eagle. This formal consultation also provided FHWA and INDOT with an outline for submitting subsequent Tier 2 BAs for each of the six Tier 2 Sections. Under the December 2003 Tier 1 BO, each of the Tier 2 section-specific BAs was required to show how impacts associated with each particular section are consistent with those described in the Tier 1 BO.

INDOT and FHWA published a Tier 1 FEIS, which selected Alternative 3C as the preferred corridor. On March 24, 2004, the FHWA approved the 3C corridor and made numerous mitigation commitments by signing and releasing its Record of Decision (ROD) for the project.

During the summer of 2004, INDOT's consultants began Tier 2 field studies within and around the 3C, approximately 2000-foot-wide corridor including mist net surveys at 148 sites and radio-tracking of Indiana bats captured along the proposed corridor. A total of 48 Indiana bats, including reproductive adult females and juveniles (i.e., evidence of nearby maternity colony), was captured from sites scattered among all six sections of I-69. Based on these 2004 bat captures and associated radio-tracking studies, the Service informed INDOT that there was now evidence of at least 13 Indiana bat maternity colonies within the project's SAA. Additional mist netting and radio tracking was conducted at 49 sites during the summer of 2005 in an attempt to locate additional primary roost trees for each of the 13 Indiana bat maternity colonies.

A meeting was held on July 1, 2005 with FHWA, INDOT, and the Service to discuss Section 7 consultation during Tier 2 studies for the I-69 Evansville to Indianapolis project. At this meeting, the Service stated that FHWA and INDOT should consider reinitiating formal Section 7 consultation for the entire I-69 corridor from Evansville to Indianapolis for impacts to the Indiana bat, because so much new field data had been collected in 2004 and 2005 concerning that species. Such new information included results from mist netting surveys and radio-tracking studies, roost tree identification, roost tree emergence counts, bridge surveys for Indiana bat summer habitat, and results from fall/spring cave harp trapping and winter cave surveys for Indiana bats. The Service indicated that the formal consultation process would conclude with the issuance of a revised programmatic BO for the entire Alternative 3C corridor. INDOT and FHWA agreed that a reinitiation of formal section 7 consultation for the Indiana bat was warranted.

Over several months time during the fall of 2005, INDOT's primary consultant for I-69, BLA, informally consulted with the Service during weekly meetings to decide what data should be included in the Tier 1 BA Addendum and how it should be presented. Also, in February 2006, the Service, INDOT and FHWA signed a pre-consultation agreement, which outlined the mutual understanding of expectations for the I-69 Tier 1 formal consultation reinitiation, subsequent Tier 2 consultations, and mitigation commitments for the Indiana bat. Extensive coordination occurred between INDOT's consultants and the Service while the Tier 1 BA Addendum was being prepared. A draft of the Addendum was requested by the Service, but was not received. The FHWA submitted the BA Addendum to the Service on March 7, 2006 with a letter requesting the reinitiation of formal consultation. Due to extraordinarily high work loads stemming from the forthcoming Revised Indiana Bat Recovery Plan, the Service's BFO staff was incapable of completing a review of the BA Addendum until the end of June 2006. By this time, the 90-day formal consultation period had technically ended, but the BFO verbally informed the FHWA that it intended to complete the formal consultation and issue a revised BO by the end of the statutory 135-day period if at all possible. During a meeting on July 17, 2006, FHWA and INDOT agreed to

provide the Service some additional information regarding impacts in the vicinity of Cave and they and the Service mutually agreed to extend the consultation period beyond the 135-day period, with the understanding that a draft BO would be submitted for review on or before July 28, 2006.

A chronological summary of important consultation events and actions associated with this project is presented below.

Summary of NEPA and section 7 consultation history for the currently proposed action.

Date	Event / Action
February 3, 2000	INDOT and FHWA hosted a "Scoping Meeting" with environmental review agencies.
June 5, 2001	INDOT and FHWA convened an agency review meeting to discuss the "Purpose and Need Statement" (including a comparison of Tier 1 & 2 EIS)
November 27, 2001	INDOT and FHWA convened an agency review meeting to discuss their "Screening of Alternatives" for I-69 (included environmental information).
December 21, 2001	BFO sent a letter to BLA with comments on the Draft Level 2 Alternatives Analysis Report for the Evansville to Indianapolis I-69 study including endangered species and critical habitat technical information.
March 14, 2002	Federally listed species were reviewed and appropriate tables constructed with species, their number and status and presented to the USFWS at the BFO.
June 4 and 5, 2002	A BFO biologist took a two-day bus tour of I-69 alternatives focused on environmentally sensitive areas with INDOT, FHWA, USEPA, IDNR, and BLA representatives.
June 2002	Through informal consultation with the Service INDOT agreed to shift the common alignment of Alternative 3A, B, and C to be beyond the range of bats that forage around and hibernate in Cave, which is Designated Critical Habitat for the Indiana bat in Greene County
June 27, 2002	FHWA sent a letter to BFO requesting a list of Federally listed species and Designated Critical Habitat that may be present in the I-69 study area of 5 alternatives being carried forward for detailed analysis in the DEIS.
July 1, 2002	BFO sent FHWA a species list for all 5 alternatives that included 6 species and one cave Designated Critical Habitat for the Indiana bat that may be present within the proposed project counties.
July 22, 2002	INDOT and FHWA released their Tier 1 DEIS for public comment
November 14, 2002	BFO commented on the Tier 1 DEIS are combined with those of the National Park Service and sent in single letter from the Department of the Interior's Washington Office to FHWA.
January 9, 2003	Governor Frank O'Bannon announced Alternative 3C as INDOT's recommendation as the "preferred alternative" for I-69.
February 21, 2003	FHWA requests a species list for their preferred alternative, 3C.
February 28, 2003	FHWA sends BFO a letter requesting comments on regarding the four variations of Alt. 3C around the City of Washington.
March 11, 2003	An Agency Coordination Meeting was held at BFO to discuss a Conceptual Tier 1 Forest and Wetland Mitigation Plan, Sections of Independent Utility, the proposed Patoka River crossing, and how the sec. 7 consultation would coincide with Final EIS preparation.
March 13, 2003	BFO sent FHWA a letter listing 3 species that may be present in the Alternative 3C study area, Indiana bat, bald eagle, and fanshell mussel.

March 14, 2003	BFO sent FHWA a letter advising them to choose one of the two eastern routes around Washington (variation "WE1" was specifically recommended) as they were less likely to have adverse affects to Indiana bats or bald eagles because impacts to forest and wetlands would be smaller.
March 26, 2003	BLA sent BFO a Draft BA addressing effects to Alt. 3C on Indiana bats, bald eagles, and fanshell mussels and requested our review and comments.
May 30, 2003	BFO returned comments on Draft BA to BLA.
June 15 – July 2003	BFO assisted INDOT and BLA in developing Conservation Measures to be included in the BA that would avoid and minimize incidental take of Indiana bats and bald eagles.
July 21, 2003	BFO received a revised BA and letter from FHWA requesting formal section 7 consultation for the effects of Alt. 3C of I-69 on Indiana bats and bald eagles. The letter also requested our concurrence that fanshell mussels were not likely to be adversely affected by Alt. 3C. (the 135-day formal consultation timeframe began).
August 22, 2003	BFO sent FHWA a letter acknowledging receipt and completeness of formal consultation initiation package. Informed FHWA that the Service expected to provide them with a final Biological Opinion no later than December 3, 2003. Based on information contained in the BA, the Service also provided the FHWA our written concurrence with their determination that the fanshell mussel was "not likely to be adversely affected" by the proposed construction, operation, and maintenance of Alternative 3C of I-69.
August – November 2003	BFO consulted with FHWA/INDOT/BLA to gain clarification on various issues resulting in several revisions to the Tier 1 BA.
November 28, 2003	BFO sent FHWA/INDOT/BLA a draft Biological Opinion for review.
December 2, 2003	FHWA/INDOT/BLA returned comments on draft BO to BFO.
December 3, 2003	BFO sent FHWA/INDOT/BLA the Final Biological Opinion for Alternative 3C of I-69.
December 2003	INDOT released Final EIS with 3C named as its preferred alternative
February 2004	FHWA issued a Record of Decision approving the 3C corridor
Summer 2004	Tier 2 Mist net surveys revealed the presence of 13 maternity colonies and scattered occurrences of male Indiana bats throughout the 3C corridor.
Fall-Winter-Spring 2004 and 2005	Tier 2 surveys at caves within 5 miles of the 3C corridor revealed limited seasonal use by Indiana bats at a small number of caves without previous documented use by Indiana bats.
Summer 2005	Additional mist netting and radio-tracking located additional Indiana bat roost trees within the 13 maternity colony areas.
July 1, 2005	FHWA and INDOT met with Service and agreed to reinitate formal consultation on Tier 1 of I-69 in light of all the new information on Indiana bat maternity activity and hibernacula in the project area.
Fall 2005	BLA and BFO staff held weekly meetings in order to guide development of the Tier 1 BA Addendum
February 2006	FHWA, INDOT and the Service signed a Pre-consultation Agreement
March 7, 2006	FHWA submitted a Tier 1 BA Addendum to the Service with a letter requesting to reinitiate formal consultation for the Indiana bat.
June and July 2006	BFO consulted with FHWA/INDOT/BLA to gain clarification on various issues discussed within the BA Addendum.
July 10, 2006	BFO reviewed and submitted comments on the Tier1 Re-evaluation Report for I-69, which outlined anticipated impacts resulting from the interstate being a toll road.
July 17, 2006	BFO met with FHWA FHWA/INDOT/BLA to discuss findings of the Tier 1

	Re-evaluation Report and other issues. It was agreed to expand the Winter Action Area to include Cave, which would necessitate FHWA/ INDOT/BLA to provide additional data to BFO and an effects determination on Cave as Critical Habitat. It was mutually agreed to extend the formal consultation period to accommodate these changes.
July 20, 2006	BFO received a letter from FHWA stating that it determined that I-69 "*may effect, but is not likely to adversely affect*" Cave as Critical Habitat for the Indiana bat. They also provided additional information regarding impacts around this cave and revised data for the revised Winter Action Area.
July 26, 2006	The Service provided FHWA with a draft of the revised BO and ITS for review.
August 11, 2006	FHWA/INDOT/BLA returned comments on the draft revised BO and ITS to the Service.
August 21, 2006	The Service provided FHWA with a revised draft ITS for review.
August 23, 2006	FHWA/INDOT/BLA returned additional comments on the revised draft BO and ITS to the Service.
August 24, 2006	BFO concluded formal consultation on Tier 1 by issuing FHWA and INDOT a Final Revised Programmatic Biological Opinion and Incidental Take Statement for Alternative 3C of I-69.

BIOLOGICAL OPINION

I. DESCRIPTION OF THE PROPOSED ACTION

The Federal Highway Administration (FHWA) and the Indiana Department of Transportation (INDOT) are proposing construction of I-69 from Evansville to Indianapolis, Indiana. The study of proposed I-69 from Evansville to Indianapolis, Indiana is a comprehensive National Environmental Policy Act (NEPA) study that will be carried forward in two tiers. Tier 1 of the study involved extensive environmental, transportation, and economic studies, and cost analysis. The Tier 1 Environmental Impact Statement (EIS) provided a basis for the FHWA to grant approval for a specific corridor. In most cases, the corridor is approximately 2000 feet wide, but has been narrowed or widened in some instances to avoid or provide room to avoid sensitive environmental areas. A working alignment within the corridor, ranging from approximately 270 – 470 feet wide, was developed to estimate potential impacts for the Tier 1 study. The Tier 1 study was completed on March 24, 2004 with the issuance of the Tier 1 Record of Decision (ROD) signed by FHWA. Alternative 3C was determined to be the Preferred Alternative for this project. Alternative 3C is near SR 57 from Evansville to Washington, crossing the Patoka River National Wildlife Refuge acquisition boundary. The alternative continues overland east around Washington to Elnora then turns east toward Bloomington. From Bloomington, the alternative is located along existing SR 37 to connect to I-465 at Indianapolis (Figure 1).

With the aid of FHWA funds, INDOT is proposing to construct, operate, and maintain a new extension of an Interstate highway, I-69, approximately 142 miles long, connecting Evansville and Indianapolis, via Oakland City, Washington, Crane, Bloomington, and Martinsville, Indiana. Approximately 35% of the proposed route would be mostly within the footprint of an existing 4-lane highway, SR 37; however, the remaining 65% or approximately 90 miles of interstate would be constructed off of existing highways on new-terrain. The proposed action would also involve constructing/reconstructing approximately 33 interchanges, but the actual number may change in Tier 2, as well as new frontage roads, access roads, and improvements to existing roads. The project is part of a larger, national proposal to connect the three North American trading partners of Canada, the United States, and Mexico by an Interstate highway in the states of Michigan, Indiana, Kentucky, Tennessee, Mississippi, Arkansas, Louisiana, and Texas. The purpose of the proposed I-69 Evansville to Indianapolis Project is to provide an improved transportation link between Evansville and Indianapolis that: 1) strengthens the transportation network in southwestern Indiana, 2) supports economic development in southwestern Indiana, and 3) completes the portion of the National I-69 project between Evansville and Indianapolis.

Tier 2 NEPA studies are currently being conducted to determine a specific alignment within the selected corridor. The corridor selected in Tier 1 has been divided into six (6) sections. To provide more flexibility, Tier 2 NEPA studies will be conducted on each project section rather than singly on the entire route. The six (6) project sections to be carried forward to Tier 2 are (traveling northeast) (Figure 2):

1. From I-64 (near Evansville) via the SR 57 corridor to SR 64 (near Princeton/Oakland City)
2. From SR 64 (near Princeton/Oakland City) via the SR 57 corridor to US 50 (near Washington)

3. From US 50 (near Washington) via the SR 57 corridor and cross country to US 231 (near Crane Naval Surface Warfare Center (NSWC))
4. From US 231 (near Crane NSWC) via cross country to SR 37 (south of Bloomington)
5. From SR 37 (south of Bloomington) via SR 37 to SR 39 (Martinsville)
6. From SR 39 (Martinsville) via SR 37 to I-465 (Indianapolis)

The width of the typical interstate sections differ depending on three factors: 1) flat versus hilly topography (broadly determined by physiographic region), 2) number of traffic lanes needed, and 3) number, if any, of frontage roads needed.

The possibility of I-69 as a toll road is currently being studied as a part of a re-evaluation of the Tier 1 EIS. This was not originally considered in the Tier 1 BA. At this time, each Tier 2 Section consultant is evaluating each alternative as a toll road and as a non-toll road.

In the Tier 2 DEISs for each project section, it is anticipated that a preferred location alternative will be identified. A preferred financing option will be identified in either the Tier 2 DEIS or the Tier 2 FEIS for each section. Thus uncertainty regarding the funding of the interstate remains at this time.

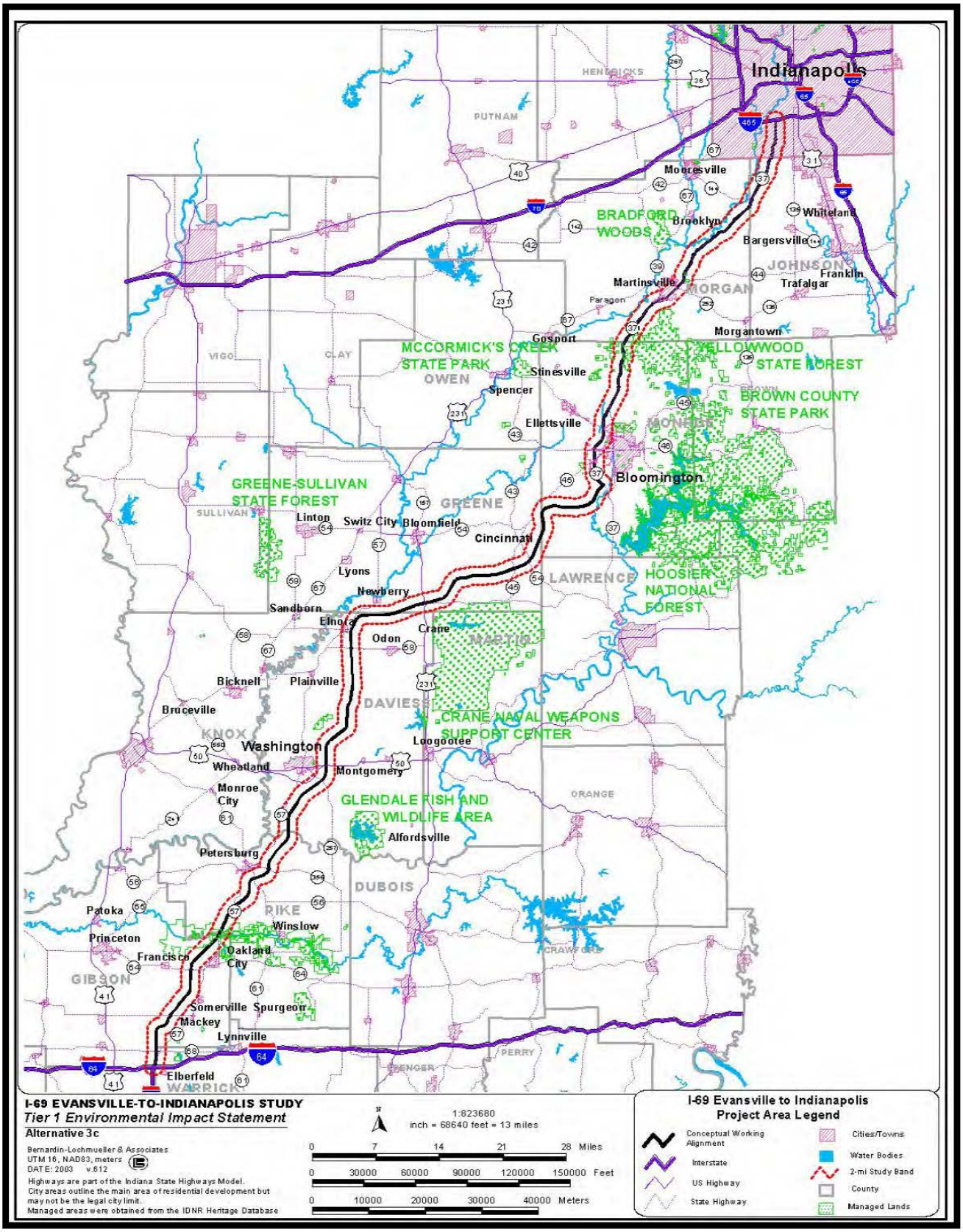

Figure 1. Proposed corridor for I-69 from Evansville to Indianaplis (Alternative 3C).

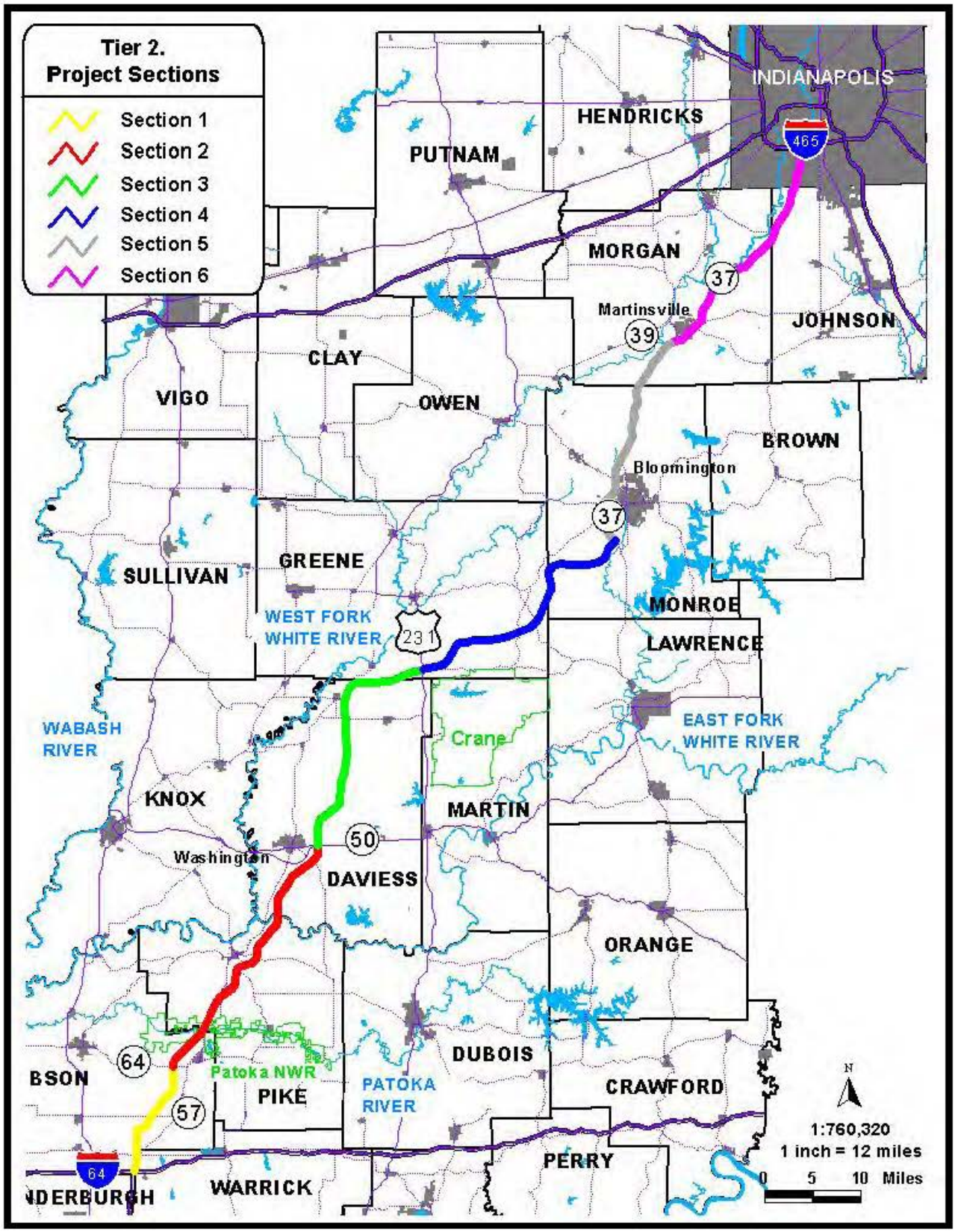

Figure 2. Tier 2 project sections.

The FHWA's Tiered Approach

The FHWA's National Environmental Policy Act (NEPA) studies for proposed I-69 from Evansville to Indianapolis, Indiana are being completed in two tiers. The Council on Environmental Quality (CEQ) guidelines and Federal Highway Administration (FHWA) guidelines allow NEPA studies for large, complex projects to be completed in a two-staged or "tiered" process. Tier 1 of the study involved extensive environmental, transportation, and economic studies, and cost analyses, but no field studies. The final Tier 1 NEPA document was an Environmental Impact Statement (EIS) that provided a basis for the FHWA to grant approval for INDOT's preferred corridor, Alternative 3C. In most cases, the proposed 3C corridor is approximately 2000 feet wide, but has been narrowed in some instances to avoid sensitive environmental areas. A "working alignment" within the 2000-foot corridor, ranging from approximately 270 to 470 feet wide, was developed to estimate the potential impacts analyzed in the Tier 1 BA and Tier 1 BA Addendum. It is important to note that specific alignment decisions within a project section will not be finalized until after the Tier 2 study processes and consultations have been completed for each project section.

Tier 2 NEPA studies will be conducted to determine a specific alignment within the selected corridor. The 3C corridor that was selected at the completion of Tier 1 has been divided into six "project sections" in Tier 2. To provide more flexibility, detailed Tier 2 NEPA studies will be conducted on each project section rather than singly on the entire route. Each Tier 2 study will look beyond its project termini to determine if there is anything sensitive just beyond the termini that would affect the location of the adjoining project. This will provide additional assurance that decisions made in one section do not prematurely preclude consideration of alternatives within the preferred corridor for adjoining sections. In general, the range of alternatives in Tier 2 are confined to the corridor selected in Tier 1. In some instances, interchanges and access roads for Tier 2 alternatives extend outside the corridor. Flexibility exists to consider alternatives outside the corridor, with consultation, if necessary to avoid unanticipated impacts.

Revised Tier 1 Forest and Wetland Mitigation and Enhancement Plan

During Tier 1, INDOT and FHWA developed a Tier 1 Forest and Wetland Mitigation and Enhancement Plan ("Plan") for the proposed project in consultation with the USFWS and other review agencies. This Plan described 17 potential sites where wetland and forest restoration and conservation efforts would be targeted. These sites were "conceptual" in nature, and were general areas rather than specific parcels of land. The Plan was intended to provide a list of potential mitigation sites. The actual mitigation sites to be implemented for the project will be determined during or following Tier 2, in consultation with the USFWS, and could include different sites than those identified in the Plan. A copy of the original Tier 1 Forest and Wetland Mitigation and Enhancement Plan, was included as Appendix NN in the Tier 1 FEIS, Volume II, and is hereby incorporated by reference.

Appendix D of the Tier1 BA Addendum contained a Revised Tier 1 Forest and Wetland Mitigation and Enhancement Plan and his hereby incorporated by reference. This conceptual Revised Tier 1 Plan is an updated version of the original Tier 1 Forest and Wetland Mitigation and Enhancement Plan. The Tier 1 Forest and Wetlands Mitigation and Enhancement Plan included a commitment to replace wetlands at a ratio of 3:1 for forested and scrub/shrub wetlands, and a ratio of 2:1 for emergent wetlands. In addition to wetland mitigation, the Plan included a commitment to mitigate

for upland forests at a ratio of 3:1. In addition to these amounts, a buffer for each wetland mitigation site was included within the Plan totaling 55 acres. Based on impact estimates available in Tier 1, the Plan included *estimated* acreages for forest and wetlands mitigation and identified *potential* forest and wetland mitigation sites.

The Plan noted that if impacts were reduced below the levels estimated in Tier 1, then the level of mitigation acreage required under the Plan would be reduced accordingly; similarly, if the impacts were higher than estimated in Tier 1, then the mitigation acreage would increase. The Plan also noted that further enhancements to the mitigation measures listed in the Plan would be determined in consultation with the USFWS and other regulatory agencies on a case-by-case basis in Tier 2. The Plan also noted that the mitigation sites identified in the Plan were conceptual, and that specific mitigation sites would be determined during or after Tier 2 and noted that INDOT would acquire mitigation sites only from willing sellers at fair market value.

Consideration in December 3, 2003 Biological Opinion

The USFWS's original Biological Opinion for the project, issued on December 3, 2003, included a description of the Tier 1 Forest and Wetland Mitigation and Enhancement Plan (Tier 1 B.O., pp. 8-10.) The USFWS specifically considered the Plan as part of the analysis that supported its no-jeopardy finding for the project. (Tier 1 B.O., pp. 74-75). In addition, the USFWS required implementation of the measures contained in the Plan, or equivalent measures deemed satisfactory by the USFWS, as one of the mandatory terms and conditions in the Incidental Take Statement for the Indiana bat. (Tier 1 B.O., p. 79).

Updates to Tier 1 Mitigation and Enhancement Commitments

The re-initiation of Section 7 consultation for the entire I-69 Evansville to Indianapolis project provides an opportunity to review and, where appropriate, update the Tier 1 mitigation and enhancement commitments. Updates are appropriate where new information has been developed about the project's impacts or about specific mitigation sites; modifications also may be appropriate in order to clarify statements in the original Plan. Any updates contained in the Tier 1 BA Addendum, will supersede commitments in the original mitigation plan, and are incorporated into this revised Biological Opinion for the I-69 project.

Mitigation Commitments

Statements within the Tier 1 BA Addendum, indicated that FHWA and INDOT have re-affirmed their commitment to the mitigation ratios provided in the Tier 1 Forest and Wetlands Mitigation and Enhancement Plan. These mitigation ratios are summarized in Table 1 of the BA Addendum provided below.

Table 1. Tier 1 Mitigation Commitments

Resource Type	Mitigation Ratio
Forested Wetlands	3:1
Scrub/Shrub Wetlands	3:1
Emergent Wetlands	2:1
Upland/Bottomland Forest	3:1
Wetlands Buffer	Include additional land as buffer around wetlands mitigation sites

Estimated Mitigation Acreages
As noted above, the Tier 1 BA included *estimates* for mitigation acreages, based on then available information about the project's impacts. It did not commit to providing a specific number of acres of mitigation land. Consistent with that approach, the Tier 1 BA Addendum included updated estimates of the mitigation acreages for forest and wetlands (see Table 2.)

To provide a conservative/worst-case scenario, the updated estimates in the Tier 1 BA Addendum have been based on a representative alignment within each section that have the highest impact to Tier 2 forest, from among the alignments under consideration in the Tier 2 studies as of November 14, 2005. (The "representative alignment" used in the Tier 1 BA Addendum differs from the "working alignment" considered in the Tier 1 study.) The term "Tier 2 forest" is explained below at p. 32.
Tier 2 forest was determined from 2003 aerial photographs, high resolution aerial photographs of the corridor, and field reconnaissance by Tier 2 Environmental and Engineering Assessment Consultants (EEACs). The EEACs are responsible for specific, detailed evaluations of each Tier 2 Section. The new forest data shows greater overall forest coverage when compared to the forest data used in the original Tier 1 analysis and formal consultation. The revised forest data used in this analysis was discussed in greater detail on page 25 of the BAA. It is likely that the actual impacts will be somewhat lower than this estimate, due to the ongoing efforts to avoid and minimize impacts to forest and wetlands. The highest forest impact alignments have been used in order to provide a "reasonable worst-case" estimate of the Tier 2 forest impacts for the alternatives that are being considered in the Tier 2 studies. Since actual impacts are likely to be somewhat lower, it is expected that the corresponding mitigation acreages will also be somewhat lower than those presented here.

Table 2. Estimated Forest and Wetland Impacts & Mitigation

Habitat / Mitigation Ratio	Tier 1 BA Estimated Impacts (acres)	Tier 2 BA Estimated Impacts (acres)*	Tier 1 BA Estimated Mitigation (acres)	Tier 2 BA Estimated Mitigation (acres)*
Forested Wetlands / 3:1	65	100	198 – 214	300
Scrub / Shrub Wetlands / 3:1	5	5	15 – 20	15
Emergent Wetlands / 2:1	5	15	6 -10	30
Wetland Buffer/Prairies (25%)	----	----	55 – 72	90
Upland Forests / 3:1	1,062	2,050	3,186 – 3,773	6,150
Total	**1,137**	**2,170**	**3,461 – 4,089**	**6,585**

* Tier 2 Impacts and Mitigation Offered were rounded up to increments of 5. Impact estimates for the Addendum have been based on the Tier 2 alignment with the highest impacts to forest. Actual impacts are expected to be lower; as a result, actual mitigation acreages also are likely to be lower.

Both the harmful and beneficial effects of the "Tier 2 BA" estimated impacts and proposed mitigation acreages presented in Table 2 were taken into consideration for both our jeopardy and incidental take analyses of this revised BO.

Principles for Selecting Mitigation Sites
Mitigation sites and easements will only be purchased from willing sellers at fair market value. FHWA and INDOT propose the following principles to guide the selection of forest and wetlands mitigation sites for the project:

a. Wherever possible, mitigation for impacts in the vicinity of an Indiana bat maternity colony will be provided (if willing sellers are available for a price at fair market value) within a 2.5-mile radius of the estimated central location of the colony. The area within this 2.5-mile radius is referred to in this document as the maternity colony roosting and foraging area. Maps in Appendix D of the BAA show the location of mitigation priority areas for the 13 identified maternity colonies. Where mitigation cannot be provided within the maternity colony roosting and foraging area, any additional mitigation for impacts to the colony will be provided elsewhere within the SAA or at other locations acceptable to the USFWS, FHWA, and INDOT.

b. Mitigation will include both the protection of existing habitat (through acquisition of easements or other ownership interests in the property) and the creation of new habitat (through reforestation and wetlands creation). The balance between protecting and creating habitat will be determined as part of the Section 7 consultation process for Tier 2 BAs.

c. Mitigation measures that include property acquisition (including acquisition of easements) will be carried out only with willing sellers at fair market value. When seeking to acquire sites for mitigation purposes, FHWA and INDOT will try to identify potential willing sellers and try to reach an agreement with them.

d. The USFWS will be consulted prior to acquisition of sites that are intended to be used as mitigation for impacts to the Indiana bat.

e. On a project-wide basis, FHWA and INDOT will provide mitigation for upland forest impacts at a ratio of 3:1 as committed in the Tier 1 FEIS and ROD. Some of the land used to meet this 3:1 commitment may be located outside the Indiana bat Action Areas and thus may not always constitute mitigation for the Indiana bat. Consultation with the USFWS will determine what will be deemed appropriate for Indiana bat mitigation. Mitigation goals are to replace direct forest impacts at a 1:1 ratio and provide an additional 2:1 ratio of forest preservation.

f. Mitigation for impacts to the Indiana bat maternity colonies will be determined on a case-by-case basis and will be located within the Indiana bat Action Areas. The appropriate mitigation ratio for impacts to the Indiana bat will be determined as part of the Tier 2 Section 7 process, taking into account the type and location of the mitigation, as well as the nature of the impacts. The mitigation provided for the Indiana bat within the Action Area may be provided at a ratio of less or greater than 3:1, if a lower or higher ratio is determined to be appropriate as part of the Tier 2 Section 7 process.

g. Mitigation for impacts to the Indiana bat may also serve as mitigation for other environmental resources, such as wetlands.

Mitigation for wetlands will be replaced in the same 8-digit watershed and at ratios described in INDOT's Wetland Memorandum of Understanding (MOU) dated January 21, 1991. Mitigation sites in upland forested areas will be incorporated with wetland areas and other forested areas when feasible in an effort to expand existing core forest habitat and otherwise augment existing ecological communities. Potential mitigation sites also were specifically targeted to create/enhance habitat for Federal and state threatened, endangered, and rare species. For example, potential sites near large, open water bodies were targeted as appropriate habitat for bald eagles. Likewise some forested

areas near known Indiana bat hibernacula were targeted because they provide suitable foraging and roosting habitat for the bats. Detailed information pertaining to each potential mitigation site is provided in the Revised Tier 1 Forest and Wetland Mitigation and Enhancement Plan and is hereby incorporated by reference.

Conservation Measures

The following conservation measures were jointly developed by the FHWA, INDOT, and the Service during informal consultation and were subsequently incorporated into the Tier 1 BA and the Tier 1 BA Addendum as part of the official Proposed Action for the I-69 project. Since conservation measures are part of the Proposed Action, their implementation is required under the terms of the consultation. These measures were specifically designed to avoid and minimize impacts of the proposed action on Indiana bats and bald eagles and to further their recovery. **The Service has analyzed the effects of the Proposed Action based on the assumption that all conservation measures will be implemented or equivalent measures developed in consultation with the Service during or following Tier 2.** The beneficial effects of the following measures were taken into consideration for both our jeopardy and incidental take analyses.

INDIANA BAT (*Myotis sodalis*)

A. CONTEXT SENSITIVE SOLUTIONS

WINTER HABITAT

1. **Alignment Planning -** Efforts will be made to locate Interstate alignments beyond 0.5 miles from known Indiana bat hibernacula.
   Status Report – All alternatives have been located greater than 0.5 miles from any of the 14 known hibernacula.

2. **Blasting -** Blasting will be avoided between September 15 and April 15 in areas within 0.5 miles of known Indiana bat hibernacula. All blasting in the Winter Action Area (WAA) will follow the specifications developed in consultation with the USFWS and will be conducted in a manner that will not compromise the structural integrity or alter the karst hydrology of nearby caves serving as Indiana bat hibernacula.
   Status Report – To be completed.

3. **Hibernacula Surveys –** A plan for hibernacula surveys (caves and/or mines) will be developed and conducted in consultation with and approved by USFWS during Tier 2 studies.
   Status Report – Plan was completed with USFWS and fieldwork has been completed. To date, 373 cave records were evaluated and 250 caves were visited in the field. Of these, sixty-one caves were surveyed for Indiana bats in 2004-2005 and 16 caves had fall harp trapping in 2005. The 16 caves that were harp trapped in the fall of 2005 also had internal cave surveys completed in December 2005. Three new Indiana bat hibernacula were identified as a result of these surveys.

4. **Karst Hydrology –** To avoid and minimize the potential for flooding, dewatering, and/or microclimate (i.e., temperature and humidity) changes within hibernacula, site-specific efforts will be made to minimize changes in the amount, frequency, and rate of flow of

roadway drainage that enters karst systems that are determined to be hydrologically connected to Indiana bat hibernacula.

<u>Status Report</u> – The only hibernaculum for which hydrological connectivity with the corridor has been established is Cave. Karst feature dye tracing from inputs within the corridor established a positive dye trace to Cave in December 2005. Efforts will be made to minimize any disturbance to the hydraulic/hydrologic function of these features, and their relationship to Cave, thus minimizing any potential changes to the hibernaculum microclimate.

<u>AUTUMN/SPRING HABITAT</u>

5. **Tree Removal –** To minimize adverse effects on bat habitat, tree (three or more inches in diameter) cutting will be avoided within five miles of a known hibernaculum. If unavoidable, cutting will only occur between November 15 and March 31.

   <u>Status Report</u> - To be completed.

<u>SUMMER HABITAT</u>

6. **Alignment Planning -** Efforts will be made to locate Interstate alignments so they avoid transecting forested areas and fragmenting core forest where reasonable.

   <u>Status Report</u> – Efforts have been made to avoid and minimize fragmenting forests.

7. **Tree Removal -** Tree and snag removal will be avoided or minimized as follows:

   a. **Tree Cutting** - To avoid any direct take of Indiana bats, no trees with a diameter of 3 or more inches will be removed between April 15 and September 15. Tree clearing and snag removal will be kept to a minimum and limited to within the construction limits. In the median, outside the clear zone, tree clearing will be kept to a minimum with woods kept in as much a natural state as reasonable. Forested medians will be managed following IDNR State Forest timber management plan.

      <u>Status Report</u> – To be completed.

   b. **Mist Netting** - In areas with suitable summer habitat for the Indiana bat, mist net surveys will be conducted between May 15 and August 15 at locations determined in consultation with the USFWS as part of Tier 2 studies. If Indiana bats are captured, some will be fitted with radio transmitters and tracked to their diurnal roosts for at least 5 days unless otherwise determined by USFWS.

      <u>Status Report</u> – Completed. A total of 148 mist net sites was surveyed in 2004 and 49 sites were surveyed or resurveyed in 2005.

8. **Bridges –** Bridges will include the following design features:

   a. **Surveys –** The undersides of existing bridges that must be removed for construction of I-69 will be visually surveyed and/or netted to determine their use as night roosts by Indiana bats during the summer.

      <u>Status Report</u> – Completed. A total of 270 bridges and culverts was inspected for Indiana bats. Of the 259 bridge surveys, Indiana bats were found under one bridge. INDOT and FHWA have worked with the USFWS on fencing below this bridge at either end to avoid human disturbance. Both ends of the bridge have fencing, a gate, and a keyed lock. Monthly monitoring with USFWS is ongoing

throughout the summer of 2006. This bridge is greater than 1.5 miles from the proposed corridor with no direct forested connectivity to it.

b. **Bat-friendly bridges –** Where feasible and appropriate, Interstate and frontage road bridges will be designed to provide suitable night roosts for Indiana bats and other bat species in consultation with the USFWS.
Status Report – To be completed.

c. **Floodplains –** Where reasonable and appropriate, floodplains and oxbows will be bridged to protect environmentally sensitive areas. The Patoka River floodplain will be bridged in its entirety, thus minimizing impacts to many different habitats.
Status Report - To be completed.

9. **Stream Relocations –** Site-specific plans for stream relocations will be developed in design considering the needs of sensitive species and environmental concerns. Plans will include the planting of woody and herbaceous vegetation to stabilize the banks. Such plantings will provide foraging cover for many species. Stream Mitigation and Monitoring plans will be developed for stream relocations, as appropriate.
Status Report - To be completed.

ALL HABITATS

10. **Medians and Alignments –** Variable-width medians and Independent alignments will be used where appropriate to minimize impacts to sensitive and/or significant habitats. Context sensitive solutions will be used, where possible. This may involve vertical and horizontal shifts in the Interstate.
Status Report - To be completed.

11. **Minimize Interchanges -** Efforts have been made to limit interchanges in karst areas, thereby limiting access and discouraging secondary growth and impacts. In Tier 2, further consideration will be given to limiting the location and number of interchanges in karst areas.
Status Report - To be completed in consultation with USFWS.

12. **Memoranda of Understandings (MOUs) -** Construction will adhere to the Wetland MOU (dated January 28, 1991) and Karst MOU (dated October 13, 1993). The Wetland MOU minimizes impacts to the Indiana bat by mitigating for wetland losses, and creating bat foraging areas at greater ratios than that lost to the project. The Karst MOU avoids and minimizes impacts to the Indiana bat by numerous measures which protect sensitive karst features including hibernacula.
Status Report - Items 1-4 of the karst MOU are being addressed as part of Tier 2 studies. Additional items to be completed.

13. **Water Quality -** Water contamination will be avoided/minimized by the following:

a. **Equipment Service -** Equipment servicing and maintenance areas will be designated to areas away from streambeds, sinkholes, or areas draining into sinkholes.
Status Report – To be completed.

b. **Roadside Drainage -** Where appropriate in karst areas, roadside ditches will be constructed that are grass-lined and connected to filter strips and containment basins.

Status Report – To be completed.

c. **Equipment Maintenance -** Construction equipment will be maintained in proper mechanical condition.
Status Report – To be completed.

d. **Spill Prevention/Containment –** The design for the roadway will include appropriate measures for spill prevention/containment.
Status Report – To be completed.

e. **Herbicide Use Plan -** The use of herbicides will be minimized in environmentally sensitive areas, such as karst areas that are protective of Indiana bats and their prey. Environmentally sensitive areas will be determined in coordination with INDOT and, as appropriate, INDOT consultants. Appropriate signage will be posted along the interstate to alert maintenance staff.
Status Report – To be completed.

f. **Revegetation -** Revegetation of disturbed areas will occur in accordance with INDOT standard specifications. Woody vegetation will only be utilized beyond the clear zone. Revegetation of disturbed soils in the right-of-way and medians will utilize native grasses and wildflowers, as appropriate, similar to the native seed mixes of other nearby states.
Status Report – To be completed.

g. **Low Salt Zones –** A low salt and no spray strategy will be developed in karst areas for this project. A signing strategy for these items will also be developed. The low salt zones will be determined in coordination with INDOT.
Status Report – To be completed.

h. **Bridge Design –** Where feasible and appropriate, bridges will be designed with none or a minimum number of in-span drains. To the extent possible, the water flow will be directed towards the ends of the bridge and to the riprap drainage turnouts.
Status Report – To be completed.

14. **Erosion Control -** Temporary erosion control devices will be used to minimize sediment and debris. Timely revegetation after soil disturbance will be implemented and monitored. Revegetation will consider site specific needs for water and karst. Erosion control measures will be put in place as a first step in construction and maintained throughout construction.
Status Report – To be completed.

15. **Parking and Turning Areas –** Parking and turning areas for heavy equipment will be confined to sites that will minimize soil erosion and tree clearing, and will avoid environmentally sensitive areas, such as karst.
Status Report – To be completed.

B. RESTORATION / REPLACEMENT

SUMMER HABITAT

1. **Summer Habitat Creation / Enhancement -** Indiana bat summer habitat will be created and enhanced in the Action Area through wetland and forest mitigation

focused on riparian corridors and existing forest blocks to provide habitat connectivity. The following areas and possibly others will be investigated for wetland and forest mitigation to create and enhance summer habitat for the Indiana bat: Pigeon Creek, Patoka River bottoms, East Fork of the White River, Thousand Acre Woods, White River (Elnora), First Creek, American Bottoms, Garrison Chapel Valley, Beanblossom Bottoms, White River (Gosport), White River (Blue Bluff), and Bradford Woods.

In selecting sites for summer habitat creation and enhancement, priority will be given to sites located within a 2.5 mile radius from a recorded capture site or roost tree. If willing sellers cannot be found within these areas, other areas may be used as second choice areas as long as they are within the Action Area and close enough to benefit these maternity colonies, or are outside the Action Area but still deemed acceptable to the USFWS.

Where appropriate, mitigation sites will be planted with a mixture of native trees that is largely comprised of species that have been identified as having relatively high value as potential Indiana bat roost trees. Tree plantings will be monitored for five years after planting to ensure establishment and protected in perpetuity via conservation easements.

Status Report – To be completed.

2. **Wetland MOU -** Wetlands will be mitigated at ratios agreed upon in the Wetland MOU (dated January 28, 1991). Wetland replacement ratios are as follows:
   - **a.** Farmed 1 to 1
   - **b.** scrub / shrub and palustrine / lacustrine emergent 2 - 3 to 1 depending upon quality
   - **c.** bottomland hardwood forest 3 – 4 to 1 depending upon quality
   - **d.** exceptional, unique, critical (i.e. cypress swamps) 4 and above to 1 depending upon quality.

   Status Report – To be completed.

3. **Forest Mitigation** - The Tier 1 Forest and Wetland Mitigation and Enhancement Plan identifies the general location of potential mitigation sites for upland and bottomland forests. Preference will be given to areas contiguous to large forested tracts that have recorded federal and state listed species. The actual mitigation sites implemented will be determined in or following Tier 2 in consultation with the Service and other environmental review agencies. Coordination with the environmental review agencies will assure that these forest mitigation sites are strategically situated in biologically attractive ecosystems. Forest impacts will be mitigated at a ratio of 3 to 1. All forest mitigation lands will be protected in perpetuity via conservation easements. The 3:1 forest mitigation may not be located entirely within the Action Area. Forest impacts occurring within each of the 13 2.5-mile radius maternity colony areas would be mitigated by replacement (i.e. planting of new forest and purchase of existing) at approximately 3:1, preferably in the vicinity of the known roosting habitat.

   Status Report – To be completed. In 2004, following the issuance of the Tier 1 ROD, INDOT provided funding to IDNR for the purchase of approximately 1500 acres of land from Indiana Power & Light (IPL; now managed by IDNR, Division of Forestry as "Ravinia Woods," a unit of the Morgan-Monroe State Forest) in Morgan County for use as forest mitigation for the I-69 project. The Ravinia Woods property is about 80% forested and lies approximately 0.5 mile beyond the assumed boundary of the West Fork - Bryant Creek maternity colony in Section 5. A narrow wooded riparian corridor along Burkhart Creek provides connectivity

between the West Fork - Bryant Creek colony and Ravinia Woods. INDOT considers this land to contribute to meeting a minimum 1:1 of the forest mitigation in Section 5. The remaining 2:1 for Section 5 will include reforestation and preservation within the SAA and maternity colony foraging area. The 1:1 ratio could be increased depending upon site-specific mitigation in Tier 2 and through future coordination with USFWS. At this time (estimates may change in the future as alignments are refined), Section 5 is estimated to result in a total of 303 acres of forest loss. Thus, 606 acres would be reforested and/or preserved within the SAA or maternity colony foraging area and 303 acres from the Ravinia Woods property would be included as the remaining forest mitigation.

C. CONSERVATION / PRESERVATION

WINTER HABITAT

1. **Hibernacula Purchase -** Opportunities will be investigated to purchase at fair market value from "willing sellers," an Indiana bat hibernaculum(a) including associated autumn swarming/spring staging habitat. After purchase and implementation of all management efforts, the hibernaculum(a) and all buffered areas will be turned over to an appropriate government conservation and management agency for protection in perpetuity via conservation easements.
   Status Report – To be completed.

2. **Hibernacula Protection** – With landowner permission, investigations will be coordinated with the USFWS on acquiring easements to erect bat-friendly angle-iron gates at cave entrances. These gates prevent unauthorized human access and disturbance of hibernacula, while maintaining free airflow within the hibernacula within the Action Area. Gates will be constructed according to designs from the American Cave Conservation Association. Effects of gates on water flow and flash flooding debris will be carefully evaluated before and after gates are installed. Other structures (e.g., perimeter fencing) or techniques (e.g., alarm systems and signs) may also be used.
   Status Report – To be completed.

AUTUMN/SPRING HABITAT

3. **Autumn/Spring Habitat Purchase -** Any hibernaculum(a) purchased as part of conservation for Indiana bat winter habitat will include associated autumn swarming/spring staging habitat to the maximum extent practicable. Any purchase will be from a willing seller at fair market value. In addition, some parcels containing important autumn swarming/spring staging habitat may be acquired near key hibernacula regardless of whether the hibernacula are acquired themselves. Any acquired autumn swarming/spring staging habitat would be turned over to an appropriate government conservation and management agency for protection in perpetuity via conservation easements. The purchase of forest would be included as part of the 3:1 mitigation in Measure B.3.
   Status Report – To be completed.

SUMMER HABITAT

4. **Summer Habitat** - Investigations will be coordinated with the USFWS on purchasing lands at fair market value in the Action Area from "willing sellers" to preserve summer

habitat. Any acquired summer habitat area would be turned over to an appropriate government conservation and management agency for protection in perpetuity via conservation easements.
Status Report – To be completed.

D. EDUCATION / RESEARCH / MONITORING

WINTER HABITAT

1. **Monitor Gated Caves -** All caves that have gates erected as mitigation for this project will have their temperature, humidity, bat activity and populations monitored before and for three years after gate installation. Infra-red video monitoring or other techniques deemed acceptable by USFWS will be conducted for a minimum of two nights in the appropriate season at each newly installed cave gate to ensure the bats are able to freely ingress and egress. Data acquisition will use a number of data loggers minimizing the need for entry into these caves. All precautionary measures will be taken to minimize potential impacts to hibernating Indiana bats.
Status Report – To be completed.

2. **Cave Warning Signs -** Where deemed appropriate by USFWS, the following may be done: signs will be posted that warn the public and discourage cave entry at hibernacula within/near the Action Area. Signs should be placed so that they do not block air flow into the cave and do not draw attention to the entrance and attract violators (USFWS 1999). Also, light-sensitive data loggers may be placed within the caves to assess the effectiveness of the warning signs at deterring unauthorized entries. Permission from the landowners must be obtained before erecting such signs and installing data loggers.
Status Report – To be completed.

3. **Biennial Census –** Total funding of $50,000 will be provided to supplement the biennial winter census of hibernacula within/near the proposed Action Areas. Funding will be made available in consultation with the USFWS.
Status Report – To be completed.

AUTUMN/SPRING HABITAT

4. **Autumn/Spring Habitat Research -** Total funding of $125,000 will be provided for research on the relationship between quality autumn/spring habitat near hibernacula and hibernacula use within/near the Action Area. This research should include methods attempting to track bats at longer distances such as aerial telemetry or a sufficient ground workforce. A research work plan will be developed in consultation with the USFWS. Funding will be made available as soon as practical after Notice to Proceed is given to the construction contractor for the applicable Tier 2 Section (or earlier).
Status Report – To be completed.

SUMMER HABITAT

5. **Mist Netting -** A work plan for surveying, monitoring, and reporting will be developed and conducted in consultation with and approved by USFWS. This mist netting effort will be beyond the Tier 2 sampling requirements. Fifty mist netting sampling sites are anticipated. Monitoring surveys focused at each of the 13 known maternity colonies will

be completed the summer before construction begins in a given section and will continue each subsequent summer during the construction phase and for at least five summers after construction has been completed. If Indiana bats are captured, radio transmitters will be used in an attempt to locate roost trees, and multiple emergence counts will be made at each located roost tree. These monitoring efforts will be documented and summarized within an annual report prepared for the Service.
Status Report – To be completed.

GENERAL

6. **Educational Poster -** Total funding of $25,000 will be provided for the creation of an educational poster or exhibit and/or other educational outreach media to inform the public about the presence and protection of bats, particularly the Indiana bat. Funding would be provided after a Notice to Proceed is issued for construction of the first section of the project.
Status Report – To be completed.

7. **Rest Areas -** Rest areas will be designed with displays to educate the public on the presence and protection of sensitive species and habitats. Attractive displays near picnic areas and buildings will serve to raise public awareness as they utilize the Interstate. Information on the life history of the Indiana bat, protecting karst, and protecting water quality will be included in such displays.
Status Report – To be completed.

8. **Access to Patoka NWR -** If reasonable, an interchange will be constructed that would provide access to a potential Visitor's Center at the Patoka River National Wildlife Refuge.
Status Report – To be completed. At this time, there are two interchanges proposed near the Patoka River National Wildlife Refuge. South of the river, an interchange is proposed at SR 64 near Oakland City. North of the river, an interchange is being considered at Division Road as connected to SR 57. At either of these interchanges, signage and access for the refuge could be made available.

9. **GIS Information -** GIS maps and databases developed and compiled for use in proposed I-69 planning will be made available to the public. This data provides information that can be used to determine suitable habitats, as well as highlight other environmental concerns in local, county, and regional planning. Digital data and on-line maps are being made available from a server accessed on the IGS website at IU: http://igs.indiana.edu/arcims/statewide/index.html. In addition, detailed GIS forest data (five meter resolution) has been developed for the 13 maternity colony foraging areas (circles with 2.5 mile radius) and WAA. This data was developed in order to better determine habitat impacts to the Indiana bat. This is the most accurate and detailed forest data known to exist for those areas. This data could potentially be used by USFWS, other government agencies, or students to examine effects on the Indiana bat, other species, or ecosystems over time.
Status Report – To be completed.

BALD EAGLE (*Haliaeetus leucocephalus*)

A. CONTEXT SENSITIVE SOLUTIONS

1. **Alignment Planning -** Where reasonable, Tier 1 has located Interstate alignments away from environmentally sensitive areas (nests, core forests, wetlands, etc.). INDOT will closely coordinate with Indiana DNR biologists regarding the locations of nests near and within the Action Area. Alignments will be shifted away from eagle nests when feasible.

2. **Medians and Alignments –** Variable-width medians and Independent Alignments will be used where appropriate to minimize impacts to some habitats and provide context sensitive solutions where possible. This may involve vertical and horizontal shifts in the north-south bound highways.

3. **Carrion Removal –** Standard operating procedures will be employed to remove carrion from the Interstate in a timely manner to reduce the potential for vehicle/eagle collisions. Appropriate INDOT Maintenance Units in Districts where proposed I-69 crosses or comes near to the Patoka River, East Fork of the White River, and West Fork of the White River will be given notice for special attention to this measure, especially in winter.

4. **Water Quality -** Water contamination will be avoided/minimized by the following:

    a. **Equipment Service -** Equipment servicing and maintenance areas will be designated to areas away from streambeds.
    b. **Equipment Maintenance -** Construction equipment will be maintained in proper mechanical condition.
    c. **Spill Prevention/Containment –** The design for the roadway will include appropriate measures for spill prevention/containment.
    d. **Herbicide Use Plan -** The use of herbicides will be minimized in environmentally sensitive areas, such as riparian areas that are protective of bald eagles and their prey.
    e. **Revegetation -** Revegetation of disturbed areas will occur in accordance with INDOT standard specifications. Woody vegetation will only be utilized beyond the clear zone. Revegetation of disturbed soils in the right-of-way and medians will utilize native grasses and wildflowers, as appropriate, similar to the native seed mixes of other nearby states.
    f. **Bridge Design –** Where feasible and appropriate, bridges will be designed with none or a minimum number of in-span drains. To the extent possible, the water flow will be directed towards the ends of the bridge and to the riprap drainage turnouts.

5. **Erosion Control -** Temporary erosion control devices will be used to minimize sediment and debris. Timely revegetation after soil disturbance will be implemented and monitored. Revegetation will consider site specific needs for water and karst. Erosion control measures will be put in place as a first step in construction and maintained throughout construction.

6. **Parking and Turning Areas -** Parking and turning areas for heavy equipment will be confined to sites that will minimize soil erosion and tree clearing, and will avoid environmentally sensitive areas, such as karst.

7. **Tree Clearing -** Tree clearing will be kept to a minimum beyond the construction limits, but within the right-of-way.

8. **Floodplains –** Where reasonable and appropriate, floodplains and oxbows will be bridged to protect environmentally sensitive areas. The Patoka River floodplain will be bridged in its entirety, thus minimizing impacts to many different habitats.

9. **Vegetative Screens –** Where feasible and appropriate, a vegetative screen (i.e., trees) will be maintained within INDOT owned R/W between any nearby eagle nests and the Interstate to minimize visual and auditory disturbances during and after construction.

B. RESTORATION / REPLACEMENT

1. **Forest and Wetland Mitigation -** Wetland and forestland impacted by the project will be mitigated as part of the Forest and Wetland Mitigation Plan. Potential mitigation sites include areas near the Patoka River bottoms, Beanblossom Bottoms, East Fork of the White River, White River (Elnora), White River (Gosport), White River (Blue Bluff), and possibly others.

2. **Wetland MOU -** Wetlands will be mitigated at ratios agreed on in the Wetland MOU (dated January 28, 1991). Upland forests will be mitigated at a 3:1 ratio. Wetland replacement ratios are as follows:
   - **e.** farmed 1 to 1
   - **f.** scrub / shrub and palustrine / lacustrine emergent 2 - 3 to 1 depending upon quality
   - **g.** bottomland hardwood forest 3 – 4 to 1 depending upon quality
   - **h.** exceptional, unique, critical (i.e. cypress swamps) 4 and above to 1 depending upon quality.
3. **Forest Mitigation -** The Tier 1 Forest and Wetland Mitigation and Enhancement Plan identifies the general location of potential mitigation sites for upland and bottomland forests. Preference will be given to areas contiguous to large forested tracts that have recorded federal and state listed species. The actual mitigation sites implemented will be determined in or following Tier 2 in consultation with the Service and other environmental review agencies. Coordination with environmental review agencies will assure that these forest mitigation sites are strategically situated in biologically attractive ecosystems. Forest impacts will be mitigated at a ratio of 3 to 1. Where, tree planting is part of forest mitigation near large water bodies and rivers, native tree species that form large, open-branched crowns (e.g., eastern cottonwood and sycamore) will be included in the species mix. Tree plantings will be monitored for 5 years to ensure successful establishment. Mitigation lands will be protected in perpetuity via conservation easements.

4. **Platforms and Perches -** Mitigation sites will be evaluated for inclusion of nesting platforms and artificial perch sites.

C. CONSERVATION / PRESERVATION

Habitat Purchase - Purchasing lands in the Action Area from "willing sellers" to preserve habitat will be investigated. The listed areas and possibly others will be investigated for purchase and conservation. Special interest will be given to the Patoka River bottoms, East Fork of the White River, and Lake Monroe. Any acquired habitat would be turned over to the appropriate government conservation and management agency for protection in perpetuity via conservation easements.

D. EDUCATION / RESEARCH

1. **Pamphlet –** Total funding of $25,000 will be provided for the creation of an educational pamphlet and/or other educational materials to inform the public about the recovery, presence, and protection of bald eagles, including measures to reduce harm, harassment risks, and water quality.

2. **Rest Areas -** Rest areas will be designed to educate the public on the presence and protection of sensitive species and habitats. Attractive displays near picnic areas and buildings will serve to raise public awareness as they utilize the Interstate. Information on life history of the bald eagle, recovery in Indiana, protecting water quality, and limiting disturbance will be included in such displays.

3. **Visitor's Center -** If reasonable, an interchange will be constructed that provides access to a proposed Visitor's Center at Patoka River NWR.

4. **GIS Information -** GIS maps and databases developed and compiled for use in proposed I-69 planning will be made available to the public. This data provides information that can be used to determine suitable habitats for the bald eagle, as well as highlight other environmental concerns in local, county, and regional planning. Digital data and on-line maps are being made available from a server accessed on the Indiana Geological Survey (IGS) website at Indiana University: http://igs.indiana.edu/arcims/statewide/index.html.

Proposed Project Schedule

It is anticipated that Final Environmental Impact Statements (FEIS) will be completed for all six (6) of the Tier 2 Sections in 2007. Construction on the most southern 2 miles of the project is anticipated to begin in 2008.

INDOT is currently considering the possibility of constructing I-69 as a Public Private Partnership (P-3), which would include tolling to generate revenue for the facility. Under this type of funding mechanism, the entire length (140 miles), excluding the most southern 2 miles, could be included in a single contract. INDOT is anticipating initiating the procurement process in fall 2006 for this contract. When finalized, the contractor/concessionaire would then be responsible for the

completion of the design and construction of all 140 miles within a specified timeframe (perhaps as quickly as 5 years), although there may not be any restrictions on where construction would be initiated, or in any specified geographic order. Specific requirements of the contract with the concessionaire, which may include timing details, would be developed by INDOT, but are not available for the Service's review at this time.

Changes Since the Tier 1 Biological Assessment

I-69 as a Toll Road

It is uncertain at this time if the proposed I-69 extension from Evansville to Indianapolis will be a toll road. The option of a toll road has recently been studied as a re-evaluation of the Tier 1 Environmental Impact Statement (EIS). This re-evaluation studied Alternatives 1, 2C, 3C, 4B, and 4C from the Tier 1 EIS. It involved a reassessment of performance measures and a re-evaluation of environmental impacts and resulted in a Tier 1 EIS Re-evaluation Report. In addition, each Tier 2 study will study both toll and non-toll funding options for their alternatives carried forward for detailed study in each of the six Tier 2 DEISs.

The following assumptions have been made regarding the tolling studies:

1. At this time, each Tier 2 Section is evaluating each alternative as a toll road and a non-toll road.
2. The future year (2030) traffic forecasts for I-69 as a toll road are anticipated to be approximately 30% to 50% lower than for I-69 as a non-toll road. Therefore, as a result of reduced traffic volumes on the toll options of the alternatives, the typical sections or along the corridor may be reduced. For Sections 1 through 4, it is reasonable to expect that there will be minimal changes to the configuration and footprint of the alignment alternatives for the toll option (the Interstate would be four lanes – two in each direction – as a toll road or as a non-toll road). For Sections 5 and 6, it is expected that there will be changes to the footprint and configuration of the alignment alternatives for the toll option — likely a reduction in the number of lanes.
3. A fully electronic toll collection system (possibly, transponder and video) would be utilized for the toll options. Because there would be no need for toll plazas, there should be little or no impact to the footprint of the roadway for incorporation of the electronic system on the mainline and ramps. In addition, interchange locations currently being considered as part of the alternatives carried forward will continue to be analyzed for the toll options because of electronic system and Tier 1 goals of economic development and accessibility.
4. Traffic and revenue analysis are currently being conducted. While the I-69 traffic volumes are expected to be lower, the affects on the local road system are unknown at this time. Nonetheless, traffic volumes on existing roads that parallel I-69 are expected to increase, while traffic on connections from I-69 to these north/south parallel roads may increase or decrease. Local road impacts will be evaluated as they relate to evaluation of the alternatives.
5. In the Tier 2 DEIS for each section, it is anticipated that a preferred location alternative will be identified. A preferred financing option (toll or non-toll) will be identified in the Tier 2 DEIS or Tier 2 FEIS for each section.

Community Planning Program

The I-69 Community Planning Program was not included in the original Tier 1 BA. The I-69 Community Planning Program is intended to establish a regional strategy for providing resources to local communities to manage development growth associated with I-69. The program would provide grants for local communities (cities, towns and counties) to prepare local land use plans to stimulate economic growth and manage new developments along the I-69 corridor. The local communities will be able to use these grants to prepare transportation land use plans, zoning and subdivision ordinances and special highway corridor "overlay zones" for development controls. The program will have the following objectives:

1. Develop regional strategies and resources to allow communities to achieve their desired vision of how that community will develop in the future.
2. Provide resources to establish a local planning process for communities to develop a desired future plan.
3. Develop protective strategies for environmentally sensitive areas (including karst and wetlands).
4. Develop growth management procedures to control development in accordance with local plans.
5. Develop economic development strategies consistent with the communities' plans.
6. Provide resources for local communities to implement growth management to achieve their plan.

This program is intended to empower local communities to take the initiative in planning for their future and implement controls to stimulate and manage growth. The I-69 Community Planning Program is a two-phase effort. Phase 1 provides for a regional planning assessment and development of regional planning strategies and resources for the entire I-69 corridor impact area. Phase 1 will include:

1. Establish a planning partnership with the Indiana Department of Commerce, the Indiana Land Resources Council, the Indiana Department of Natural Resources and corridor communities to provide oversight to the planning study.
2. Inventory of existing planning procedures in corridor communities (cities, towns and counties).
3. Review of State regulations and legislation affecting rural growth management procedures.
4. Identification of planning needs to manage corridor growth impacts.
5. Development of corridor strategies for economic development and effective planning.
6. Preparation of prototype planning process and model ordinances for zoning and subdivision ordinances and special highway corridor "overlay zones" for development controls.
7. Identification of environmentally sensitive areas warranting special protection.
8. Identification of farmland preservation strategies.
9. Conduct workshops for communities within corridor.

10. Provide technical planning support to corridor communities and assist communities in developing work programs to carry out Phase 2 work activities.

Phase 2 would provide for the actual planning grants to local communities for preparation of local plans and growth management ordinances. These grants would be up to $50,000 (actual amount to be refined based upon planning needs assessment in Phase 1). This would provide for the following elements:

1. Public involvement activities for plan preparation.
2. Develop comprehensive planning framework and corridor land use plan.
3. Develop economic development strategies.
4. Modify model planning ordinances to implement growth management controls.
5. Develop plan implementation program.

INDOT has just completed the contracting phase for the Phase 1 activities that will include developing community planning tools, development of regional planning and economic development strategies for the entire I-69 corridor area and establishing the framework for the Phase 2 program. This first phase accounts for $500,000 of the overall $2,000,000 for the I-69 Community Planning Program.

It is anticipated the Phase 1 program will take 12 to 16 months to complete (including time to prepare for the Phase 2 program). The Phase 2 program will provide for grants up to $50,000 for communities to develop planning programs to capture the economic benefits and manage associated growth resulting from the I-69 highway development (These grants will total $1,500,000). Cities and towns eligible for grants are: Bedford, Bloomfield, Bloomington, Ellettsville, Evansville, Greenwood, Indianapolis, Linton, Loogootee, Martinsville, Mooresville, Oakland City, Petersburg, Princeton, Spencer, Vincennes, and Washington. Counties eligible for grants are: Daviess, Dubois, Gibson, Greene, Johnson, Knox, Lawrence, Martin, Monroe, Morgan, Owen, Pike, Vanderburgh, and Warrick.

Eastern Greene County (County Line) Interchange

INDOT is considering an interchange in far eastern Greene County along the Greene and Monroe County line in Section 4. This interchange would include a 1-mile long connector road to SR 45, which would be developed with limited access right-of-way to preclude development along it. In the original Tier 1 studies, there was no interchange proposed at this location. Rather, one was proposed at SR 54 to the south in Greene County. According to INDOT, traffic volumes and community interest have prompted the investigation of an interchange location change north and east towards Monroe County. This location is in a karst area as was the original SR 54 interchange location. A Conservation Measure developed and included in the original Tier 1 BA stated “Efforts have been made to limit interchanges in karst areas, thereby limiting access and discouraging secondary growth and impacts. In Tier 2, further consideration will be given to limiting the location and number of interchanges in karst areas.” Information on the potential impacts and changes in traffic in the vicinity of hibernacula as a result of this newly proposed interchange are discussed in further detail beginning on page 88 of the BA Addendum. If an interchange is built along the county line, then an interchange would not be built at SR 54.

Rest Areas
Rest area locations for the proposed I-69 were not included as part of the proposed action in the original Tier 1 BA. The number of rest areas and their locations has not yet been determined. There will be as few as zero (0) or as many as three (3) rest area locations as part of this project. Rest area locations could be a single facility to service both north and south bound traffic, or twin facilities on either side of the Interstate. Rest area locations and impacts will be identified in Tier 2 BAs. Rest areas will be located to minimize forest impacts. Rest areas will not be located within the 13 Indiana bat maternity colony foraging areas (2.5 mile radius circle) or within the WAA.

Revised Forest Data
Three (3) different forest data sources were used in the BA Addendum. The goal was to use the most detailed and accurate data source where available. Figure 3 in the Addendum shows which forest data sources were used for each area analyzed.

Tier 1 Forest - In the original Tier 1 BA, forest impacts were estimated using United States Geological Survey (USGS) Land Cover Geographic Information Systems (GIS) data. This data is a subset of the National Land Cover Data (NLCD). The NLCD was developed by the USGS with the United States Environmental Protection Agency (USEPA) to produce a consistent, land cover data layer for the continental U.S. The land cover layer is based on satellite imagery with 30-meter resolution. This data is current through 1992. The Tier 1 forest data was used for analysis for portions of the SAA that are outside the I-69 corridor and outside the maternity colony foraging areas and WAA.

Tier 2 Forest - Tier 2 forest data for each of the six (6) sections was used in the analysis for areas within the I-69 corridor or where the representative alignment went outside the I-69 corridor. This data was not used for the 13 maternity colony foraging areas and the WAA; tree cover data was used for the analysis of those areas, as described below. Tier 2 forest data was created through photo interpretation of 2003 aerial photographs supplemented by field reconnaissance. It includes groups of trees larger than 1 acre and wider than 120 feet. This forest data was only developed for the I-69 corridor, or areas where the representative alignment crossed outside the corridor. **All forest impacts and mitigation acreages used in this revised Tier 1 BO for this project were calculated using Tier 2 forest data.**

Tree Cover - A finer scale, more detailed tree cover data layer was developed for the maternity colony and WAA analysis conducted in this document. The tree cover data layer was developed for each maternity colony foraging area (2.5-mile radius circle) and the WAA using Image Analysis for ArcView 3.0 (Leica Geosystems) software. It is based off the 2003 National Agricultural Imagery Program (NAIP) true color aerial photographs and is 5-meter resolution. It is considerably more detailed than the data used in the original Tier 1 BA.

Representative Alignments
In the original Tier 1 BA, a working alignment was used to estimate forest impacts, as well as other types of impacts. This working alignment ranged from 270 feet to 470 feet wide depending on terrain, number of expected lanes, and number of expected frontage roads. It also included a 500-foot radius buffer at potential interchange locations. It was expected these interchange locations could change in Tier 2. The working alignment was located in the approximate center of the corridor.

For the analysis in this document, "representative" alignments will be used. For the purposes of this study, a representative alignment is the footprint for the alternative with the largest Tier 2 forest impacts, among those alternatives that were under study as of November 14, 2005. Tier 2 forest impacts were determined using 2003 aerial photographs, high resolution aerial photographs for the corridor, and field reconnaissance. This data was analyzed using Geographic Information System (GIS) software. The representative alignment may or may not end up being the preferred alternative. The representative alignment is expected to have higher forest loss than the preferred alternative due to efforts to further minimize forest impacts. In some instances, particularly for interchanges or connector roads, the alignment may extend outside the Tier 1 corridor. Table 3 shows the impacts on Tier 2 forest for the representative alignments in each Section.

Table 3. Representative Alignment Impacts on Tier 2 Forest

Section	Representative Alignment Impacts on Tier 2 Forest
1	55 acres
2	280 acres
3	112 acres
4	1,132 acres
5	303 acres
6	266 acres
TOTAL	**2,148 acres**

New Indiana Bat Hibernacula

For the purposes of this BO, an Indiana bat hibernaculum was defined as any cave where an Indiana bat had been found hibernating. Due to the physical characteristics of the caves, some may have a greater significance to the species than others. At the time of the original Tier 1 BA, there were 10 known Indiana bat hibernacula considered to be within the I-69 Winter Action Area (WAA). These 10 caves were: Cave System (including Cave, Cave, and Cave), Cave, Cave, Cave, Cave, Cave, Cave, Cave, Cave, and Cave. Cave surveys conducted as part of the I-69 project have since identified three (3) previously unrecognized, small Indiana bat hibernacula in addition to the 10 hibernacula that were already known within five miles of the corridor. These three (3) caves are Cave, and A fourth hibernaculum, Cave, was identified within the WAA approximately five (5) miles from the I-69 corridor. It was confirmed as an Indiana bat hibernaculum by the USFWS and Dr. Virgil Brack in 2004 during a followup visit to the cave after receiving the initial report by members of the Indiana Karst Conservancy (IKC). Finally, as previously discussed, with the addition of Cave, there is a total of 15 Indiana bat hibernacula within the I-69 WAA.

Indiana Bat and Karst Surveys

Since the publication of the original Tier 1 BA, several studies relating to the Indiana bat and karst features have been completed. Mist netting surveys for each I-69 Section have been completed in the SAA in 2004, with additional surveys completed in 2005. The mist netting surveys also included radiotelemetry and roost tree emergence counts. Radiotelemetry involves temporarily affixing a lightweight radiotransmitter to a bat's back and attempting to track the tagged bat to its roost tree(s). Roost tree emergence counts were also conducted, which involved counting the number of bats that leave an identified roost tree to forage at dusk. Detailed summer habitat reports were prepared for each I-69 Section and provided to the Service. These reports contained detailed information for all summer survey work that was conducted in each section. They included survey results, forms, photographs, and maps. These reports are listed in the BA Addendum.

A cave reconnaissance was conducted within five (5) miles of the proposed corridor in portions of Monroe, Greene, and Lawrence Counties. The purpose of this reconnaissance was to identify and visit caves that represented potential winter hibernacula for the Indiana bat and make recommendations regarding further detailed investigations. The results of this study can be found in the report intitled *Winter Action Area: I-69 Evansville to Indianapolis Tier 2 Studies Cave Reconnaissance for Indiana Bat Hibernacula, October 2005*(Indiana Geological Survey)

Detailed autumn, winter, and spring habitat survey reports were prepared for Sections 4 and 5 (only Sections in karst area). These reports contained detailed information for all winter habitat survey work that was conducted in the two (2) sections. They included survey results, forms, photographs, and maps. These reports are listed below.

2005: Autumn, Winter, and Spring Habitat for the Indiana Bat (*Myotis sodalis*) within the Crawford Upland and Mitchell Plain From Scotland to Bloomington, Indiana, September 7, 2005 (Environmental Solutions & Innovations, Inc.)

Surveys for Indiana Bats in Caves in Greene and Monroe Counties, Indiana, 2005. (BHE Environmental, Inc.)
2006: Surveys for Indiana Bats in Caves in Greene and Monroe Counties, Indiana 2006, January 2006. (BHE Environmental, Inc.)

Autumn 2005 and Winter 2006 Habitat For the Indiana Bat (*Myotis sodalis*) within the Crawford Upland and Mitchell Plain From Scotland to Bloomington, Indiana. (Environmental Solutions & Innovations, Inc.)

Action Areas

The proposed project involves the construction, operation, and maintenance of an Interstate highway, I-69, from Indianapolis to Evansville through southwestern Indiana. The "action area" is defined by regulation as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR § 402.02). The action area is not limited to the "footprint" of the action nor is it limited by the Federal agency's authority. Rather, it is a biological determination of the reach of the proposed action on listed species. For Tier 1, the FHWA, INDOT, and the Service's BFO jointly developed two seasonally based action areas for the Indiana bat and one for the bald eagle as is described in the following subsections. The Action Areas may be to be expanded or otherwise refined in subsequent Tier 2 BAs as the anticipated reach of direct and indirect effects of each section of I-69 are more clearly recognized and understood.

Indiana Bat Action Areas

Because the full "reach" of the direct and indirect effects of this project were not well defined in Tier 1, we assumed quantifiable effects to Indiana bats would be confined to the project footprint and a 2.5-mile buffer in all directions. Therefore, the "**Summer Action Area**" (SAA) for the Indiana bat has been generally defined as a 5-mile band, 2.5 miles either side of the centerline of Alternative 3C, that runs the entire length of the proposed project (Figures 3 and 4). The 2.5-mile distance also has biological significance, because a study in Illinois (Gardner et al.1991a) found that the maximum distance an Indiana bat traveled from its daytime roost tree to its original capture site was 2.5 miles (4.1 km). This 2.5-mile distance also is consistent with unpublished data from Indiana bat studies conducted at the Jefferson Proving Grounds and the Indianapolis Airport in Indiana (Pruitt 1995, 3D/International 1995). The entire length of the proposed project contains suitable summer roosting and foraging habitat, thus a SAA width of 2.5 miles on either side of the proposed centerline (5 miles wide) will encompass summer habitat being used by Indiana bats that might be affected by the proposed I-69 project. The Tier 1 corridor is approximately 2000 feet wide in most places, but is narrowed in some instances to avoid sensitive environmental areas.

A 2.5-mile radius circle has also been centered on each of the 13 Indiana bat maternity colony activity areas discovered during the Tier 2 mist net surveys. At these 13 locations the 2.5-mile radius circles typically extend beyond the limits of the standard SAA (Figures 3 and 4).

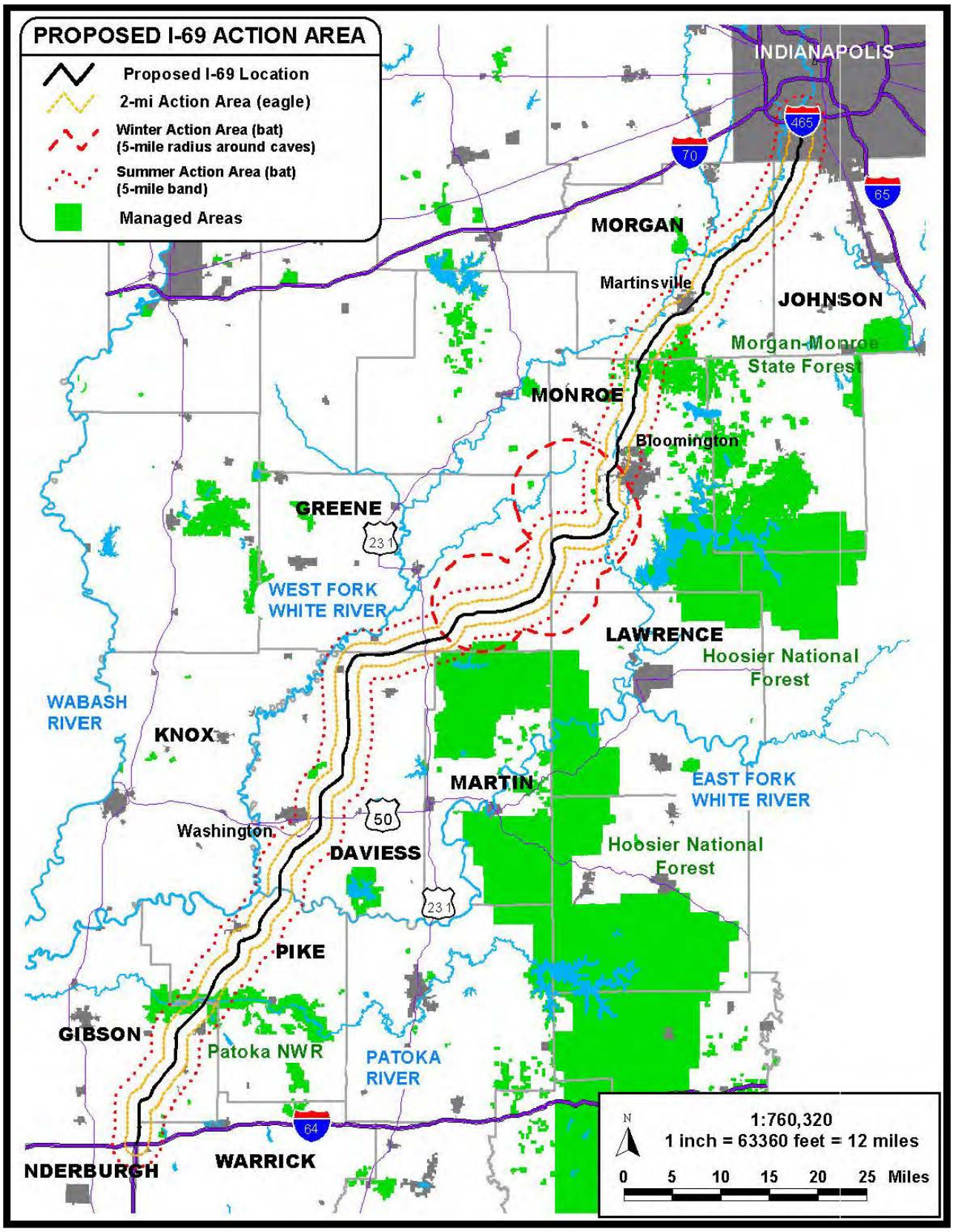

Figure 3. Original I-69 Action Areas for the Indiana bat and bald eagle.

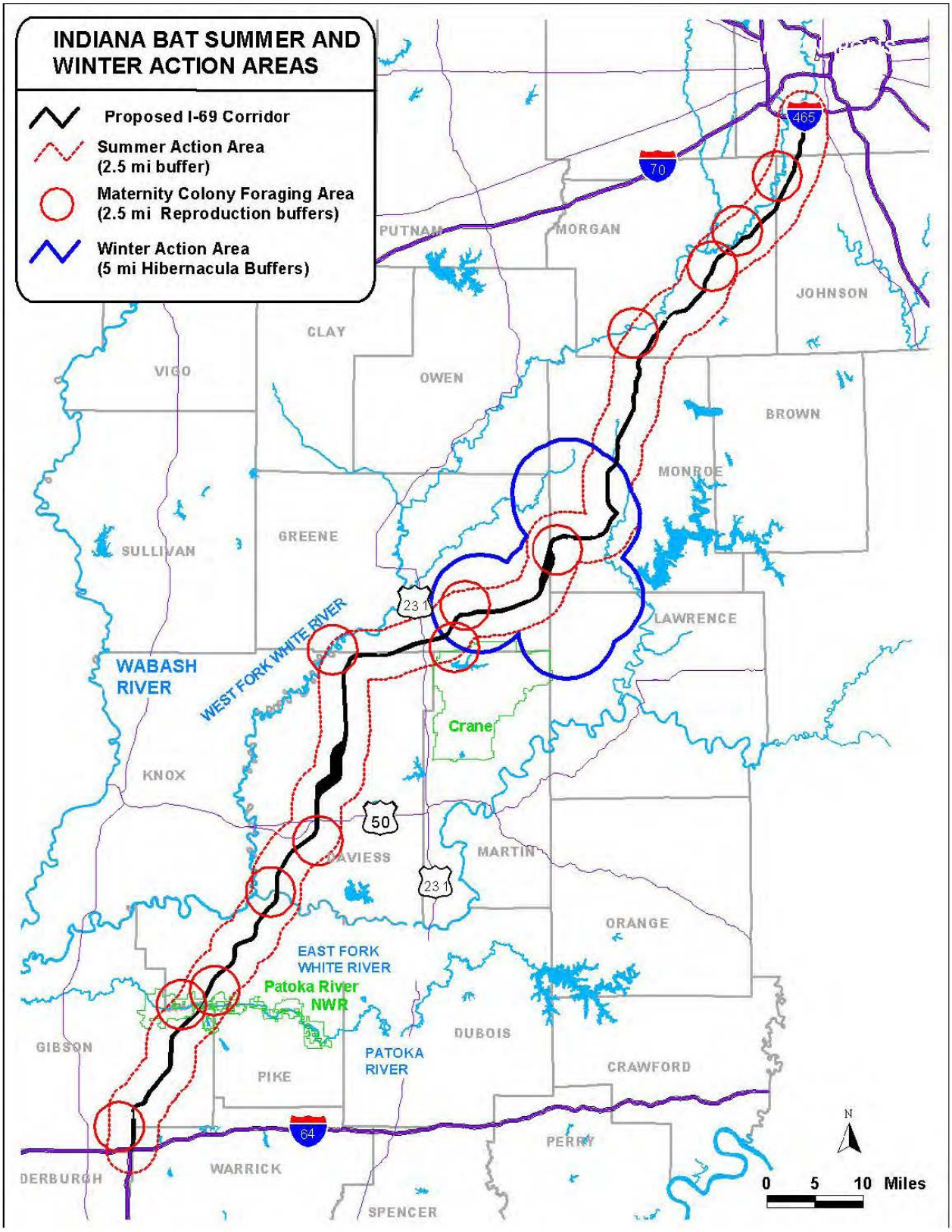

Figure 4. Revised I-69 Indiana Bat Summer and Winter Action Areas (Excluding and Cave).

Similarly, the Service expanded the action area by defining the "**Winter Action Area**" (WAA) for Indiana bats as collectively being the total area that falls within a 5-mile radius centered on each of the known Indiana bat hibernacula that have entrances located within 5 miles of the proposed 3C corridor (Figures 3 and 4) because indirect effects to swarming bats could reach that distance. [**NOTE**: The BFO expounded upon the definition of the WAA that was in the Tier 1 BA to add clarity and to allow for the possibility of further modifications that may be warranted based on new information collected during Tier 2 studies]. The circular areas that form the WAA are assumed to encompass 1) all of the known cave entrances and connected subterranean passages of each hibernaculum, 2) the majority of the recharge areas (e.g., sinkholes, and sinking stream basins) of cave streams that run through or are otherwise hydrologically connected to each hibernaculum (if known), and 3) the majority of the above-ground habitat used by Indiana bats while foraging and roosting during the fall swarming and early spring staging periods (e.g., forests, open woodlots, tree-lined fencerows, pastures, old fields, wetlands, and surface waters). The Tier 1 BA Addendum included 14 known Indiana bat hibernacula within the WAA, which are all natural caves located in the Crawford Upland and Mitchell Plateau physiographic regions in western Monroe and eastern Greene counties. The 5-mile radius centered on a hibernaculum was chosen because Indiana bats have been documented roosting and foraging up to a maximum distance of approximately 5 miles (8 km) from their winter hibernacula during the fall swarming period (Rommé et al. 2002).

The original Tier 1 BO stated

> "there is no designated Critical Habitat for the Indiana bat within the Summer or WAAs for I-69. However, one hibernaculum (a natural cave) that has been designated as Critical Habitat for the Indiana bat is located approximately 6 miles from the proposed 3C corridor (i.e., 1 mile beyond the WAA) in eastern Greene County. During informal consultation with the Service's BFO and prior to the release of the Tier 1 DEIS, the FHWA and INDOT agreed to shift their preliminary alignment of Alternative 3 further away to avoid adverse affects to Indiana bats using this cave."

The cave in eastern Greene County that this statement was referring to is known as Cave, which was officially designated as Critical Habitat under the ESA on September 24, 1976. Subsequently, in the original Tier 1 BA and BO and again in the Tier1 BA Addendum, Cave was not considered to be within the WAA, because its main entrance was approximately 6 miles from the proposed corridor. However, through formal consultation and mapping provided by FHWA and INDOT in the Tier 1 BA Addendum, the Service realized that the cave's underground passage actually extended approximately one mile to the east and closer to the I-69 corridor. Furthermore, the BA Addendum showed that the beginning of one of the currently proposed, limited-access, connector roads between SR. 45 and the proposed countyline interchange in eastern Greene County would fall within 5 miles of the main entrance of Cave. Finally, Figures 19 and 21 in the BA Addendum revealed that I-69 would likely cause induced residential and business growth well within 5 miles of Cave. For these reasons, the Service now considers Cave to be within the I-69 WAA and has treated it as such in this revised BO. During a meeting on July 17, 2006, FHWA and INDOT agreed to this change and subsequently provided additional information regarding impacts to the area surrounding Cave.

With the exception of Cave, the Service has generally assumed no Indiana bats, their hibernacula and associated karst systems, their prey, or surrounding habitat will be directly or

indirectly affected beyond 5 miles from the proposed footprint of I-69. However, if new information proves one or more of these assumptions are not valid, then the radii of all hibernacula will be adjusted accordingly or adjusted on a case-by-case basis, which ever is warranted and appropriate, during subsequent Tier 2 consultations. Likewise, if an additional Indiana bat hibernaculum(a) is discovered during ongoing Tier 2 investigations or future cave/mine surveys, then it will be treated similarly and given full consideration during project section-specific consultations with the Service as warranted.

Bald Eagle Action Area

The action area for the Federally threatened bald eagle is a band that includes 1 mile on either side of the proposed I-69 corridor (Figure 3). The Northern States Bald Eagle Recovery Plan, developed by the Service (USFWS 1983a), details three management zones, or buffer zones, that should be established around bald eagle nests to avoid disturbing the eagles. These buffer zones become less restrictive to human activity as the distance from the nest increases. The primary zone extends 330 feet from the nest, the secondary zone 660 feet, and the tertiary zone 1,320 feet (1/4 mile) to 2,640 feet (1/2 mile). The Bald Eagle Action Area was extended to 1 mile on either side of the proposed corridor, which is twice the distance of the standard tertiary zone, and four times the recommended distance from winter night roost sites. Therefore, the action area band is a total of approximately 2.4 miles wide, and follows the length of the proposed Interstate from Indianapolis to Evansville. No direct or indirect effects from I-69 are expected to occur on bald eagles beyond this distance. Because no Critical Habitat has been designated for the bald eagle, none will be adversely modified by this project.

The Service's Section 7 Consultation Approach

Because the FHWA is following a tiered process for the I-69 project, where complete and detailed information regarding specific alignments and anticipated impacts is not available for analysis until after the Tier 1 corridor decision has been finalized and Tier 2 studies and BAs have been completed on all six project sections, the Service believes that a programmatic consultation approach is appropriate for this project.

By taking a programmatic consultation approach, the Service will be able to complete one comprehensive and conservative effects analysis, up front in Tier 1 for the entire I-69 project rather than repeating the same analyses for each of the six subsequent Tier 2 Project Sections. Therefore this approach should also increase the efficiency of the section 7 consultation process for I-69. Another benefit of completing this analysis up front in an overall project or "programmatic" consultation document is that the anticipated effects common to each of the forthcoming Tier 2 Project Section alignments can be added into the environmental baseline prior to their actual completion. This provides predictability for the FHWA and INDOT as they can be assured that the effects of their future Tier 2, I-69-related actions have already been broadly accounted for.

In Tier 1, uncertainty exists as to the specific impacts that will occur when the specific alignments eventually are selected for the entire I-69 project. Therefore, the Service will provide the benefit of the doubt to the listed species and use "reasonable worst case" assumptions when developing the programmatic-level biological opinion. This approach results in the Service examining the greatest levels of impacts that can reasonably occur from implementing the conservation measures proposed in the Tier 1 BA. This evaluation is then refined through the Tier 2 Project Section-level consultations. This approach will ensure that the FHWA can fulfill its responsibilities under section

7(a)(2) of the Act to "insure" that actions implemented under their I-69 "program" are not likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of designated Critical Habitat.

The Service will implement an appended programmatic approach for I-69, which is a two-stage consultation process. The first stage involves the Service developing a programmatic biological opinion for I-69 that analyzes potential effects at a landscape-level, local population level, and individual animal level that may result from fully implementing the proposed design criteria developed for the entire I-69 project from Evansville to Indianapolis, Indiana. This stage was originally completed near the end of Tier 1 and is now being revisited during this reinitiation consultation after the completion of Tier 1 and after many Tier 2 studies have been completed. The second stage involves the FHWA developing appropriate project section-specific documentation (e.g., Tier 2 biological assessments for each project section) that addresses the specific impacts associated with each section's final alignment and funding option for I-69. Upon completion of the Service's project section-specific review and analysis, the associated documentation is physically "appended" to the programmatic biological opinion. The programmatic biological opinion, together with the appended documentation for each project section, encompasses the complete consultation document for each Tier 2 Project Section of I-69.

To insure the impacts of take associated with the final alignments chosen for each of the six forthcoming Tier 2 Project Sections of I-69 are appropriately minimized and that the exemption of incidental take is appropriately tracked and documented, the FHWA and the Service will implement an appended programmatic consultation approach for this project. Under this approach, the Service's Programmatic Biological Opinion and Incidental Take Statement for I-69 will consider and quantify reasonable amounts of anticipated incidental take for Indiana bats and bald eagles for the entire I-69 project from Evansville to Indianapolis during Tier 1. However, all impacts associated with each Tier 2 Project Section which have not yet been specifically identified and those which will impact Indiana bat or bald eagle habitat will be individually reviewed to determine if they are consistent with the Tier 1 programmatic Incidental Take Statement's reasonable and prudent measures and associated terms and conditions, and to ensure that once specific alignments are identified, the site-specific impacts of the resulting incidental take are minimized. If an individual Tier 2 Project Section is found to be consistent with the programmatic consultation it will be appended to the programmatic Biological Opinion and Incidental Take Statement, along with any project section-specific reasonable and prudent measures and terms and conditions that are needed to fulfill the requirements of section 7(a)(2). Details on how specific impacts associated with each Tier 2 Project Section will be reported and documented are included in the attached INCIDENTAL TAKE STATEMENT. No incidental take is exempted until after a Tier 2 Project Section's BA has been reviewed, found to be consistent with Tier 1, and has been appended to the programmatic BO by the Service.

II. STATUS OF THE SPECIES

Indiana Bat

This section is a discussion of the range-wide status of the Indiana bat and presents biological and ecological information relevant to formulating the biological opinion. It includes information on

the species' life history, its habitat and distribution, and the effects of past human and natural factors that have led to the current status of the species.

The Indiana bat was officially listed as an endangered species on March 11, 1967 (Federal Register 32[48]:4001) under the Endangered Species Preservation Act of October 15, 1966 (80 Stat. 926; 16 U.S.C. 668aa[c]). The Endangered Species Act of 1973 extended full protection to the species. The Service has published a recovery plan (USFWS 1983b) which outlines recovery actions. Briefly, the objectives of the plan are to: (1) protect hibernacula; (2) maintain, protect, and restore summer maternity habitat; and (3) monitor population trends through winter censuses.

Thirteen winter hibernacula (11 caves and two mines) in six states were designated as Critical Habitat for the Indiana bat in 1976 (Federal Register, Volume 41, No. 187). In Indiana, two winter hibernacula, Cave in Crawford County and Cave in Greene County, were designated as Critical Habitat. Cave is within the reach of the proposed project and therefore is considered to be within the Winter Action Area for I-69.

Range-wide Population Status

Because the vast majority of Indiana bats form dense aggregations or "clusters" on the ceilings of a relatively small number of hibernacula (i.e., caves and mines) each winter, conducting standardized surveys of the hibernating bats is the most feasible and efficient means of estimating and tracking population and distribution trends across the species' range. Collectively, winter hibernacula surveys provide the Service with the best representation of the overall population status and relative distribution that is available.

For several reasons, interpretation of the census data must be made with some caution. First, winter survey data has traditionally been subdivided by state due to the nature of the data collection. As described below, each state does not represent a discrete population center. Nevertheless, the range-wide population status of the Indiana bat has been organized by state thus far. Second, as will be further discussed, available information specific to the "reproductive unit" (i.e., maternity colony) of the Indiana bat is limited. While winter distribution of the Indiana bat is well documented, little is known as to the size, location and number of maternity colonies for the Indiana bat. As described below, it is estimated that the locations of more than 90 percent of the estimated maternity colonies remain unknown.

Additionally, the relationship between wintering populations and summering populations is not clearly understood. For example, while it is known that individuals of a particular maternity colony come from one to many different hibernacula, the source (hibernacula) of most, if any, of the individuals in a maternity colony is not known. As discussed in the "Spring Emergence/Migration" section, Indiana bats have been documented to travel up to 300 miles from their hibernaculum to their maternity areas (Gardner and Cook 2002). As such, the origin of the bats (hibernacula) that comprise the maternity activity in the action area is unknown.

Rangewide Winter Hibernacula Surveys

The data regarding Indiana bat abundance prior to Federal listing are limited, but the information suggests that they were once far more abundant than they were in the 1960s. Tuttle and colleagues, for example, believe the overall abundance of Indiana bats likely rivaled that of the now extinct passenger pigeon (Tuttle et al. 2004). The basis for Tuttle's and others estimates of millions of

Indiana bats prior to European settlement is primarily based on historic accounts (e.g., Blatchley 1897, Silliman et al. 1851), extensive staining left on the ceilings of several historic hibernacula (Tuttle 1997, Tuttle 1999), and other paleontological evidence (Munson and Keith 1984, Toomey et al. 2002). For example, an analysis of bone deposits in Cave, KY revealed that an estimated 300,000 Indiana bats died during a single flood event at some point in history (Hall 1962). Although we are never likely to know the true historical abundance of Indiana bats, it seems clear from the evidence above that Indiana bats were much more abundant than observed in 1960.

When the Indiana bat was originally listed as endangered in 1967, there were approximately 883,300 bats (Figure 5) and most of these hibernated in just a small number of hibernacula (Clawson 2002). Since it was listed the species' population numbers have apparently continued to decline until the past few survey years. Although some winter bat surveys began as early as the late 1950s, systematic surveys were not conducted across the range until the mid 1980s when there were an estimated 678,750 Indiana bats (Clawson 2002). Since being listed, large population declines have been observed, especially at hibernacula in Kentucky and Missouri. Caves in Kentucky suffered dramatic losses because of changes in microclimate due to poor cave gate design in two of the three most important hibernacula (Humphrey 1978), and Indiana bat numbers in Kentucky hibernacula had continued to decline until 2005 when a increase was first observed (King, personal communication 2005). Despite recovery efforts, Indiana bats in Missouri caves have continuously declined with a loss of more than 80 percent of the previous population size (Clawson 2002). From the 1960s/70s to the most recent population survey in 2005, the rangewide population of the Indiana bat has declined from approximately 883,300 Indiana bats for 1960/1970 to 458,333 in 2005, or approximately 52 percent. The ten-year population trend (from 1960 – 2000) of the Indiana bat has shown a steady decline (Figure 5).

The 2005 Indiana bat rangewide population estimate totaled approximately 457,374 bats; a 15% increase over the 2003 estimate of 398,220 bats (Andy King, USFWS, unpublished data 2005; Figure 6). In 2005, about 60% of the estimated 457,374 Indiana bats were hibernating in nine Priority 1 hibernacula in four states: 4 hibernacula in Indiana, 3 in Missouri, 2 in Kentucky and 1 in Illinois (A. King, USFWS, unpublished data, 2005). Priority 2 hibernacula are known from the aforementioned states, in addition to Arkansas, New Jersey, New York, Ohio, Pennsylvania, Tennessee, Virginia, and West Virginia. Priority 3 hibernacula have been reported in 21 states, including all of the aforementioned states (Figure 6).

Although a slight increase (4.5%) over the previous biennial rangewide population estimate first occurred in 2003, these results may not be statistically or biologically significant, and no determinations can be made with confidence from such a limited survey period. Small fluctuations from year-to-year may be attributed to such factors as weather affecting the success of reproduction for a given year (Humphrey and Cope 1977, Ransome 1990); therefore, it is not appropriate to extrapolate long-term trends from changes between individual survey periods. Nonetheless, it should also be noted that in 2005 there was almost a 15% increase over the 2003 estimate, but again it is premature to know with any confidence whether this is the beginning of a sustained positive trend or just an upward anomaly in an otherwise downward trend. Until more data becomes available in coming years, we are cautiously optimistic and encouraged by what initially appears to be a slowing in what otherwise has been a steep long-term decline.

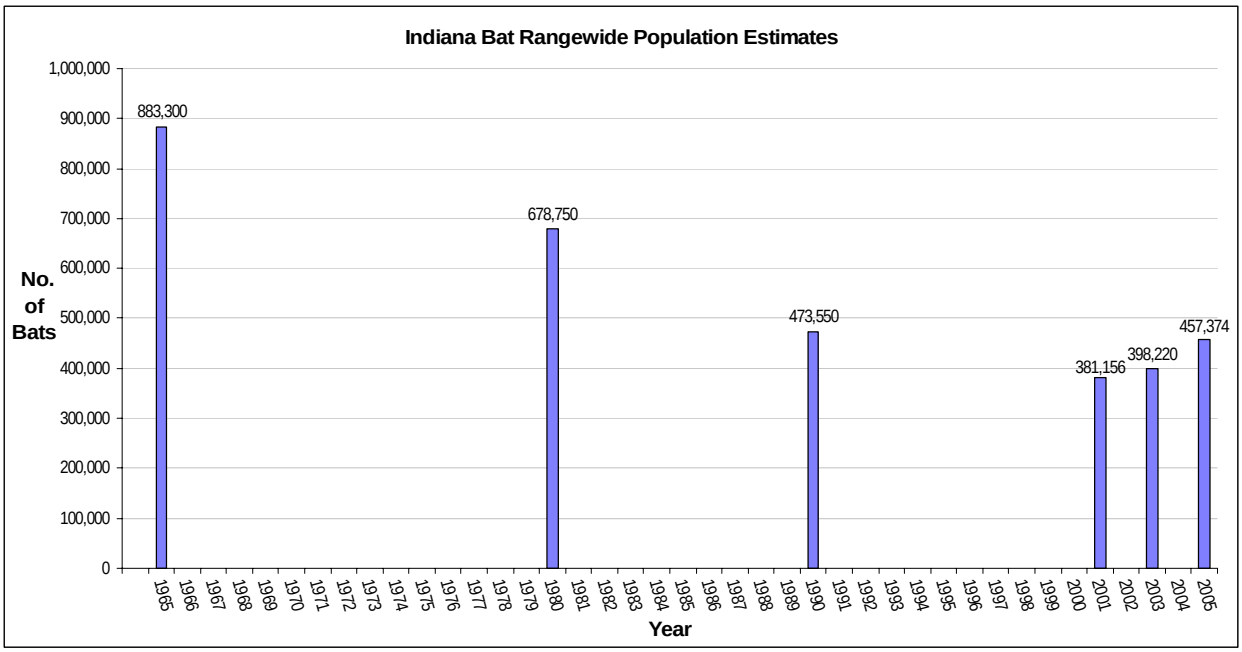

Figure 5. Indiana bat rangewide population estimates (Data sources: 1965-1990, Clawson 2002; 2001-2005, USFWS, unpublished data, 2006). Rangewide estimates calculated from all known hibernacula were not attempted or data was not available for most years prior to 2001.

Indiana	206,610
Missouri	65,104
Kentucky	62,380
Illinois	44,343
New York	41,702
West Virginia	12,677
Tennessee	9,971
Ohio	9,769
Arkansas	2,067
Pennsylvania	746
Virginia	735
New Jersey	652
Vermont	297
Alabama	296
Michigan	20
Oklahoma	5
Total	457,374

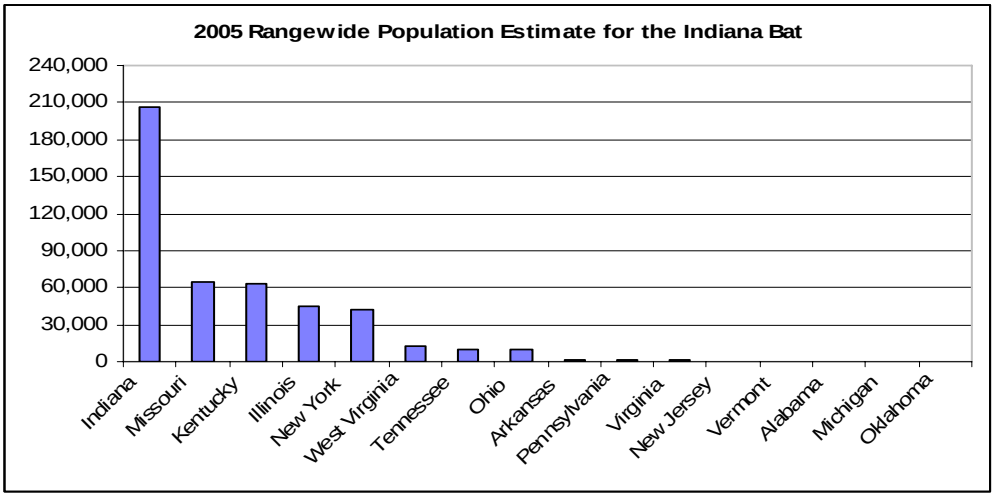

Figure 6. State-by-state results of the 2005 Indiana bat winter hibernacula surveys.

Some investigators believe that warmer winter temperatures may have resulted in less conducive microhabitat conditions (warmer temperatures) at hibernacula, particularly in the southern part of the species range (Rick Clawson, personal communication, Missouri Department of Conservation), but this has yet to be rigorously investigated. Other declines have occurred as winter hibernacula have flooded, hibernacula ceilings have collapsed, or cold temperatures kill bats through

hypothermia. Exclusion of bats from hibernacula through blocking of entrances, installation of gates that do not allow for bat ingress and egress, disruption of cave air flow, and human disturbance during hibernation have been documented causes of Indiana bat declines. Because many known threats are associated with hibernation, protection of hibernacula still remains a top management and recovery priority. Although some hibernacula have been restored in order to support future wintering populations, Indiana bats have not returned to some of these hibernacula as anticipated while they have quickly recolonized others.

Despite the protection of most major hibernacula, population declines generally have continued until the apparent increases in 2003 and 2005. It is too early to tell whether these recent increases in the estimated population size are sustainable or simply a brief upward swing on an otherwise long-term decline. Continued population declines of Indiana bats, in spite of efforts to protect hibernacula, initially led some scientists to the conclusion that additional information on summer habitat is needed (Rommé et al. 1995), but others contend that the primary cause of continued declines stems from suboptimal microclimates within traditional hibernacula and/or high human disturbance levels (Tuttle and Kennedy 2002). In addition to increased focus on these issues, attention is also being directed to pesticide contamination. Insecticides have been known or suspected as the cause of a number of bat die-offs in North America, including endangered gray bats (*Myotis grisescens*) in Missouri (Clark et al. 1978). The insect diet and longevity of bats also exposes them to persistent organochlorine chemicals which may bioaccumulate in bat tissue and cause sub-lethal effects such as impaired reproduction.

Maternity Colonies

To date, most records of reproductively active female and juvenile Indiana bats have occurred in glaciated portions of the upper Midwest including southern Iowa, northern Missouri, most of Illinois, most of Indiana, southern Michigan, and western Ohio (Gardner and Cook, 2002, USFWS unpubl. data). The first maternity colony was found in east-central Indiana in 1971 and most subsequent surveys and studies of Indiana bat maternity habitat have been conducted in the upper Midwest (Cope et al. 1974, Clawson 2002). Unglaciated portions of the Midwest (southern Missouri, parts of southern Illinois, and south-central Indiana), Kentucky, and most of the eastern and southern portions of the species' range appear to have fewer maternity colonies per unit area of forest than does the upper Midwest. Increased summer survey efforts are needed elsewhere in the range, however, before final conclusions may be reached regarding relative abundance across the species' summer range.

Recently, multiple maternity colonies have been discovered in the Champlain Valley and lower elevations of adjacent hills between Burlington, Vermont, and Ticonderoga, New York (A. Hicks, pers. comm., September 2005). In contrast, the first maternity roosts in "the South" recently were found in very different types of habitat, in areas of extensive mature forest in the southern Appalachian Mountains of North Carolina and Tennessee. In further contrast, these colonies were found roosting in eastern hemlock (*Tsuga canadensis*) and pines (*Pinus* spp.), rather than deciduous trees (Harvey 2002).

Based on published literature and correspondence with Service and state biologists throughout the range of the Indiana bat, maternity activity has been documented at approximately 250 locations throughout the species' range and colonies are still considered extant at approximately 246 of these locations(Table 4) (USFWS, unpublished data, 2006). The majority of confirmed

Table 4. States and counties with recorded Indiana bat maternity colonies.[1,2,3]

State	No. of Recorded Maternity Colonies	Counties with Recorded Maternity Colonies (if multiple colonies, then # is shown)
Arkansas	1	Clay
Illinois	13	Adams (2), Alexander, Henderson, Jackson (3), Jersey, Pike (2), Pulaski, Saline, and Schuyler
Indiana	83	Bartholomew (3), Clinton (2), Crawford, Davies (2), Dearborn, Gibson (2), Greene (3), Hendricks (2), Henry, Howard, Huntington, Jackson (3), Jasper, Jay, Jefferson (2), Jennings (2), Johnson (3), Knox, Koskiusko, LaPorte (2), Marion, Martin, Monroe (2), Montgomery (3), Morgan (4), Newton, Parke (2), Perry (2), Pike (2), Posey, Pulaski (2), Putnam (2), Randolph (3), Ripley (2), Rush, Shelby (2), Spencer, St. Joseph, Steuben, Tippecanoe (4), Vermillion, Vigo, Wabash (2), Warren (2), Warrick (2), Wayne, and Wells
Iowa	26	Appanoose (2), Davis, Decatur (2), Des Moines, Iowa, Jasper, Keokuk, Lucas (2), Madison (2), Marion (7), Monroe, Ringgold, Van Buren, Wapello, and Washington (2)
Kentucky	32	Ballard, Ballard/Carlisle, Bath (3), Breckinridge, Bullitt (4), Daviess, Edmonson (3), Floyd, Harlan (3), Henderson (2), Hickman (2), Jefferson (3), Logan, McCracken (2), Pulaski, Rowan, Spencer, and Union
Maryland	2	Carroll (2)
Michigan	11	Calhoun, Cass, Eaton, Hillsdale, Jackson, Lenawee (2), Livingston, St. Joseph (2), and Van Buren
Missouri	20	Chariton, Gasconade, Iron, Jefferson, Knox (2), Lewis, Linn, Macon, Madison, Marion, Mercer, Monroe, Nodaway, Pulaski, Scotland, St. Francois, St. Genevieve, Sullivan, and Wayne
New Jersey	2	Morris (2)
New York	34	Cayuga, Dutchess (5), Essex, Jefferson (8), Onandaga (4), Orange (8), and Oswego (7)
Ohio	10	Ashtabula, Butler, Clermont, Cuyahoga, Greene, Hocking, Lawrence, Paulding, Summit, and Wayne
Pennsylvania	2	Berk and Blair
Tennessee	2	Blount and Monroe
Vermont	4	Addison (4)
Virginia	1	Lee
West Virginia	3	Boone (2) and Tucker
Total	**246**	

[1] Unpublished data obtained in response to a data request sent to FWS Field Offices in February 2006.
[2] Most maternity colony records were based upon the capture of reproductively active females and/or juveniles between 15 May and 15 August.
[3] This table includes records of maternity colonies considered to still be locally extant. Although some additional records exist, we opted not to include them, if subsequent surveys failed to detect their presence (i.e., the colony may have disbanded, relocated, was extirpated, or was present but not found).

maternity areas are in the "core" of the range, in the glaciated Midwest in pockets of remaining forested habitat within a predominantly agricultural landscape and in the Northeast (i.e., NY and VT). Because the Indiana bat is philopatric (i.e., loyal to its traditional summering area), there is currently no evidence to suggest that all maternity colonies are located in optimal foraging and roosting habitat. A possibility that may have contributed to the species' decline is that many existing maternity colonies are senescent (i.e., deaths outnumber births) or are population sinks.

This could be caused by pups being produced but not surviving their first hibernation period; or maternity areas are no longer providing a sufficient supply of suitable prey, resulting in an increase in the age of first reproduction and increasing fecundity schedules. Proof of at least several years of successful reproduction and recruitment would be needed to verify long-term survival of the Indiana bat in these highly altered and fragmented landscapes. Although data at a few maternity sites indicate that reproduction is occurring (exit counts nearly double a month after birth), long-term monitoring of maternity sites is limited. Long-term monitoring has been conducted at a maternity colony located near the Indianapolis Airport (Whitaker and Sparks 2003, Whitaker et al. 2004). This colony continues to persist, and shows evidence of reproduction, although additional monitoring is needed to make a determination regarding whether the colony is stable, increasing, or decreasing at this site.

Monitoring data, including extensive exit counts to estimate maternity colony population size and structure over more than one-year, is available for only a few of the approximately 246 maternity colonies discovered (Humphrey et al. 1977; Garner and Gardner 1992; Callahan 1993; Gardner et al. 1991b; Kurta et al. 1993; Indianapolis Airport Authority 2003; Indianapolis Airport Authority 2004). Additionally, because the vast majority of the Indiana bat maternity colonies have not been discovered, let alone studied, what little demographic data that is available, represent a fraction of the range-wide maternity activity.

Because so little is known regarding the population size and structure of maternity colonies, the Service used the same assumption as Whitaker and Brack (2002) to determine the average maternity colony size to give an approximation of the number of potential maternity colonies across the range of the Indiana bat. The Service recognizes that maternity colonies are not static in size, and the numbers of individuals that comprise a maternity colony likely vary widely as a colony adjusts to current conditions, including the availability and quality of roosting and foraging habitat, and variable climatic conditions. Therefore, these figures should not be used to make extrapolations regarding the densities or distribution of maternity colonies present within portions of the species range (Racey and Entwistle 2003); however, these figures do serve to provide a rough estimation regarding the number of maternity colonies that might be present across the landscape. The "Maternity Colony Size – Population" section found in the "Life History" section of this biological opinion provides more information with regard to the size of a maternity colony.

Recognizing the inherent deficiency in such an assumption, these calculations illustrate that the vast majority of maternity colonies for the Indiana bat have not been documented **(**Table 5). The location of most maternity colonies may always remain unknown because of the difficulty in detecting maternity activity for the Indiana bat. Some unknown proportion of these colonies may be at risk when land use practices and changes, such as timber harvesting and development, are carried out. Therefore, another likely cause for the decline of this species and the level of activity occurring across the landscape is that maternity colonies are being reduced in numbers, and in some cases extirpated, prior to their discovery.

Indiana Bat Status in Indiana

Historic hibernating population levels in Indiana were comprehensive enough to estimate on a statewide level for the first time in 1981, resulting in an estimate of 147,242 hibernating bats (Andrew King, USFWS, personal communication). Since that time, the statewide estimate fell to a

low of 97,503 bats in 1985, then rose steadily to 175,795 in 1993. After that year, the population estimate fluctuated between 173,076 and 185,899 until the 2005 census, when it rose to 206,610. As of the winter of 2004-2005, Indiana's 40 hibernacula harbored approximately 45.2% of all known Indiana bats. In 2005, the two most populous Indiana bat hibernacula in the world were Cave (n=54,913 bats) and Cave (n=54,325 bats).

Previous Incidental Take Authorizations

Summary- All previously issued Service Biological Opinions involving the Indiana bat have been non-jeopardy. These formal consultations have involved (a) the Forest Service for activities implemented under various Land and Resource Management Plans on National Forests in the eastern United States, (b) the Federal Highway Administration for various transportation projects, (c) the U.S. Army Corps of Engineers (Corps) for various water-related projects, and (d) the Department of Defense for operations at several different military installations. Additionally, an incidental take permit has been issued under section 10 of the Endangered Species Act to an Interagency Taskforce for expansion and related development at the Indianapolis Airport in conjunction with the implementation of a Habitat Conservation Plan.

It is important to note that in many of these consultations, survey information was lacking. As Federal agencies are not required to conduct surveys, often the Service relied on a host of valid factors in helping the Federal agency determine whether Indiana bats may be present. To ensure the Federal agency and the Service met the mandate of the section 7(a)(2), if the best available data indicated that Indiana bats may be present, the assumption was made that a maternity colony (in most instances) occurred within the action area. Although this approach, we believe, fully accords with the intent of Congress and the Endangered Species Act of 1973, it likely resulted in an over-estimate of the number of individuals or colonies that may have been impacted by Federal actions.

National Forests- Within the past several years, nearly all National Forests within the range of the Indiana bat have requested formal consultation at the programmatic level including the HNF. Consultation under Section 7 of the Act is necessary to ensure agency actions do not jeopardize the continued existence of listed species. These consultations have led to non-jeopardy biological opinions with associated incidental take statements. Although some of these incidental take statements anticipated the take of reproductive females, we have not yet confirmed a loss of a maternity colony on a National Forest. The reasons for this are likely two-fold. First, the programmatic conservation measures (i.e., standard and guidelines) and second, the project-specific reasonable and prudent measures were designed to minimize maternity colony exposure to the environmental impacts of Forest Plan actions. Specifically, these measures ensured an abundance of suitable Indiana bat habitat on the National Forests, and protected all known or newly discovered maternity colonies.

Approximately 95 percent of previously authorized habitat loss on National Forests has not been a permanent loss. Rather, it has been varying degrees of temporary loss (short-term and long-term) as a result of timber management activities. Although this analysis does not include all National Forests that, to date, have received an incidental take statement, the concepts of the analysis are consistent, regardless of the location. Conservation measures provided by the USFS as part of the proposed action, as well as reasonable and prudent measures provided by the Service to minimize the impact of the annual allowable take for each of the National Forests, have been designed to: (1) ensure an abundance of available remaining Indiana bat roosting and foraging habitat on all

National Forests; and (2) ensure persistence of any known or newly discovered maternity colonies to the maximum extent practicable.

Although Indiana bat presence has been verified on most, if not all, National Forests within the range of the species, confirmation of maternity activity on these lands is relatively scant. There have been less than seven maternity colonies documented on National Forests. It must be noted that maternity activity was confirmed for the first time on two national forests (Monongahela National Forest [West Virginia] and Hoosier National Forest [Indiana]) as recently as 2004.

Take has been authorized in the form of habitat loss because of the difficulty of detecting and quantifying take of the Indiana bat due to the bat's small body size, widely dispersed individuals under loose bark or in cavities of trees, and unknown spatial extent and density of their summer roosting population range within the respective National Forests. For some incidental take statements, take has also been extrapolated to include an estimated number of individual Indiana bats. The estimate of the number of individual Indiana bats likely to be taken has been wide-ranging and based on various assumptions. Legal coverage has included the take, by kill, of individual Indiana bats; or take, by harm through habitat loss, or harassment.

Other Federal Agencies or Non-federal Entities- Several incidental take statements have been issued to other Federal agencies. Unlike those issued for the National Forest Land and Resource Management Plans, some of these projects were certain to impact known occupied habitat. To minimize the effect of these projects, the action agencies agreed to implement various conservation measures. These included: seasonal clearing restrictions to avoid disturbing female Indiana bats and young; protection of all known primary and alternate roost trees with appropriate buffers; retention of adequate roosting and foraging habitat to sustain the maternity colony into the future; and permanent protection of areas and habitat enhancement or creation measures to provide future roosting and foraging habitat opportunities.

With the exception of three (Fort Knox, Great Smoky Mountains National Park, and Laxare East and Black Contour Coal Mining projects), none of these biological opinions and associated incidental take statements anticipated the loss of a maternity colony. Required monitoring for three formal consultations in Indiana (Camp Atterbury, Newport Military Installation, and Indianapolis Airport) has confirmed that the affected colonies persisted through the life of the project and continue to exist today. We recognize that given the philopatric nature of Indiana bats and their long life-spans, the full extent of the anticipated impacts may not yet have occurred. Nonetheless, these monitoring results and the lack of data to suggest otherwise for the other projects, indicate that the conservation measures to avoid and minimize the impacts of Federal projects appear to be effective. Only with long-term monitoring will we definitively be able to determine the true effectiveness of our conservation measures.

In summary, we believe the take exempted to date via section 7 consultation has resulted in short-term effects to Indiana bat habitat and, in limited circumstances, on Indiana bat maternity colonies. As many of these consultations necessarily made assumptions about Indiana bat presence, we are uncertain of the actual number of maternity colonies exposed to environmental impacts of Federal actions throughout the species' range, but we believe the actual number is likely less than what we have assumed to be present. Furthermore, although not definitive, monitoring of several maternity colonies pre- and post-project implementation preliminarily suggests that our standard conservation

measures, when employed in concert, appear to be effective in minimizing adverse effects on the affected maternity colonies.

Indiana Bat Description and Distribution

The Indiana bat is a medium-sized bat with a head and body length that ranges from 41 to 49 mm (Thompson 1982). There are no recognized subspecies. The species range includes much of the eastern half of the United States, from Oklahoma, Iowa, and Wisconsin east to Vermont, and south to northwestern Florida. The Indiana bat is migratory, and the above described range includes both winter and summer habitat. The winter range is associated with regions of well-developed limestone caverns. Major populations of this species hibernate in Indiana, Kentucky, and Missouri. Smaller winter populations have been reported from Alabama, Arkansas, Georgia, Illinois, Maryland, Mississippi, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, Tennessee, Virginia, and West Virginia. Two-thirds (66%) of the entire estimated 2005 population of Indiana bats hibernated in only eight hibernacula in Illinois, Indiana, Kentucky, Missouri, and New York and more the 75% of the rangewide population hibernated in only 12 hibernacula (USFWS unpublished data, 2006).

Table 5. Estimated number of Indiana bat maternity colonies range-wide.

Year	Estimated Rangewide Population	% Change from Previous Period	Estimated Number of Maternity Colonies[1]	Approximate Number of Known Maternity Areas[2]	% of Est. Maternity Colonies that are Known
1960/1970	883,300		5,500	1 (in 1971)	~0.02%
~1980	678,750	-23%	4,200	31	~0.7%-
~1990	473,550	-30%	3,000	70	~2.3%
2001	376,932	-20%	2,400	149	~6.2%
2005/2006	457,374	+22%	2,900	246	~8.5%

[1] Total rounded to the nearest 100. Estimates of the number of maternity colonies rangewide were developed based on the following assumptions: 1) the known hibernating population is the source of the entire summer population; 2) there is a 50:50 sex ratio (Humphrey et al. 1977); 3) average maternity colony size of 80 adult females (Whitaker and Brack 2002); and 4) the trend in decline of the total number of maternity colonies follows that of the hibernating population. [2] This is the number of areas where reproductive females and/or juveniles have been captured during the maternity season (USFWS, unpublished data, 2006).

Life History

The average life span of the Indiana bat is 5 to 10 years, but banded individuals have lived up to 14 and 15 years (Thomson 1982). Female survivorship in an Indiana population was 76% for ages 1 to 6 years and 66% for ages 6 to 10 years. Male survivorship was 70% for ages 1 to 6 years and 36% for ages 6 to 10 years (Humphrey and Cope 1977).

Summering Indiana bats (males and females) roost in trees in riparian, bottomland, and upland forests. Roost trees generally have exfoliating bark which allows the bat to roost between the bark and bole of the tree. Cavities and crevices in trees also may be used for roosting. A variety of tree species are used for roosts including (but not limited to) silver maple (*Acer saccharinum*), sugar maple (*Acer saccharum*), shagbark hickory (*Carya ovata*), shellbark hickory (*Carya laciniosa*), bitternut hickory (*Carya cordiformis*), green ash (*Fraxinus pennsylvanica*), white ash (*Fraxinus*

americana), eastern cottonwood (*Populus deltoides*), northern red oak (*Quercus rubra*), post oak (*Quercus stellata*) , white oak (*Quercus alba*), shingle oak (*Quercus imbricaria*), slippery elm (*Ulmus rubra*), American elm (*Ulmus americana*), and sassafras (*Sassafras albidum*)(Rommé et al. 1995). At one site in southern Indiana, black locust (*Robinia psuedoacacia*) was used extensively by roosting bats (Pruitt 1995). Structure is probably more important than the species in determining if a tree is a suitable roost site; and tree species which develop loose, exfoliating bark as they age and die are likely to provide roost sites. Male bats disperse throughout the range and roost individually or in small groups. In contrast, reproductive females form larger groups, referred to as maternity colonies in which they raise their offspring.

Females arrive in summer habitat as early as April 15. Temporary roosts are often used during spring until a maternity roost with large numbers of adult females is established. Indiana bats arrived at maternity roosts in April and early May in Indiana, with substantial numbers in mid-May. Most documented maternity colonies have 50 to 100 adult bats (USFWS 1999). Fecundity is low; and female Indiana bats produce only one young per year in late June to early July. Young bats can fly between mid-July and early August, at about 4 weeks of age. Mortality between birth and weaning was found to be about 8% (Humphrey et al. 1977). Many males stay near hibernacula (i.e., caves and mines) and roost individually or in small groups (Whitaker and Brack 2002). The later part of the summer is spent accumulating fat reserves for fall migration (USFWS 1999).

When arriving at their traditional hibernacula in August-September, Indiana bats “swarm”. Some male bats may begin to arrive at hibernacula as early as July. Females typically arrive later and by September numbers of males and females are almost equal. Swarming is a critical part of the life cycle when Indiana bats converge at hibernacula, mate, and forage until sufficient fat reserves have been deposited to sustain them through the winter (Cope et al. 1977, USFWS 1983). Swarming behavior typically involves large numbers of bats flying in and out of cave entrances throughout the night, while most of the bats continue to roost in trees during the day. Body weight may increase by 2 grams within a short time, mostly in the form of fat. Swarming continues for several weeks and copulation occurs on cave ceilings near the cave entrance during the latter part of the period. (USFWS 1991 b, USFWS 1999). The time of highest swarming activity in Indiana and Kentucky has been documented as early September (Cope et al. 1977). By late September many females have entered hibernation, but males may continue swarming well into October in what is believed to be an attempt to breed with late arriving females. Research is needed to determine how far bats will forage in the fall. Most bats tracked have stayed within 2 to 3 miles of the hibernacula, but some have been found up to 4.2 miles away (Rommé et al. 2002). Studies suggest that the majority of foraging habitat in spring and autumn is within 2 mi of the hibernacula, but extends to 5 miles. Therefore, it is not only important to protect the caves that the bats hibernate in, but also to maintain and protect the quality and quantity of roosting and foraging habitat within 5 miles of each Indiana bat hibernaculum. Additional studies of fall swarming behavior are warranted to gain a better understanding of the bats’ behavior and habitat needs during this part of its annual life cycle (Rommé et al. 2002).

During swarming, males are active over a longer period of time at cave entrances than females, probably to mate with females as they arrive. Females may mate their first autumn, whereas males may not mature until the second year (USFWS 1999). After mating, females soon enter into hibernation. Most bats are hibernating by the end of November, but hibernacula populations may continue to increase (USFWS 1999). Indiana bats cluster and hibernate on cave ceilings in densities of approximately 300-484 bats per square foot, from approximately October through April. Hibernation facilitates survival during winter when prey (i.e., insects) is unavailable. The season of hibernation may vary by latitude and annual weather conditions. Clusters may protect central individuals from temperature change and reduce sensitivity to disturbance. Like other cave bats, the Indiana bat naturally arouses at intervals of 7-14 days (Dr. John Whitaker, Jr. – per. comm.) during hibernation (Sealander & Heidt 1990). Arousals are more frequent and longer at the beginning and end of the hibernation period (Sealander & Heidt 1990). Limited mating occurs throughout the winter, and in early April as bats emerge (USFWS 1999).

After hibernation ends in late March or early April, most Indiana bats emerge, and forage for a few days or weeks near their hibernaculum before migrating to their traditional summer roosting areas. Female Indiana bats emerge first from hibernation in late March or early April, followed by the males. The timing of annual emergence may vary across their range depending on latitude and annual weather conditions. Shortly after emerging from hibernation, the females become pregnant via delayed fertilization from the sperm that has been stored in their reproductive tracts through the winter (USFWS 1999). The period after hibernation but prior to spring migration is typically referred to as “staging”. Most populations leave their hibernacula by late April. Migration is stressful for the Indiana bat, particularly in the spring when their fat reserves and food supplies are low. As a result, adult mortality may be the highest in late March and April.

Most bats migrate to the north for the summer, although other directions have been documented (USFWS 1999, Gardner and Cook 2002). A stronger homing tendency has been observed along a north-south axis, than the east-west direction in release studies. Females can migrate hundreds of miles north of the hibernacula. In spring staging, males have been found almost 10 miles from their hibernacula (Hobson and Holland 1995). Less is known about the male migration pattern, but many males summer near the hibernacula (Whitaker and Brack 2002, USFWS 1999).

Food Habits:
Indiana bats feed exclusively on flying aquatic and terrestrial insects. Diet varies seasonally and variations exist among different ages, sexes, and reproductive status (USFWS 1999). It is probable that Indiana bats use a combination of both selective and opportunistic feeding to their advantage (Brack and LaVal 1985). Reproductively active females and juveniles show greater dietary diversity perhaps due to higher energy demands. Studies in some areas have found that reproductively active females eat more aquatic insects than do juveniles or adult males (USFWS 1999), but this may be the result of habitat differences (Brack and LaVal 1985).

Lepidoptera (moths), Coleoptera (beetles), and Diptera (midges and flies) consititute the bulk of the diet (Brack and LaVal 1985). Moths (Lepidoptera) have been identified as major prey items that may be preferentially selected (Brack and LaVal 1985), but beetles (Coleoptera) and flies (Diptera) were also found significant (Brack and Tyrell 1990). Diptera taken are especially midges and other species that congregate over water, but are seldom mosquitoes. Other prey include wasps and flying ants (Hymenoptera), caddisflies (Trichoptera), brown leafhoppers and treehoppers

(Homoptera), stoneflies (Plecoptera), and lacewings (Neuroptera) (Brack and LaVal 1985, USFWS 1999). Male Indiana bats summering in or near a hibernation cave eat primarily moths and beetles but feed on other terrestrial insects in lower percentages (USFWS 1999).

Indiana bats use small impoundments as well as permanent and intermittent streams for drinking water (HNF 2000). Water-filled road ruts may be used for drinking water in uplands, more commonly in the eastern portion of the range (Brack, Jr. per. comm.).

Habitat: Winter Hibernacula Habitat

Indiana bats roost in caves or mines with configurations that provide a suitable temperature and humidity microclimate (Brack et al. 2003, USFWS 1999). In many caves, suitable temperatures and therefore roosts are located near the cave entrance, but roosts may be deeper where cold air flows and is trapped. When bats arrive at hibernacula in October and November, they need a temperature of 50º F (10º C) or below (USFWS 1999). Mid-winter temperatures range from 39 to 46º F (4 to 8º C) (USFWS 1983); however, recent data in Indiana has recorded increased use of hibernacula ranging from 41 to 44.5º F (5 to 7º C) (Brack, Jr. per. comm.). Only a small percentage of caves available meet these temperature requirements (Brack et al. 2003, USFWS 1999). Stable low temperature allows bats to maintain low metabolic rates and conserve fat reserves to survive the winter (USFWS 1999). Relative humidity of roosts usually ranges from 74% to just below saturation, although readings as low as 54% have been recorded. This may be an important factor for successful hibernation (USFWS 1999). Hibernacula often contain large populations of several species of bats. Other bat species found in Indiana hibernacula include: a number of little brown bats (*Myotis lucifugus*) and eastern pipistrelles (*Pipistrellus subflavus*); some northern long-eared bats (*Myotis septentrionalis*); and a few gray bats (*Myotis grisescens*), big brown bats (*Eptesicus fuscus*), and silver-haired bats (*Lasionycteris noctivagans*) (Brack et al.2003).

Habitat: Summer Roosting Habitat

FEMALE

Indiana bats exhibit strong site fidelity to their traditional summer colony areas and foraging habitat, that is, they return to the same summer range annually to bear their young. (Kurta et al. 2002, Garner and Gardner 1992, USFWS 1999). Traditional summer sites that maintain a variety of suitable roosts are essential to the reproductive success of local populations. It is not known how long or how far female Indiana bats will search to find new roosting habitat if their traditional roost habitat is lost or degraded during the winter. If they are required to search for new roosting habitat in the spring, it is assumed that this effort places additional stress on pregnant females at a time when fat reserves are low or depleted and they are already stressed from the energy demands of migration and pregnancy.

Female Indiana bats generally migrate northward from the hibernacula to summer roosting areas. Indiana bat maternity colonies typically occupy multiple roosts in riparian, bottomland, and upland forests. Roost trees generally have exfoliating bark which allows the bat to roost between the bark and bole of the tree and have a southeast or south-southwest solar exposure and an open canopy. Cavities and crevices in trees also may be used for roosting. Roost tree structure is probably more important than the tree species in determining whether a tree is a suitable roost site; and tree species which develop loose, exfoliating bark as they age and die are likely to provide roost sites. Roost trees are often located on forest edges or openings with open canopy and open understory (USFWS 1999). Maternity colonies have often been found within forests that are streamside ecosystems or

are otherwise within 0.6 mi (1 km) of permanent streams. Most have been found in forest types similar to oak-hickory and elm-ash-cottonwood communities. While these characteristics are typical, research is showing adaptability in habitats used. Important summer roosting and foraging habitat for the Indiana bat is often in floodplain or riparian forests but may also be in more upland areas. A telemetry study in Illinois found most maternity roosts within 1640 ft (500 m) of a perennial or intermittent stream (Hofmann 1996). Bats in Illinois selected roosts near intermittent streams and far from paved roads (Garner and Gardener 1992). However, observations have revealed habitat use nearer paved roads than previously thought (Brack, Jr. per. comm.). Recent research has shown bats using upland forest for roosting and upland forest, and pastures with scattered trees for foraging. Indiana bats prefer forests with old growth characteristics, large trees, scattered canopy gaps, and open understories (USFWS 1999). The Indiana bat may persist in highly altered and fragmented forest landscapes for some unknown period of time. Instances have been documented of bats using forest altered by grazing, swine feedlot, row-crops, hay fields, residences, clear-cut harvests, and shelterwood cuts (Garner and Gardner 1992, USFWS 1999). Several roosts have been located near lightly traveled, low maintenance roads, as well as near I-70 at the Indianapolis Airport (USFWS 2002). Although, Indiana bats may be more adaptable than previously thought, it still is not known how a maternity colony's stability and reproductive success responds to increasing levels of habitat alteration and fragmentation.

Suitability of a roost tree is determined by its condition (dead or alive), suitability of loose bark, tree's solar exposure, spatial relationship to other trees, and tree's spatial relationship to water sources and foraging areas. Good roost trees are species whose bark springs away from the tree on drying after dead, senescent, or injured; and living species of hickories (*Carya* spp.) and large white oaks (*Quercus alba*) with shaggy bark. Cottonwoods are probably one of the best tree species. Many maternity colonies have been associated with oak-hickory and elm-ash-cottonwood forest types. Tree cavities, hollow portions of tree boles or limbs, and crevice and splits from broken tops have been used as roosts on a very limited basis, usually by individual bats. Roost longevity is variable due to many factors such as the bark sloughing off or the tree falling down. Some roosts may only be habitable for 1-2 years, but species with good bark retention such as slippery elm (*Ulmus rubra*), cottonwood (*Populus deltoides*), Green ash (*Fraxinus pennsylvanica*), oaks (*Quercus* spp.), and hickories (*Carya* spp.) may provide habitat 4-8 years (USFWS 1999). Trees in excess of 15.7 in (40 cm) diameter breast height (dbh) are considered optimal for maternity colonies, but trees in excess of 8.6 in (22 cm) dbh are used as alternate roosts (USFWS 2002). Females have been documented using roost trees as small as 5.5 inches.(Kurta 2005).

Indiana bat roosts are ephemeral and frequently associated with dead or dying trees. Gardner et al. (1991b) evaluated 39 roost trees and found that 31% were no longer suitable the following summer, and 33% of those remaining were unavailable by the second summer. A variety of suitable roosts are needed within a colony's traditional summer range for the colony to continue to exist. Indiana bat maternity sites generally consist of one or more primary maternity roost trees which are used repeatedly by large numbers of bats, and varying numbers of alternate roosts, which may be used less frequently and by smaller numbers of bats. Primary roosts are often located in openings or at the edge of forest stands, while alternate roosts can be in either openings or the interior of the forest stand. Primary roosts are usually surrounded by open canopy and are warmed by solar radiation. Alternate roosts may be used when temperatures are above normal or during precipitation. Bats move among roosts within a season and when a particular roost becomes unavailable from one year to the next. It is not known how many alternate roosts must be available to assure retention of a

colony within a particular area, but large, nearby forest tracts would improve the potential for an area to provide adequate roosting habitat (Callahan 1993, Callahan et al. 1997). In addition to having exfoliating bark, roost trees must be of sufficient diameter. Trees in excess of 16 in. diameter at breast height (dbh) are considered optimal for maternity colony roost sites, but trees in excess of 9 inches dbh are often used as alternate maternity roosts. Male Indiana bats have been observed roosting in trees as small as 2.5 inches dbh (Gumbert et al. 2002).

Exposure of trees to sunlight and location relative to other trees are important to suitability. Cool temperatures can delay development of fetal and juvenile young and selection of maternity roost sites may be critical to reproductive success. Dead trees with a southeast and south-southwest exposures allow warming solar radiation. Some living trees may provide a thermal advantage during cold periods (USFWS 1999). Maternity colonies use multiple roosts in both dead and living trees that are grouped. Extent and configuration of a use area is probably determined by availability of suitable roost sites. Distances between roosts can be a few meters to a few kilometers. Maternity colony movements among multiple roosts seem to depend on climatic changes, particularly solar radiation (Humphrey et al. 1977). Kurta et al. (1993) suggests movement between roosts may be the bats' way of dealing with a roost site as ephemeral as loose bark. The bat that is aware of alternate roost sites is more likely to survive the sudden, unpredictable, destruction of its present roost than the bat which has never identified such an alternate.

Primary roosts are often located in openings or at the edge of forest stands, while alternate roosts can be in either openings or the interior of the forest stand. Primary roosts are usually surrounded by open canopy and are warmed by solar radiation. Alternate roosts may be used when temperatures are above normal or during precipitation. Shagbark hickories (*Carya ovata*) are good alternate roosts because they are cooler during periods of high heat and tight bark shields the bats from rain (USFWS 1999). Weather has been found to have profound influence on bat behavior and habitat use (Humphrey et al. 1977).

Humphrey et al. (1977) observed that each night after the sunset peak of foraging activity the bats left the foraging areas without returning to the day roosts, which indicated the use of "night" roosts. Kiser et al. (2002) found three concrete bridges on Camp Atterbury, 25 mi (40 km) south of Indianapolis, Indiana, used by Indiana bats as night roosts and to a limited extent as day roosts. Bat species using the bridges included the big brown bat (*Eptesicus fuscus*), northern myotis (*Myotis septentrionalis*), little brown myotis (*Myotis lucifugus*), Indiana bat, and eastern pipistrelle (*Pipistrellus subflavus*). The Indiana bat was the most common species, representing 51% of all bats observed, whereas the big brown bat was the second most abundant at 38%. Clusters of Indiana bats were observed night roosting under the bridges that were lactating, post-lactating, and newly volant juveniles. Bridges used were concrete-girder (multi-beam) bridges with deep, narrow expansion joints. The bridges ranged from 46 to 223 ft in length and 26 to 39 ft in width. Average daily traffic ranged from less than 10 vehicles per day to almost 5,000 vehicles per day. All used bridges were located over streams bordered by forested, riparian corridors that connected larger tracts of forest. Riparian forest did not overhang the bridges allowing solar radiation to warm the bridges; however, forest was within 9 to 16.5 ft of each bridge. Bat clusters under bridges were located over land, near the ends of the bridges. Mean ambient temperatures at night were consistently higher and less variable under bridges than external ambient temperatures. The bridges apparently act as thermal sinks. The warmer, more stable environment presumably decreases the energetic cost of maintaining high body temperature, thus promoting fetal development, milk

production, and juvenile growth. Three individuals were radio-tracked to their day roosts within 0.6 to 1.2 miles from their night roost (Kiser et al. 2002).

MALE:
Many male Indiana bats appear to remain at or near the hibernacula in summer with some fanning out in a broad band around the hibernacula (Whitaker and Brack 2002). Males roost singly or in small groups in two to five roost trees similar to those used by females. Males may occasionally roost in caves. Suitable roost trees typically have a large diameter, exfoliating bark, and prolonged solar exposure with no apparent importance in regard to the tree species or whether it is upland or bottomland (Whitaker and Brack 2002). Because males typically roost individually or in small groups, the average size of their roost trees tends to be smaller than the roost trees used by female maternity colonies, and in one instance a roost tree only 2.5 inches (6.4 cm) in diameter was used (Gumbert et al. 2002). Male bats have also been observed using trees as small as 3.1 in (8 cm) dbh (USFWS 2002). Also, males are more likely than females to be found in disturbed areas; possibly because the roost trees in those areas are likely to be to small for colony use, but still suitable for an individual roost (Brack, Jr. per. comm.). One individual was found roosting on the Hoosier National Forest within the easement of I-64 (HNF 2000). Males have shown summer site fidelity and have been recaptured in foraging areas from prior years (USFWS 1999). At Camp Atterbury in Indiana, male bats were observed using the same bridges as females for night roosts, but they roosted singly (Kiser et al. 2002).

Autumn Swarming / Spring Staging Habitat
Indiana bats use roosts in spring and fall that are similar to those used in summer (USFWS 1999). However, because habitat is used by individuals rather than colonies, sites may be much smaller (Brack, Jr. per. comm.). Females use smaller, more disturbed areas during swarming and staging than in summer in maternity colonies (Brack, Jr. per. comm.). During fall, when bats swarm and mate at their hibernacula, male bats roost in trees nearby during the day and fly to the cave during the night. Studies have found males roosting in dead trees on upper slopes and ridgetops within a few miles of the hibernacula (USFWS 1999). In Jackson County, Kentucky, research showed fall roost trees tend to be located in canopy gaps created by disturbance (logging, windthrow, prescribed burning) and along edges (Gumbert et al. 2002). Fall roost trees are often exposed to sunshine (USFWS 1999). Within-year fidelity to fall roosts has been observed, where an individual bat uses an individual roost for an average of 2 to 3 days before moving to a new tree (Gumbert et al. 2002). Bats have been observed moving among multiple roosts in an area using particular roosts alternatively (Brack, Jr. per. comm., Gumbert et al. 2002).

In the spring, upon emergence, females and some males disperse from the hibernacula. Migration within the core of the species' range is generally northward to form colonies throughout Indiana, southern Michigan, and adjoining Ohio and Illinois. Male Indiana bats remain at or near the hibernacula, although some fan out in a broad band or zone around the hibernacula (Whitaker and Brack 2002).

Spring and autumn habitat use is variable due to proximity and quantity of roosts, weather conditions, and prey availability (Rommé et al. 2002). Several studies support the idea that during the autumn and spring, bats primarily use habitat within 5 miles (8 km) of the hibernacula (Rommé et al. 2002, Brack, Jr. per. comm.). However, more studies of autumn and spring habitat use is recommended due to low sample sizes and difficulties with telemetry research techniques (USFWS 1999).

Foraging Habitat

Indiana bats forage between dusk and dawn and feed exclusively on flying insects, primarily moths, beetles, and aquatic insects. They typically forage in and around tree canopy and in openings of floodplain, riparian, and upland forests (USFWS 1999). Optimum canopy closures are 50-70% with relatively open understory (<40% of trees are 2-4.7 in (5-12 cm) dbh) (HNF 2000). Woody vegetation with a width of at least 100 ft (30 m) on both sides of a stream has been characterized as excellent foraging habitat. Streams, associated with floodplain forests and impounded water bodies, are preferred foraging habitats for pregnant and lactating Indiana bats, some of which may fly up to 1 ½ mi from upland roosts (Garner and Gardner 1992, USFWS 2002). Brack and Tyrell (1990) found that in early summer, foraging was restricted to riparian habitats. Foraging also occurs over clearings with successional vegetation, along cropland borders, fencerows, and over farm ponds. Bats have been observed crossing Interstate 70 in Indiana to reach foraging habitat (USFWS 2002). Bats have been documented routinely flying at least 1.25 mi (2 km) from the roost to forage and some were tracked up to 3 mi (5 km) from the roost (USFWS 2002). Foraging bats usually fly between 6 – 100 feet above ground level (USFWS 1999). In Illinois, Gardner et al. (1991a) found that forested stream corridors, and impounded bodies of water, were preferred foraging habitats for pregnant and lactating Indiana bats, which typically flew up to 1.5 miles (2.4 km) from upland roosts to forage. However the same study reported the maximum distance that any female bat flew (regardless of reproductive status) from her daytime roost to her capture site was 2.5 miles (4.2 km). Females typically utilize larger foraging ranges than males (Garner and Gardner 1992).

Bald Eagle

This section is a discussion of the range-wide status of the bald eagle (*Haliaeetus leucocephalus*) and presents biological and ecological information relevant to formulating the biological opinion. It includes information on the species' life history, its habitat and distribution, and the effects of past human and natural factors that have led to the current status of the species.

Designated as the national bird of the United States in 1782, the bald eagle nested throughout the nation. In 1940, the bald eagle was originally protected by what is now known as the Bald and Golden Eagle Protection Act (BGEPA). This law provides for the protection of the bald eagle and the golden eagle (as amended in 1962) by prohibiting the take, possession, sale, purchase, barter, offer to sell, purchase or barter, transport, export or import, of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit (16 U.S.C. 668(a); 50 CFR 22). "Take" includes pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb (16 U.S.C. 668c; 50 CFR 22.3). On March 11, 1967, bald eagles south of the 40th parallel were listed under the Endangered Species Preservation Act of 1966. The bald eagle was also afforded protection under the Migratory Bird Treaty Act (MBTA; 16 U.S.C. 703-712) when it was amended to include native birds of prey in 1972. The bald eagle was subsequently listed as threatened under the Endangered Species Act of 1973 (ESA; 41 FR 24062 24067) on February 14, 1978 in Michigan,

Minnesota, Oregon, Washington, and Wisconsin, and as endangered in the 43 remaining conterminous states. Due to the wide distribution of the bald eagle, the Service established five recovery regions to outline recovery planning goals and needs on a regional basis, leading to the development of five separate recovery plans for the species. Bald eagles in the State of Indiana are addressed in the Northern States Bald Eagle Recovery Plan, which was approved by the Service on July 29, 1983. No Critical Habitat was designated under the ESA for the bald eagle. In July 1995, as a result in wide-spread population increases, the Service down-listed the species to threatened status under the ESA throughout the lower 48 states. Then on July 6, 1999, after reaching or exceeding the recovery goals for the species, the Service proposed to remove the bald eagle from the Federal Threatened and Endangered Species List (i.e., delist it; Figure 7). Currently, the Service considers the bald eagle population to be fully recovered, even though it remains listed as a Federally threatened species in the lower 48 states. The bald eagle delisting has been delayed while a new post-delisting bald eagle disturbance permit process is being established under the Bald and Golden Eagle Protection Act. Once delisted, the ESA would require the Service to monitor the status of the bald eagle for at least five years following delisting. If a delisted species is found to be at risk, the Service can review the best available information and if necessary invoke the emergency listing clause of the ESA and relist the species.

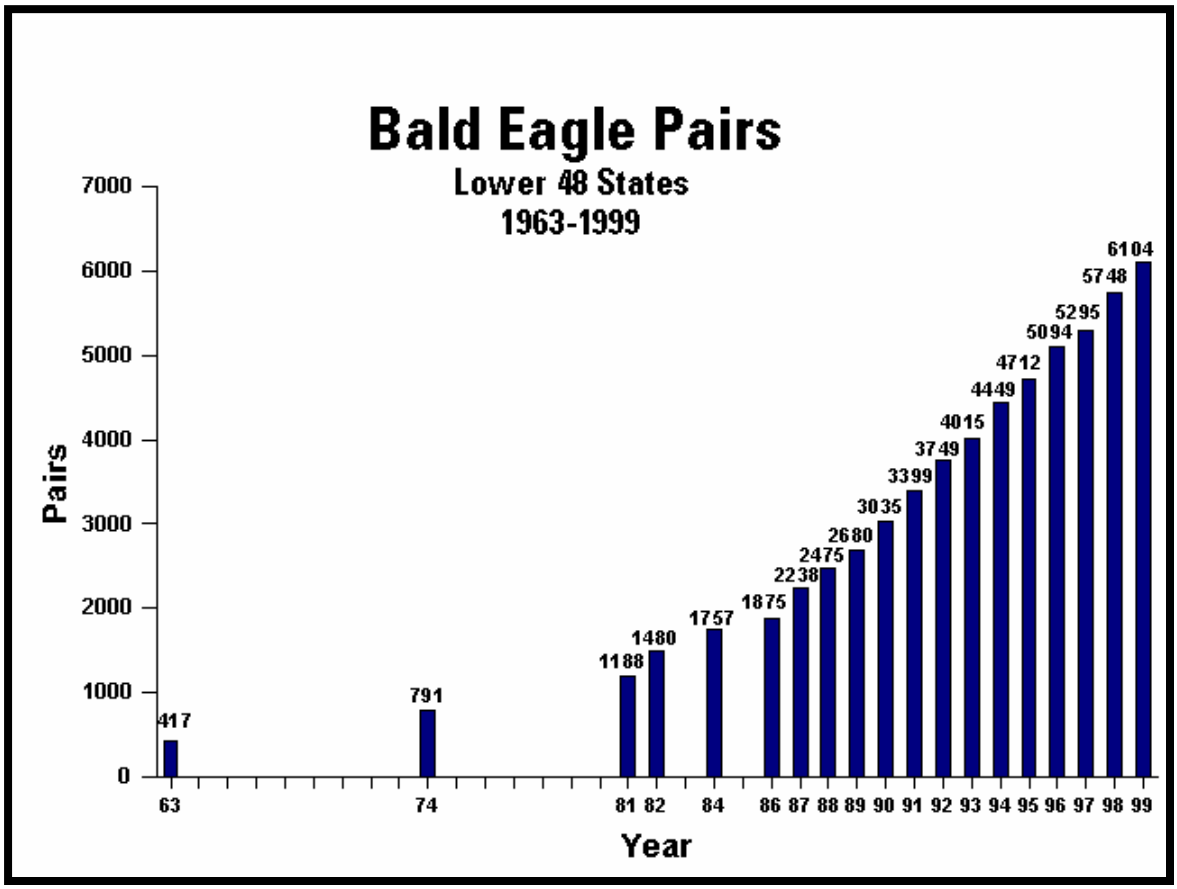

Figure 7. Pairs of nesting bald eagles in the lower 48 states, 1963 – 1999 (USFWS 2003).

A variety of factors contributed to bald eagle population declines over the past century (USFWS 1983a), but habitat loss and pesticide use, such as DDT, were the primary causes of decline. Habitat loss first occurred during European settlement of North America. As settlers cleared the land, they removed suitable trees for bald eagle nest and roost sites, as well as habitat for their prey. Wide spread shooting of eagles was also a contributing factor to the species' decline. Bald eagle numbers began to increase in the U.S. after Federal laws were enacted to protect them, however they began to decline again in the 1940s due to the wide spread use of certain organophosphate pesticides. These pesticides, DDT being the most notable, were used during the 1940s, 1950s, and 1960s. Pesticides like DDT and their metabolites tend to bioaccumulate, or increase in concentration as they move up the food chain, and therefore are present in highest concentrations in animals at the top of their food chain, such as bald eagles. A metabolite of DDT, known as DDE, inhibits normal calcium deposition in birds when eggshells are being formed. This resulted in eggshell thinning and reproductive failure in the bald eagle and other birds. Successful reproduction virtually ceased. In 1972, the U.S. Environmental Protection

Agency (USEPA) banned the use of DDT because of its harmful environmental effects. Bald eagle populations began to increase after the ban of DDT (see Figure 4). After banning DDT and implementing recovery actions under the ESA for over 30 years including: protecting/enhancing habitat, minimizing disturbance, monitoring contaminants, and reintroducing eagles, there are now more than 6,471 pairs of bald eagles nesting in the lower 48 states and the species has recovered.

Even though bald eagle numbers have increased dramatically, continued habitat loss, accidental trauma, illegal shooting, electrocution, and poisoning remain a threat to eagles and need to be monitored. Loss of forest habitat along and near large water bodies limits the available amount of suitable nesting, perching, roosting, and foraging habitat. Degradation of water quality also continues to threaten the integrity of aquatic ecosystems and the fish the eagles need for food.

Toxic exposure to environmental contaminants also is a localized threat. Franson et al. (1995) investigated the cause of death for over 4,300 bald and golden eagle carcasses examined over a 30 year period. Because identifying cause of death depends on finding eagle carcasses in fair to good condition, and advances in diagnostic capabilities, the study results may not reflect proportional causes of death accurately. Nonetheless, Franson et al. identified accidental trauma associated with impacts with vehicles, power lines, or other structures as the leading cause of death (23% of cases). Vehicular collisions have occurred as bald eagles scavenge carrion/roadkill along roadways, particularly in winter when food is scarce. The risk of vehicular collisions is directly influenced by landcover near the road. Roadways within a dense forest corridor present more risk than those with open roadsides because eagle are limited to vertical avoidance movements. Gunshot, either accidental or on purpose, accounted for about 15% of bald eagle deaths, electrocution about 12%, and poisoning about 16% (Franson et al. 1995). Electrocution problems with bald eagles, and other raptors, are primarily associated with relatively low voltage distribution lines (below 69 kV) to residences, businesses, or other individual users (Lehman 2001). Measures such as increasing clearances between conductors and ground wires, gapping ground wires, insulating energized components, and managing perching opportunities can reduce electrocution hazards and have been implemented in some problematic areas (Lehman 2001). Many eagles have died from lead poisoning after ingesting lead bullet fragments imbedded in crippled prey or carrion. Mortality may also occur from poisoning of certain agricultural pesticides. Poly-chlorinated biphenyls (PCBs) may also be a localized source of contamination, and have been linked to reproductive failure in

bald eagles. PCBs, like DDT and other pesticides, often bioaccumulate and end up in higher concentrations in animals at the top of the food chain.

Description and Distribution

The bald eagle is a large bird of prey found only in North America. The adult bald eagle is named for its white or bald (the old English word "balde" meaning white) head. The rest of the adult's plumage is dark brown with the exception of the tail feathers which are white. Males and females are identical in color. Immature bald eagles are dark brown with some blotches of white under the wings and on the body. As the bird reaches maturity in four or five years, this mottling disappears. Young bald eagles can be confused with the similar colored golden eagle (*Aquila chrysaetos*). Juvenile bald eagles have a brownish bill and yellow feet, while adults have bright yellow eyes, bills, and feet. The body of an adult eagle is about 3 to 3 1/2 feet in length, and the wingspan is 6 to 7 1/2 feet. Males weigh eight to nine pounds; while females weigh ten to 14 pounds.

The historic range of the bald eagle extended throughout North America, from central Alaska and Canada to northern Mexico. However, it experienced considerable decline in the south and eastern portions of its range during the 20th century. In the late 18th century, it is believed there were as many as 100,000 nesting bald eagles in the lower 48 states, but by1963, only 417 were known in this portion of the species range. There are about 40,000 bald eagles in Alaska and none in Hawaii. After banning DDT and implementing recovery actions under the ESA for over 30 years including: protecting/enhancing habitat, minimizing disturbance, monitoring contaminants (DDT), and reintroducing eagles, there are now more than 6,471 pairs of bald eagles nesting in the lower 48 states.

Life History

Bald eagles reach sexual maturity between four to six years of age, but may be older before they first attempt to nest and breed. They are believed to mate for life. Bald eagles have a relatively long life-span and have been known to live up to 48 years in captivity and 28 years in the wild (USFWS 1983a).

Fish are the major item of the bald eagle's diet. Eagles often catch fish while flying by swooping down on them as they swim near the water's surface and snatching them up with their sharp talons. Therefore, bald eagles spend much time roosting and foraging near large water bodies where fish abound. They also feed on waterfowl, particularly those dead, crippled, or otherwise vulnerable. At some locations, often during the winter period when eagles may be away from open water, mammals that can easily be caught or scavenged may be part of the eagle's diet (USFWS 1983a). Bald eagles may fly up to 40 mph during normal flight, but they can reach speeds of 100 mph when diving for prey. Bald eagles have few natural predators.

Bald eagles generally build their nests in trees along or near their primary foraging areas, i.e., large bodies of water such as lakes, large rivers and the ocean. Their massive nests are largely composed of small tree branches placed in the crotch of a large, open-branched tree, but at in some areas they may also nest on cliffs, or very rarely on the ground. Bald eagles often prefer the largest tree in their breeding area. Adult bald eagles will often use the same breeding area during different nesting seasons. A "breeding area" is the local area associated with one territorial pair of eagles, and containing one or more nest structures. Bald eagles will also often reuse nests in subsequent years. These birds often build and use new nests near a previous nest, and several nests may accumulate in

an area, although only one is used during the nesting season. With additions to the nests made annually, some may reach 10 feet across and weigh as much as 4,000 pounds. Clutch size ranges from one to three eggs. Adults will raise one to three young, the average being just above one eaglet per nesting attempt. Although bald eagles may range over great distances, they usually return to nest within 100 miles of where they were raised or hacked themselves.

Breeding and nesting phenology depends primarily on latitude. Prior to egg-laying, bald eagles engage in courtship activities and nest building. Courtship activities can involve both calls and aerial acrobatics, such as cartwheels, swoops, and chases. Nest building and refurbishing can take place prior to courtship, even during the previous fall. During courtship and the incubation period, the eagles are most intolerant of external disturbances and may abandon the area. The most critical period for disturbances, therefore, extends from approximately one month before egg laying through incubation. In Indiana, egg laying can occur as early as early February or March, and as late as early April. Eggs are laid every other day, and incubation takes approximately 35 days. After hatching, chicks are vulnerable to inclement weather and need frequent brooding and feeding. Natural or human-caused disturbances can keep adults from nests and, depending on the weather and length of time involved, may cause weakening or death of chicks. Adults are protective of the nest site as long as one or more healthy chicks are present. The young remain in the nest for about 10 – 12 weeks, and adults often care for the young for 6 weeks to 3 months after fledging. Prior to taking their first flight young eagles may "branch," where they hop and climb out of their nest and into nearby tree branches while flapping and strengthening their wings. Young eagles typically leave the nest or "fledge" at 11 to 12 weeks of age. Young usually fledge from early June to mid-July in Indiana. The time between egg-laying and fledgling is approximately four months and the entire breeding cycle, from initial activity at a nest through the period of fledgling dependency, is about six months.

All bald eagles, whether tolerant or intolerant, are more susceptible to human disturbance at some times during the nesting season. In southern Indiana, bald eagles are most prone to human disturbances from December or January through May or June depending on how early an individual pair begins courting and egg-laying.

Most bald eagles in Canada and the northern U.S. migrate south in the fall; however, in temperate latitudes some remain with nesting areas throughout the year. This migration is probably a result of changes in prey availability and weather conditions. The period from November to March is referred to the "wintering period," and may overlap the beginning of the nesting season in some areas (USFWS 1983a). Wintering bald eagles occur throughout the country, but are more prevalent in the West and Midwest. An adequate food supply and suitable night roost sites are the primary factors for appropriate winter habitat. Bald eagles use a much wider variety of habitat during winter than when nesting. Some wintering sites may be used multiple times, while others are only used once. Most wintering bald eagles are found near large bodies of water. However, some spend a large amount of time in terrestrial environments, away from a large water source. At night, wintering eagles may congregate at communal roost trees, and may travel from feeding areas to specific roost sites. Roost sites are often in locations that are protected from the wind by vegetation or terrain. These protected sites help minimize energy expenditures. Human disturbance to a roost site may cause the bald eagles to abandon it (USFWS 1983a).

FANSHELL MUSSEL

The Federally endangered fanshell mussel (*Cyprogenia stegaria)* was included in the species list as potentially occurring in the project area and was analyzed in the Tier 1 BA for I-69. In the BA, the FHWA determined that I-69 from Evansville to Indianapolis was not likely to adversely affect fanshell mussels because previous surveys at the proposed crossing of the East Fork of the White River revealed that the habitat was not suitable and no live or dead mussels were found in the vicinity of the crossing. Because the Service has concurred with their "not likely to adversely affect" determination (letter dated July 21, 2003), the fanshell mussel will not be considered further in this consultation unless new information or changes to the proposed action warrant reinitiating consultation for this species.

III. ENVIRONMENTAL BASELINE

This section is an analysis of the past effects of State, tribal, local and private actions already affecting the species within the Action Areas and the present effects within the Action Areas that will occur contemporaneously with the consultation in progress. It includes a description of the known status of Indiana bats and bald eagles and their habitats within or near the I-69 Action Areas.

The natural environments traversed by the Action Areas are summarized below. Additional information available in the I-69, Evansville to Indianapolis, Indiana, Tier 1 DEIS is hereby incorporated by reference.

Physiographic Regions

Physiographic regions are areas that have similar topography and land use. Physiographic regions provide a general view of the terrain, and resources that may be affected by the proposed Interstate. The preferred alternative, Alternative 3C, traverses portions of seven physiographic regions: **Wabash Lowland, Boonville Hills, Crawford Upland, Mitchell Plateau, Norman Upland, Martinsville Hills, and New Castle Till Plains & Drainageways** (Figure 8).

The proposed Interstate crosses the **Wabash Lowland** in portions of Gibson, Warrick, Pike, Daviess, and Green counties. Approximately 44% of the length of the Interstate (62 miles) is in this region. It is flat to rolling with wide expanses of alluvial land, some of which is lacustrine in origin. The Wabash Lowland is the largest of the southern Indiana regions and was completely covered by the Illinoian Glacier. Land use is essentially agricultural, some forest land (mostly floodplain forests), extensive wetlands (e.g. Pigeon Creek and Patoka River bottoms), and coal mining. Agriculture is the dominant land use, with over 61% of the area devoted to farming. Approximately 22–25% of the land is forested, while the remaining land area has urban and miscellaneous uses. Approximately 87% of forests are owned by farmers and private individuals. The remaining forests are owned by federal, state, county, municipal agencies, and/or timber companies.

Only a small portion in Gibson and Pike counties, 3% (4 miles), of the proposed Interstate crosses the **Boonville Hills Region**. This region is slightly hillier than the adjacent Wabash Lowland, possibly because it was not glaciated. Strip mining has been extensive in this region, and there are large areas of reclaimed or modified land in the eastern portion (Gray 2000). Land use in the Boonville Hills includes farmland, forest, and mining.

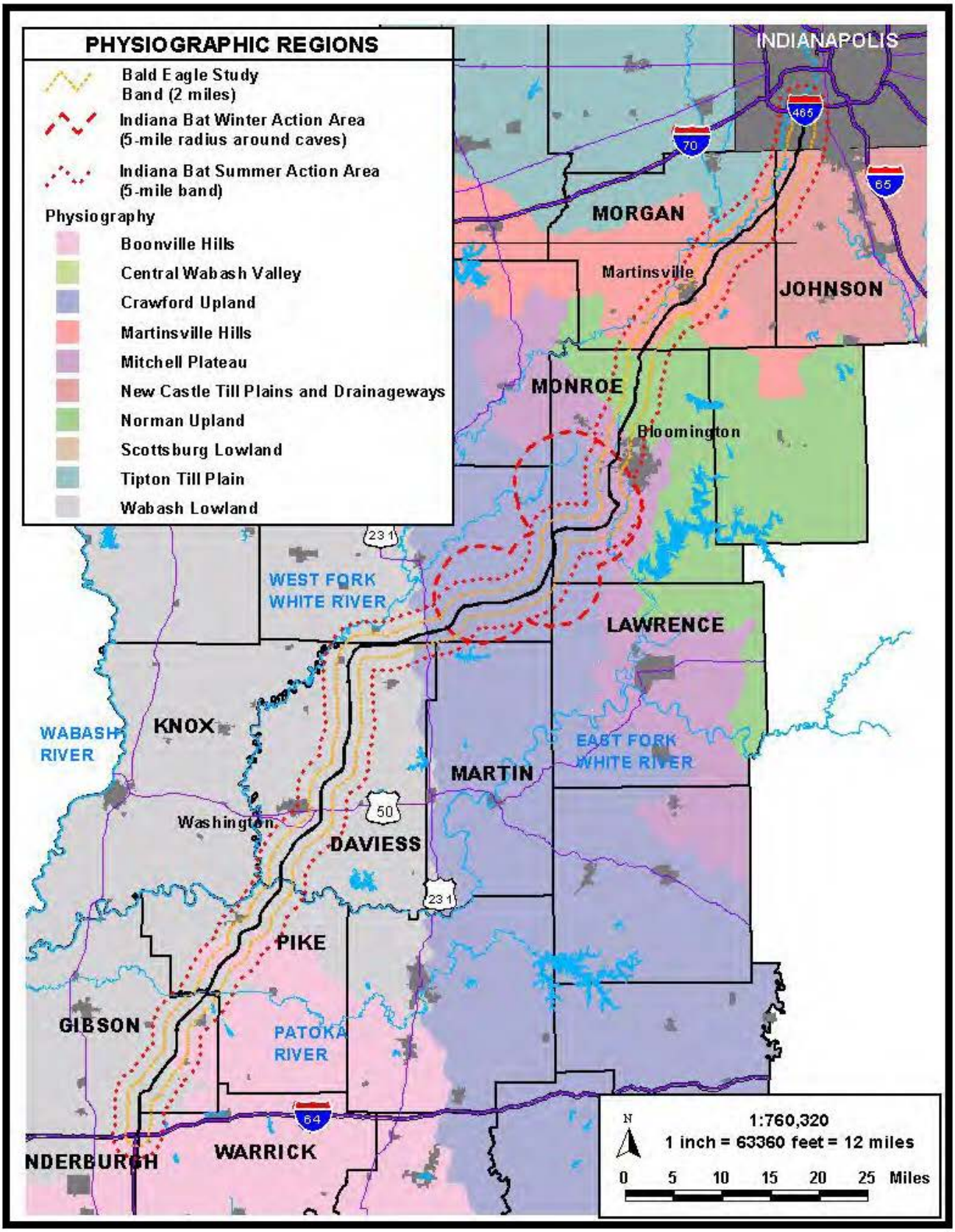

Figure 8. Physiographic regions (Gray 2000) and species Action Areas for the proposed I-69.

Approximately 16.5% (23 miles) of the alternative is within the **Crawford Upland Region**, primarily in Greene and Monroe counties. This region is largely unglaciated and is a rugged highland with varied elevations and v-shaped valleys with sharp ridges to u-shaped valleys with rounded ridges. Karst terrain, containing sinkholes and caves, is common. Land use is approximately 43% cropland, 20% pasture, and 28% woodland. Approximately 71% of the forests are owned by farmers and private individuals.

East of the Crawford Upland is the **Mitchell Plateau**. Approximately 9% (13 miles) of the proposed alternative is within this region, in Monroe County. This region is a limestone, somewhat flat to rolling plain, with many caves, sinkholes and continuous tracts of forests. There is extensive karst topography west of Bloomington. Approximately 61% of forests are owned by farmers and private individuals. Livestock, crops, timber, and limestone are this region's main commercial resources.

Approximately 9% (13 miles) of the proposed alternative is within the **Martinsville Hills Region** in Morgan County. This is a relatively small region within the study area, and more rugged than the adjacent Tipton Till Plain region to the north. The eastern and western parts of this region are more rugged than the central, which contains lacustrine and till plain areas (Gray, 2000). Predominate land use includes farmland and forest.

Approximately 5.5% (8 miles) of the proposed Interstate traverses the **Norman Upland**, in Monroe and Morgan counties. This upland region contains great local relief due to stream action over a long period of time. This resulted in long, sharp ridges, and v-shaped valleys, which in turn create rugged, picturesque hills. Prime examples of this scenic landscape are found in Brown County (Mumford and Whitaker 1982).

Finally, approximately 13% (18 miles) of the proposed Interstate passes through the **New Castle Till Plains & Drainageways** in Johnson and Marion counties. This region is a relatively flat glacial plain. It is distinguished by the number of valleys that cross it in a southerly to southeasterly radial pattern. These valleys fed the White River, the East Fork of the White River and several of its tributaries, and several forks of the Whitewater River (Gray 2000). Farmland is the predominant land use in this region.

Natural Regions

In addition to physiographic regions, the land can be categorized by natural regions. A natural region is a major, generalized unit of the landscape with a distinctive assemblage of natural features. It is part of a classification system that integrates several natural features, including: climate, soils, glacial history, topography, exposed bedrock, presettlement vegetation, species composition, physiography, and flora and fauna distribution. A "section" is a subunit of a natural region where sufficient differences are evident, such that recognition is warranted (Homoya et al. 1985). Natural regions are similar to physiographic regions, but while physiographic regions may give information on predominant land use, natural regions may give more information about native plant and animal species. Some natural regions have a similar corresponding physiographic region, while some may be unique to the classification system.

The proposed 3C corridor of I-69 crosses five natural regions: **Southwestern Lowlands, Southern Bottomlands, Shawnee Hills, Highland Rim**, and the **Central Till Plain**. Within these five

natural regions, the Interstate crosses nine sections: **Driftless, Southern Bottomlands, Glaciated, Plainville Sand, Escarpment, Mitchell Karst Plain, Brown County Hills**, and **Tipton Till Plain** (Figure 9). The following natural region section descriptions come from "The Natural Regions of Indiana," by Homoya et al. (1985).

The **Southern Bottomlands Section** is the only section within the **Southern Bottomlands Natural Region**. Approximately 8% (11 miles) of the proposed Interstate crosses this section, primarily in Gibson and Pike counties. This natural region includes the alluvial bottomlands along rivers and larger streams of southwestern Indiana. The soils are mostly neutral to acid silt loams and much of the area is subject to frequent flooding. Natural communities of the region include bottomland forest, swamp, pond, slough, and former marsh and prairie. Bottomland forest, the major community type of this region, is characterized by pecan, sugarberry, swamp chestnut oak, pin oak, swamp white oak, red maple, silver maple, honey locust, catalpa, shellbark hickory, sycamore, and green ash. Swamp and slough communities are characterized by bald cypress, swamp cottonwood, water locust, pumpkin ash, and overcup oak. Other distinctive species (many of which are restricted to this region) include American featherfoil, bloodleaf, acanthus, climbing dogbane, catbird grape, woolly pipe-vine, swamp privet, American snowbell, climbing hempweed, spiderlily, mistletoe, and giant cane. Distinctive southern animals include cottonmouth, hieroglyphic turtle, diamondbacked watersnake, eastern mud turtle, northern copperbelly, swamp rabbit, mosquitofish, harlequin darter, and yellow-crowned night heron.

The **Southwestern Lowlands Region** includes the **Driftless Section, the Glaciated Section,** and the **Plainville Sand Section**. The Southwestern Lowlands Region is characterized by low relief and extensive aggraded valleys. This region, except for the southern portion, was covered by the Illinoian Glacier. Much of the region is nearly level, undissected, and poorly drained, although in some areas the topography is hilly and well drained.

Approximately 12% (17.5 miles) of the proposed Interstate is within the **Driftless Section,** primarily in Gibson and Pike counties. This section is south of the Illinoian glacial border, and is characterized by low hills and broad valleys. This area has the longest growing season and highest average summer temperature in the state. Natural communities include upland forest, occupying the well-drained slopes, and southern flatwoods occupying lacustrine plains and river terraces. Flatwoods species include cherry bark oak, sweetgum, shellbark hickory, pin oak, swamp white oak, Shumard's oak, green ash, black gum, and locally, post oak. Upland forests of this section are relatively dry communities dominated by oaks and hickories. Other natural communities include marsh, swamp, sandstone cliff, and low to medium-gradient stream. Soils in this section are predominately acidic.

The **Glaciated Section** is also part of the Southwestern Bottomlands Region. Approximately 24% (34 miles) of the alternative passes through this section, in portions of Pike, Daviess, and Greene counties. Natural communities in this section are mostly forests, but several types of former prairie are known. The flatwoods community is common, but species composition differs from the Driftless Section. Common flatwoods species in this section include shagbark hickory, shellbark hickory, pin oak, shingle oak, hackberry, green ash, red maple, and silver maple. Black ash swamps are near their southern limit in this section. This section also appears to have the largest amount of prairie south of the Wisconsinan glacial border in Indiana; however, little is known about the composition of this prairie. Additional community types include: swamp,

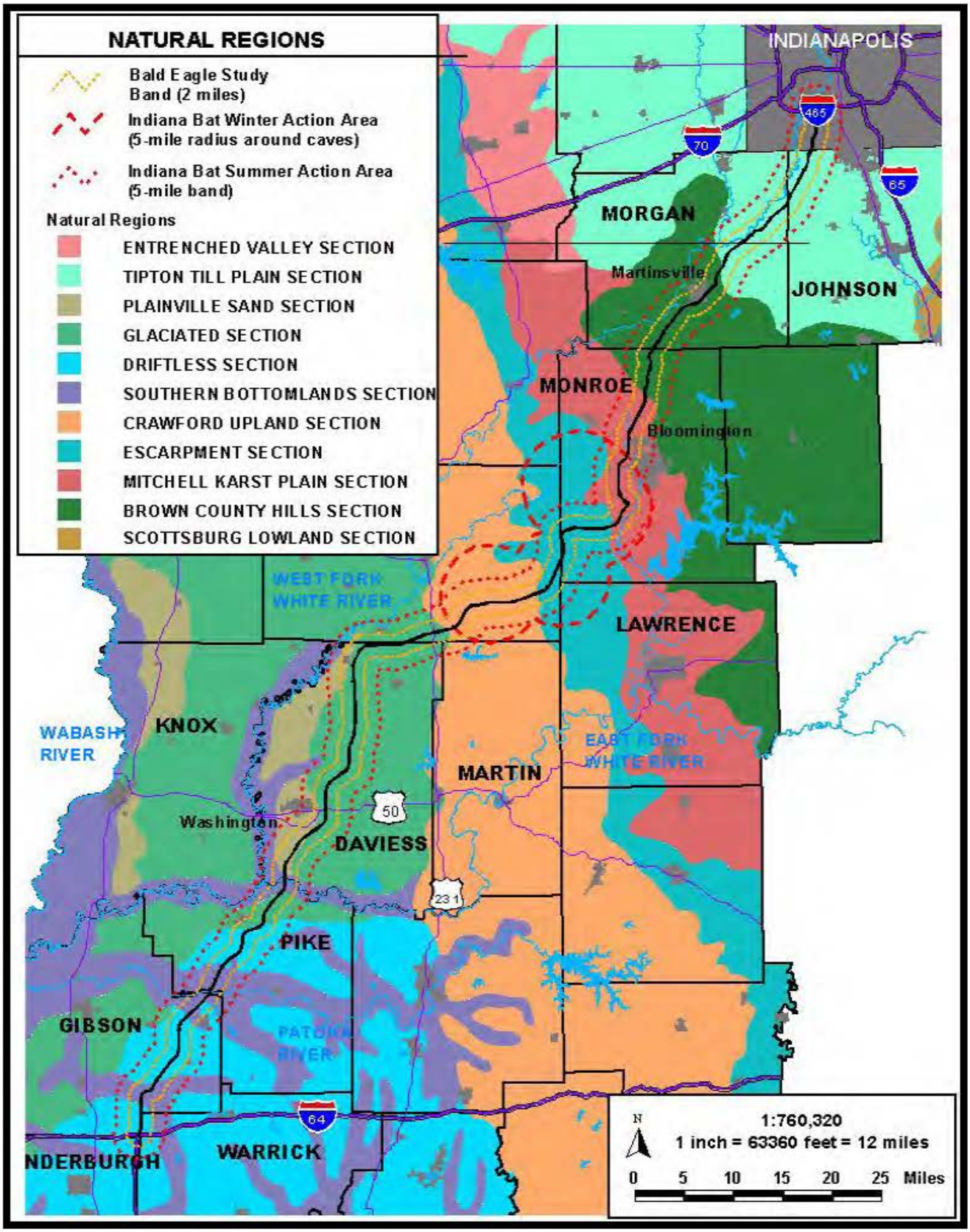

Figure 9. Natural regions (Homoya et al. 1985), species Action Areas, and proposed I-69.

marsh, pond, and low-gradient stream. The prairie kingsnake and the crawfish frog are characteristic animal species of this region.

Approximately 4% (5 miles) of the proposed Interstate traverses the **Plainville Sand Section** in Daviess County**,** also in the Southwestern Bottomlands Region. This section is a small, but unique, area of wind-blown sand dunes east of the Wabash and White Rivers. Soils are sandy and acidic. The barrens natural community, now almost gone from the landscape, predominated on the ridges and well-drained areas, and swamp, marsh, and wet prairie occupied the swales. The barrens vegetation consisted mostly of prairie species, along with some western and southern sand-dwelling species, including beard grass, Carolina anemone, tube penstemon, clustered poppy-mallow, hairy golden aster, narrowleaf dayflower, black hickory, adrosace, rose gentian, sedge, and fleabane. In a few areas, barren vegetation, including little bluestem, big bluestem, Indian grass, side-oats grama, New Jersey tea, and blackjack oak, can still be seen. Animal species restricted to the geographic area include the bull snake, ornate box turtle, and six-lined racerunner.

The **Shawnee Hills Natural Region** includes the **Crawford Upland Section** and the **Escarpment Section**. This natural region appears to represent general presettlement conditions better than any other terrestrial region in the state. It is a rugged and generally sparsely populated area. Most natural communities are upland forest, although a few sandstone and limestone glades, gravel washes, and barrens are known.

Approximately 7% (10.5 miles) of the preferred alternative is within the **Crawford Upland Section**, in Greene County. This section of the Shawnee Hills Natural Region contains rugged hills with sandstone cliffs and rockhouses. The soils are characteristically well drained acid silt loams. Forest vegetation consists of an oak-hickory assortment on upper slopes, while coves have a mesic component. Characteristic upper slope species include black oak, white oak, chestnut oak, scarlet oak, post oak, pignut hickory, small-fruited hickory, shagbark hickory, and rarely, sourwood. Characteristic species of cove forests include beech, tulip tree, red oak, sugar maple, black walnut, white ash, and locally, yellow buckeye, white basswood, hemlock, yellow birch, and umbrella magnolia. The sandstone cliff and rockhouse communities provide environments for several species with Appalachian affinities, including mountain laurel, mountain spleenwort, sourwood, and umbrella magnolia. Distinctive species associated with rockhouses include filmy fern, alumroot, Bradley's spleenwort, French's shooting star, and the Appalachian gametophyte. There are a few spring communities, a type extremely rare in Indiana. Vegetation characteristic of these communities include cinnamon fern, royal fern, sedges, small clubspur orchid, black chokeberry, winterberry, tearthumb, jewelweed, crested wood fern, and *Sphagnum* spp. The barrens community is, and probably was, a minor component of this section, and only a few remnants remain. Sandstone glades are very rare in Indiana, but at least two are known in this section. Characteristic species in sandstone glades include: bluestem, slender knotweed, poverty grass, farkleberry, goat's rue, pineweed, pinweed, and panic grass. Two interesting mammals in this section are the smoky and pygmy shrews.

Approximately 9% (12 miles) of the proposed Interstate crosses the **Escarpment Section** of the Shawnee Hills Natural Region in portions of Greene and Monroe counties. This section includes rugged hills along the eastern border of the region. Sandstone and sandstone- derived soils are found on hill tops, and limestone and limestone-derived soils are present at lower elevations. Karst features are common, especially in the lower and middle elevations. Natural communities in this

section consist of various upland forest types, especially dry-mesic and mesic. Species composition is similar to the Crawford Upland Section, except certain species, such as post oak and black oak, commonly replace chestnut oak on dry sites; and some of the mesic cove species, especially those with Appalachian affinities, are absent. Limestone glades and barrens occur in this section, but are more common in the Highland Rim Natural Region. Limestone cliff communities occur at the southern end of this section. Rare species such as alumroot, wall-rue spleenwort, cleft phlox, wild liveforever, and black-seeded sedge can be found in the limestone cliffs. Eastern woodrats live in the crevices of cliffs along the Ohio River, which is also a roosting site for the black vulture. Caves are also common. They support unique animal species such as the troglobitic crayfish and northern cavefish. Some caves support populations of hibernating bats, including the federal and state endangered Indiana bat. Limestone gravel wash communities are found in this section, and the wild blue indigo is apparently confined in Indiana to these communities. Typical aquatic features include normally clear, medium and high-gradient streams, springs, and sinkhole ponds.

The **Highland Rim Natural Region** within the study area includes the **Mitchell Karst Plain Section** and the **Brown County Hills Section**. This natural region is unglaciated, except relatively unmodified glaciated areas at the northern and eastern boundaries. A distinctive feature of this region is the large expanse of karst topography, although several other major topographical features are also present, such as cliffs and rugged hills. Much of the area was forested in presettlement times, but large barrens, small glades (limestone and siltstone), and gravel wash communities also occurred.

Approximately 11% (15 miles) of the proposed Interstate crosses the **Mitchell Karst Plain Section** of the Highland Rim Natural Region, in Monroe County. The major feature of this section is the karst (sinkhole) plain. Several natural community types are associated with this plain, including caves, sinkhole ponds and swamps, flatwoods, barrens, limestone glades, and several upland forest types. The plain is relatively level, although in some areas, especially near the section's periphery, limestone cliffs and rugged hills are present. Caves are common. The soils are generally well drained silty loams derived from loess and weathered limestone. Possibly the largest area of barrens in Indiana was located in this section. Species commonly found in remnants of this prairie-like community include Indian grass, big bluestem, little bluestem, rattlesnake master, prairie dock, hairy sunflower, prairie willow, clasping milkweed, and *Carex meadii*. Most of Indiana's limestone glades occur in this region, although most are in counties outside the study area. This bedrock community has a prairie flora with additional distinctive species, including downy milk pea, angle-pod, axe-shaped St. John's wort, adder's tongue fern, crested coral root, orchid, and heartleaf Alexander. Gravel wash communities of limestone and chert border most streams. Characteristic species in these communities include big bluestem, Indian grass, Carolina willow, water willow, ninebark, pale dogwood, and bulrush. Karst wetland communities are the major aquatic feature of this section. Southern swamp species are known from some sinkhole swamps, including beakrush, log sedge, giant sedge, Virginia willow, small buttercup, and netted chain fern. Common dominants of these swamps are swamp cottonwood, pin oak, swamp white oak, red maple, and sweetgum. Sinkhole pond communities normally have open water and marshy borders with cattails, bulrush, bur-reed, spatterdock, buttonbush, swamp loosestrife, bladderwort, and *Carex comosa*. Several forest communities are also present in this section, but the western mesophytic forest type is most common. Species characteristic of this forest type include white oak, sugar maple, shagbark hickory, pignut hickory, and white ash. Near glade communities some xeric forest are characterized

by post oak, chinquapin oak, and blue ash. In karst areas, surface streams are few, as most of the drainage is underground.

Approximately 11% (16 miles) of the proposed Interstate traverses the **Brown County Hills Section**, in Monroe and Morgan counties. It is the second section in the study area in the Highland Rim Natural Region. This section is characterized by deeply dissected uplands, underlain by siltstone, shale, and sandstone. The soils are well drained acid silt loams with minor amounts of loess. Bedrock is near the surface, but rarely crops out. Natural communities are rather uniform in composition, with uplands dominated by oak-hickory, especially chestnut oak, and ravines with mesic species, such as beech, red oak, sugar maple, and white ash. The yellowwood tree is known in Indiana, but only from a small area in this section. Small, high-gradient, ephemeral streams are common, and larger streams are usually medium to low-gradient.

Finally, the **Central Till Plain Natural Region** is the fifth natural region that comprises the I-69 study area. This region includes the **Entrenched Valley Section** and the **Tipton Till Plain Section**. The Central Till Plain Natural Region is the largest natural region in Indiana, and is a formerly forested plain of the Wisconsinan till in the central portion of the state. With the exception of the Entrenched Valley Section, the topography is homogenous, although glacial features such as moraines are common. The proposed Interstate does not pass through the Entrenched Valley Section, therefore it is not discussed further.

Approximately 14% (19 miles) of the proposed Interstate crosses the **Tipton Till Plain Section**, in potions of Morgan, Johnson, and Marion counties. This section is a mostly undissected plain formerly covered by an extensive beech-maple-oak forest. The soils are predominantly neutral silt and silty clay loams. The northern flatwoods community associated with these poorly drained soils was ubiquitous but now is confined to scattered woodlots. Species common within the community include red maple, pin oak, bur oak, swamp white oak, Shumard's oak, American elm, and green ash. In slightly better drained sites, characteristic species include beech, sugar maple, black maple, white oak, red oak, shagbark hickory, tulip poplar, red elm, basswood, and white ash. Other community types of this section include bog, prairie, marsh, seep, spring, and pond.

Major Drainages

Three major rivers are crossed by the 3C corridor: the East Fork of the White River, the Patoka River, and Pigeon Creek. The East Fork of the White River is the largest river that would be crossed between Evansville and Indianapolis. It is a slow-moving stream that drains approximately 5,700 square miles. The proposed location for the I-69 bridge is approximately 1.5 miles east or upstream of the existing SR 57 bridge, which spans the East Fork between Pike and Daviess counties. The Patoka River is approximately 100 miles long with an 860 square mile drainage basin. The proposed crossing of this river is within the acquisition boundary of the Patoka River National Wildlife Refuge. Much of this river has been dredged and straightened; however, the portion from about US 41 to the Wabash River is still natural and meandering. Pigeon Creek is a low-gradient stream with turbid waters. The proposed bridge crossing for Pigeon Creek is in Gibson County. This creek is classified as a legal drain and has been dredged in places to channelize the stream. The Indiana Department of Environmental Management (IDEM) has listed the Patoka River, southern portion of Pigeon Creek, and portions of the East Fork of the White River on the 2002 303(d) List of Impaired Waterbodies. Parameters of concern for the Patoka include PCBs and mercury. Parameters for concern in Pigeon Creek include PCBs, sulfates, TDS,

pathogens, and low dissolved oxygen. The parameter of concern for the East Fork of the White River upstream of the project area is PCBs.

Karst Features

Karst features are especially common in the Mitchell Plateau and Crawford Upland physiographic/natural regions. The portion of Alternative 3C in Monroe County, and to a lesser extent Greene County, crosses karst terrain. The term "karst" refers to "landscapes characterized by caves, sinkholes, underground streams, and other features formed by the slow dissolving, rather than the mechanical eroding of bedrock" (American Geological Institute 2001). Because the underlying bedrock is easily dissolved by water, there is often a direct connection between surface and ground water. Little water purification occurs because the water flows directly through cracks and fissures rather than percolating slowly through the ground as in other types of terrain. Therefore, ground water resources are especially susceptible to degradation from pollution in karst areas. Pollution from both urban (e.g., untreated stormwater runoff, point-source dischargers/NPDES permits) and rural sources (e.g., residential septic systems, livestock waste, and agricultural pesticides) is an important concern in karst areas.

Caves often contain highly specialized ecosystems with distinct microclimates. Caves are not exposed to sunlight and the temperature of the cave varies due to air movement near the entrances, the location (on ridges or in valleys), and the temperature of water entering the cave.
Aquatic species that live in caves and karst terrain are especially sensitive to pollution because it is easily introduced to their environment via water flow with little filtering or dilution. However other species such as bats that only use caves during part of their life cycle (i.e., winter hibernation) also may be adversely affected by pollution entering caves or changes to a cave's hydrology or temperature regime.

Karst habitat is a non-renewable resource that is biologically important because it provides habitat for a number of rare, threatened, and endangered species that depend of caves to different degrees. Troglobites are animals highly adapted to complete their entire life cycle in cave environments. Troglobitic species often include flatworms, isopods, amphipods, eyeless cave shrimp, cave crayfish, bristletails, eyeless cave fish, and cave beetles. Because food in caves is scarce, full time cave dwellers tend to be smaller, with lower metabolism and longer life spans than their surface counterparts. Troglophiles pass their life cycle within caves when sufficient food is present, or in dark, cool, moist environments just outside the cave. Examples of troglophiles include segmented worms, snails, copepods, spiders, salamanders, springfish, phalangids, mites, pseudoscorpions, millipedes, and cave crickets (*Hadenoecus*). Trogloxenes are species that use caves, but cannot complete their life cycles within them. Crickets, bats, pack rats, flies and gnats are trogloxenes. Many species of bats, including the Federally endangered Indiana bat, use caves in karst areas within the WAA of I-69. By collecting food on the surface and then returning to caves, trogloxenes play an important role in providing food (e.g., fecal matter) for cave animals that never venture outside. The life histories of all cave animals highlight the fragility and interconnectedness of the surface and the cave environments (NSS 2003).

Indiana Bats within the Action Area

Prior to the initial formal consultation for Tier 1 of I-69, no previous section 7 formal consultations involving Indiana bats have been conducted within the boundaries of the Indiana bat Summer or Winter Action Areas established for this project. However, numerous informal and a few formal

consultations have occurred for this species within some of the same counties that will be traversed or in similar habitat located elsewhere within southern Indiana. In general, more detailed information is known about winter populations of Indiana bats in hibernacula within the WAA than summer populations in the SAA. However, the extensive mist netting surveys conducted in 2004 and 2005 by INDOT's biological consultants contributed greatly to the Service's knowledge of Indiana bat distribution and abundance along the 3C corridor.

Mist Net Surveys within the Summer Action Area

At the time of the initial formal consultation for Tier 1 of I-69, only one previous mist net survey had been conducted for Indiana bats near the proposed I-69 corridor. In 1993, Dr. John Whitaker, Jr., conducted mist net surveys for Indiana bats along INDOT's previously proposed Southwest Indiana Highway Corridor connecting I-64 to Bloomington, which basically followed the current Alternative 3C corridor of I-69. Although Dr. Whitaker surveyed areas he thought to have high quality summer habitat, he only captured Indiana bats at one of the 21 sites that was surveyed. That one site was located along the Patoka River near the proposed bridge crossing for I-69 and produced two lactating, female Indiana bats indicating a nursery colony was located nearby (Whitaker 1996). Therefore, there were only records of a single maternity colony within the I-69 SAA when FHWA and the Service conducted the initial formal consultation for Tier 1 of I-69.

Since the December 3, 2003 BO for Tier 1 of I-69 was issued, INDOT has completed numerous bat surveys as part of Tier 2. Between May 15, 2004 and August 15, 2004, a total of 148 mist net sites were surveyed within the SAA for the proposed I-69. This included 12 sites in Section 1, 30 sites in Section 2, 23 sites in Section 3, 30 sites in Section 4, 24 sites in Section 5, and 29 sites in Section 6. The net sites are depicted in Figure 1 (a large wall map) of the Tier 1 BA Addendum. These survey sites, approximately one site per mile of proposed interstate, were selected by FHWA, INDOT, and the BFO. Net sites included both upland and stream locations. Upland sites consisted of trails and roads bordered with forest, and forest corridors in pastures. Stream sites were located along streams with forested riparian zones or wetlands. Additional mist netting was conducted at 49 sites between July 12, 2005 and August 15, 2005. This includes six (6) sites in Section 1, 12 sites in Section 2, six (6) sites in Section 3, 15 sites in Section 4, three (3) sites in Section 5, and seven (7) sites in Section 6. The additional mist net sites are shown on the I-69 Evansville to Indianapolis Indiana Bat Survey map (Figure 1 of BAA). The majority of these sites were the same as or near those surveyed in 2004. The additional mist netting was conducted at or near survey sites from 2004 that produced a reproductively active female or juvenile that could not be successfully tracked to a roost tree. To our knowledge, this was the largest mist net survey for bats ever conducted within the range of the Indiana bat for a proposed transportation project and possibly any federal project or program.

A total of 55 Indiana bats was captured in 2004 (n=48 bats) and 2005 (n=7 bats) and 34 of these bats were radio-tagged and tracked to a total of 32 roost trees/sites. The 55 Indiana bats included, 21 reproductively active (i.e., pregnant, lactating, or post-lactating) adult females, 8 non-reproductive adult females, 7 juveniles (i.e., young of the year), and 19 adult males. Reproductive females were captured in each of the six sections of the I-69 SAA and adult males were captured in all the sections except Section 1.

Roost Trees Identified within the Summer Action Area

Of the 32 roosts identified, eight (8) were primary roosts and 24 were secondary roosts. A primary roost is defined as a roost with 30 bats or greater observed during emergence counts. A secondary roost, or alternate roost, is a roost with less than 30 bats observed during emergence counts. Of the roosts identified, one (1) was a sugar maple (live), six (6) were shagbark hickory , five (5) live and one (1) dead), nine (9) were silver maple (six (6) live and three (3) dead), one (1) cottonwood (dead), five (5) elm (all dead), one (1) ash (dead), one (1) tulip poplar (live), five (5) dead trees of unknown species, one (1) bridge, and two (2) utility poles.

The dbh for the roosts ranged from 6.9 inches to 30.0 inches, with an average of 16.3 inches with a standard deviation of 6.9 inches. The dbh for primary roosts ranged from 10.0 inches to 25.5 inches, with an average of 15.3 inches and standard deviation of 5.1 inches. The dbh for secondary roosts ranged from 6.9 inches to 30 inches, with an average of 16.6 inches and standard deviation of 7.5 inches. In this case, it was atypical that the average diameter of the eight primary roost trees was actually smaller than the average diameter of alternative roost trees. Primary roosts are typically found in some of the largest dead trees available and alternates in smaller trees. The cause of this atypical result is unknown.

The percent of exfoliating bark ranged from 0% to 85%. The percent of exfoliating bark for primary roosts ranged from 0% to 70%, and for secondary roosts ranged from 0% to 85%. The percent of canopy closure ranged from 0% to 100%. The percent of canopy closure for primary roosts ranged from 0% to 75%, and for secondary roosts ranged from 0% to 100%. Only five (5) of the roosts identified were in upland locations, the remaining 26 were in riparian locations.

Distances from the roosts to the I-69 corridor range from zero (0) miles to 2.6 miles. The average distance was one (1) mile with a standard deviation of 0.7 miles. Only one (1) Indiana bat roost tree was identified within the 2000-foot wide I-69 corridor. This roost tree was a 14-inch dbh dead ash tree in a riparian corridor east of existing SR 37 in Section 6 near Martinsville. Additional detailed results of the mist net surveys and associated radio-tracking, roost trees, and roost emergence survey efforts are provided in the Tier 1 BA Addendum and numerous Tier 2 survey reports and are hereby incorporated by reference.

Bridge Surveys for Roosting Bats

Concurrent with the mist net surveys in 2004 and 2005, a total of 259 bridges within the SAA were inspected in order to identify Indiana bat night-roosting sites. This included 54 bridges in Section 1, 68 bridges in Section 2, 40 bridges in Section 3, 66 bridges in Section 4, 13 bridges in Section 5, and 18 bridges in Section 6. Bridges and culverts within the proposed alignment, and along existing and connecting roads were inspected. In most cases bridges were selected prior to field work by INDOT, FHWA, and USFWS; however, some were added upon field reconnaissance. Ten (10) bridges originally identified were not inspected because they had been removed, were under construction, or were small culverts. Bridges were checked for the presence of guano and roosting bats during nighttime hours. Morphometric data was collected on roosting bats and the habitat surrounding each bridge was generally characterized.

Indiana bats were discovered roosting at only one (1) of the 259 bridges surveyed. This bridge was located in Section 3. This bridge is not specifically named in this document or the BA Addendum

for sensitivity reasons. On August 13, 2005, a total of 501 bats of several species including 9 Indiana bats was found day-roosting beneath this bridge. It was also used as a night roost for small numbers of Indiana bats and hundreds of other bats. Both the north and south sides of this bridge showed obvious signs of ongoing human activity and vandalism, such as garbage and spray-painted graffiti. [To prevent disturbance or harassment to the Indiana bats and other bats species roosting beneath this bridge, INDOT proposed to fence both the north and south sides of the bridge as a Conservation Measure for the I-69 project and completed this task in March 2006].

Maternity Colonies within the Summer Action Area

At the time of the December 2003 formal consultation for Tier 1 of I-69, only one maternity colony was known in the SAA near the Patoka River. However, based upon a spatial analysis of the 2004 and 2005 mist netting, radiotelemetry, and emergence count efforts, the Service, in informal consultation with INDOT and FHWA, determined that there were 13 Indiana bat maternity colonies with roosting/foraging areas within the I-69 SAA. A maternity colony typically consists of reproductively active female Indiana bats and their young (i.e., typically 1 pup/adult female/year). A maternity colony was determined to exist if there was evidence of reproduction in an area during the summer reproductive season (the capture of a reproductive female or juvenile, or high emergence counts at an identified roost). Each maternity colony's roosting and foraging area was assumed to fall within a circle with a 2.5-mile radius centered on primary roosts, placed between multiple roosts, or centered on mist net sites of Indiana bat capture if no roosts were identified. These 13 maternity colonies had not been identified and were not included in the original Tier 1 BA. The Service believes it is unlikely that additional, unidentified maternity colonies (beyond the 13 known colonies) exist in the portion of the SAA that will be directly impacted by I-69. If present, members of any other maternity colonies are assumed to occur along the periphery of the SAA and well beyond the reach of any significant direct or indirect effects from I-69.

The 13 maternity colonies have been named after an associated river or stream. They are listed below and the locations or their 2.5-mile areas in relation to the I-69 corridor are shown in Figure 4.

Colony Number	I-69 Section Number	Colony Name
1.	1	Pigeon Creek Maternity Colony
2.	2	Patoka River Maternity Colony
3.	2	Flat Creek Maternity Colony
4.	2	East Fork Maternity Colony
5.	2	Veale Creek Maternity Colony
6.	3	West Fork - Elnora Maternity Colony
7.	4	Doans Creek Maternity Colony
8.	4	Plummer Creek Maternity Colony
9.	4	Indian Creek Maternity Colony
10.	5	West Fork - Bryant Creek Maternity Colony
11.	6	West Fork - Clear Creek Maternity Colony
12.	6	West Fork - Crooked Creek Maternity Colony
13.	6	West Fork - Pleasant Run Maternity Colony

The Indian Creek Maternity Colony in Section 4 was initially identified by a radiotagged male Indiana bat. The radiotagged male was tracked to a conduit tube on the side of a utility pole in a residential yard in the summer of 2004. Biologists conducting emergence counts of bats at this utility pole observed from eight (8) to 20 bats emerge on six (6) different nights. Because emergence counts do not identify bats to sex or species, it was uncertain if the male Indiana bat was roosting with other male Indiana bats, bats of other species, or female Indiana bats. If the male was roosting with female Indiana bats, this roost could be a potential Indiana bat maternity colony. Due to the uncertainty and uniqueness of this roost, fecal DNA analysis was performed on guano samples collected from the utility pole. The goal of the DNA analysis was to determine the sex and species of bats roosting on the utility pole. The DNA analysis was performed by Dr. Maarten Vonhof from the Department of Biological Sciences at Western Michigan University.

Guano samples were collected from various heights within the plastic covering of the utility pole. DNA analysis was conducted on 20 pellet samples. The results showed all 20 samples to be *Myotis sodalis* (Indiana bat). Of these 20 samples, eight (8) were female and eight (8) were male. Four (4) of the samples could not be determined to sex. The DNA analysis showed that both male and female Indiana bats were roosting in the utility pole. The results of the DNA can be found in a report titled, "Molecular Species and Gender Assessment of Bats Utilizing a Roost Near an Interstate Expansion Project." Due to the presence of the both male and female Indiana bats roosting on the utility pole, this area was included in the analysis as the Indian Creek Maternity Colony.

The Tier 2 discovery of these 13 "new" maternity colonies within the SAA was one of the primary impetuses for the Service recommending that FHWA consider reinitiating formal consultation for Tier 1 of I-69. These 13 maternity colonies represent 15% of the known Indiana bat maternity colonies in Indiana (n=83) and 5% of the currently known maternity colonies within the range (n=246 colonies; see Table 4). Assuming there may be a total of 2900 maternity colonies throughout the species' range (see Table 5), then these 13 maternity colonies would represent less than one half of 1% (0.45%) of the total number.

Maternity Colony Population Size Estimates

When feasible, emergence counts conducted at roost sites as part of Tier 2 studies were used to determine minimum colony size estimates. Maternity colony size estimates for the nine (9) colonies where estimations were feasible ranged from 11 to 128 bats with an average minimum colony size of 59 bats. Because it is practically impossible, cost prohibitive, and highly disruptive to capture and radio-tag all colony members, locate all of their roost trees and have a large enough field staff to conduct simultaneous emergence counts at every roost trees, **the Service has decided to conservatively assume that each maternity colony is comprised of 80 adult females and their single offspring**. **This would result in a maximum of 160 bats per colony by mid- June when the young are born and when they become volant (i.e., capable of flight) around mid-July.** The Service believes an 80-adult female colony size is a reasonable assumption based on the minimum colony estimates generated during I-69 Tier 2 studies, other Indiana bat studies within Indiana, and the concurrence of other Indiana bat experts (see Whitaker and Brack 2002). To be conservative towards the bats, we are assuming that 100% of adult females will successfully bear a live pup and that 100% will survive to volancy, which is probably higher than reality, but gives the benefit-of-the doubt to the species. The actual reproductive rate of adult females in each maternity colony is unknown as is the current mortality rate of adults and juveniles.

Because only eight (8) non-reproductive females were captured during the 2004 and 2005 mist net surveys and all of these females were captured within three maternity colony areas in Section 2 (Patoka River, Flat Creek, and Veale Creek), it is likely that they were associated with these colonies. In fact, it was the radio-tracking of some of these "non-reproductive" females that lead to the discovery of the primary and alternate roost trees for the Patoka and Veale Creek colonies. Because, these females were captured late in the summer survey season (August), we assume that they actually had been reproductive earlier in the summer, but could no longer be clearly identified as being such by the biologists. The field biologist that had captured these bats in Section 2 concurred that our assumption was reasonable (pers. comm., with M. Gilley, ESI Inc.,T 2004). **Based on these results, the Service is assuming that all nonreproductive females in the SAA are associated with one of the 13 identified maternity colonies and are thereby being accounted for within the 80 adult females being estimated per maternity colony. Therefore, given the documented presence of 13 maternity colonies in the SAA and an approximate total of 160 females and their pups per colony, then we can assume that there are a combined total of approximately 2,080 (13 x 160 = 2,080) adult females (n=1,040) and juveniles (1,040) within or adjacent to the defined SAA and that variable proportions of the bats in these colonies are likely to be exposed to direct and/or indirect effects from I-69.**

Adult Males within the Summer Action Area

A total of 19 adult male Indiana bats was captured during the 2004 and 2005 mist net surveys within the entire 142 –mile long SAA. Over two-thirds (n=13, 68%) of the 19 males were captured in Sections 4 and 5. This was anticipated, because Sections 4 and 5 contain multiple hibernacula and the majority of male Indiana bats tend to remain relatively close to their hibernacula during the summer. In fact, the majority of the adult males were captured within the boundaries of the WAA. While the exact number of adult males that occur with in the SAA cannot be determined we can make a reasonable estimate of how many may reside within the WAA during the summer by using several logical assumptions. In the winter of 2005, biologists estimated that approximately 74,042 Indiana bats hibernated with the WAA (including 54,325 in Cave + 19,717 from Table 16 of BA Addendum). If we assume a 50:50 sex ratio, then half of these bats or 37,021 should be adult males. If half of these males remain in forested habitat within 5 miles of their hibernaculum (i.e., the WAA), then there would be 18,510 adult male Indiana bats occupying the 143,948 acres of forested habitat ("tree cover" data) within the WAA during the summer, which equates to approximately 0.13 adult males per acre of tree cover (we are assuming an even distribution of male bats within the WAA). For the portion of the I-69 SAA that extends north and south of the WAA (see Figure 4), we will assume the density of adult males is half of what it is within the WAA in summer or 0.065 adult males per acre of forested habitat. Therefore, we assume there is an approximate total of 5,256 adult male bats in the SAA (80,866 acres of forest x 0.065 bats/acre = 5,256 bats).

General Habitat Conditions

According to the Tier 1 BA Addendum, FHWA and INDOT estimated that the representative alignment for I-69 would directly impact approximately 2,148 acres of forest (2048 ac. upland forest and 100 ac. forested wetland) and approximately 20 acres of non-forested wetlands (5 ac. scrub/shrub and 15 ac. emergent). At this point in time, limited or no field studies have been conducted to determine the relative quality or general condition of the forested areas or wetlands (in regards to Indiana bat habitat) that will be directly impacted. We anticipate this type of information

will be included in Tier 2 BAs. Nevertheless, the following generic description of the existing habitat is believed to be representative of much of the project area.

The native forest communities that once dominated the majority of southwestern Indiana are now largely confined to scattered woodlots, especially in the relatively flat, glaciated areas, which largely have been converted to agricultural land uses. Within the species action areas, agriculture, residential and commercial development, and transportation infrastructure have resulted in extensive clearing and construction. Agriculture and forest land uses dominant much of the landscape. In addition, remaining natural habitats (e.g., forests and wetlands) and previously converted agricultural lands are now widely being converted for commercial and residential developments, especially near larger cities such as Washington, Bloomington, Martinsville and Indianapolis. Vegetation adjacent to most rivers, streams, and tributaries that will be crossed by I-69 includes row crops, pasture, old fields, and patches of riparian forest. Within the northern and southern ends of I-69 corridor, much of the relatively high quality wildlife habitat is commonly associated with river and stream corridors and associated strips and small blocks of riparian forests. In addition to riparian forest vegetation, isolated woodlots also occur within the project area and a few larger areas that are managed as forest habitat (e.g., Morgan-Monroe State Forest, Crane Naval Surface Warfare Center). Many livestock pastures, and some grassy and brushy areas with widely scattered mature trees and tree-lined fencerows also provide limited wildlife habitat and potential travel corridors for bats.

Baseline for the SAA and Maternity Colonies

According to an updated version of Table 8 in the Tier 1 BA (provided by BLA), the entire SAA encompasses a total of approximately 462,903 acres (excluding the 13 maternity colony areas), of which 141,915 acres or 31% is forested. Estimated forest cover within each project section is summarized below in Table 6. **The Service will use the forest data summarized in Table 6 as an approximate baseline of currently existing forest habitat available within the entire SAA**, and assume that all of the forest habitat within the SAA, approximately 141,915 acres, is of moderate to high quality for roosting and foraging by Indiana bats. We believe this is a reasonable assumption given that the project is within the core of the Indiana bat's maternity range and that we know from personal observations that many areas of high quality habitat are scattered throughout the 3C corridor.

Table. 6. Estimated amount of forest within the SAA of each Project Section of Alternative 3C of I-69.

Project Section Number	Total Acres within Summer Action Area	Total Forested Acres within Summer Action Area	Percent of the SAA within each Project Section that is Forested	Percent of Total Forest within each Project Section
1	45,985	8,057	17%	6%
2	89,912	18,022	20%	12%
3	80,972	8,718	11%	6%
4	85,755	53,714	63%	38%
5	71,523	33,447	47%	24%
6	88,346	19,957	23%	14%
Totals:	462,903	141,915	31%	100%

Key parameters that may affect the quality of the summer habitat for bats within the action area are the overall percentage of forest cover in a specified area, the size of existing forest patches, and the degree of connectivity among forest patches. Based on a thorough review of literature on Indiana bat summer habitat, Rommé et al. (1995) concluded that areas with less than 5% deciduous forest coverage will not support summering Indiana bats. Localized areas considered as optimal habitat tend to have greater than 30% forest cover. Forest cover within some portions of the 3C corridor already may be too low or too fragmented (e.g., portions of Marion, Johnson, Daviess and Gibson counties) to support maternity colonies. Of the currently known Indiana bat maternity colonies in Indiana that are being actively monitored (apart from the I-69 colonies), only a few are persisting in areas with very low percentages of forest cover (e.g., <15%). In the cases where maternity colonies still inhabit areas with little forest, the remaining forest patches tend to be very well connected (A. King, pers. obs.).

In the Tier 1 BA Addendum, INDOT's consultant, BLA, conducted a detailed GIS data analysis to estimate the current amount of tree cover within a 2.5-mile radius circle centered on each of the 13 maternity colonies discovered during the summers of 2004 and 2005. **The current or baseline acreages (e.g., % tree cover) and conditions of the 13 maternity colonies are summarized in Table 7 of the BA Addendum and are hereby incorporated by reference.** Current total tree cover (5-meter resolution) within each maternity colony was variable and ranged from 1,319 acres (11% of the total area) for the West Fork-Elnora colony in Section 3 to 8,550 acres (68% of the total area) for the Plummer Creek colony in Section 4. Forest core area for each maternity colony ranged from 21 acres (2% of all trees) for the West Fork -Elnora colony to 2,928 acres (34% of all trees) for the Plummer Creek colony. The current number of total tree cover "patches" for each maternity colony area ranges from 53 patches in the Plummer Creek colony to 421 patches in the Pigeon Creek colony. Generally, a higher number of patches translate to more fragmentation and lower connectivity. Few large class patches, with no mid-size patches and then a scattering of very small patches suggests a high level of connectivity.

The majority of the forested tracts within the SAA are privately owned. Some unknown number of Indiana bats occupying private forests is likely to be adversely affected by non-protective timber harvest methods or other activities conducted in a manner that degrades or destroys the suitability of the habitat for Indiana bats. Conversely, we are aware of some State-owned lands and private lands that are being managed in a manner that is believed to be protective of Indiana bats. For example, the Indiana DNR's Division of Forestry manages the Morgan-Monroe and Martin State Forests, which both have parcels within the SAA. The state's Division of Forestry also manages the Ravinia Woods parcel, which was purchased by INDOT in partial fulfillment of meeting its I-69 forest mitigation commitment. The Division of Forestry is currently preparing a Habitat Conservation Plan for all the lands it manages in Indiana. Some level of incidental take of Indiana bats is anticipated on these lands during timber management activities; however, the Service believes that there ultimately will be a net benefit for the species. We assume bat-friendly habitat management also is occurring at the following areas (and will continue) within the SAA: Sugar Ridge Fish and Wildlife Area, Thousand-Acre Woods, Griffy Woods Nature Preserve, Bean Blossom Bottoms Nature Preserve, and Blue Bluff Nature Preserve. Similarly, we know bat-friendly forest management occurs at Crane and that all activities on the Patoka River National Wildlife Refuge are conducted in a manner that is protective of Indiana bats and many actions benefit the bats.

Ongoing Stressors in the SAA

The Service believes the following State, local, and private actions are currently occurring within the Action Areas and are likely to be adversely affecting some percentage of Indiana bats to variable degrees, and are likely to continue into the reasonably foreseeable future.

- Loss and degradation of roosting and foraging habitat – variable amounts of private and public, commercial and residential developments are converting, fragmenting, or otherwise degrading forest habitat available for roosting and foraging, especially near larger urban centers and along primary and heavily traveled secondary roadways and their main intersections. Most of the forest within the SAA is privately owned by numerous individuals and entities and some unknown proportion of this habitat may be managed in a manner that degrades the quality or completely eliminates the habitat.
- Commercial and private timber harvesting – Because some private timbering likely occurs on private lands within the SAA while bats are roosting in trees between 15 April and 15 September, some unknown number are exposed to this stressor and may be directly killed, harmed, or displaced as trees are felled in the summer.
- Cutting of Snags - While most primary and many alternate roost trees are dead snags that are ephemeral/short-lived, some small proportion are likely to be cut down before they would naturally fall in order to provide firewood, to improve aesthetics, or to reduce the risk of a dead tree from falling and hurting someone/thing (i.e., hazard tree).
- Degraded water quality – Point and non-point source pollution and contaminants from agricultural, commercial, and residential areas are likely present in waterways within the Action Areas and may reduce aquatic insect biomass that form a portion of the Indiana bat prey base and/or have direct or other indirect adverse effects on the bats themselves (e.g., females may have reduced reproduction in heavily contaminated areas).

Baseline for the Winter Action Area

Indiana bat spring-staging, fall-swarming and winter hibernacula habitat requirements are described in the **Life History** section of the biological opinion. Detailed information about each hibernaculum in the WAA is contained in the Tier 1 BA and Tier 1 BA Addendum and is hereby incorporated by reference. Indiana bats are dependent on suitable caves for hibernation during the winter and the forested habitat that surrounds them, which they use for foraging and roosting during the fall swarming and spring staging periods. The INDOT conducted intensive field surveys for Indiana bats at the numerous potential (i.e., previously undocumented) hibernacula (caves and tunnels) within 5-miles of the 3C corridor during the Tier 2 studies. The detailed results of these surveys are summarized in the Tier 1 BA Addendum and are hereby incorporated by reference. The primary findings are summarized below.

Of the 60 potential hibernacula surveyed during the winter of 2004/2005, a total of 32 Indiana bats were observed at three (3) different caves. One Indiana bat was observed at Cave, 28 at Cave, and three (3) at Cave. Cave and Cave are considered new hibernacula and were not originally included in those listed in the Tier 1 BA. Cave is considered part of the Cave System, which was one of the original hibernacula included in the Tier 1 BA. Of the 16 potential hibernacula surveyed in the winter of 2005/2006, one (1) Indiana bat was observed at So, is now considered a new hibernaculum as part of this study.

Of the 60 caves surveyed during the fall swarming period in the autumn of 2004, a total of 17 Indiana bats (3 female and 14 male) were captured at eight (8) different caves. Indiana bats were captured at Cave, Cave, Cave, Cave (Cave System), Cave, Cave, and Cave. Of the eight caves surveyed in the spring of 2005, no Indiana bats were captured. Of the 16 caves surveyed during the autumn of 2005, a total of four (4) Indiana bats (all male) were captured at two (2) caves. Indiana bats were captured at and Cave.

Hibernating Populations

Because Indiana bats form rather conspicuous clusters on cave ceilings while hibernating, bat biologists are able to obtain remarkably accurate estimates of winter populations within most hibernacula and thereby track population trends over time. The Service assigns each Indiana bat hibernaculum a "priority number" between 1 and 4 based on the number of bats that they shelter and their relative importance towards recovery. These priority numbers are defined below.

Priority 1 (P1): Essential to recovery and long-term conservation of *M. sodalis*. Priority 1 hibernacula typically have (1) a current and/or historically observed winter population ≥ 10,000 Indiana bats and (2) currently have suitable and stable microclimates (e.g., they are not considered "ecological traps"). Priority 1 hibernacula are further divided into one of two subcategories, "A" or "B", depending on their recent population sizes. Priority 1A (P1A) hibernacula are those that have held at least 5,000 or more Indiana bats at some point during the last decade (e.g., must have had 5,000 or more hibernating bats since 1995). In contrast, Priority 1B (P1B) hibernacula are those that have sheltered ≥ 10,000 Indiana bats at some point in their past, but have not contained half that many (i.e., 0 – 4,999 bats) during surveys conducted over the last decade.

Priority 2 (P2): Contributes to recovery and long-term conservation of *M. sodalis*. Priority 2 hibernacula have a current or observed historic population of 1,000 or greater but typically less than 10,000 and an appropriate microclimate.

Priority 3 (P3): Lower contribution to recovery and long-term conservation of *M. sodalis*. Priority 3 hibernacula have current or observed historic populations of 50 - 1,000 bats.

Priority 4 (P4): Least important to recovery and long-term conservation of *M. sodalis*. Priority 4 hibernacula typically have current or observed historic populations of less than 50 bats.

In 2003, only 10 Indiana bat hibernacula were known to occur within the WAA and were included in the original Tier 1 BO. As a result of the recent discovery of 3 new hibernacula during Tier 2 surveys and the discovery of another hibernaculum by the Service and the IKC, and with the inclusion of Cave, the total number of known Indiana bat hibernacula within the WAA now stands at 15. The 15 caves forming the basis of the WAA include nine (9) caves in western Monroe County - and caves, four (4) caves in eastern Greene County – and and two (2) caves in northwestern Lawrence County – and caves.. **These 15 known Indiana bat hibernacula located within the WAA sheltered a combined total hibernating population of 74,042 Indiana bats in 2005/2006** (Brack et al. 2005, Andy King per. comm.). Therefore, the 2005 WAA population represented approximately 36% of all the Indiana bats hibernating within the State of Indiana in 2005 (n = 206,610) and 16% of the range-wide population estimated to be 457, 374 bats in 2005 (U.S. Fish and Wildlife Service, unpublished data, 2006). **The Service considered the 2005 population data**

for each hibernaculum individually and collectively (74,042 bats) as the baseline for the Indiana bat population within the WAA. Population numbers and trends for individual caves within the WAA are available in Table 16 of the Tier 1 BA Addendum.

Two of the hibernacula within the WAA, (P1A) and (P1A) caves, which are located in close proximity to one another, have exhibited a dramatic increase in their hibernating populations of Indiana bats since detailed surveys have begun. In 1960, Cave only had 9 Indiana bats and Cave had 200, but nearly each survey year since then, these two caves have shown steady population increases. Surprisingly, between the 2001 and 2003 winter surveys, these two caves nearly doubled their winter populations with Cave going from 6,395 bats to 10,675, and Cave going from 5,419 bats to 10,338. In 2005, with a combined population of 19,145 bats, and caves sheltered 25.8 % of the Indiana bats that hibernated within the WAA in 2005. Most of the other hibernacula within the WAA have remained relatively stable or experienced population declines in recent survey years.

In the winter of 2005, Cave (P1A) held an estimated 54,325 Indiana bats making it the largest hibernating population in the WAA and the second largest hibernaculum in the entire range of the species. It was only surpassed by Cave (P1A) in Crawford County, Indiana, which held 54,913 bats in 2005. The 15 hibernacula within the WAA collectively held a total of 74,042 Indiana bats, which is approximately 16% of the known range-wide population. It is not known how much, if any, inter-cave movement occurs among hibernacula in the WAA between years, but movement between Cave and and has been recorded (Hall 1962) and exchanges between and are suspected.

Winter populations of Indiana bats in the State of Indiana declined from 1981 (148,000) to a low of 99,202 in 1985 before reaching a new recorded high of 206,610 bats in 2005 (USFWS, unpublished data, 2006. State-wide surveys of hibernacula in Indiana in 2005 revealed an increase of approximately 23,278 Indiana bats or a 13% increase over the 2003 population of 183,332 bats (Brack et al. 2003, USFWS, unpublished data, 2006).

Five of the 15 WAA hibernacula are located within the Garrison Chapel Valley (GCV), which is a well known karst area containing many large caves and springs in western Monroe County. and caves are the most important hibernacula in the GCV, both are Priority 1A hibernacula and are less than ½ mile apart (Dunlap 2001). In addition to its large Indiana bat population, Cave also has the highest population of little brown bats (*Myotis lucifugus*) of any cave in Indiana (n = 2363 little brown bats in 2003; Brack et al. 2003). The other three hibernacula in GCV, Cave, Cave System, and Cave, are Priority 3 hibernacula, but their current winter populations are all less than 200 Indiana bats. and caves seem to show similar trends with populations increasing in the 1990s and then showing quick declines in the late 1990s and 2000s. and show similar trends of sharp declines after the 1980s. Cave has shown little to no use in surveys since 1987. Most of the population declines in the Indiana bat hibernacula within the WAA are attributable to repeated human disturbances during the winter (Brack et al. 2003), but the sudden drop in Cave between 1987 and 1989 suggested a single significant disturbance (shotgun blast, entrance room campfire, etc) may have greatly reduced the hibernating population in this cave (Dunlap 2001).

Cave (P4) had a small population in the 1990s that declined to only 3 bats in 1999 and had 0 bats in 2005. Cave (P3) and Cave (P3) both seem to show trends of relatively stable populations, although Cave showed a dramatic decline in 2001 and a recovery in 2003 surveys (Brack et al. 2003). Cave (P4) was documented as a newly discovered hibernaculum containing 34 Indiana bats 2003 and 17 Indiana bats in 2005. Although the entrance to Cave is gated, the gate is not a bat-friendly design and may be lowering the cave's suitability as an Indiana bat hibernaculum. The gate's opening is much smaller than the original cave entrance and it appears to restrict the cave's potential air flow and may be causing flying bats to slow down while negotiating the gate and thus increasing their risk of predation by domestic cats and other animals (per. comm. with cave owner).

and caves are all recently discovered Priority 4 hibernacula that collectively only held 55 Indiana bat in 2005.

Available Swarming/Staging Habitat

INDOT's consultant, BLA, estimated the amount of tree cover within a 5-mile radius of 14 of the 15 (not calculated for which only had 1 bat) known Indiana bat hibernacula in the WAA and within the collective boundaries of these hibernacula, which comprise the overall WAA. These estimates were derived from aerial photos and provide a good indication of the quantity of foraging and roosting habitat that is currently available to bats during the swarming and staging periods. The estimates were presented in Table 18 of the Tier 1 BA Addendum and are hereby incorporated by reference. The total area within a single circle having a 5-mile radius is 50,240 acres or 78.5 square miles. The tree cover estimates around individual hibernacula ranged from a low of 25,763 acres around Cave to a high of 32,632 acres of tree cover around Cave. Therefore, percentages of forest ranged from 51% to 65% of the land within 5 miles of each cave. Collectively the revised WAA (including Cave) encompasses approximately 238,954 acres in western and southwestern Monroe, eastern Greene, southeastern Owen, northwestern Lawrence, and northeastern Martin counties (Figure 4) of which approximately 60% (143,948 acres) is forest.

A separate analysis of swarming habitat surrounding each of the10 caves where small numbers of Indiana bats were captured during the falls of 2004 and 2005 was not deemed warranted and therefore was not conducted. If a 5-mile buffer had been placed around these caves, the majority of the area would already be contained within the currently delineated WAA and therefore are mostly captured in calculations for the total WAA.

The vast majority of forested tracts within the WAA is privately owned and may be vulnerable to timber extraction or other activities that may degrade or destroy the suitability of the habitat for Indiana bats. At this time, we are aware of two large forested parcels totaling 543 acres that are providing high-quality swarming habitat to the bats hibernating in the caves in the Garrison Chapel Valley in Monroe County and will remain forested in perpetuity. One parcel is enrolled in the Federal Forest Legacy program and the other has been voluntarily placed under a conservation easement held by the Sycamore Land Trust. Purchase of a third forested parcel containing and caves is actively being pursued at this time by the Indiana DNR with the aid of Federal and state funds.

A minimum threshold or optimum amount of surrounding swarming/staging habitat has yet to be defined for Indiana bats. However, we assume that Indiana bats are more likely to have their foraging and roosting needs met if their hibernacula are immediately (the closer the better) surrounded by large, relatively undisturbed contiguous tracts of mature and overmature forest as opposed to being surrounded by only small, highly fragmented woodlots, interspersed with agricultural, commercial, and residential areas. Additional habitat parameters that may be more indicative of the swarming/staging habitat's quality and degree of connectivity were included in the BA Addendum.

Ongoing Stressors in the WAA

The Service believes the following State, local, and private actions are currently occurring within the WAA and are likely to be adversely affecting some unknown percentage of Indiana bats to variable degrees, and are likely to continue into the reasonably foreseeable future.

- Repeated human disturbance of hibernating bats – primarily caused by local and regional, organized recreational cavers, spelunkers, and vandals. Fourteen of the 15 hibernacula in the WAA are privately owned caves, only Cave is on state-owned land. and caves are being specifically managed to protect hibernating Indiana bats via a private lease held by the Indiana Karst Conservancy. Only three of the 15 caves are currently gated or fenced to prevent unauthorized human visitation.
- Loss and degradation of swarming/staging habitat – commercial and residential development are slowly encroaching upon many of the hibernacula, especially those close to the west side of Bloomington and are reducing the overall amount of forest cover available for roosting and foraging. Fortunately, hibernacula and surrounding forests in Monroe County receive some level of protection under the county's current zoning ordinances and the required timber harvest permits required by the Monroe County Planning Department. There is no zoning or oversight of timber harvests in Greene or Lawrence counties. Because, the vast majority of the remaining forest within the WAA is privately owned by numerous individuals and entities, some proportion of the forest land may be vulnerable to activities that could temporarily or permanently degrade or destroy the suitability of the habitat for Indiana bats.
- Degraded water quality – Some private residential developments with faulty septic systems are likely to be introducing untreated residential sewage into underground streams that may flow through some of the hibernacula and eventually resurface at springs, reducing aquatic insects and a portion of the Indiana bat prey base.
- Commercial and private timber harvesting –Because some unquantified number of large and small timber harvests occur within 5-miles of hibernacula while bats are roosting in trees between 1 April and 15 November some unknown number may be directly taken as the roost trees are felled.

Bald Eagles in the Action Area (not revised since Original BO)

No previous section 7 formal consultations involving bald eagles have been conducted within the boundaries of the Bald Eagle Action Area established for Alternative 3C of I-69, however, the Service has conducted informal consultations in similar eagle habitat elsewhere in the state. Bald eagle habitat requirements are described in the **Life History** section of the biological opinion.

Most of the bald eagles nesting within Indiana today are the result of a successful eagle restoration project conducted from 1985 to 1989 by the Indiana DNR's Nongame and Endangered Wildlife Program. Over this five-year period, 73 bald eagle chicks were hacked and released at Monroe Reservoir in Monroe County. When the released eagles reached adulthood at four to five years of age, many returned to nest within 50-100 miles of where they had fledged. Most nests are located in south central Indiana and are found on larger reservoirs and along the Wabash and White River. Indiana's first successful bald eagle nest in this century was in 1991 at Lake Monroe. The state's last successful nest before then was in 1897. By that time Indiana had lost most of its once extensive wetland habitat and in the 1950's and 60's eagle populations decreased further as they failed to reproduce due to egg shell thinning caused by pesticides, such as DDT. As of March 2003, there were 37 reported bald eagle nests within the southwestern portion of the Indiana. Some of these nests may serve as winter use sites too. Twenty-three of the 37 nest sites were also used by eagles in 2002.

Midwinter bald eagle surveys conducted since 1979 have shown a dramatic increase in wintering eagles in the state. During the Midwinter Eagle Survey in January 2003, 145 bald eagles were counted, 29% below the count for 2002 and 48% fewer than the record of 280 in 2001. However, this is only 5% below the average of the past 10 years. The low number counted in 2003 is attributed to a lack of sustained cold weather prior to the survey, resulting in fewer numbers of eagles moving south (Castrale and Holbrook 2003). Bald eagle research in Indiana by the IDNR Non-game Wildlife Program is ongoing and includes winter surveys by helicopter, monitoring of bald eagle nests, and banding of young bald eagles.

Nesting and Wintering Areas within or near the Action Area

No known nests are currently located within the Bald Eagle Action Area. However, nests in two areas are less than a mile of the Action Area boundary.

1. The first nest is located on the West Fork of the White River near Waverly in Morgan County. This nest was first reported in 2002. If standard disturbance management zones are implemented around this nest (USFWS 1983a), the tertiary zone would likely overlap a portion of the Action Area's outer limit, which follows S.R. 37 in this project section.
2. The second nesting area is located near the South Fork of the Patoka River, east of the proposed I-69 bridge crossing in Gibson County. Two bald eagle nests are located in this area and were first reported in 2001 and again in 2002, and 2003. The two nests are less than 1,500 feet from one another, and are assumed to be within the breeding area of a single pair of eagles. Both nests are on Federal land managed by the Service's Patoka River National Wildlife Refuge staff. The proposed 3C corridor is just over 1 mile from the tertiary zone boundaries of both nests or just outside of the Bald Eagle Action Area.

Although bald eagles could potentially nest in different forest, wetland or riparian areas within the Action Area, the most likely nesting areas are near the proposed crossings of the Patoka River and the East Fork of the White River and in the areas where 3C Corridor closely approaches the West Fork of the White River (project sections 2, 5, and 6; Figures 2 and 3). Likewise, most of the wintering bald eagles should be concentrated in these same areas.

No bald eagles nested near the proposed I-69 crossing of the East Fork of the White River in 2003. In 2002, the nearest reported nest on the East Fork was about 8 miles upstream from the proposed

crossing. Also, there was a reported nest just over 10 miles west of the proposed crossing on the mainstem of the White River, downstream from the proposed I-69 crossing.

Ongoing Threats

The Service believes the following State, local, and private actions are likely to be occurring to some bald eagles or their habitat within or near the Bald Eagle Action Area, and that these activities may be adversely affecting them to some degree and are likely to continue into the reasonably foreseeable future.

- Disturbance of eagles while nesting, foraging, and perching/roosting – eagles are often disturbed visually and/or by load noises from various sources such as motorized watercrafts, all-terrain vehicles, road traffic, farm machinery, chainsaws, and gunshots.
- Degradation of water quality/prey base - Point and non-point source pollution from things such as agricultural pesticides, soil erosion, road salt, livestock waste, and commercial, industrial, and residential wastes all reduce aquatic diversity and abundance including fish that form a large portion of the bald eagle's prey base.
- Loss of bottomland and riparian forest habitat –As a result of expanded agricultural, industrial, commercial, and residential developments and timber harvests within the floodplains of large rivers.

IV. EFFECTS OF THE ACTION

While analyzing direct and indirect effects of the proposed action, the Service considered the following factors:

- proximity of the action to known species locations and designated critical habitat,
- distribution of the disturbances and impacts (in this case a linear corridor),
- timing of the effects in relation to sensitive periods in the species' lifecycle,
- nature of the effects – how the effects of the action may be manifested in elements of a species' lifecycle, population size or variability, or distribution, and how individual animals may be affected,
- duration of effects - short-term, long-term, permanent,
- disturbance frequency - number of events per unit of time, and
- disturbance severity - how long would it take a population to recover?

INDIANA BAT

The original discussion of the direct and indirect effects of I-69 from the original BO has been moved from this location and placed in **Appendix A**. This discussion is still valid, but was placed in an appendix to improve clarity and flow of the revised BO.

New Effects Analysis

Because much more detailed information and data are now available for analysis, we were able to conduct a much more thorough and rigorous effects analysis for the Indiana bat for this revision to the BO. For this revision, we deconstructed I-69 into its various project elements and determined the direct and indirect environmental consequences that Indiana bats would be exposed to. We conducted various exposure analyses for each project activity that may directly or indirectly affect

the bats and outlined the likely responses of the bats and their local populations to each of these potential stressors. Our primary focus was placed on the 13 maternity colonies in the SAA and the 15 hibernacula in the WAA. We determined which of the project-related stressors was likely to result in take of Indiana bats and conducted a detailed incidental take analysis for bats in both the SAA and WAA. The results of our effects and incidental take analyses are summarized in a series of five tables (Tables B1-B5) presented in **Appendix B**. Please review each of these tables for further information. Only key findings of these effects analyses are discussed in greater detail below.

Stressors

The primary, project-related stressors that we determined Indiana bats were likely to be directly or indirectly exposed to that were also likely to cause some level of incidental "take" included:

- I-69 Direct Impacts/Loss of Roosting Habitat (seasonal cutting restrictions observed so no direct killing anticipated),
- I-69 Direct Impact/Loss of Foraging Habitat/Connectivity,
- Construction Noise/Vibrations causing bats to stress and flee roosts, with increased risk of predation (while bats are present in adjacent areas),
- Disturbance & Habitat Loss associated w/ Demolition and Relocation of 390 Homes & 76 Businesses (no timing restrictions),
- Habitat loss from I-69 related Utility Relocations (no timing restrictions/bats may be present),
- Additional High-speed traffic in Action Area leading to Roadkill,
- I-69 Indirect/Induced Loss of Roosting and Foraging Habitat (no restrictions/bats present)
- Increased Levels of Disturbance/Vandalism of Bats in Vulnerable Hibernacula

Other potential project-related stressors that bats may be exposed to, but are not anticipated to cause incidental take because of their insignificant or discountable effects are listed in Table B1 in Appendix B.

Responses of Exposed Bats to Stressors

With an understanding of how, when, and where Indiana bats will be exposed to the proposed action, we then determined whether and in what manner these individuals are likely to respond after being exposed to the proposed action's effects on the environment or directly on the Indiana bats themselves. To accomplish this, we asked "How will Indiana bats likely respond after being exposed to the effects of the proposed?" Our analysis entailed identifying the range of possible responses Indiana bats could exhibit as a result of being exposed to the project-related stressors (see Table B1 in Appendix B). To ensure a thorough analysis of effects, the range of probable responses, not just the most deleterious, for each exposure pathway were identified. As is true in humans, bats typically demonstrate some degree of individual variability as seen by their range of

responses to various stimuli. Therefore, accurately predicting how a generic, individual Indiana bat may or may not respond to a stressor is an inherently difficult task with little scientific literature available for guidance. Nevertheless, relying heavily on our personal knowledge of the species and general biological principles and logic, we identified the following range of responses of individuals and their local populations during or after exposure to project-related stressors:

0. no response
1. startled: increased respiration/heart rate
2. **death/injury of adults and/or offspring**
3. **flees from roost during daylight / ↑predation risk**
4. abandons roost site(s)
5. abandons foraging areas
6. shifts focal roosting and/or foraging areas
7. **↑ energy expenditures / ↓ fitness (short-term)**
8. ↓ energy expenditures / ↑ fitness (long-term)
9. **aborted pregnancy/repro. Failure**
10. **↑torpor, delayed development/partuition, and/or delayed sexual maturation of offspring**
11. **short-term ↓ colony reproductive rate (3-4 seasons)**
12. **short-term ↓ in colony/hibernaculum size (3-4 seasons)**
13. long-term ↑ colony reproductive rate
14. long-term ↑ in colony/hibernaculum size/fitness level
15. **long-term ↓ in colony/hibernaculum size/fitness level**

Response numbers 2, 3, 7, 9, and 10 are in bold because we anticipated that these negative responses are likely to rise to the level of take (as defined in the ESA) of one or more exposed Indiana bats in the action area. Similarly, Responses 11, 12, and 15 are the negative responses to local populations that would result from take of individual bats.

Please see Table B1 in Appendix B, which identifies the specific behavioral and physiological responses of individuals and the demographic responses of local maternity colonies/hibernating populations that we anticipate will occur for each of the project-related activities.

Analysis of Stressors Causing Take of Individual Bats

Loss of Roosting and Foraging Habitat - Because potential roost trees within the I-69 footprint will be cleared while bats are absent (between 15 September and 15 April), we do not anticipate any direct mortality from the felling of these trees. However, a few individual females from each of the 13 maternity colonies may be taken once they return to their traditional roosting areas the following season and find that their primary or alternate roost tree is gone. Given the locations of the known roost trees, we have generally assumed that no primary maternity roost trees (i.e., roost trees used by ≥ 30 adult females and or their offspring on multiple occasions) are likely to be directly felled during the construction phase of I-69 (Table B3, Appendix B). However, we do believe it is reasonable to assume that between one to ten occupied alternate roost trees typically containing far less than 30 bats may be felled and lead to the death or injury of some proportion (but not all) of the bats as a result of I-69 induced growth and/ or the relocation of those people displaced by the interstate.

Because the footprint of this transportation project is primarily linear in shape, losses to any one patch or areas of important habitat (e.g., maternity colony area or hibernacula swarming areas) are automatically minimized. For most maternity colonies and hibernacula areas it appears that I-69 would not directly or indirectly eliminate a significant amount of the existing forest cover nor would it create a permanent barrier to movement among forest patches. (see Table B2 in Appendix B).

Because maternity colonies and individual male Indiana bats commonly shift their use among multiple roost trees it is assumed that some unoccupied roost trees will be felled as well. In this case no direct adverse effects or take will occur, but some indirect adverse affects could still stress some Indiana bats to the point where take is reasonably certain to occur. For example, it is possible that the majority of the alternate roosts trees being used by one or more of the13 maternity colonies are located within or near some of the proposed interchange areas and as a result a large proportion of such a colony's alternate roosts (assuming primaries will remain standing) may be felled. Loss of multiple alternate roost trees would cause displaced individuals to expend increased levels of energy while seeking out replacement roost trees. If this increased expenditure occurred during a sensitive period of a bat's reproductive cycle (e.g., pregnancy) it is assumed that spontaneous abortion or other stress-related reproductive delays or losses would be a likely response in some individuals, particularly those that may have already been under other environmental stresses or perhaps stressed by other project-related stressors (e.g., increased noise levels). It has been hypothesized that these stresses and delays in reproduction could also cause lower fat reserves and ultimately lead to lower winter survival rates (USFWS 2002). For example, females that do give live birth may have pups with lower birth weights or their pups may have delayed development (i.e., late into the summer). This could in turn affect the overwinter survival of the young-of-the-year bats if they enter fall migration and winter hibernation periods with inadequate fat reserves.

Noise, Tree Felling, and Predation Risk – Most noise generated from project-related construction activities will likely occur during daylight hours when Indiana bats are roosting in trees. Unfamiliar noises from the operation of chainsaws, bulldozers, skidders, trucks, etc. are likely to occur in relatively close proximity to occupied primary and alternate roost trees during the summer reproductive season. The novelty of these noises and their relative volume levels will likely dictate the range of responses from individuals or colonies of bats. At low noise levels (or farther distances), bats initially may be startled and have increased respiration/heart rates, but they would likely habituate to the low background noise levels. At closer range and louder noise levels (particularly if accompanied by physical vibrations from heavy machinery and the crashing of falling trees) many bats would probably be startled to the point of fleeing from their day-time roosts and in a few cases may experience increased predation risk. Because the noise levels in construction areas will likely continue for more than a single day the bats roosting within or close to these areas are likely to shift their focal roosting areas further away or may temporarily abandon these roosting areas completely. Callahan (1993) noted that the likely cause of the bats in his study area abandoning a primary roost tree was disturbance from a bulldozer clearing brush adjacent to the tree. Female bats in Illinois used roosts at least 1640 ft (500 m) from paved roadways (Garner and Gardener 1992). Very low bat usage close to Interstates has also been noted by other bat biologists (Whitaker, Jr. per. comm.). Conversely, some bats did use roosts near the I-70/Indianpolis Airport area, including a primary maternity roost 1,970 ft (0.6 km) south of I-70. This primary maternity roost was not abandoned despite constant noise from the Interstate and airport runways, however; their proximity to the Interstate could also have been due to lack of more

suitable roosting areas and furthermore the noise levels from the airport were not novel to the bats, so they had apparently habituated to them (USFWS 2002).

We also assume that some bats that would be startled by the noise and vibrations coming from a chainsaw would successfully exit their roost trees prior to the tree being felled. Bats that remained in a roost tree and survived the initial felling would likely try to crawl and fly away from the immediate area, but being unaccustomed to flying during the daytime and likely injured or disoriented from the fall, would likely have a relatively high risk of predation from diurnal predators. Bats that successfully flee the disturbance uninjured would not be expected to return to that area and would likely shift their focal roosting (and perhaps foraging) area at least temporarily. We assume that any surviving young that were still nursing and non-volant (i.e. to young to fly) would soon die if their lactating mothers were directly or indirectly killed by a felled roost tree during the middle of the maternity season.

Roadkill - We anticipate that bat-auto collisions (i.e., roadkill) on the proposed interstate would be the single largest cause of take to Indiana bats (both male and female) within the Summer Action Area (n=126 bats over 17 years) and the second leading cause of take in the Winter Action Area (See Tables B4 and B5 in Appendix B). However, because we anticipate that the total amount of take will be evenly spread over a projected 17-year period of time, we anticipate that the annual amount of take for any given maternity colony or hibernating population will be insignificant. For example, we have conservatively estimated the risk of roadkill for each colony of 160 bats has a 0.05% chance of take over the course of 17 years, which is equivalent to 8 bats per colony. Likewise, this amount of roadkill is insignificant at the regional or species level.

Increased Risk of Disturbance/Vandalism of Bats in Vulnerable Hibernacula - Because I-69 is anticipated to induce indirect development and thereby increase the human population within the WAA and will provide improved, convenient accessibility to people that live outside the WAA (e.g., via the proposed Greene/Monroe countyline interchange), we believe it is reasonable to assume that a small proportion of these "new" people will want to explore the caves in the area and will thereby increase the inherent risk of disturbing hibernating Indiana bats within caves that are currently unprotected (i.e., ungated and/or unfenced). Therefore, we have estimated that this increased risk is equivalent to a taking of 1% of the 2005 winter population of each unprotected hibernaculum within the WAA at some point(s) after I-69 becomes operational through the year 2030 (see Appendix B, Table B5). This scenario also assumes that the owners of vulnerable hibernacula will not allow their cave(s) to be gated (this is a reasonable assumption in itself given previous failed attempts at at least one important cave). In a reasonable worst-case scenario an unauthorized visitor(s) or vandal(s) would enter a hibernaculum and directly or indirectly kill/take (e.g., direct, physical contact with bats is not required for arousal to occur and essential fat reserves to be depleted and subsequently leading to starvation) hundreds of Indiana bats. While this scenario could still occur with or without I-69, we believe that it is more likely to happen with the proposed interstate and interchanges in place (i.e., overall improved accessibility). However, the Service believes it is extremely unlikely (i.e., discountable) that I-69 would cause an increased risk of someone physically altering or vandalizing unprotected caves to the degree that they would no longer remain suitable habitat. Typically, the worst physical alterations to the caves themselves are likely to be an increased prevalence of spray-painted graffiti and trash.

Insignificant and/or Discountable Stressors to Individual Bats

Short-term Water Quality Impacts - Water quality affects the Indiana bat in the Action Areas in terms of its aquatic insect prey and drinking water sources. In general, the streams in the Action Areas exhibit a wide variety of aquatic habitat types and associated species. The project area has many ephemeral and perennial streams with narrow riparian areas that will be crossed by I-69. There is some potential for sediment to move down the ephemeral channels into intermittent and perennial streams after rainfall events. Removal of vegetation during or after grading activities could potentially cause short-term adverse effects on the hydrologic characteristics and water quality in a watershed. A reduction in vegetative cover could potentially increase water yield and stream discharge; changes in vegetation cover could alter normal nutrient cycles in both terrestrial and aquatic systems, and use of temporary access/construction roads and trails during the construction phase could cause soil erosion leading to sedimentation. Potential effects from removal of vegetation and soil disturbance would be temporary. Proposed soil erosion and sediment control measures such as riparian vegetative buffer strips, equipment limitation zones, contouring for drainage control, outsloping roads, and providing waterbars, mulching, and seeding would be implemented and greatly reduce water quality degradation. Finally, some small potential exists for accidental fuel/oil spills or spills of other hazardous materials from chainsaws and heavy equipment during the pre-grading forest clearing phase and related roadwork, which could degrade the quality of both surface and ground water, but given the degree of project oversight, we believe the odds of a large spill occurring and entering a waterway are discountable. Although, water quality could also be adversely affected during a major spill or accident once I-69 is operational, the probability of this not known. These types of impacts will be considered further in Tier 2.

Risks to Local Bat Populations

Maternity Colonies – Bat surveys and radio-tracking studies have documented the presence of 13 maternity colonies, which we are assuming are comprised of 80 adult females and their 80 young (13 colonies x 160/colony = 2080 reproductive female and juvenile bats) in the SAA. We estimated that during the first 20+ years of the I-69 project that a maximum combined total of 281 adult female and juvenile Indiana bats may be taken directly or indirectly taken by project-related activities (see Table B4 in Appendix B). For perspective, even if all of this take were to occur within a single reproductive season (again this is not anticipated), it would only cause a relatively small decline in the estimated annual local breeding population (281/2080 bats = 13.5% loss) within the Summer Action Area. We anticipate that take of these individuals would likely be spread among many of the 13 maternity colonies, not just a few. However, in a worst-case scenario, where all 281 estimated bats were taken from just 6 of the 13 existing colonies, this would still only represent a 30% reduction in each of these colony's memberships. Under no likely scenarios, is the estimated amount of loss/take of reproductive individuals likely to cause an appreciable long-term change in viability of an individual maternity colony let alone to the species' regional or range-wide status. At worst, only short-term (2 or 3 maternity seasons) reproductive loss and reduction in numbers of 13 local maternity colonies is anticipated as a result of the Proposed Action. In none of the maternity areas is the amount of proposed tree clearing or anticipated induced development believed to be extensive enough to cause a maternity colony to be permanently displaced from its traditional summer range. If however, our suppositions are wrong and these maternity colonies are displaced, there is currently additional suitable habitat available in adjacent areas that they could relocate to with minimal effort (personal observations based upon aerial photo interpretations).

Please refer to Tables B2 – B4 for a comparison of anticipated impacts among the 13 maternity colonies. As indicated in Table B3, **despite the direct and indirect impacts from I-69 and other cumulative impacts, the Service believes that all 13 of the maternity colonies should still be able to persist in their current maternity areas (MA), especially if proposed mitigation efforts are successful.** In fact, the Service only has a high level of concern for four out of the 13 colonies in regards to their long-term (50+ years) conservation/sustainability. Based upon our analysis, the colonies that are at greatest long-term risk of becoming non-viable are Pigeon Creek, Veale Creek, West Fork – Crooked Creek, and West Fork – Pleasant Run. We will be taking an especially close look at these colonies during our review of Tier 2 BAs and their mitigation plans to further ensure their conservation.

Pigeon Creek Colony – This colony has a low percentage of existing tree cover (15%) and has the highest acreage of habitat threatened by cumulative effects from development and potential dredging of legal drains. The cumulative impacts (279-acre reduction in tree cover by 2030) are likely the largest threat to this colony at its present location. This colony is located near the intersection of I-64 and I-69 and has a proposed interchange within the maternity area, which will likely hasten further development. No roost trees were found for this colony in Tier 2 field studies. Lots of habitat along Pigeon Creek remains to the east of this MA. We are not aware of any permanently protected forest habitat in this area.

Veale Creek Colony – The 2.5-mile area surrounding this colony currently has low tree cover (15%) and the I-69 representative alignment runs very close to the colony's primary roosting area. This colony is also near the City of Washington and the proposed interchange of I-69 and U.S. 50.

West Fork – Crooked Creek Colony – This colony is located in an area with moderate tree cover (30%) that is highly fragmented and poorly connected. Because this colony is within an easy commuting distance of Indianapolis, cumulative impacts from residential development are very likely here. A new, large golf-course community is currently planned within this area.

West Fork – Pleasant Run Colony – This colony is in a very rapidly developing area along S.R. 37 south of Indianapolis. Although it currently has 19% tree cover, it will likely be threatened by high cumulative impacts in the foreseeable future.

In summary, the following effects are anticipated for the 13 maternity colonies within the SAA:

- Habitat loss will be minimal for all colonies: 10 colonies will lose less than 1% of their tree cover, and the other three will lose 1.4%, 1.5% and 2.9%. So, the total amount of forest loss is relatively insignificant for each colony. It is also unlikely that any maternity area would experience a significant long-term decrease in quality of roosting or foraging habitat as a direct result of I-69 (this will be investigated further in Tier 2).
- Seasonal tree-cutting restrictions will ensure no direct impacts/take occurs from this activity during the maternity colony season.
- Primary roost trees are not likely to be destroyed in 9 of the 13 maternity colonies (Appendix B, Table B3); primary roosts trees were not located for the other 4 colonies, so it is uncertain whether they would be adversely impacted during the winter clearing season.
- All maternity colonies have additional habitat that is available nearby if some bats should become displaced.

- Forest mitigation within each maternity area will insure suitable roosting and foraging habitat persists in these areas in perpetuity.

Although there may be some short-term impacts to individuals, these impacts are not likely to affect a colony's long-term reproduction and survival. Thus, all 13 Indiana bat maternity colonies are likely to persist within the SAA following the I-69 project.

Local Populations of Males– Because adult males (and presumably many non-reproductive females) do not participate in the rearing of offspring, they typically lead solitary lives or in some cases small bachelor colonies during the summer. Because these individuals are not burdened with a dependent young they presumably would be more apt to flee from their roost trees than reproductive females would be when faced with a disturbance. Therefore, it is very unlikely that the felling of an occupied roost tree would ever have more than a few adult males in it at any one time and even more unlikely for take of more than one male to occur per event. We estimated a maximum total of 56 adult males may be taken as a result of the Proposed Action. The potential loss of this relatively small number of male bats will have no measureable or significant impact on the non-breeding Indiana bat population in the Action Areas or beyond.

Hibernating/Swarming Populations – No direct adverse impacts are anticipated to any of the 15 physical cave structures in the WAA that are known to serve as Indiana bat hibernacula. The only hibernaculum that appears to have hydrological connectivity (i.e., groundwater connections) with the proposed I-69 corridor is Cave. This cave is not currently, nor has it been in the past, an important hibernaculum for Indiana bats (i.e., it is a Priority 4 hibernaculum). Cave is prone to flooding and contained no hibernating Indiana bats when it was last surveyed in January 2005 (Brack et al. 2005). The bulk of anticipated take to bats residing in the WAA are likely to be caused by unauthorized, human disturbances of hibernating bats in vulnerable hibernacula and roadkill of foraging bats (would primarily occur during the annual swarming period in late summer and fall). Under the reasonable worst scenarios, the anticipated levels of take for these two threats are not likely to significantly impact the regional populations and would not be expected to jeopardize the species. For example, we estimated that up to 857 Indiana bats may be taken in the WAA over a 17-year period ending in 2030. Even in the extremely unlikely event that all 857 bats died in a single year, this would only amount to a loss of 1% of the WAA's most recent winter population of 74,042 bats. Nevertheless, there is a high degree of uncertainty associated with our estimated amount of take from unauthorized human disturbances/vandalism at vulnerable (i.e., ungated) hibernacula. Therefore, should our assumption of a relatively low level (1% increase) of I-69 induced take prove to be in error for this particular stressor, there could be dire consequences to the species' long-term conservation and recovery. If available, additional information (e.g., current and past levels of unauthorized winter visitation at local hibernacula) will be evaluated in relation to this stressor in Tier 2.

Over 99% of the 74,042 bats that hibernate in the WAA spend the winter in just 3 of the 15 known hibernacula: (73.3%), (12.5%) and (13.3%) caves (i.e., the bat populations in the other 12 hibernacula in the WAA are relatively insignificant). Because, the footprint of I-69 is over 5 miles away from Cave and is 3.9 and 4.5 miles away from and caves (respectively), there will be no direct impacts to these important hibernacula. Similarly, direct and/or indirect impacts to the forested habitat surrounding these hibernacula is <1% of what exists currently.

The “Winter Action Area Hibernacula Analysis” chapter and Appendix B of the Tier 1 BA Addendum should be consulted for more detailed information regarding anticipated impact levels for each hibernaculum and the WAA as a whole. Also, see Table B5 in Appendix B for a summary of anticipated levels of incidental take among the hibernacula in the WAA.

Effects on Habitat Quality

In addition to direct habitat loss, proposed actions may result in a decrease in the quality of remaining habitat within the Action Areas. Factors that may lead to a loss in the quality of remaining habitat include: increased habitat fragmentation; increased human disturbance (e.g., more lighting associated with road improvements, increased traffic and associated noise); foraging habitat over culverted or relocated streams will be poor until the aquatic community becomes established; and water quality in the Action Areas may be negatively impacted, at least in the short term during construction activities, and potentially in the long-term from road salts, and various hazardous materials leaked during traffic accidents. Over time, it is expected that fragmentation of habitat in the Summer and Winter Action Areas will increase as new indirect development occurs. However, as the mitigation plantings mature into suitable Indiana bat habitat this may be partially compensated. The majority of fragmentation to core forests will occur in the large forested tracts of land in Greene and Monroe counties.

Given the nature of the landscape in some portions of the SAA, there would be little potential for existing colonies to relocate if the quality or quantity of habitat in the area could no longer support the colony. The continued survival of a colony in this situation would likely be dependent on maintaining suitable habitat within the action area of the project as is being proposed with the forest mitigation plans.

Increased human disturbance in the project area may affect the quality of summer bat habitat, but these effects are expected to be relatively minor. However, human disturbance within an unprotected Indiana bat hibernaculum could be severe. Some Indiana bats in the Action Areas that have not previously been exposed to artificial lighting, high noise levels and highway traffic may avoid habitat near I-69, but this will probably only be a relatively minor adverse affect of the project.

Insects associated with aquatic habitats make up part of the diet of Indiana bats; therefore, water quality can affect the prey base of the species. Water quality impacts that may result from the proposed project include the relocation of stream channels, increased sedimentation as the result of construction activities, and increased runoff (and associated pollutants) from newly constructed roadways. All currently wooded s stream channels that must be relocated will be planted with hardwood seedlings (legal drains may be an exception), which are expected to stabilize the banks; eventually trees are expected to provide shade to the riparian corridor, a source of woody debris to provide in-stream habitat, and Indiana bat foraging cover. Until these newly relocated channels become established, they will not provide good foraging habitat for Indiana bats. Consultation with the FHWA and INDOT will be ongoing to insure that relocated stream channels produce viable aquatic systems. Aquatic communities will be monitored post-construction and remedial actions will be required if established criteria are not met. Erosion control plans will be implemented during all construction activities. Properly implemented erosion control measures should alleviate short-term sedimentation impacts on the aquatic insect community. We do not have information

that suggests that these water quality impacts will result in a long-term decline in the prey base available to Indiana bats in the project area. However, a short-term decline in insect production is possible, and may exacerbate the issue of lost foraging habitat in the project area.

Effects of Avoidance, Minimization and Mitigation Measures

The FHWA and INDOT have incorporated measures into the proposed project design to avoid, minimize and mitigate the impacts of the project to the extent practical. Proposed avoidance, minimization and mitigation procedures are discussed in the **Revised Tier 1 Forest and Wetland Mitigation and Enhancement Plan** (see Appendix D of the Tier 1 BA Addendum) and the **Conservation Measures** section in this document.

To minimize impacts to bats due to habitat loss, existing forested habitat suitable for Indiana bat foraging, roosting, swarming, hibernating, and staging within the Summer and Winter Action Areas will be identified, and offers to purchase these areas will be made to the land owners, and bought when sellers are willing, and then they will be protected in perpetuity for the primary purpose of Indiana bat conservation. Silvicultural manipulation in these areas will be limited to activities which will enhance the quality of habitat for Indiana bats, as agreed on by the Service's BFO. Areas targeted for permanent protection will generally be of equal or higher quality (i.e., more mature trees) than many of areas that will be cleared for I-69. In addition, areas will specifically be sought that would provide larger forest blocks, and that would protect areas providing connectivity among existing blocks of forested habitat and other areas identified in Tier 2 studies as providing valuable habitat for Indiana bats or serving as travel corridors.

The FHWA and INDOT are proposing to mitigate for the permanent and unavoidable loss of forests (3:1 ratio) and wetlands (ratios in Table 2) within the action areas by purchasing existing habitat, and/or creating, restoring, and enhancing habitat. Based on revised Tier 1 estimates of impacts, the committed mitigation acreage would be up to approximately 6,585 acres. In Tier 2, this number will likely change (probably will be smaller as impacts are anticipated to be smaller). The actual mitigation acres will be determined based on impact acres and the committed ratios which could provide higher or lower mitigation acres than the amounts estimated in the Biological Assessment Addendum. Some mitigation areas will be planted with a mixture of native hardwood seedlings and protected in perpetuity. The goal of the plantings will be to enhance Indiana bat habitat in the long term by providing forested habitat, improving connectivity among blocks of existing habitat, and creating larger blocks of forested bat habitat. The specific sites proposed for plantings will also be located to improve the connectivity of forested habitat within the range of maternity colonies that would be adversely affected by I-69. Improved connectivity of habitat between roosting and foraging areas is expected to improve habitat conditions for Indiana bats. Permanently protected plantings along stream corridors will also benefit water quality in the long term, as the plantings will provide a vegetated buffer that will reduce runoff, and associated sedimentation, from adjoining roadways, commercial/industrial developments, and agricultural areas. In the long term, mitigation plantings will provide a diverse woodland that is well stocked with species of trees that are known to provide Indiana bat roosting habitat. Plantings will be monitored to insure that at least 80% of the initial planting survives; if survival is below 80% five years after planting, then remedial measures will be taken. There will be no manipulation of vegetation (e.g., mowing, timber harvest, timber stand improvement, firewood collecting) in these mitigation areas without consultation with the Service's BFO.

An extensive monitoring and research program is also proposed by the FHWA and INDOT. Therefore, the 13 Indiana bat colonies discovered in the action area during Tier 2 field studies would be studied and monitored the summer prior to and at least 5 summers post-construction, beginning with the first summer following the start of construction. The details of the proposed monitoring plan will be developed in consultation with the Service and finalized during Tier 2 formal consultations for each affected project section.

As previously noted, a colony of Indiana bats in the vicinity of the Indianapolis International Airport has been studied since 1994; this is the longest that any single colony of Indiana bats has ever been studied. The baseline data that are currently available on this colony, in conjunction with the data that is being collected through a 15-year monitoring program, will allow the Service to thoroughly evaluate the response of an Indiana bat colony to habitat disturbance from a major construction activity as well as the effectiveness of the mitigation measures implemented there. The Service intends to use information gained from the airport colony to help guide mitigation and monitoring efforts for any Indiana bat colonies found within the SAA of I-69.

The FHWA and INDOT will also work with the Service's BFO to design an educational poster and interpretive displays about Indiana bats to be placed in rest stops along I-69. The Indiana bat recovery plan (USFWS 1983b) identifies public education on Indiana bats as a priority activity needed for recovery of the species.

Bald Eagle (not revised since Original BO)

Direct Impacts

CONSTRUCTION

- Tree Removal

    - Loss of forest habitat will occur within the Bald Eagle Action Area and may adversely affect some eagles. Although, all of the forest would not be preferred bald eagle habitat, some may be. Three relatively large rivers will either be crossed or approached by the proposed Interstate, the Patoka River and the East and West Forks of the White River. Some tree clearing would occur during construction at the two river crossings. Construction of bridges at these locations will permanently remove some suitable habitat from future use.

      Impacts will be reduced or avoided via proposed conservation measures.

- Known Bald Eagle Nests & Winter Use Sites in Relation to Direct Impacts

    - At this time, there are no known, recorded bald eagle nests within the Bald Eagle Action Area for the proposed project.
    - There are two nests along the South Fork of the Patoka River, near the proposed crossing of the Patoka River. Both nests are most likely within the same breeding area of a single pair of eagles. The nests are on property owned by the Patoka River National Wildlife Refuge. The tertiary zone boundaries for both nests are over 1 mile from the proposed corridor and outside the Action Area for the proposed project.

- There are no nests near the proposed crossing of the East Fork of the White River. The closest nest is approximately 8 miles upstream. The East Fork of the White River in Daviess County is surveyed as part of the IDNR Midwinter Bald Eagle Survey. This area appears to be a relatively unimportant wintering site, with a 10-year average of only 0.6 eagles.

- There are no expected direct effects from construction to individual bald eagle use areas as part of the proposed project. However, updated records checks and bald eagle surveys will be completed as needed. If a bald eagle nest or its associated management zones, or a winter use site are found within the corridor at a later time, individuals of the species could be affected by the proposed project.

OPERATION

- Interstate Traffic
  YEAR ROUND
  - Project operation could cause some number of bald eagle mortalities from vehicular collisions, especially in winter when food is scarce and bald eagles scavenge carrion on roadways. However, it is not anticipated this will be a severe impacts or negatively affect the population of this species. Risks of vehicular collision are influenced by the roadside landcover (forested corridors present higher risk due to limiting avoidance movements) and no bald eagle killed by a vehicle has been reported to INDOT along Indiana Interstates although isolated instances have occurred in the Toll Road District in northern Indiana.
  - Also, increased highway noise and lights, particularly near the crossings of the East Fork of the White River and the Patoka River area, could deter bald eagles from nesting in otherwise appropriate habitat near those areas.

- Increased Public Awareness of Bald Eagles
  YEAR ROUND
  - Public awareness of bald eagles, their life history requirements, and threats to the species is likely to increase as a direct result of educational pamphlets and interpretive displays that FHWA and INDOT have proposed to have designed and plan to distribute/display at public rest stops along I-69.

Indirect Effects

CONSTRUCTION, OPERATION, AND MAINTENANCE

- Induced Commercial and Residential Development

  - Development will occur as a result of the proposed Interstate. It is estimated that approximately 325 - 400 acres of forest and 10 – 30 acres of wetlands will be permanently lost to development that the Interstate will bring. Much of this will not occur in preferred bald eagle habitat, but a small portion may. At this time, it is difficult to estimate the amount of preferred bald eagle habitat that could be lost.
  - Development may result in water quality issues such as erosion, sedimentation, or contamination from pesticides, improperly treated sewage, or other accidental chemical spills all of which could lower the abundance and diversity of fish that bald eagles prey on.
  - Development may bring new utilities and associated power lines. This could potentially increase bald eagle mortalities from electrocution and tower collisions.
  - Increased access to Lake Monroe has the possibility of increasing recreation that could result in more disturbance to eagles using the area.
    If sufficient evidence warrants, recreational use and disturbance to eagles may be investigated further in Tier 2 studies.

- Water Quality

    - Erosion and sedimentation from areas of disturbed soil can degrade water quality, adversely affecting fish bald eagles feed upon. Servicing construction vehicles could cause an accidental chemical spill, and adversely affect water quality. Fugitive dust emissions could adversely affect area quality in the area of construction.
    - Highway accidents could result in a spill of hazardous materials into wetlands, or rivers/streams. Spills could be detrimental to the overall water quality, and in turn adversely affect fish the bald eagle feeds upon.
    - Road runoff may contain salts and chemicals that could degrade water quality and adversely affect the bald eagle food source.
    - Herbicides used in right-of-way and median areas could be ingested by bald eagle prey (fish) and bioaccumulate within the bald eagle.

Impacts will be avoided or minimized by implementing equipment servicing and maintenance guidelines, contaminant spill, erosion-control, and herbicide use plans, following standard construction BMPs, and by installing containment roadside ditches as appropriate.

Discussion of Effects

Based on information to date, a potential adverse affect from this project to individual bald eagles is the risk of death from vehicle collisions during project operation. This risk is influenced by roadside landcover, where forested road corridors pose a greater risk for collisions by limiting an eagle on the roadway to only vertical avoidance movements. Open roadsides better enable eagles to avoid oncoming vehicles by moving horizontally out of the path. To date, no bald eagle has been reported as killed by a vehicle on an Indiana Interstate (other than the Toll Road or I-80/I-90 located in the extreme northeast corner of Indiana). Nonetheless, several have been found along the eastern end of the Toll Road District (INDOT – Chief of Operations Support). Another possible affect from project operation includes risk of water quality degradation from hazardous spills and maintenance chemicals. Water quality directly affects fish, the species' primary food source.

There are no reported bald eagle nests within the Action Area (1 mile on either side of the proposed corridor) of the project. Also, no primary, secondary, or tertiary buffer zones, as detailed in the Northern States Bald Eagle Recovery Plan (1983a), of any reported bald eagle nests intersect the proposed 2000-foot corridor. The Action Area is double the distance of the standard tertiary buffer zone. There are currently three bald eagle nests (two within the breeding area of a single pair of eagles) just over 1 mile from the proposed corridor, one on the West Fork of the White River near Waverly in Morgan County and two along the South Fork of the Patoka River near the proposed crossing of the Patoka River. Construction of the proposed Interstate will be outside any recommended buffer zones needed to be protective of these nests.

Although the USFWS has proposed to delist the bald eagle from the threatened and endangered species list, habitat loss continues to be a concern for the species. The bald eagle will almost exclusively nest near relatively large, open water. Two areas that fit the description of preferred bald eagle habitat will be crossed by the proposed Interstate, the Patoka River bottoms area and the East Fork of the White River. Construction of the bridge at these locations, as well as the disturbance from light and noise from highway use may deter bald eagles from nesting in nearby areas. However, some bald eagles are tolerant of human disturbance, depending on the individual

eagles as well as the time of year. The loss of habitat associated with the construction of the proposed bridge crossings will be minimal and is not likely to adversely affect bald eagles.

FHWA and INDOT will conduct additional, more detailed studies during Tier 2. Section 7 consultation will be conducted for each of the six project sections as part of Tier 2 studies. Bald eagle surveys within the action area will be conducted as part of these studies. If bald eagle nests are found within the action area during the surveys, the projects effects will be reassessed and reflected in a Tier 2 Biological Assessment.

V. CUMULATIVE EFFECTS

Cumulative effects include the effects of future State, tribal, local or private actions that are reasonably certain to occur in the action area considered in this biological opinion. Future Federal actions that are unrelated to the proposed action are not considered because they require separate consultation pursuant to section 7 of the Endangered Species Act.

Cumulative Effects within the Indiana Bat Action Areas

Reasonably foreseeable non-federal activities that are anticipated to occur within both the Summer and Winter Action Areas for the Indiana bat are timber harvest and planned development for residential subdivisions. Various departments and individuals were contacted by INDOT's consultants for such information. They included contacting the surveyor's office, recorder's office, auditor's office, highway superintendents, county and planning officials. In addition, the Tier 1 BA Addendum contained a cumulative effects analysis that used the Regional Economic Models, Inc. (REMI) to calculate projected population and employment changes in each of five economic zones within the I-69 study area for the year 2030. Growth for each region was delegated into Traffic Analysis Zones (TAZs). Figure 10 shows an example of TAZs for the Pigeon Creek Maternity Colony use area. Changes were calculated for both the No Build and the Build conditions. Population changes were converted to acreages by multiplying by a factor of 0.21 to 0.26 acres per household depending upon the region. Employment changes were converted to acreages by multiplying each by a factor of 0.05 to 0.065 acres depending upon the region. These factors were developed for each region based on various housing and commercial/industrial development factors. The No Build condition represents what is expected to occur without the proposed I-69 construction, and represents cumulative impacts in this analysis. The No Build scenario impacts subtracted from the Build scenario is equal to the indirect impacts attributed to I-69. REMI model results will also be used in each Tier 2 EIS indirect and cumulative impacts analysis, however the approach may differ slightly.

Expert land use panels reviewed the REMI model results and either concurred with model results, or suggested adjustments based on their expectations of development. These panels consisted of developers, local city and county planning staff, and economic development personnel.

In addition to cumulative impacts generated by the REMI model, impacts to tree cover from possible legal drain dredging were estimated and included in addition to the model based cumulative impacts. These impacts could potentially occur regardless of the I-69 construction. Legal drains were identified through consultation with county officials as those streams legally

maintained by the county or maintained through privately funded groups. For this analysis, impacts were assumed to be 75 feet from either side of a legal drain. The legal drain impacts represent a "worst-case" scenario for tree cover impacts as not all legal drains are likely to be maintained, and maintenance may not result in impacts on both sides of the stream, or the entire 75 feet.

We typically can not accurately quantify how much forest land on private lands will be converted to other habitat types, the extent of future timber harvests on private lands, nor the amount of privately owned habitat that will be developed for other purposes. However, we can look at the trends state-wide and extrapolate assumptions as to how the private lands within the Action Areas will likely be managed in the foreseeable future.

The following Indiana forest trends were highlighted within the North Central Research Station's 2005 report, "Indiana Forests: 1999-2003, Part A". Trends that we believe may be of a net benefit to Indiana bats have been *italicized* below:

- *There are no major tree die-offs anywhere in the state; natural tree mortality appears evenly across the state.*
- *The ratio of harvested tree volume to tree volume growth indicates sustainable management.*
- *Diverse and abundant forest habitat (snags, coarse woody debris, forest cover and edges) support healthy wildlife populations across the state.*
- *Indiana possesses a diversity of standing dead tree wildlife habitat with an abundance of recently acquired snags to replenish fully decayed snags as Indiana's forests mature***.**
- Indiana's oak species continue to grow slower than other hardwood species.
- The average private forest landholding dropped from 22-acres in 1993 to 16-acres in 2003, indicating a continued "parcelization" of Indiana forests.
- Introduced or invasive plant species inhabit a majority of inventories plots.
- The amount of forest edge doubled from 1992 to 2001, indicating smaller forest plots.
- Due to land use history and natural factors, the forest soils of southern Indiana are generally below-average in quality.
- Although Indiana's overall forested land mass is increasing, the rate of increase has slowed over the past decade.
- *Indiana's forests continue to mature in terms of the number and size of trees within forest stands.*
- Increases in total volumes of oak species are less than those for most other hardwood species.
- The advanced ages and inadequate regeneration of Indiana's oak forests may signal a successional shift from an oak/hickory-dominated landscape to one where other hardwood species, such as maples, occupy more forested areas.
- Indiana's hardwood saw-timber resource continues to be at risk due to maturing of hardwood stands, loss of timberland to development and new pests (gypsy moth, emerald ash-borer, sudden oak death, beech-bark disease, and more).
- Ownerships of Indiana forests have changed in the past decade, resulting in more parcelization and fragmentation.

While the data shows there has been loss of continuous forest, resulting in smaller, fragmented stands, there is also an overall increase in forested land across the state.

Timbering data was requested from the Division of Forestry of the Indiana Department of Natural Resources. Discussions showed that there was no organized method of tracking timbering in any of the counties except possibly Monroe County. The Planning Department of Monroe County disclosed that permits were sporadic and voluntary, and much of the timbering goes undocumented. Thus, field surveys from the mid-1990's to the present were reviewed for a general understanding of timbering activities in the Action Areas. Within the Action Areas, the majority of forests are found in the Crawford Upland, Mitchell Plain, Norman Upland, and Martinsville Hill physiographic regions. These regions include for the most part Greene, Monroe and Morgan counties.

Timbering is limited and sporadic in the Action Areas. Observations throughout many years indicate that cutting is for the most part selective and that much of the timber in the area is second growth indicating past activities. Classified forests are common and many in the Action Areas and allow for the management of timber, especially selective cutting. One area that showed timbering was east of US 231 at Doan's Creek in Greene County. At this location, less than an acre of woods was cut for black walnut. Another area included the timbering of hardwood southwest of Cincinnati in the American Bottoms. Downed trees were abundant and timbering included less than 20 acres. From such observations and discussions with county officials, timbering is not expected to be a major contributor to the loss of woodland within the Action Areas.

Many planned residential subdivisions were investigated to ascertain potential forest losses in the Action Areas. There were approximately 100 plus planned and currently expanding subdivisions still being built within the Action Areas. The bulk of these developments were located in the northern portion of the Action Area just south of Indianapolis, in non-forested areas along SR 37. In the Wabash Lowland Region (i.e., Vanderburgh, Warrick, Pike, Gibson and Daviess counties), forests were for the most part in woodlots surrounded by farm fields. In addition, many of these are forested wetlands and/or in flood prone areas. The majority of the few subdivisions recorded were developed upon previously cleared lands, not forestlands.

In the heavily forested counties of Greene, Monroe, and Morgan, subdivisions were for the most part in developed lands with some exceptions. The major exceptions include the proposed Clifty Hills and Blue Ridge Estates in eastern Greene County and the Stonebridge Club along SR 37 in Morgan County. The development of such properties could potentially take many acres of forest. Other smaller planned subdivisions in Greene County are Lawrence Hollow Estates, Deer Lake, and Green Hills Estates South. These three subdivisions would take much less forested acres.

Monroe County and Morgan County have a number of subdivisions planned; however, many of these are near SR 37 in open lands surrounding the city of Bloomington. Examples of planned subdivisions in Monroe County are Farmers Field Acres, Rolling Glen Estates, Harrell Road Subdivision, and Orchard Estates in the vicinity of Hindustan. In Morgan County, a few examples of planned subdivisions are Turkey Knob, Country Club Woods, The Oaks and the Stonebridge Club. Most of the subdivisions located within the Action Areas take marginal acres of forestland.

Most of the planned subdivisions in the Action Areas were found in open lands of the Tipton Till Plain within Marion County and Johnson County. Some example of planned subdivisions in Marion County are Willingshire Community, Bluffs Subdivision, Bayberry Village, Silver Springs Subdivision, Governor's Pointe Subdivision, Ridgehill Trail Subdivision, and Thompson Meadows

Subdivision. Examples in Johnson County are Shadowood, Woods at Somerset, Smokey Row Estates, Manor at Somerset, Persimmon Woods, and Northridge. Many of these subdivisions were located around existing subdivisions in the area and are part of the Indianapolis metropolitan area.

A review of the potential for loss of forest due to timbering and residential development in the Action Areas showed limited timbering and many planned subdivisions; however, the majority would be located on open lands with limited forestland impacts. The only exception appeared to be Clifty Hill and Blue Ridge Estates northeast of Koleen. Timbering and residential development could potentially remove possible roost and foraging habitat for the Indiana bat. Specific acres of forest loss will be addressed in Tier 2 studies, as needed.

We anticipate decline in bat habitat in some areas of the Summer and Winter Action Areas in the future, although we are not aware of specific development plans in known bat habitat at this time. As we become aware of specific projects, impacts to Indiana bats will be addressed through the incidental take permit process, if appropriate.

Areas set aside for mitigation plantings will protect those areas from development in the short term, and in the long term will provide quality roosting and foraging habitat. These areas will also help to decrease habitat fragmentation, and to improve the potential for colonies of Indiana bats currently using the action area to expand into other areas of suitable habitat. As of August 2006, INDOT had contributed some financial assistance along with the Patoka River National Wildlife Refuge towards the purchase of a key parcel of land containing high quality summer habitat for the Patoka River Maternity Colony of Indiana bats (e.g., INDOT helped to purchase a 20-acre parcel that contained the colony's primary roost tree). INDOT had also installed chain-link fencing beneath the end abutments of one of its large bridges in the SAA to protect Indiana bats that were found roosting there from potential human disturbance/vandalization. Both of these initial mitigation efforts should benefit Indiana bats in those areas and minimize the potential for future take.
With successful implementation of the revised Tier 1 Forest and Wetland Mitigation and Enhancement Plan and all of the other proposed mitigation efforts and conservation measures, we anticipate that long-term habitat conditions for the Indiana bat maternity colonies, individuals and hibernating populations within the action areas will be sustainable and in limited situations may be better than existing conditions. However, because the level of success in implementing the proposed habitat mitigation is largely dependent on the willingness of key private landowners to cooperate with INDOT representatives, uncertainty remains as to the ultimate outcome and value of these efforts towards bat conservation.

Additional cumulative effects, such as current levels of unauthorized visitation at Indiana bat hibernacula in the WAA, will be further investigated and addressed in Tier 2 project-section consultations.

Cumulative Effects within the Bald Eagle Action Area (not revised)

Current and reasonably foreseeable non-federal activities that may occur within the Bald Eagle Action Area are timbering, planned development for residential subdivisions, and recreational activities that occur along open waterways. Various departments and individuals were contacted for such information. They included contacting the surveyor's office, recorder's office, auditor's office, highway superintendents, county and planning officials. Because, the Bald Eagle Action Area falls completely within the Indiana Bat SAA, the cumulative effects from timbering and

planned residential subdivisions are essentially the same as those mentioned above for Indiana bats. Timbering and residential development is not expected to remove optimum nesting and perching sites for bald eagles as these primarily occur in riparian buffers and flood-prone areas.

Most water-based recreation activities (e.g., boating, jet skiing, and fishing) that occur near sensitive areas used by bald eagles are concentrated at large public reservoirs, such as Lake Monroe in Monroe County. Other areas associated with bald eagles such as the East Fork White River, West Fork White River, and Patoka River are frequented by motor boats less often than Lake Monroe. The majority of the recreation activities conducted along these rivers is associated with smaller motorized boats and canoes. Repeated disturbances from recreation activities near lakes and rivers may disrupt nesting eagles and potentially cause nest abandonment. Additional cumulative effects (if any) will be investigated and addressed in Tier 2 studies and project-section consultations.

VI. CONCLUSION

(Our non-jeopardy conclusion regarding impacts to the bald eagle still stands as stated in the original December 3, 2003 BO.)

After reviewing the current status of the Indiana bat, the environmental baseline for the action areas, the aggregate effects of the proposed construction, operation, and maintenance of the interstate and associated development, and the cumulative effects, **it is still the Service's biological opinion that <u>Alternative 3C of I-69 from Evansville to Indianapolis, as proposed, is not likely to jeopardize the continued existence of the Indiana bat, and is not likely to destroy or adversely modify its designated Critical Habitat.</u>**

Our basis for this conclusion follows:

- The 13 Indiana bat maternity colonies in the SAA represent 0.4% of the total estimated number of maternity colonies in the species' range in 2005 (n=2,900 colonies, see Table 5). In theory, even if I-69 were to destroy many or even all of these colonies (which it most certainly will not), it would not likely constitute an appreciable reduction in the species' numbers (0.4% of colonies) nor an appreciable reduction in the species' range, since Indiana's caves annually shelter nearly half of all known Indiana bats across the range (45% of all *M. sodalis* hibernated in Indiana in 2005). Furthermore, no appreciable reduction in the species' overall reproductive rate is anticipated; only a short-term reproductive loss within some of the 13 affected colonies is likely to occur.
- Because I-69 will have a long narrow/linear footprint, the amount of adverse impacts to any one habitat patch or maternity area along its path is minimal when compared to impacts of a similarly sized area that has a non-linear configuration.
- In general, areas with less than 5% forest cover are not capable of sustaining an Indiana bat maternity colony. The construction of I-69 will directly reduce the total amount of forest habitat/tree cover available around each of the 13 colonies and in some cases will cause small additional amounts to be indirectly lost by induced development. When combined, the percentages of existing tree cover that will be directly and/or indirectly impacted at each

maternity colony is very small. Ten of the 13 colonies will lose less than 1% of their tree cover, and the other three will lose 1.4%, 1.5% and 2.9%. So, the total amount of forest loss is insignificant for each colony.

- Thirty-two roost trees/sites were identified during Indiana bat radio-tracking studies for I-69 in 2004 and 2005. None of these 32 roosts will be directly impacted by the interstate. Furthermore, the I-69 corridor avoids running near or through the central roosting area in 7 out of the 13 maternity areas or 77% of the time. Therefore, we do not believe that any of the 13 maternity colonies will be displaced by the interstate. Because the proposed 3:1 mitigation commitment for upland forest losses will largely be focused on improving forest habitats within the maternity colony areas, we have further confidence that any adverse impacts to these colonies will be minimal and should not be long lasting.
- We estimated the maximum overall amount of I-69 related incidental take of Indiana bats within the SAA to be no more than 286 bats (236 females/juv. and 50 males) spread over a 17-year long period. So on an annual basis, this equates to about 17 bats being taken per year in the SAA, which is less than 1% of the bats that occupy the SAA each summer.
- The Proposed Action will only directly or indirectly take or otherwise reduce the fitness of a relatively small number of bats (estimated total = 857 bats over a 17-year long period or about 50 bats/year) within the WAA and will only have minimal, short-term effects on these bats' respective maternity colonies and hibernating populations. The estimated amount of take only represents 1.2% of the *annual* winter population within the WAA. Similarly, loss of these individuals will have no adverse effect on the viability of other maternity colonies in the region or the species' range or to hibernating populations to which these individuals belong. So again, the Proposed Action in combination with relatively small amounts of cumulative impacts/take is not reasonably expected, directly or indirectly, to cause an appreciable reduction in the reproduction, numbers or distribution of the Indiana bat as a species.
- The combined estimated amount of I-69-related take (SAA + WAA) and estimated take from cumulative effects equals 2,111 bats over a 17 –year period. Again, we believe this level of take is insignificant because it equates to less than one-half of one percent (0.46%) of the 2005 range-wide population estimate of *M. sodalis*.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harass is defined by Service as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this Incidental Take Statement.

The measures described below are **non-discretionary**, and must be undertaken by the FHWA or their designee (e.g., INDOT) for the exemption in section 7(o)(2) to apply. The FHWA has a continuing duty to regulate the activity covered by this incidental take statement. If the FHWA fails to assume and implement the terms and conditions of the incidental take statement, the protective coverage of section 7(o)(2) may lapse. In order to monitor the impact of incidental take, the FHWA must report the progress of the action and its impact on the species to the Service as specified in the incidental take statement [50 CFR §402.14(i)(3)].

INDIANA BAT

AMOUNT OR EXTENT OF TAKE

The Service believes it is reasonably certain to anticipate that incidental take of Indiana bats will occur as a direct or indirect result of the Proposed Action in the following forms:

- death/kill and/or injury/wound from direct felling of occupied trees (during indirect/induced development),
- death/kill and/or injury/wound from direct collision with vehicles traveling on I-69 once it is operational (i.e., roadkill),
- death/kill/wound/harassment of hibernating Indiana bats in unprotected Indiana bat hibernacula as an indirect result of project-induced population growth and increased vehicular accessibility to hibernacula areas,
- harassment of roosting bats from noises/vibrations/disturbance levels causing roost-site abandonment and atypical exposure to day-time predators while fleeing and seeking new shelter during the day-time, and
- harm through loss of roosting habitat such as primary and/or alternate roost trees, and loss of foraging habitat.

Based on our knowledge of the ecology of Indiana bats, and the distribution of Indiana bats within the Summer and Winter Action Areas of I-69, we assume that the habitat that will be lost will adversely affect the roosting and foraging habitat of Indiana bats.

Based on our analysis of the environmental baseline and effects of the proposed action, the Service anticipates that 13 Indiana bat maternity colonies occupy the SAA and therefore may be impacted as a result of the proposed activities. The effect of the loss of foraging habitat is expected to result in the death of some bats (e.g., as the result of exposure to predation or overwinter mortality of bats that failed to store adequate fat reserves). Loss of roosting habitat and degradation of remaining habitat may also result in harm of individual bats. While some adverse effects are not expected to directly result in the death of bats, they may exacerbate the effects of other ongoing stressors on the bats. Collectively, the effects of the action are expected to result in behavioral or physiological effects which impair reproduction and recruitment, or other essential behavioral patterns. We anticipate take/death of individuals, decreased fitness of individuals, reduced reproductive potential, and reduced overwinter survival of an estimated maximum of 337 Indiana bats within the SAA and 857 Indiana bats in the WAA as detailed in Tables B4 and B5 in Appendix B, respectively. The effects on the 13 known maternity colonies may be lost reproductive capacity and potentially a short-term decline in their colony sizes. No significant, long-term adverse effects to affected maternity colonies are anticipated.

Construction of I-69 along the proposed 3C alignment and its associated actions is expected to result in the permanent loss of approximately 2,170 acres of suitable summer foraging and roosting habitat for Indiana bats. This estimate includes 2,050 acres of upland and bottomland forest, 100 acres of forested wetlands, 5 acres of scrub-shrub wetlands, and 15 acres of emergent wetlands. Degradation of remaining habitat is also likely to occur from increased fragmentation and increased disturbance.

It is unlikely that direct mortality of small-sized bats will be detected, that is, we do not expect that most dead or moribund bats are likely to be found as the project activities are being conducted, even though we expect that up to 1,143 individuals may be taken as a result of the proposed actions. Therefore, the anticipated levels of take primarily are being expressed below as the permanent, direct loss of currently suitable summer roosting and foraging habitat in the SAA and fall swarming and staging habitat in the WAA for Indiana bats that will result from project implementation as estimated in the Tier 1 BA Addendum. In short, we will exempt anticipated levels of take by using the affected habitat acreages as a surrogate as summarized below.

Summer Action Area:
Permanent direct loss of up to 2,148 acres of forest habitat and 20 acres of non-forested wetlands is anticipated. Approximate direct loss of Tier 2 Forest (from Table 3 of the BA Addendum) within each project section is summarized in Table 1 below.

Table 1. Estimated direct loss of Tier 2 Forest within the I-69 Summer Action Area.

Project Section	Direct Loss of Tier 2 Forest (acres)
1	55
2	280
3	112
4	1,132
5	303
6	266
Total	**2,148**

Winter Action Area:
Permanent direct loss of up to 1,097 acres of forest habitat surrounding 14 of the 15 known hibernacula (doesn't include area surrounding Cave) is anticipated (from the revised version of Table B-3 in Appendix B of the BA Addendum). Approximate direct loss of Tier 2 Forest within a 5-mile radius of each hibernaculum is summarized in Table 2 below. The sum of the individual acreages is greater than 1,097 acres because of a high degree of overlap among the impacted acres surrounding the hibernacula.

Table 2. Estimated direct loss of Tier 2 Forest within a 5-mile radius of each hibernaculum within the I-69 Winter Action Area.

Hibernaculum Name	Direct Loss of Tier 2 Forest (acres)
Cave:	631
Cave:	556
Cave:	522
Cave:	463
Cave :	431
Cave:	327
Cave:	350
Cave:	288
Cave System:	238
Cave:	98
Cave:	97
Cave:	85
Cave:	51
Cave:	0
Cave:	0

Roadkill:
The Service anticipates that all bats that are struck by vehicles likely will be killed. The Service assumes that the annual number of deaths by vehicle collisions is not likely to exceed 11 Indiana bats per calendar year. However, based on the best available scientific data, the actual number of Indiana bats that may be struck and killed from vehicles traveling on I-69 between Evansville and Indianapolis can not be precisely quantified and dead bats will be difficult to locate once I-69 is operational. If more specific information becomes available, then this issue will be reexamined during the Tier 2 project-section consultations and prudent adjustments will be made at that time.

EFFECT OF THE TAKE

In the accompanying biological opinion, the Service determined that the aggregate level of anticipated take is not likely to result in jeopardy to Indiana bats or destruction or adverse modification of designated Critical Habitat (i.e., Cave).

REASONABLE AND PRUDENT MEASURES

The Service believes the following reasonable and prudent measures are necessary and appropriate to further minimize take of Indiana bats:

1. In the Tier 1 BA Addendum, the FHWA proposed to investigate and/or implement numerous conservation measures and mitigation efforts as part of their proposed action and these measures are hereby incorporated by reference. These measures will benefit a variety of wildlife species, including Indiana bats. The Service will take the necessary steps to ensure that the FHWA successfully implements all the conservation measures to the fullest extent practicable.

2. The implementation status of all the proposed conservation measures, mitigation efforts, and research and any related problems need to be monitored and clearly communicated to the Service on an annual basis.

3. All I-69 construction personnel and INDOT maintenance staff need to be made aware of potential issues concerning Indiana bats and construction and maintenance of I-69.

4. The FHWA needs to ensure that the impacts of take associated with future Tier 2 section-specific actions are appropriately minimized and that the exemption of incidental take is appropriately documented and anticipated levels of incidental take will not be exceeded nor will any new forms of take occur that were not anticipated in Tier 1.

The Service believes that the measures above are necessary, appropriate, and reasonable for minimizing take of Indiana bats.

TERMS AND CONDITIONS

In order to be exempt from the prohibitions of section 9 of the Act, the FHWA (and/or INDOT and their contractors or assigns) must comply with the following terms and conditions, which implement the reasonable and prudent measures. These terms and conditions are non-discretionary.

1. The FHWA must implement all proposed mitigation and conservation measures, as detailed in the revised "Tier 1 Forest and Wetland Mitigation and Enhancement Plan" and "Conservation Measures for Impacts to Threatened and Endangered Species" sections of the Tier 1 BA Addendum and Appendix B of the Tier 1 BA or alternative measures that are of equal or greater benefit to Indiana bats as developed in consultation with the Service during Tier 2.

2. FHWA will prepare an annual report detailing all conservation measures, mitigation efforts, and monitoring that have been initiated, are ongoing, or completed during the previous calendar year and the current status of those yet to be completed. The report will be submitted to the Service's BFO by 31 January each year (the first report will be due 1/31/07) and reporting will continue for at least 5 years post-construction or until otherwise agreed to with the Service.

   If proposed conservation measures or mitigation goals can not be realized (e.g., lack of

willing-sellers), then FHWA will investigate and propose alternative solutions that can be realized and are of equal or greater benefit to Indiana bats within the Summer and Winter Action Areas.

3. All I-69 engineering supervisors , equipment operators, and other construction personnel and INDOT (and/or concessionaire) maintenance staff will attend a mandatory environmental awareness training that discloses where known sensitive Indiana bat sites are located in the project area, addresses any other concerns regarding Indiana bats, and presents a protocol for reporting the presence of any live, injured, or dead bats observed or found within or near the construction limits or right-of-way during construction, operation, and maintenance of I-69.

4. To ensure that the impacts of take associated with future Tier 2 project-section specific actions are appropriately minimized and that the exemption of incidental take is appropriately documented, the FHWA and the U.S. Fish and Wildlife Service will implement an appended programmatic consultation approach for I-69. Under that approach this programmatic Biological Opinion and Incidental Take Statement will exempt incidental take that result from the implementation of site-specific actions that result from implementation of the proposed action as detailed in the Tier 1 BA and the Tier 1 BA Addendum. However, specific impacts within each Tier 2 Project Section must be individually reviewed by the Service to determine if they are consistent with this programmatic Incidental Take Statement's reasonable and prudent measures and associated terms and conditions, and to ensure that site-specific impacts of the resulting incidental take are minimized. If effects of an individual Tier 2 Project Section are found to be consistent with those analyzed in the programmatic consultation, then it will be appended to this programmatic Biological Opinion and Incidental Take Statement, along with any additional project section-specific reasonable and prudent measures and terms and conditions that are needed to fulfill the requirements of section 7(a)(2). No incidental take shall be exempted until after a Tier 2 Project Section’s BA has been reviewed, found to be complete and consistent with Tier 1 findings, and has been appended to the programmatic BO by the Service.

   Because acreages of lost Indiana bat habitat are being used as a surrogate to monitor levels of incidental take within the entire Summer and Winter Action Areas as well as within each Tier 2 Project Section and 5-mile radius around each known hibernaculum, the FHWA will provide the Service's Bloomington Field Office with a detailed description of each project section’s contribution to habitat loss by preparing a Tier 2 Biological Assessment for each project section. The Tier 2 Biological Assessments must include: maps of the preferred final alignment and all associated development; methods and results of Tier 2 mist net surveys, radio-tracking studies, roost tree emergence counts, and hibernacula surveys; exact locations of all known and newly discovered Indiana bat roost trees and hibernacula (hibernacula location maps must identify known hydrologically connected surface streams and sinkholes and their drainage basins and delineate approximate boundaries of potential recharge areas for each hibernaculum within the WAA in relation to I-69’s direct and indirect impacts as identified during Tier 2 and previous studies); the total acreages and relative quality of forest (e.g., maturity of forest/estimated dbh of live canopy trees and estimated suitability for roosting/estimated number and dbh of snags) and wetland habitats that will be directly impacted and permanently cleared/filled; and all other anticipated project section-specific

impacts. Tier 2 BAs must also describe any additional direct or indirect effects that were not considered during the Tier 1 programmatic-level consultation. To reduce redundancy, Tier 2 BAs should summarize or simply reference sections of the Tier 1 BA and BA Addendum that would otherwise be repetitive.

Each Tier 2 BA must quantify how the individual Tier 2 Project Section's direct impact acres contribute to the estimated project section-specific and hibernacula-specific acres (see Tables 1 and 2 above) as well as to the project-wide forest acres (2,148 ac.) and non-forested wetland acres (20 ac.) as specified in the AMOUNT OR EXTENT OF TAKE section above. The Tier 2 BAs should also report how much total acreage remains for the overall I-69 project and within each project section in the SAA and hibernacula in the WAA (i.e., provide the running totals and the remaining balances for these exempted levels of take).

FHWA's cover letters requesting Project-Section specific ESA Section 7 reviews must include a determination of whether or not the proposed project is consistent with this Programmatic Biological Opinion and Incidental Take Statement and request that the proposed Tier 2 BA be appended to this Programmatic Biological Opinion. The cover letter, and one bound hard copy and an electronic copy of the Tier 2 BA should be submitted to the BFO when requesting a project section review.

5. Any dead bats located within the construction limits, right-of-way, rest stops, or mitigation areas of I-69, regardless of species, should be immediately reported to BFO [(812) 334-4261], and subsequently transported (frozen or on ice) to BFO. No attempt should be made to handle any live bat, regardless of its condition; report bats that appear to be sick or injured to BFO. BFO will make a species determination on any dead or moribund bats. If an Indiana bat is identified, BFO will contact the appropriate Service Law Enforcement office as required.

   The FHWA will keep track of all known Indiana bats killed from vehicle collisions to ensure that the anticipated amount of incidental take, 11 killed per calendar year, is not exceeded.

ATTENTION: If at any point in time during this project, the exempted project-wide or section-specific, or hibernacula-specific habitat acreages or annual number of roadkilled bats quantified in the AMOUNT OR EXTENT OF TAKE section of this ITS are exceeded by more than 10%, then the Service will assume that the exempted level of take for this project may have been exceeded and the FHWA should immediately reinitiate formal consultation.

In conclusion, the Service believes that the permanent loss of currently suitable summer roosting and foraging habitat for Indiana bats will be limited to 2,148 acres of forest habitat and 20 acres of non-forested wetlands within the SAA (SAA) and 1,097 acres of forest habitat within the Winter Action Area (WAA). These acreages represent approximately a 1% loss of the SAA's forested acreage and a 1% loss of the WAA's forested acreage and will occur over a period of at least several years. The reasonable and prudent measures, with their implementing terms and conditions, are designed to minimize the impact of incidental take that might otherwise result from the proposed action. If, during the course of the action, this level of incidental take is exceeded (or tree clearing occurs during the period April 15-September 15 in the SAA or April 1-November 15 within the WAA any given year) such incidental take represents new information requiring

reinitiation of consultation and review of the reasonable and prudent measures provided. The FHWA must immediately provide an explanation of the causes of the taking and review with the Service the need for possible modification of the reasonable and prudent measures.

BALD EAGLE

AMOUNT OR EXTENT OF TAKE

The Service anticipates that incidental take of bald eagles will occur in the form of death or injury resulting from collisions with vehicles once I-69 is operational. Based on the best available scientific data, the actual number of eagles that may be struck and killed/injured from vehicles traveling on I-69 between Evansville and Indianapolis can not be precisely quantified. The Service anticipates that collisions with eagles would most likely occur during the winter when food is more scarce and eagles are more apt to scavenge on carrion from roadkilled animals. Once I-69 is operational, we anticipate that all eagles that are struck by vehicles will be killed or injured and that the number of deaths and/or injuries would not exceed 3 bald eagles during any five-year period. Because bald eagles are large birds and would be widely recognized by most motorists and maintenance workers, we anticipate most roadkilled or injured eagles would eventually be reported to the Service, and therefore, the actual level of incidental take could be fairly accurately monitored over time.

The amount of forested habitat that will be permanently cleared for construction of bridges at the two major river crossings (E. Fork of White River and Patoka River, where bald eagles are most likely to occur) was not quantified in the Tier1 BA. However, from our review of aerial photos and maps of the project area, we anticipate that the total combined amount of forest that will be lost at these two river crossing will be equal to or less than 50 acres and that an ample amount of habitat will remain available to bald eagles in these areas. Furthermore, the potential for incidental take from loss of future eagle habitat will be minimized by the proposed forest and wetland mitigation efforts. Therefore, we believe that if forest loss at these sites is equal to or less than 50 acres, then the impact will be insignificant in size and not likely to adversely affect nesting or wintering eagles.

EFFECT OF THE TAKE

In the accompanying biological opinion, the Service determined that this level of anticipated take is not likely to result in jeopardy to bald eagles. No critical habitat has been designated for bald eagles, so none would be impacted.

REASONABLE AND PRUDENT MEASURES

The Service believes the following reasonable and prudent measures are necessary and appropriate to further minimize take of bald eagles:

1. In the Tier1 BA, the FHWA proposed to investigate and/or implement numerous conservation measures and mitigation efforts as part of their proposed action and these measures are hereby incorporated by reference. These measures will benefit a variety of

wildlife species, including bald eagles. The Service will take the necessary steps to ensure that the FHWA successfully implements all the conservation measures to the fullest extent practicable.

2. The implementation status of all the proposed conservation measures, mitigation efforts, and research and any related problems need to be monitored and clearly communicated to the Service on an annual basis.

3. All I-69 construction workers and INDOT maintenance staff need to be made aware of potential issues concerning bald eagles and construction and maintenance of I-69.

4. The FHWA needs to ensure that the impacts of take associated with future Tier 2 project-section specific actions are appropriately minimized and that the exemption of incidental take is appropriately documented and anticipated levels of incidental take will not be exceeded or that any new forms of take may occur that were not anticipated in Tier 1.

The Service believes that the measures above are necessary, appropriate, and reasonable for minimizing take of bald eagles.

TERMS AND CONDITIONS

In order to be exempt from the prohibitions of section 9 of the Act, the FHWA (and/or INDOT and their contractors or assigns) must comply with the following terms and conditions, which implement the reasonable and prudent measures. These terms and conditions are non-discretionary.

1. The FHWA must implement all proposed mitigation and conservation measures, as detailed in the "Tier 1 Forest and Wetland Mitigation and Enhancement Plan" and "Conservation Measures for Impacts to Threatened and Endangered Species" sections and Appendix B of the Tier 1 BA or alternative measures that are of equal or greater benefit to bald eagles as developed in consultation with the Service during Tier 2.

2. The FHWA will prepare an annual report detailing all conservation measures, mitigation efforts, and monitoring that have been initiated, are ongoing, or completed during the previous calendar year and the current status of those yet to be completed. The report will be submitted to the Service's BFO by 31 January each year (the first report will be due 1/31/07) and reporting will continue for at least 5 years post-construction or until otherwise agreed to with the Service.

   If proposed conservation measures or mitigation goals can not be realized (e.g., lack of willing-sellers), then FHWA will investigate and propose alternative solutions that can be realized and are of equal or greater benefit to bald eagles within the Bald Eagle Action Area.

3. All I-69 engineering supervisors , equipment operators, and construction workers and INDOT (and/or concessionaire) maintenance staff will attend a mandatory environmental awareness training that discloses where known bald eagle nests are located in the project area, addresses any other concerns regarding bald eagles, and presents a protocol for reporting any eagle nests, and any live, sick, injured, or dead eagles observed or found within or near the construction limits or right-of-way during construction, operation, and

maintenance of I-69. Project personnel will also be instructed about the terms and conditions of the ITS and the restrictions imposed by them before construction and operation begins.

4. To ensure that the impacts of take associated with future Tier 2 project-section specific action are appropriately minimized and that the exemption of incidental take is appropriately documented, the FHWA and the U.S. Fish and Wildlife Service will implement an appended programmatic consultation approach for I-69. Under that approach this programmatic Biological Opinion and Incidental Take Statement will exempt incidental take that result from the implementation of site-specific actions that result from implementation of the proposed action as detailed in the Tier 1 BA. However, specific impacts within each Tier 2 Project Section must be individually reviewed by the Service to determine if they are consistent with this programmatic Incidental Take Statement's reasonable and prudent measures and associated terms and conditions, and to ensure that site-specific impacts of the resulting incidental take are minimized. If effects of an individual Tier 2 Project Section are found to be consistent with those analyzed in the programmatic consultation, then it will be appended to this programmatic Biological Opinion and Incidental Take Statement, along with any additional project section-specific reasonable and prudent measures and terms and conditions that are needed to fulfill the requirements of section 7(a)(2). No incidental take shall be exempted until after a Tier 2 Project Section's BA has been reviewed, found to be complete and consistent with Tier 1 findings, and has been appended to the programmatic BO by the Service.

   Because acreages of lost bald eagle habitat are being used to insure that habitat loss in eagle use areas (Patoka River and E. Fork White River crossings) does not reach the scale where take will occur, the FHWA will provide the Service's Bloomington Field Office with a detailed description of each project sections contribution to habitat loss by preparing Tier 2 Biological Assessments for each project section. The Tier 2 Biological Assessments must include: maps of the preferred final alignment and all associated development; methods and results of Tier 2 bald eagle surveys (i.e., current IDNR data should be sufficient), exact locations of all known and newly discovered eagle nests, night roosts, and other important areas; the total acreages and relative quality of forest (i.e., as compared to the maturity of forests and estimated suitability for nesting, perching, roosting in the immediate area) and wetland habitats that will be permanently cleared/filled. Tier 2 BAs must also describe any additional direct or indirect affects that were not considered during the programmatic consultation. To reduce redundancy, Tier 2 BAs should summarize or simply reference sections of the Tier 1 BA that would otherwise be repetitive.

   Each Tier 2 BA must track how the individual Tier 2 Project Section contributes to the forest acres quantified in the AMOUNT OR EXTENT OF TAKE section above and report how much total acreage is remaining per section and the project as a whole. Your cover letters requesting Project-Section specific reviews must include your determination that the proposed project is consistent with this programmatic Biological Opinion and Incidental Take Statement and request that the proposed Tier 2 BA be appended to this programmatic Biological Opinion. The cover letter, and one bound hard copy and an electronic copy of the Tier 2 BA should be submitted to the BFO when requesting a project section review.

5. Any dead bald or golden eagles found within the construction limits, right-of-way, rest stops, or mitigation areas of I-69, should be reported to BFO [(812) 334-4261] as soon as possible and subsequently transported (frozen or on ice) to BFO.

   Any sick or injured bald or golden eagle located within the construction limits, right-of-way, rest stops, or mitigation areas of I-69 should immediately be reported to BFO (and an Indiana Conservation Officer or the State Police if outside of normal business hours or on weekends). If possible, attempts should be made to remove an injured eagle from harms way, until a trained person arrives to safely capture and transport the bird. Sick and injured eagles will be transported to a veterinarian or a rehabilitation center that has a valid Federal permit to treat and rehabilitate eagles.

   BFO will contact the appropriate Service Law Enforcement office to report that a sick, injured, or dead eagle has been found.

   The FHWA will keep track of all known bald eagles killed or injured from vehicle collisions to ensure that the anticipated amount of incidental take, 3 killed/injured bald eagles during any five-year period, is not exceeded.

   The Service will not refer the incidental take of any migratory bird or bald eagle for prosecution under the Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. §§ 703-712), or the Bald and Golden Eagle Protection Act of 1940, as amended (16 U.S.C. §§ 668-668d), if such take is in compliance with the terms and conditions specified herein.

In conclusion, the Service anticipates that the number of deaths and/or injuries from vehicle collisions would not exceed 3 bald eagles during any five-year period. If this level of take or less occurs, we expect that the effects to Indiana breeding and wintering bald eagle populations will be negligible. We anticipate that if 50 or less acres of forested habitat that will be permanently cleared for construction of bridges at the two major river crossings, East Fork of the White River and the Patoka River, where bald eagles are most likely to occur, then the impact will be insignificant in size and not likely to adversely affect nesting or wintering bald eagles. Impacts to eagle habitat will also be minimized by the proposed conservation measures and forest and wetland mitigation efforts. The reasonable and prudent measures, with their implementing terms and conditions, are designed to minimize the impact of incidental take that might otherwise result from the proposed action. If, during the course of the action, this level of incidental take is exceeded such incidental take represents new information requiring reinitiation of consultation and review of the reasonable and prudent measures provided. The FHWA must immediately provide an explanation of the causes of the taking and review with the Service the need for possible modification of the reasonable and prudent measures.

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to utilize their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action/program on listed species or critical habitat, to help implement recovery plans, or to develop information. Conservation recommendations generally do not focus on a specific project, but rather on an agency's overall program.

The Service provides the following conservation recommendations for the FHWA's consideration; these activities may be conducted at the discretion of FHWA as time and funding allow:

INDIANA BAT

1. Working with the Service, develop national guidelines for addressing Indiana bat issues associated with FHWA projects within the range of the Indiana bat.

2. Expand on scientific research and educational outreach efforts on Indiana bats in coordination with the Service's BFO.

3. In coordination with the BFO, purchase or otherwise protect additional Indiana bat hibernacula and forested swarming habitat in Indiana.

4. Provide funding to staff a full-time Indiana bat Conservation Coordinator position within the BFO, which has the Service's national lead for this wide-ranging species.

BALD EAGLE

1. Working with the Service, develop guidelines for addressing Bald Eagle issues associated with FHWA projects in the Midwest.

2. If delisted, provide funding to implement a bald eagle post-delisting monitoring plan in Indiana or throughout the Midwest.

3. Expand on educational and outreach efforts on bald eagles in Indiana.

In order for the Service to be kept informed of actions for minimizing or avoiding adverse effects or benefiting listed species or their habitats, the Service requests notification of the implementation of any conservation recommendations.

REINITIATION NOTICE

This concludes formal programmatic consultation with FHWA on the construction, operation, and maintenance of the I-69 from Evansville to Indianapolis, Indiana and associated development. As provided in 50 CFR §402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that the may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action (e.g., highway construction and associated development) are subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

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APPENDIX A:

OUTLINE AND DISCUSSION OF EFFECTS ON INDIANA BATS FROM THE ORIGINAL DECEMBER 3, 2003 BIOLOGICAL OPINION

INDIANA BAT

Below we have deconstructed the I-69 project into its various components and outlined the anticipated direct and indirect impacts and their effects on Indiana bats and bald eagles. The outline is organized by species, direct vs. indirect impact/effect, and phase of the project: construction, operation, or maintenance. The applicable time(s) of year is also indicated. After each adverse effect is a brief description of specific avoidance, minimization, and mitigation efforts that FHWA and INDOT have already taken or agreed to implement (or attempt to implement) in order to further reduce adverse effects and incidental take of Indiana bats and bald eagles within the action areas (these are shown in *italics*). The complete list of proposed avoidance and minimization measures is included in the "Conservation Measures for Impacts to Threatened and Endangered Species" subsection under the PROPOSED ACTION section above.

Direct Effects

CONSTRUCTION

- Tree/Forest Clearing

  SPRING/SUMMER/FALL

  - Mortality/Injury/Harassment of roosting bats – removal of a roost tree while Indiana bats are present would likely result in directly killing, injuring, and/or harassing individuals or a colony.

    FHWA/INDOT have agreed to abide by seasonal tree-cutting restrictions by not clearing any trees greater than 3 inches in diameter when bats are likely to be present: between April 15 and September 15 within the SAA or between April 1 and November 15 within the WAA. Therefore, little or no direct take of Indiana bats is anticipated from tree clearing during construction (or maintenance) of I-69. When possible, site-specific measures will be developed in consultation with the Service to avoid removing any primary and alternate roost trees located during Tier 2 surveys.

  - Permanent Loss of Roosting and Foraging Habitat – Estimates of direct loss of forest habitat were quantified in Table 8 (SAA) and Table 9 (WAA) in the Tier 1 BA and updated for this reinitiated formal consultation and are presented below in this document as Tables 5 and 6. Acres of existing forest were estimated within each of the six Tier 2 project sections (approximately 5-miles wide by variable length) and each circular areas around the 10 Indiana bat hibernacula (5-mile radius), then recalculated subtracting forest needing to be cleared within the proposed construction limits of the Tier 1 working alignment of 3C. Based on Tier 1 estimates, **a total of approximately 1299 acres of forest will be permanently lost from construction of Alternative 3C of I-69.** This only represents a loss of 0.91% of the existing forest within the entire SAA, losses within individual project sections would range from 0.15% (Project Section 6) to 1.8% (Project Section 4). Project Section 4 (between U.S. 231 and SR 37 in Bloomington) is the most heavily forested section of the

Table 5. Forest Landcover* in the Indiana Bat Summer Action Area for each Project Section Before and After I-69 Construction. (Comparative Recalcualtion of Tier 1 BA, Table 8)

	Section 1			Section 2			Section 3		
	Section	Section After I-69**	Diff	Section	Section After I-69	Diff	Section	Section After I-69	Diff
Forest Area (ac)	8,057	8,002	55	18,022	17,742	280	8,718	8,606	112
Total Area (ac)	45,985	45,175	810	89,912	88,227	1,685	80,972	79,000	1,972
% Forest Loss			0.68			1.55			1.28
% Forested Action Area	17.52	17.71	N/A	20.04	20.11	N/A	10.77	10.89	N/A
% Forested Working Alignment:			6.79			16.62			5.68%

	Section 4			Section 5			Section 6		
	Section	Section After I-69	Diff	Section	Section After I-69	Diff	Section	Section After I-69	Diff
Forest Area (ac)	53,714	52,582	1,132	33,447	33,144.0	303	19,957	19,691	266
Total Area (ac)	85,755	83,766	1,989	71,523	70,231	1,292	88,346	85,907	2,439
% Forest Loss			2.11			0.70			1.33
% Forested Action Area	62.64	62.77	N/A	46.76	47.19	N/A	22.59	22.92	N/A
% Forested Working Alignment:			56.92			23.45			10.91%

	Total Summer Action Area		
	Area	Area After I-69	Diff
Forest Area (ac)	141,915	139,767	2,148.0
Total Area (ac)	462,903	452,716	10,187
% Forest Loss			1.51
% Forested Action Area	30.66	30.87	N/A
% Forested Working Alignment:			21.09

Calculation Key		
Section	Section After I-69	Diff
A	C	A-C
B	D	B-D
		A-C / A *100
A/B*100	C/B*100	
		A-C / B-D*100

* Landcover was analyzed using a shapefile created from a smoothed USGS grid data interpreted from 1992 LANDSAT images with 30-m resolution outside the project corridor, and EEAC forest inside the corridor.

** Calculations of Landcover After I-69 were done by subtracting the Tier 2 Representative Alignment.

project and would lose the most acres of forest (976.5 ac), which represents 1.8% of the existing forest within this section of the SAA. Comparisons of the percent of the working alignment forested to the percent of the landscape forested indicate successful forest avoidance in all sections with the exception of Section 4 where these percentages are very close. Because bats exhibit site fidelity to roosts and forage sites, potential exists, especially for pregnant females, to suffer stress searching for new roosting and foraging areas. It has been hypothesized that this stress could cause lower fat reserves and less successful reproduction and winter survival (USFWS 2002).

Based on Tier 1 estimates, **construction of I-69 would cause the permanent loss of approximately 947 acres of forest habitat within the WAA, which represents less than 1 percent (0.95%) of the 99,502 acres of currently existing forest in the area**. Collectively, 59% of the WAA is forested. The percentage of fall swarming/spring staging/forest habitat that would be lost around each hibernaculum ranges from 0.19% (50 acres) for Cave to 1.39% (364 acres) for Cave. The three hibernacula that would loss the least percent of surrounding forest are (0.39%), (0.33%) and (0.19%) caves. Loss of forest habitat around a hibernaculum can result in a reduced capacity to support a local hibernating population.

When possible, FHWA/INDOT avoided forest and wetland areas when developing the working alignment of Alternative 3C. They have also agreed to mitigate for the permanent and unavoidable loss of forests (3:1 ratio) and wetlands (ratios in Table 2) within the action areas by purchasing existing habitat, and/or creating, restoring, and enhancing habitat. Based on Tier 1 estimates of impacts, the committed mitigation acreage would total approximately 4,089 acres (Table 2). In Tier 2, this number may change. The actual mitigation acres will be determined based on impact acres and the committed ratios which could provide higher or lower mitigation acres than the amount estimated in the Biological Assessment. All mitigation areas would be monitored for at least 5 years and permanently protected via conservation easements. Efforts will be made to mitigate in locations that will directly benefit individual bats likely to be impacted by the project. Specific sites will be finalized in consultation with the Service after Tier 2 surveys have revealed where important Indiana bat areas are located (e.g., maternity colonies, and new hibernacula). Opportunities will be investigated to benefit Indiana bats by purchasing additional summer/fall/spring forest habitat within the action areas from "willing-sellers" and turning it over to an appropriate government conservation and management agency for protection in perpetuity via conservation easements. Therefore, the adverse affects to Indiana bats within the action areas from the loss of summer/swarming/staging roosting and foraging habitat may be minimized. There is uncertainty as to what proportion of land owners with forested property within the action areas will be willing-sellers.

In addition, FHWA/INDOT have identified as potential mitigation sites two properties totaling 1,180 acres (approx. 740 acres of forest) located outside of the action areas. While valuable to the species, this "off-site" summer habitat (and potentially caves/winter hibernacula) is not likely to benefit Indiana bats within the I-69 action areas and therefore was only considered as a beneficial effect within the context of the Service's jeopardy analysis.

- Forest fragmentation - The 3C alignment will increase the degree of forest fragmentation by removing approximately 398 acres from core forests. Although only direct impacts to core forest were estimated, it is expected that indirect impacts would also occur. The

majority of core forest impacts will occur where there are large forested tracts of land, primarily in Greene and Monroe counties. Fragmentation of roosting and foraging habitat from tree clearing within the construction limits may degrade the remaining habitat's quality by reducing the size of and distance between remaining forest tracts and thereby lowering the overall amount of roosting and foraging habitat available to a maternity colony. In some areas where forest cover is already sparse, the percentage of remaining forest may fall below the minimum amount needed to sustain a colony.

While developing the 3C working alignment, FHWA/INDOT attempted to avoid forested areas especially large contiguous tracts of forest. The FHWA/INDOT will finalize their proposed forest mitigation plans in consultation with the Service, and specific attempts will be made to improve the connectivity between forest patches in areas known to be inhabited by Indiana bat maternity colonies discovered during Tier 2 surveys.

- Stream Relocation

  SPRING/SUMMER/FALL

  - According to the Tier 1 DEIS, up to 40 perennial streams and 80 intermittent streams will be crossed by the 3C alignment of I-69. Stream channel relocations will destroy any existing bat flyways, roosting, and foraging areas in the sections of streams being crossed, and lower the abundance of aquatic insects that form a portion of the Indiana bat's prey base.

    FHWA/INDOT will develop site-specific mitigation and monitoring plans for stream relocations as appropriate. Proposed restoration actions will include the planting of woody and herbaceous vegetation to stabilize the banks and to provide future roosting and foraging habitat. .

- Bridge Construction and Removal

  SPRING/SUMMER/FALL

  - Removal of an unknown number of concrete-girder bridges from existing roadways crossed by the proposed I-69 alignment could cause a loss of Indiana bat night roosts. Bats would have to expend energy to seek out other night roosts that may be less suitable or otherwise limited in a bat's range.

    For bridges discovered to be night roosts during Tier 2 studies that need to be replaced, attempts will be made to replace them with bridges designed to create or recreate suitable night roosting areas.

  - Construction of bridges spanning waterways could impact water quality, stream flow, and bank vegetation. This could lead to reduced aquatic insect production and degrade the quality of riparian foraging areas.

    Impacts will be minimized by spanning as much of the floodplain as possible to preserve wildlife corridors and to minimize fill. FHWA/INDOT has committed to span the entire floodplain at the proposed crossing of the Patoka River.

- Water Quality Impacts

  YEAR ROUND

  - Spills of hazardous materials soil erosion could occur during construction and degrade the quality of both surface and ground water. Water quality affects the Indiana bat in terms of its aquatic insect prey, drinking water, and the environment in hibernacula. The

potential for adverse impacts may be highest within the 50 acres of sinkhole areas and sinking stream basins that would be traversed by the 3C alignment (Tier 1 DEIS, Table 6-1).

Impacts will be avoided or minimized by implementing equipment servicing and maintenance guidelines, contaminant spill, erosion-control, and herbicide use plans, following standard construction BMPs, and by installing filtering barriers in sinkhole areas (in accordance with the 1993 Karst MOU) and containment roadside ditches as appropriate.

- Blasting near Known Hibernacula

  FALL/WINTER/SPRING

  - Using explosives to blast through rock in karst areas can disturb or kill bats swarming, hibernating, or staging in nearby caves. Blasting too close to hibernacula may cause cave ceilings to collapse, which could directly kill hibernating bats or trap them inside. Blasting could also cause cave passages or sinkholes to become blocked, which could trap or possibly cause cave streams to backup and drown bats when present or exclude them from entering later. Blockages in a cave's passages or entries would also alter its airflow patterns and microclimates, which could make the cave unsuitable as an Indiana bat hibernaculum.

    This potential impact will be avoided or minimized by determining safe blasting charges and distances in coordination with experts on a case by case basis, by following seasonal restrictions (i.e., when bats aren't hibernating), and by monitoring and surveying known hibernacula before and after blasting occurs.

- Destruction or Adverse Modification of Potential Hibernacula

  FALL/WINTER/SPRING

  - Because at least 11 caves are known to be within the 2000-foot corridor of 3C and some subset of 310 historic underground mines (mostly coal mines, the majority of which have been closed and are no longer accessible to bats) documented within 5 miles of the 3C working alignment may also be within the corridor, some potential exists for Indiana bats to hibernate within these caves/mines and others not yet known (if suitable) within the proposed construction limits of I-69. Construction activities (e.g., grading, filling, and blasting) could destroy or adversely modify these caves and mines and kill any bats present and would permanently render them inaccessible or otherwise unsuitable. Because cave systems are dynamic and change over time (e.g., passages enlarge through dissolution, new cave entries form from collapsed ceilings, etc.), some of the caves that may be directly impacted by I-69 that are not currently suitable as hibernacula could become suitable in the future. So, any actions that reduce the abundance of caves or permanently preclude their future use by Indiana bats could be considered an adverse affect. It should be noted that some caves may be suitable hibernacula, but are not currently used by Indiana bats because they have been repeatedly disturbed or vandalized by humans in the past.

    Because caves are essentially a non-renewable resource, the FHWA/INDOT has shifted its working alignment to avoid direct impacts to known cave resources when possible and will continue to do so. During Tier 2, field surveys will be conducted to locate all cave entrances, sinkholes, and mines within the 2000-foot corridor. Any of these caves/mines or others deemed to be potential hibernacula that are within the WAA or within 5 miles of the 3C corridor, will be surveyed for the presence of hibernating

Indiana bats during Tier 2. Any newly discovered hibernacula will be avoided if at all possible and monitored throughout the project. Variable-width medians and/or independent alignments may be proposed to minimize direct impacts to hibernacula that can not be avoided.

FHWA and INDOT will investigate opportunities to purchase from "willing sellers", an Indiana bat hibernaculum(a) including associated autumn swarming/spring staging habitat. After purchase and implementation of any needed management efforts, the hibernaculum(a) and associated buffer areas would be turned over to an appropriate government conservation and management agency for protection in perpetuity via conservation easements. Uncertainty remains as to what number of (if any) private property owners with land containing an Indiana bat hibernaculum(a) within the action areas will be willing to sell.

PROJECT OPERATION

- Increased Mortality from Vehicle / Bat Collisions

  SPRING/SUMMER/FALL

  - Although Indiana bats have been documented safely flying over busy interstate highways (e.g., I-70 near Indianapolis; USFWS 2002), the possibility exists for individuals to be directly killed by vehicles traveling on I-69 and associated roadways (e.g., overpasses and frontage roads) once they are operational. There have been recent studies investigating Indiana bats being killed by vehicle traffic on a 2-lane road near a maternity colony in Pennsylvania (Russell et al. 2002).

    The Service anticipates that all bats that are struck by vehicles will be killed. The Service assumes that the annual number of deaths by vehicle collisions is not likely to exceed 10 Indiana bats. However, based on the best available scientific data, the actual number of Indiana bats that may be struck and killed from vehicles traveling on I-69 between Evansville and Indianapolis can not be precisely quantified during Tier 1. Therefore, this issue will be reexamined during each Tier 2 project-section consultations when more specific information will be available. For example, if a maternity colony or hibernaculum is located near I-69, additional studies may be undertaken to determine if and to what extent roadkill is occurring and FHWA/INDOT will consult with the Service to appropriately address the issue.

- Increased Disturbance from Light / Noise / Vibration

  YEAR ROUND

  - Increased light, traffic noise, and vibrations could cause disturbance to Indiana bats unaccustomed to these impacts while roosting, foraging, or hibernating nearby and thereby lower the suitability of adjacent habitats. Female bats in Illinois used roosts at least 1640 ft (500 m) from paved roadways (Garner and Gardener 1992). Very low bat usage close to Interstates has also been noted by other bat biologists (Whitaker, Jr. per. comm.). Conversely, some bats did use roosts near the I-70/Indianpolis Airport area, including a primary maternity roost 1970 ft (0.6 km) south of I-70. This roost was not abandoned despite constant noise from the Interstate and airport runways, however; their proximity to the Interstate could also have been due to lack of a more suitable roosting area (USFWS 2002).

No specific measures have been proposed to avoid, minimize, or mitigate these effects in Tier 1, but they may be developed in Tier 2 if evidence indicates they are warranted.

- Increased Public Awareness of Indiana Bats
  YEAR ROUND
  - Public awareness of Indiana bats, their life history requirements, and threats to the species is likely to increase as a direct result of educational pamphlets and interpretive displays that FHWA and INDOT have proposed to have designed and plan to distribute/display at public rest stops along I-69.

PROJECT MAINTENANCE

- Bridge Repair / Replacement
  SPRING/SUMMER/FALL
  - Night roosts could be destroyed, or degraded by repairs to concrete bridges or future replacement of concrete bridges with non-bat friendly designs. Bats using night roosts during maintenance projects would be forced to seek out other suitable night roosts that may be limited in number, of lower quality, or located further away.

    INDOT maintenance staff will be made Aware of any bridges used as night roosts during Tier 2 studies and subsequently monitored in an effort to reduce unnecessary disturbances.

- Water Quality Impacts
  YEAR ROUND
  - Highway project maintenance could result in a spill of hazardous materials in wetland or karst areas. Spills could degrade quality of both surface and ground waters. Water quality affects the Indiana bat in terms of its aquatic insect prey, drinking water, and the environment in hibernacula. Impacts will be reduced or avoided by conservation measures.

    Impacts will be reduced or avoided via proposed conservation measures.

INDIRECT EFFECTS

Indirect effects are caused by or result from the proposed action, are later in time, and are reasonably certain to occur. Many of the indirect effects are beyond the authority of the FHWA or INDOT to control. Anticipated indirect effects include the following.

CONSTRUCTION, OPERATION, AND MAINTENANCE

- Habitat Loss and Degradation from Relocated and Induced Commercial and Residential Development and other associated infrastructure (e.g., new roads, fire houses, and schools) is certain to occur along the new I-69, especially near proposed interchanges. According to the Tier 1 DEIS, from 28 to 31 interchanges are likely to be constructed or modified along the I-69 alignment. Induced development is also likely to occur in areas within and surrounding the cities being served by the interstate, especially the larger ones (e.g., Bloomington, Martinsville, Washington). Likewise, I-69 has been projected to stimulate new development at the Crane Naval Surface Warfare Center. According to the Tier 1 BA, **FHWA and INDOT estimated that approximately 325 to 400 acres of forest and 10 to 30 acres of wetlands will be permanently cleared as part of development**

that the Interstate will induce over time. According to the Tier 1 DEIS, up to 458 homes and 75 businesses may have to be relocated along the 3C corridor to make way for I-69. These relocations may lead to the removal of additional amount of forest and wetland habitat.

- Development will remove, degrade, and fragment forest serving as summer roosting and foraging and fall swarming/spring staging habitat.
- Runoff, erosion, and improper disposal of residential trash (e.g., dumping in sinkholes) resulting from induced development could degrade water quality and cave/hibernacula environments by altering karst hydrology (e.g., plug sinkhole drains).
- Use of pesticides, herbicides, and other chemicals at induced developments may affect bat habitat and prey base, and may bioaccumulate within the bats causing lethal or sublethal effects on individuals and reduce their reproduction.
- Water quality in surface and cave streams could also be degraded or threatened by improper sewage treatment (e.g., septic tanks in karst areas).

See efforts mentioned under Direct Effects of habitat loss above. FHWA and INDOT have made efforts to discourage adverse impacts to forest and karst features within the WAA by eliminating or minimizing interchanges near karst habitats (e.g., no interchanges are proposed in SW Monroe County).

- Utility Right-of-Ways (ROW) will need to be relocated/realigned to accommodate construction of I-69 and may potentially need to be expanded or added to accommodate newly induced development. This is likely to result in a permanent removal of some amount of Indiana bat foraging and roosting habitat. Depending on forest age classes and canopy cover, this could be beneficial by creating some openings and edge, or detrimental by fragmenting high quality habitat. Utility ROWs may also be maintained with herbicides that are toxic to aquatic life.

- Erosion and sedimentation from disturbed soil areas where induced development is occurring can degrade water quality and cave environments, as well as plug sinkhole drainages and cause flooding in karst areas, which could drown hibernating bats.

- Road Salt and Chemical Herbicides used to maintain the Interstate and may degrade surface and ground water through runoff and degrade cave environments. Some herbicides can affect bats by accumulating in their tissues as they consume contaminated insects or drinking contaminated water.

  These impacts will be minimized by low-salt and no-spray strategies set forth in the Karst MOU (dated October 13, 1993) and the development of an Herbicide Use Plan.

- Contamination of Soil and Water from Vehicle Accidents - At some point during the operation of I-69, a vehicle accident(s) is likely to occur and result in a spill of hazardous materials into a stream, wetland or karst area. Spills could degrade quality of both surface and ground waters. Water quality affects the Indiana bat in terms of its aquatic insect prey, drinking water, and the environment in hibernacula.

  Impacts will be reduced or avoided by emergency contaminant spill plans and filtering and containment roadside ditches placed in karst areas during construction in accordance with the mult-agency Karst MOU.

- Increased Human Disturbances to Hibernating Bats is possible at unprotected hibernacula within the WAA. Increased visitation at nearby caves may result once I-69 is operational because many more people and presumably more cavers/spelunkers would be within a shorter commuting distance/time than before.

Disturbance of hibernating bats at some currently unprotected hibernacula may be completely stopped or reduced by acquiring easements from cave owners to erect bat-friendly angle-iron gates. These gates restrict access to the caves preventing disturbance of hibernacula while maintaining airflow at the entrances and allowing bats to ingress and egress. If cave owners objected to installing a gate, then other structures (e.g., perimeter fencing) or techniques (e.g., alarm systems and signs) for discouraging unauthorized visitations would be investigated. Uncertainty remains as to what number of (if any) private property owners with land containing an Indiana bat hibernaculum(a) within the action area would be willing to allow FHWA/INDOT to install a gate or other deterrent.

- Increased Predation of Bats by Domestic Cats. – As yet another consequence of an increase in residential developments near hibernacula within the WAA, the resident population of free-ranging domestic and feral cats is likely to increase. More cats across the landscape may lead to higher predation rates on Indiana bats, especially as they enter and exit their hibernacula. Predation of bats by at least one domestic cat (a family pet) has been reported at the entrance of a gated Indiana bat hibernaculum near the owner's home (Cave).

  This effect will be minimized by attempting to replace any poorly designed bat gates that increase the potential for predation by cats or other wild animals (e.g., Cave) and by monitoring other hibernacula where evidence suggests that predation by cats is occurring.

APPENDIX B:

EFFECTS ANALYSIS SUMMARY TABLES FOR THE INDIANA BAT PREPARED FOR THE REVISED BIOLOGICAL OPINION

Table B1. Project deconstruction, anticipated direct and indirect environmental consequences, and likely responses of exposed bats.

Project Element	Associated Direct and Indirect Environmental Consequences	Likely Responses of Exposed Bats/Colonies/Pops.	Is Take Reasonably Certain to Occur?
CONSTRUCTION			
Site Preparation: clearing, blasting, cutting, filling	Permanent direct loss of suitable roosting and foraging habitat in SAA (summer habitat	0,4,5,6,7,9,10,11,12	yes
grading, and surfacing for interstate, interchanges	Permanent direct loss of suitable roosting and foraging habitat in WAA (swarming habitat	0,4,5,6,7,8,12	yes
connector roads, frontage roads, and rest areas.	Variable loss/reduction of forested connectivity/travel corridors	0,4,5,6,7,9	yes
	Introduction of novel day/night-time construction noise,light, and dust (e.g., heavy equip. and blasting	0,1,3,4,5,6,7,9,10,11,12	yes
	Direct degradation of surface water quality (e.g., increased siltation/turbidity) in stream	0,6,7	no
	Direct loss and/or degradation of 20 acres of existing non-forested wetlands	0,5,6,7,	no
	Direct impacts or degradation of non-hibernacula, karst features and ground water resource	0,6	no
	Potential forest loss from borrow areas, rock quarries, and sand/gravel pits used for road material	0-7,9,10,11,12	yes
Demolition of existing bridges in SAA	Potential loss of roost sites beneath bridges	0,1,3,4,6	no
Construction of bat-friendly bridges in SAA	Potential net gain in day/night roost sites for bats	0,6,8,13,14	no
Revegetation of disturbed areas	Long-term protection against erosion, some insect production	0,6	no
Relocation of homes & businesses/Demo. of old	Addtnl. habitat loss/degradation and disturbances of bats during construction of new and demo. of old	0-7,9,10,11,12	yes
Relocation of utilities crossing over/under I-69	Additional habitat loss/degradation and disturbances of bats (e.g., powerlines	0-7,9,10,11,13	yes
OPERATION			
Vehicles driving on Interstate	Increased high-speed traffic through bat population centers leading to increased risk of roadkil	0,2,11,12	yes
(toll or non-toll)	Increased litter and noise/air/soil/light pollution from vehicles using I-69	0,6	no
	New and/or increased risk of accidental spills of hazardous materials occuring in action are	0,2,7,9,15	no
Stormwater diversion and retention	Degraded water quality from road runoff	0,15	no
Induced development	Degraded water quality from induced development (e.g., faulty septic systems, more NPDS dischargers	0,5,6,7,9,	no
	Habitat loss/fragmentation/degradation near hibernacula/mat.colonies from induced developmen	0-7,9,10,11,12	yes
	Induced human population growth increases risk of human visitation and vandalism at hibernacul	0,1,2,3,4,6,7,12,15	yes
High-mast lighting at interchanges and urban area	Increased light pollution	0,5,6	no
I-69 Community Planning Grant Progam	I-69 induced growth is managed under local land-use plans designed to be protective of environmen	0-15	no
MAINTENANCE			
Annual winter applications of sal	Degradation of surface and ground water and potential reduction in aquatic insect abundance/diversity	0,5,6,7,9,	no
Annual summer mowing and herbicide use	Periodic noise, reduced vegetation and minimal reduction in insect abundance	0,1	no
Periodic resurfacing	Increased noise, night-time lighting, and dust	0,6	no
CONSERVATION MEASURES			
Purchase/protect existing forest in SAA	Permant protection of some important forest lands benefiting local maternity colonie	0,8,13,14	no
Plant and permanently protect new forest in SAA	Insures no net loss of forest habitat from direct impacts of I-69 (no mitigation of indirect impacts	0,8,13,14	no
Purchase/protect swarming habitat in WAA	Permant protection of some important forest lands benefiting local swarming/hibernating population	0,8,14	no
Plant and permanently protect new forest in WAA	Insures no net loss of forest habitat from direct impacts of I-69 (no mitigation of indirect impacts	0,8,14	no
Purchase/protection of hibernacula in WAA	Permant protection of important caves used by local hibernating population	0,8,14	no
Install gates and signs at hibernacula in WAA	Reduces risk of unauthorized visitation/disturbance/vandalism of hibernacula and hibernating bat	0,8,14	no
Conduct additional bat research and monitoring	Knowledge gained will improve current management of hibernacula and maternity habitat	0,8,13,14	no
Protective fencing put beneath bridge/roost site	Reduced incidence of vandalism and human disturbance	0,8,13,14	no
Wetland mitigation and Wetland MOU	Insures no net loss of wetlands from direct impacts from I-69 (no mitigation of indirect impacts	0,8,13,14	no
Karst studies and implementation of Karst MOU	Insures protection of sensitive karst resources	0,8,13,14	no
Creation of educational materials and displays	Increased protection of Indiana bats stemming from impoved public awareness/education	0,8,13,14	no
GIS data made available to public and agencies	Greater awareness/protection of sensitive resources identified during I-69 planning	0,8,13,14	no

Key

0. no response
1. startled: increased respiration/heart rate
2. death/injury of adults and/or offspring
3. flees from roost during daylight /↑predation risk
4. abandons roost site(s)
5. abandons foraging areas
6. shifts focal roosting and/or foraging areas
7. ↑ energy expenditures / ↓ fitness (short-term)
8. ↓ energy expenditures / ↑ fitness (long-term)
9. aborted pregnancy/repro. failure
10. ↑torpor, delayed development/partuition, and/or delayed sexual maturation of offspring
11. short-term ↓ colony reproductive rate (3-4 seasons)
12. short-term↓ in colony/hibernaculum size (3-4 seasons)
13. long-term ↑ colony reproductive rat
14. long-term ↑ in colony/hibernaculum size/fitness level
15. long-term↓ in colony/hibernaculum size/fitness leve

n/a not applicable

Table B2. Impacts to Tree Cover in the Summer and Winter Action Areas (bold font indicates higher levels of concern).

Area Name	Existing Amount of Tree Cover[1] (acres)	Current % of Tree Cover	Direct Loss of Tree Cover (acres)	Indirect Loss of Tree Cover (acres)	Sum of I-69 related Losses to Tree Cover (acres)	% of Tree Cover after I-69	Net Loss in Existing Tree Cover caused by I-69	Estimated Cumulative Loss of Tree Cover (acres)	Total Loss of Tree Cover from I-69 and Cumulative Impacts by 2030 (acres)	Total % Tree Cover Left after I-69 and Cumulative Impacts by 2030[2]	Net Decrease in % Tree Cover by 2030
Source:	BA Add.Table 7	BAA T- 7	BAA T- 7	BAA T- 7	calculated	calculated	calculated	BAA T- 7	calculated	calculated	calculated
Pigeon Creek	1,944	**15.5%**	29	1	30	15.2%	0.2%	279	309	**13.0%**	**2.5%**
Patoka River	3,982	31.7%	19	0	19	31.5%	0.2%	24	43	31.3%	0.3%
Flat Creek	5,426	43.2%	92	2	94	42.4%	0.7%	6	100	42.4%	0.8%
East Fork	3,116	**24.8%**	50	0	50	24.4%	0.4%	5	55	24.4%	0.4%
Veale Creek	2,437	**19.4%**	20	2	22	19.2%	0.2%	6	28	**19.2%**	0.2%
West Fork (Elnora)	1,319	**10.5%**	3	1	4	10.5%	0.0%	25	29	**10.3%**	0.2%
Doans Creek	8,099	64.5%	95	3	98	63.7%	0.8%	3	101	63.6%	0.8%
Plummer Creek	8,550	68.0%	**193**	1	194	66.5%	**1.5%**	5	199	66.5%	1.6%
Indian Creek	7,549	60.1%	**359**	9	368	57.1%	**2.9%**	26	394	56.9%	3.1%
W. Fork (Bryant Creek)	4,710	37.5%	107	0	107	36.6%	0.9%	4	111	36.6%	0.9%
W. Fork (Clear Creek)	5,375	42.8%	99	0	99	42.0%	0.8%	26	125	41.8%	1.0%
W. Fork (Crooked Creek)	3,722	**29.6%**	**170**	0	170	28.3%	**1.4%**	44	214	**27.9%**	**1.7%**
W. Fork (Pleasant Run)	2,276	**18.1%**	29	4	33	17.8%	0.3%	83	116	**17.2%**	0.9%
Totals:	58,505		1,265	23	1,288			536	1,824		
Averages:	4,500.4	35.8%	97.3	1.8	99.1	35.0%	0.8%	41.2	140.3	34.7%	1.1%
Summer Action Area[4] (excluding WAA overlap)	80,866	20.5%	1,028	58	1,086	20.2%	0.3%	798	1,884	20.0%	0.5%
Winter Action Area[5]	143,948	60.2%	1,153	70	1,223	59.7%	0.5%	883	2,106	59.4%	0.9%

1. 12,566 acres in a 2.5-mile radius circle.
2. proposed forest mitigation acreages or other potential gains in forest have not been included here.
3. This relative ranking is largely based on current and predicted levels of forest habitat, connectivity of existing habitat, and proximity to rapidly developing areas.
4. A total of 394,187 acres comprise the SAA (minus the WAA overlap); numbers in this row are derived from Tier 1 and Tier 2 Forest Data (i.e., not "Tree Cover").
5. A total of 238,954 acres comprise the collective Winter Action Area; acreages for the WAA are in Tree Cover.

Table B3. Summary of impacts to Indiana bat maternity colonies (n=13) along I-69.

Colony Name	Percent of the MA* that is currently tree covered/ forested	Percent of existing tree cover that is "core forest"	Size of the biggest, connected forest patch within the MA* (acres)	In general, how well connected are all the existing forest patches in the MA?	In general, how well connected are the existing patches of Core Forest in the MA?	What is the FWS's overall perceived adequacy of this colony's current habitat?	How much tree cover will be lost to direct/ indirect/ cumulative impacts? (acres)	Will I-69 run through the center of a known or likely roosting area within the MA?	Will any of the identified roosts (n=32) be directly destroyed by I 69?	Is it likely that a primary roost tree(s) will be directly lost?	Is it likely that a primary roost tree(s) will be indirectly lost?	Is a proposed interchange within the MA? If so, is it near the center of the MA?	Once I-69 is operational, are most forested areas in the MA likely to remain for another 50 years?	Is this colony likely to persist into the reasonably foreseeable future once I-69 and forest mitigation are done?	If displaced by I-69 &/or other development, is additional maternity habitat available nearby?
Pigeon Creek	15%	7%	1,139	POOR	FAIR	FAIR	29 / 1 / 279	NO	NO	NO	NO	YES/NO	UNCERTAIN	YES	YES
Patoka River	32%	9%	3,855	GOOD	GOOD	GOOD	19 / 0 / 24	NO	NO	NO	NO	NO	YES	YES	YES
Flat Creek	43%	12%	5,385	GOOD	GOOD	GOOD	92 / 2 / 6	NO	NO	UNK.	NO	YES/NO	YES	YES	YES
East Fork	25%	2%	1,748	FAIR	POOR	FAIR	50 / 0 / 5	NO	NO	UNK.	NO	NO	YES	YES	YES
Veale Creek	19%	3%	1,423	FAIR	FAIR	FAIR	20 / 2 / 6	VERY CLOSE	NO	NO	NO	YES/NO	YES	YES	YES
West Fork (Elnora)	10%	2%	303	GOOD	FAIR	FAIR	3 / 1 / 25	NO	NO	NO	NO	YES/NO	YES	YES	YES
Doans Creek	64%	33%	8,088	GOOD	GOOD	GOOD	95 / 3 / 3	NO	NO	NO	NO	NO	YES	YES	YES
Plummer Creek	68%	34%	8,542	GOOD	GOOD	GOOD	193 / 1 / 5	NO	NO	NO	NO	NO	YES	YES	YES
Indian Creek	60%	22%	7,540	GOOD	GOOD	GOOD	359 / 9 / 26	CLOSE	NO	UNK.	NO	YES/NO	YES	YES	YES
W. Fork (Bryant Creek)	37%	18%	4,091	GOOD	GOOD	GOOD	107 / 0 / 4	NO	NO	NO	NO	YES/NO	YES	YES	YES
W. Fork (Clear Creek)	43%	18%	4,944	GOOD	GOOD	GOOD	99 / 0 / 26	YES	NO	UNK.	NO	YES/NO	YES	YES	YES
W. Fork (Crooked Creek)	30%	9%	3,046	GOOD	POOR	FAIR	170 / 0 / 44	NO	NO	NO	NO	NO	YES	YES	YES
W. Fork (Pleasant Run)	18%	2%	1,533	FAIR	POOR	FAIR	29 / 4 / 83	NO	NO	NO	NO	YES/NO	UNCERTAIN	YES	YES

* MA = maternity area

Table B4. Estimated levels of Incidental Take by stressor for Indiana bats during the Summer.

Relevant Stressors to Bats in SAA (estimated through year 2030)	Estimated Amount or Area under Stress	FEMALE AND JUVENILE BATS IN MATERNITY COLONY AREAS (160 bats/colony/year)																											MALES						Likely Form(s) of Take[3]
		Pigeon Creek		Patoka River		Flat Creek		East Fork		Veale Creek		W. Fork (Elnora)		Doans Creek		Plummer Creek		Indian Creek		W. Fork (Bryant Creek)		W. Fork (Clear Creek)		W. Fork (Crooked Creek)		W. Fork (Pleasant Run)		Take Subtotal	In WAA in summer		In rest of SAA		Take Subtotal	Total Take	
		E[1]	T[2]	E	T	E	T	E	T	E	T	E	T	E	T	E	T	E	T	E	T	E	T	E	T	E	T		E	T	E	T			
I-69 Direct Impacts/Loss of Roosting Habitat (seasonal cutting restrictions observed so no direct killing anticipated)	2148 ac.	80	2	60	2	80	4	120	2	80	2	0	0	40	2	60	4	160	10	40	2	160	2	160	10	80	2	44	150	0	67	0	0	44	h
I-69 Direct Impact/Loss of Foraging Habitat/Connectivity	2148 ac.	80	2	60	2	80	1	120	2	60	2	0	0	40	0	60	1	160	4	40	0	160	1	160	2	80	0	17	150	2	67	1	3	20	h
Construction Noise/Vibrations causing bats to stress and flee roosts, ↑ risk of predation (while bats are present in adjacent areas)	-	80	1	60	1	160	2	120	2	160	3	0	0	40	1	60	1	160	2	40	0	160	1	160	2	80	1	17	150	2	67	1	3	20	H
Disturbance & Habitat Loss associated w/ Demolition and Relocation of 390 Homes & 76 Businesses (no timing restrictions)	unk.																											40					5	45	H,w,k,h
Habitat loss from I-69 related Utility Relocations (no timing restrictions/bats may be present)	unk.	80	1	80	1	80	1	80	1	80	1	0	0	80	1	80	1	80	1	80	1	80	1	80	1	80	1	12	15	1	20	1	2	14	H,w,k,h
Additional High-speed traffic / Roadkill (total roadkill/maternity colony from 2013 through 2030)	.05% risk over 17 years	160	8	160	8	160	8	160	8	160	8	0	0	160	8	160	8	160	8	160	8	160	8	160	8	160	8	96	300	20	134	10	30	126	k
I-69 Indirect/Induced Loss of Roosting and Foraging Habitat (no restrictions/bats present)	23 ac. in MAs	40	1	20	0	80	1	0	0	80	1	0	0	60	1	80	1	80	3	0	0	0	0	0	0	80	2	10	18	1	8	1	2	12	H,w,k,h
Increased levels of Disturbance/Vandalism of Roosting Bats in ungated Hibernacula during the summer	unk.																											0	500	5	0	0	5	5	H, w, k
TOTAL of Direct and Indirect from I-69			15		14		17		15		17		0		13		16		28		11		13		23		14	**236**		31		14	**50**	**286**	
TOTAL Cumulative Effects (all sources through 2030)	536 ac in MAs	160	26	160	2	160	0	120	0	160	0	160	2	60	0	160	0	160	2	160	0	160	2	160	4	160	8	**46**	115	2	58	2	4	**50**	H,w,k,h
TOTALS Direct and Indirect + Cumulative			41		16		17		15		17		2		13		16		30		11		15		27		22	**282**		33		16	**54**	**336**	

[1] E = estimated annual # of exposed bats (for colonies the maximum number exposed = 160/year; for adult males densities were used to estimate potential exposure…with 0.13 males/impacted acre in the WAA and 0.065 males/acre in the SAA)

[2] T = maximum estimated number of exposed bats that may be taken from 2008-2030.

[3] H = harrass, w = wound, k = kill, and h = harm, which includes significant habitat modification or degradation resulting in death, or injury by significantly impairing behavioral patterns such as breeding, feeding, or sheltering.

Table B5 (Estimated levels of Incidental Take by stressor for Indiana bats during spring, fall, and winter) has been removed due to confidentiality reasons related to the federally endangered Indiana bat (*Myotis sodalis*).

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

AUG 3 1 2006

REPLY TO THE ATTENTION OF
B-19J

Anthony DeSimone, P.E.
I-69 Project Manager
Federal Highway Administration – Indiana Division
575 N. Pennsylvania St.
Indianapolis, IN 46204

Tom Seeman, I-69 Project Manager
Indiana Department of Transportation
100 North Senate Ave., Room N755
Indianapolis, IN 46204-2249

RE: FHWA/INDOT Proposed Cumulative Impact Analysis for I-69 (Indianapolis to Evansville) Tier 2 EISs.

Dear Mr. DeSimone and Mr. Seeman:

The U. S. Environmental Protection Agency, Region 5 (U.S. EPA) has reviewed the Federal Highway Administration/Indiana Department of Transportation (FHWA/INDOT) August 1, 2006, memorandum. The memorandum provides an overview of FHWA/INDOT's proposed cumulative impacts analysis methodology, documentation, and selection of resources for the I-69 (Indianapolis to Evansville) Tier 2 EISs. We offer the following comments concerning the direct, indirect, cumulative impacts analysis for the I-69 (Indianapolis to Evansville) Tiered EIS.

The Tier 2 cumulative impacts analysis will assist to inform the communities (cities, towns, counties) that are directly and indirectly impacted by the I-69 (Indianapolis to Evansville) project of the past, present and future viability of the various resources in their communities. These communities will have the option to participate in the FHWA/INDOT I-69 Community Planning Process. The I-69 Community Planning Process, an FHWA/INDOT Tier 1 mitigation commitment, will provide resources to local communities (cities, towns and counties) for land-use planning purposes to help them better manage development that may occur upon completion of the I-69 (Indianapolis to Evansville) project. One objective of the program is to develop protective strategies for environmentally sensitive areas. A robust and detailed cumulative impacts analysis will assist communities in deciding whether or not to participate in the planning process. In addition, for those communities that decide to participate, the analysis will focus their planning efforts on the resources that need special attention.

Methodology

Because a detailed methodology to determine cumulative impacts for each resource for each Tier 2 Section was not provided, we have some questions and comments for you to consider prior to finalizing the methodology for Tier 2 studies.

• How were the determinations made to include or eliminate a resource of concern from a detailed cumulative impacts analysis for each section? Was the same method used for all Sections?

• Is your methodology uniform for each resource across all six Sections for each of the six different FHWA/INDOT contractors? If not, how will it differ?

• Your memorandum stated that some resources in some Sections were evaluated for cumulative impacts but would not be subject to a "detailed cumulative impact analysis." How does a "detailed cumulative impacts analysis" differ for each resource as compared to a "non-detailed cumulative impacts analysis?"

• For each Section's cumulative impacts analysis, you will most likely need to consider the impacts of the adjacent Sections and possibly additional non-adjacent Sections impacts as other committed projects in the defined project area, in order to fully consider the cumulative impacts for the Section. For, example when conducting cumulative impacts analysis for streams and/or wetlands, the US Geological Survey's Hydrologic Unit Code (HUC) 8 digit watershed would be the appropriate size for the study area. The watersheds may extend well beyond each Section's corridor length and width into other I-69 Sections.

• Please explain what you mean by "Other impacts"[items 1.c. and 5.a.iii. (page 3)].

• We recommend the role and extent that traffic models and the expert panels play in the conduct of the cumulative impacts analysis be identified and explained in detail in the Tier 2 EISs [5.b. (page 3)].

• Please explain what information will be included in the presentation of the analysis [item 7. (page 4).]

• Please explain what you mean by "loss" [item 8.b. (page 4)]. Do you mean the resource must be forever lost within the entire study area in order for a "significant impact" determination to be made? If so, this is much too drastic a threshold. We suggest you also disclose whether the resource is already degraded or would be further degraded.

Selection of Resources for Detailed Cumulative Impacts Analysis

For Tier 2 studies, in addition to the Sections and resources identified in the FHWA/INDOT Memorandum for detailed cumulative impacts analysis, we recommend

each Section include detailed cumulative impacts analysis for the three significant resources of concern (i.e., farmland, forest, wetland) that underwent cumulative impacts analysis in the Tier 1EIS. In addition, all six Sections should include detailed cumulative impacts analysis for streams (see our discussion below). For Sections 4 and 5, also include a cumulative impact analysis for private drinking water supply (see our discussion below) as part of a Karst surface/groundwater quality detailed cumulative impacts analysis. If a detailed cumulative impacts analysis is not undertaken for a particular resource in a particular Section, then a clear rationale for that decision should be included in the Section's Tier 2 EIS.

Wetlands: Wetland cumulative impacts analysis, included in the Tier 2 EISs, should be detailed enough to support a Clean Water Act (CWA) Section 404 decision. The detailed cumulative impacts analysis in Tier 2 should focus primarily on the function of wetlands within the broader ecosystem.

Streams: Because of the existing impaired status of the majority of the waterways throughout the entire I-69 (Indianapolis to Evansville) corridor, we advise that streams be included for detailed cumulative impacts analysis for all six Tier 2 Sections. Identify and disclose why each stream is impaired. This information can be obtained from the Indiana Department of Environmental Management (IDEM). Identify and consider those categories of impairment (e.g., habitat alteration, sediment) that may be increased as a result of project construction and operation. Identify those impairments that the proposed project could actually contribute to. For example, identify those streams that are impaired for habitat alteration due to structural changes (i.e., ditching), and/or sediment. Disclose those streams that have active ditch maintenance districts. Discuss how each district's ditch maintenance activities might help or hinder potential I-69 project mitigation Best Management Practices (BMPs). Identify whether a district has the authority to remove a project established BMP (e.g., vegetative buffers) as part of the district's ditch maintenance program.

Private drinking water supply wells: The safety of drinking water supply for human consumption, whether public or private, or from surface or groundwater sources is important. Sections 4 and 5 both have substantial karst geology/features that would allow for rapid deterioration of groundwater quality from contamination on the surface. We advise that a cumulative impacts analysis on the quality/safety of private drinking water supply wells in Sections 4 and 5 also be undertaken. One method you might consider in terms of identifying the areas that are particularly susceptible to adverse impacts to private drinking water supply wells are those areas that are not currently serviced by a municipal drinking water supply and that are not serviced by a municipal wastewater treatment facility. Map out these areas as "Zones of Susceptibility" and include the maps and a discussion as part of the analysis.

Documentation

I-69 Indianapolis to Evansville Impact Summary Table: We believe that it is important to disclose and inform the Tier 2 EIS readers and decision makers of the overall direct and indirect impacts associated with the entire 140-mile-long I-69 Indianapolis to Evansville Alignment identified in the Tier 2 studies. We recognize that, because the six Tier 2 Draft EISs will not be completed simultaneously, it is impractical to summarize direct and indirect impacts for the entire project in the individual Tier 2 DEISs. However, because the Tier 2 Final EISs (FEIS) won't be released until all of the Tier 2 DEISs have been prepared, we request that the project-wide totals of both the direct and indirect impacts from all I-69 impacted resources of concern be included in each Tier 2 FEIS. We request this information be presented in tabular form and provide a qualitative discussion (i.e., interpretation of the table) in each of the six Tier 2 FEISs. All six Tier 2 FEISs would be anticipated to have the same Table information and write-up. The table could be similar in format to the Tier 1 FEIS *Table S:9 – Summary of Key Performance Measures and the Environmental Impacts."* Each Tier 2 Section should be listed as a separate column along with a "Totals" column. Include additional rows for resource categories, as needed.

Thank you for the opportunity to comment. If you have any questions about U.S. EPA's comments, please contact Virginia Laszewski at 312-886-7501 or email her at laszewski.virginia@epa.gov.

Sincerely,

Kenneth A. Westlake, Chief
NEPA Implementation Section

Carol Hood

From: Jason Dupont

Sent: Wednesday, September 27, 2006 5:49 PM

To: dernst@dnr.state.in.us; 'plouks@dnr.in.gov'; 'zsmith@dnr.in.gov'; 'jseifert@dnr.in.gov'

Cc: Tom Cervone; Rusty Yeager; Kent Ahrenholtz; Carol Hood; mhilary@indot.IN.gov; BLAWRENCE@indot.state.in.us; 'DeSimone, Anthony'

Subject: I-69 Division of Forestry Meeting

All,

Attached is a summary of the meeting held with the Division of Forestry to follow up on question from the last agency meeting. If there are any questions or comments, please let me know.

Thanks,
Jason

Jason DuPont, P.E.
Chief of Environmental Services
Bernardin, Lochmueller & Associates
6200 Vogel Road
Evansville, IN 47715
Ph. 812-479-6200
Ph. 800-423-7411
Fax 812-479-6262
jdupont@blainc.com

MINUTES

Meeting with Indiana Department of Natural Resources – Division of Forestry

At the Indiana Government Center South, Room W296

September 11, 2006 at 2:00 a.m. EDT

Attendee	Organization
Dan Ernst	IDNR – Division of Forestry
Zachery Smith	IDNR – Division of Forestry
Pam Louks	IDNR – Division of Forestry
John Seifert	IDNR – Division of Forestry
Jason DuPont	Bernardin Lochmueller & Associates (PMC)
Rusty Yeager	Bernardin Lochmueller & Associates (PMC)

MEETING PURPOSE

The purpose of the Division of Forestry meeting was for the I-69 Project Management Consultant (PMC) to gain further insight into the Divisions concerns regarding potential impacts to urban forest resources and mitigation options, and discuss probable concerns regarding the control of exotic/invasive plant species for the project.

URBAN FORESTS

IDNR provided a basic explanation as to what urban forests are and the functions they serve. The PMC inquired as to what defines the geographic limits of urban forest resources. IDNR indicated that urban forest areas are not necessarily confined to within corporate limits, but may include suburban and ex-urban areas where trees provide local benefits to residences and businesses. The average recommended tree cover for urban forests is 40%. It was noted that aside from aesthetics large trees in urban areas, especially along roadways, serve to trap pollutants, assist in controlling stormwater runoff, sequester carbon and provide various other functions.

A preliminary tabletop review of maps for Sections 5 and 6 by IDNR concluded that urban forest concerns would be primarily along SR37 through Bloomington, through Martinsville possibly as far north as the country club and fish hatchery, Marion County and Johnson County as far south as SR144 at Waverly. IDNR requested ArcView shape files of the corridor so that they might review the project more closely for specific urban forest areas of concern. The PMC agreed to provide the corridor files to Mr. Smith.

IDNR indicated that it was not necessary to evaluate impacts to urban forests for each of the alternatives carried forward for further analysis, but that the preferred alternative should be reviewed for such resources and efforts to incorporate mitigation into the roadway plan should be considered.

IDNR inquired as to how INDOT addressed urban forest impact mitigation. The PMC indicated that they where not aware of any formal policy for such mitigation, but that INDOT Standards included specifications for site preparation, planting and post planting care of trees. IDNR noted that urban forest mitigation should focus on large tree preservation along the existing SR37 where possible and the planting of specific native (non-ornamental) species in the vicinity of the highway.

It was noted by the PMC that mitigation involving the planting of trees for urban forest cover would likely need to occur within the proposed right-of-way, within interchanges, or on excess land purchased

by INDOT. It was explained that as with wetland mitigation sites, the use of property beyond the right-of-way limits requires a willing seller. In the case of Sections 5 and 6, potential sites may include along the outer edge of the right-of-way, areas of bifurcation (if any), or small areas where the right-of-way requirements for existing road realignments and/or new frontage roads create unused remnant pieces of property. These areas could only be considered provided they do not result in sight distance or clear zone problems.

Ms. Louks indicated that she would contact Lee Huss (Bloomington Urban Forester) to obtain additional feedback and information on urban forest concerns specific to this area.

IDNR also inquired as to if urban tree plantings could/would be incorporated into planning grants as part of economic development packages resulting from the I-69 project. The PMC identified that this is currently not a part of the planning grants, but any information provided would be passed on to the consultant conducting the initial phase of this planning process.

IDNR suggested using methods of the Council of Tree and Landscape Appraisers in assessing replacement costs for urban resources and that all tree planting for urban forest mitigation be done according to ANSI standards (A300 Part 6 Transplanting). The PMC identified that this information would be provided to INDOT for consideration.

IDNR summarized their primary interest in the project at this time is understanding what mitigation guidelines would/could be implemented and knowledge of, or input as to where urban forest mitigation would be directed. IDNR provided the PMC with web site and brochure material on urban forests and invasive plants. The PMC identified that in many cases the scale of urban forest (i.e. potentially down to individual trees) that is being considered by IDNR may not be included in the current commitment to mitigate for upland forest.

INVASIVE SPECIES

IDNR indicated that they do not maintain a registry or database of areas where invasive plants are of particular concern in the state. Concerning tree and shrub species, the Division noted bush honeysuckles, buckthorns, autumn olive and tree-of-heaven as those of particular concern. IDNR recommends that invasive species encountered within the right-of-way be properly eradicated to prevent dispersal elsewhere within or beyond the right-of-way.

With respect to the current emerald ashborer situation in Indiana, IDNR requests that wood logged within the right-of-way not be transported out of the general area in an effort to prevent the unintentional migration of any individuals within the wood to other locations. This is of particular importance since an infestation is typically not observed for as much as seven years after inception.

The PMC was advised to consult the Midwest Invasive Plants web site as an additional source of information on invasive species concerns and control.

Carol Hood

From: Jeremy Kieffner

Sent: Thursday, September 14, 2006 4:50 PM

To: 'garra.catherine@epa.gov'; 'laszewski.virginia@epa.gov'; 'cstanifer@dnr.in.gov'; 'andrew_king@fws.gov'; 'dernst@dnr.in.gov'; 'jrandolp@idem.in.gov'; 'amy.s.babey@lrl02.usace.army.mil'; 'doug.shelton@lrl02.usace.army.mil'; 'james.m.townsend@lrl02.usace.army.mil'

Cc: Jason Dupont; 'MGrovak@aol.com'; Kent Ahrenholtz; Carol Hood; Tom Cervone

Subject: I-69 Envirnmentally Sensitive Water Resource Areas

Dear All

Attached is a list of Environmentally Sensitive Water Resource Areas that have been identified within the I-69 Tier 2 Sections. These are unique areas that will be given extra attention during the Permitting Phase of the project. The USACE asked the PMC in the meeting on April 12, 2006 to identify areas that were environmentally sensitive from a water resource and permitting standpoint. The areas identified in the attached document will be avoided and/or minimized as much as possible. Extra mitigation may be identified for impacts to these Environmentally Sensitive Water Resource Areas to offset unavoidable impacts. The PMC does realize that “ALL” water resources impacted by the project are important and that avoidance and minimization efforts have been and will continue to be addressed for “ALL” water resource impacts. These Environmentally Sensitive Water Resource Areas are areas that stand out from the normal water resource impacts encountered along the project corridor and additional mitigation efforts may be completed for impacts to these areas. Please review this document and let me know of any questions or comments you may have. Thank You.

Sincerely
Jeremy Kieffner
Bernardin Lochmueller and Associates, Inc.
JKieffner@blainc.com
800.423.7411

<u>Tier 2 Environmentally Sensitive Water Resources for I-69</u>
Evansville to Indianapolis

In our permitting meeting held at the U.S. Army Corps of Engineers (USACE) – Louisville District Office on April 12, 2006, the discussion about Environmentally Sensitive Areas was discussed The USACE stated that more than 10-15% design may be required in Environmentally Sensitive Areas before the USACE could issue a Section 404 Permit.

The purpose of this correspondence is to list the water resources along the I-69 Tier 2 Preferred Alternative which the I-69 Team lists as Environmentally Sensitive Water Resources. For permitting, Environmentally Sensitive Water Resources (ESWR's) need to be in or near the Preferred Alternative and related to water resources. ESWR's are defined as follows:

1. Undisturbed or relatively undisturbed;
2. Biologically attractive with reasonably high species diversity;
3. Special / unique areas for State/Federal-Listed Species; and / or
4. Critical Habitat as defined by the United States Fish and Wildlife Service

The Tier 1 FEIS identified Natural Environmentally Sensitive Areas in or near the Preferred Alternative 3C corridor. These areas are listed below from south to north.

- Pigeon Creek
- Patoka National Wildlife Refuge
- Flat Creek
- Prides Creek
- East Fork White River
- Plainsville Sand Dune Region (including Thousand Acre Woods)
- West Fork White River (Elnora)
- American Bottoms
- Garrison Chapel Valley (including Leonard Springs)
- Beanblossom Bottoms

The Tier 1 FEIS also identified High Quality Wetland Complexes in or near the Preferred Alternative 3C Corridor. They are listed below from south to north.

- Pigeon Creek
- Patoka National Wildlife Refuge
- Flak Creek
- Prides Creek
- Thousand Acre Woods
- Beanblossom Bottoms

Using the Tier 1 FEIS information and Tier 2 data, and following the criteria stated above, the proposed Tier 2 Environmentally Sensitive Water Resources are as follows from south to north.

- Pigeon Creek Wetland Complex (avoided by preferred alternative)
- Patoka National Wildlife Refuge (floodplain will be bridged in its entirety)
- Flat Creek (floodplain will to be bridged in its entirety)
- Prides Creek Wetland Complex (avoided by preferred alternative)

- East Fork White River (will to be bridged by preferred alternative)
- Veale Creek / Hurricane Branch Wetlands (avoided by preferred alternative)
- South Fork Prairie Creek Wetland Complex (avoided by preferred alternative)
- First Creek Wetlands (will be bridged by preferred alternative)
- Doans Creek Wetlands (minimize impacts of interchange)
- Koleen Bottoms / Black Ankle Creek Wetlands (minimize impacts with bridging)
- Indian Creek (bridge all crossings to minimize impacts)

No areas in Section 5 or 6 met the criteria for Environmentally Sensitive Water Resources because the majority of the areas within Sections 5 and 6 have been disturbed by construction of the existing 4-lane with median SR 37. All efforts will be made during design to avoid and / or minimize impacts in the Environmentally Sensitive Water Resources listed above.

Inter-Agency Project Coordination Meeting Questionnaire

This is a follow-up to the I-69 coordination meeting held recently which included your agency. The purpose of this questionnaire is to collect your assessment of the value of Resource Agency coordination meetings held early in the NEPA process. Specifically, FHWA would like to gain your insights on how the meeting format can be improved and to identify what other types of projects might benefit from similar meetings that allow the agencies to discuss the development of a project prior to the release of an environmental document.

Please email your comments to Anthony.desimone@fhwa.dot.gov or fax to (317) 226-7341 to the attention of Tony DeSimone.

Project Briefing Session – including briefing on overall status of the project schedule and detailed briefings of individual project sections.

Did this session provide sufficient detail to quickly bring you up to speed on the status of the project and related studies? Was adequate time devoted to this session and each project discussion and question and answer? What improvements would you recommend for this session?

Policy Specific Sessions – Policy sessions were intended to present to the agencies the current processes being followed to meet certain NEPA and permitting requirements and to get feedback on our proposed methods.

Were the presentations of adequate detail so that you could gain an understanding of the methods proposed to be used? If not, what information would you like to see included in the future?

Were the appropriate personnel available from FHWA, INDOT and the consultant staff to answer questions and discuss the issues? What other personnel would you liked to have met with?

Were the appropriate government agencies and personnel present who could consider the issues and provide additional comments? What could be done to make the dialog more open and effective?

If applicable, how can FHWA and INDOT better facilitate coordination with your agency, so that decisions made during NEPA will help streamline the permitting process later?

How do you think the sessions could have been improved? Please comment on the size of the group and the format of the discussions and time provided.

Project Tour – The second day of the meeting was devoted to a tour of the project area to better acquaint the agencies with the multiple resources and issues that are being considered in the development of the project. How useful was the tour to your agency's involvement in the project. What improvements or additions would you recommend to have made it better?

Implementation of these meetings on future projects --- What types of projects would be appropriate to host this type of meeting in the future. For example, would these be helpful for all projects that are being developed as an EIS or an Environmental Assessment? Would you be interested in regular meetings to discuss more complex road projects which are being developed so that all agencies could help focus appropriate effort on critical project issues/potential impacts and allow simpler projects to be streamlined?

What do you expect your agency's participation would be and would you recommend more or less staff (i.e. from different departments/specialties) from your agency to attend?

THANK YOU FOR YOUR INPUT! Feel free to provide any additional comments.

AGENCY _____ NAME _____
(optional)

Carol Hood

From: Carol Hood

Sent: Thursday, September 14, 2006 11:49 AM

To: Amy Babey (amy.s.babey@lrl02.usace.army.mil); andrew_king@fws.gov; Garra.Catherine@EPA.gov; cstanifer@dnr.in.gov; Dan Ernst (dernst@dnr.in.gov); David.poynter@navy.mil; Dennis Clark (dclark@idem.in.gov); Doug.Shelton@lrl02.usace.army.mil; Eric Scott Johanson (sjohanso@idem.in.gov); Franklin Lewis (flewis@fs.fed.us); Henry Huffman (hhuffman@dnr.in.gov); James Sullivan (jsulliva@idem.in.gov); jane.hardisty@in.usda.gov; Jason Randolph (jrandolp@idem.in.gov); Jim Hebenstreit (jhebenstreit@dnr.in.gov); John Carr (jcarr@dnr.in.gov); John Davis (jdavis@dnr.in.gov); jeggen@dnr.in.gov; Karie Brudis (kbrudis@dnr.in.gov); Katie Gremillion-Smith (kgsmith@dnr.in.gov); Westlake.Kenneth@epa.gov; Martha Clark-Mettler (mclark@idem.in.gov); Matt Buffington (mbuffington@dnr.in.gov); Mike Neyer (mneyer@dnr.in.gov); Newton Ellens (ellens.newton@epa.gov); Patricia Morris (morris.patricia@epa.gov); Rebecca Travis (rtravis@idem.in.gov); rjones@dnr.in.gov; rhtaylor@fs.fed.us; scott_pruitt@fws.gov; Tamara Ratcliff-Roberts (troberts@idem.in.gov); Tom Kenney (kenney.thomas@epa.gov); laszewski.Virginia@epa.gov; melgin.Wendy@epa.gov; Xavier.Montoya@in.usda.gov

Cc: 'DeSimone, Anthony'; 'Hilary, Michelle'; 'Lawrence, Ben'; ckoeppel@indot.in.gov; 'Malley, William G.'; 'Seeman, Tom'; Kent Ahrenholtz; 'MGrovak@aol.com'; Tom Cervone; Jason Dupont; Jeremy Kieffner; Jim Gulick; Kia Gillette; Rusty Yeager; Garre Conner; Henry Nodarse; Cheryl Folz; Daniel Townsend; Dominick Romano; Nicole Minton; Vince Bernardin; ''; ckoeppel@indot.in.gov

Subject: August 1st I-69 Overall Agency Coord. Meeting Minutes

Hello Everyone!

Attached are the minutes for the August 1, 2006 Overall Agency Coordination meeting.

Also attached is an interagency meeting survey that Tony DeSimone of FHWA would like for you to complete and return to him in two weeks.

Thanks,

Carol

Carol Hood
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Evansville, IN 47715
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Fax: 812.479.6262
chood@blainc.com

MEETING MINUTES

I-69 Overall Agency Coordination Team Meeting

AMVETS The Gathering, Bloomington, IN
August 1, 2006, 9:00 a.m. – 5:00 p.m. EDT

Attendees:	
1. Katie Gremillion-Smith – IDNR Div. of Fish & Wildlife	34. Tom Kenney – USEPA , ORC
2. Susan Branigin – INDOT/Env. Serv./Cultural Resources	35. Newton Ellens – USEPA
3. Patricia Morris – USEPA Air Division	36. Bill Malley – Akin Gump lawfirm w/INDOT
4. Henry Nodarse – BLA Engineer	37. Noel C. Krothe – Hydrogeology, Inc./Section 4
5. Dan Ernst – IDNR Forestry	38. Richard Ray – Corradino/Section 3 DPM
6. Franklin Lewis – USDA Forest Serv./Hoosier Nat'l Forest	39. Mike Tackett – Corradino/ Section 3
7. Janice Osadczuk – INDOT Environmental Services	40. Sara Dyer – Dyer Environmental/PMC
8. Michelle Hilary – INDOT Environmental Services	41. Doug Shelton – Corps of Engineers
9. Ben Lawrence – INDOT Environmental Services	42. Mike Neyer – IDNR Water Division
10. Christopher Koeppel – INDOT/Env. Serv./Cultural Resources	43. Rusty Yeager – BLA/PMC
11. Tony DeSimone – FHWA	44. Carol Hood – BLA/PMC
12. Jay DuMontelle – FHWA	45. Jason Stone – DLZ Indiana/Section 4 Environ.
13. Tom Cervone – BLA/PMC	46. Brian Arterbery – DLZ Indiana/Section 4 DPM
14. Ken Westlake – USEPA	47. Tom Seeman – INDOT Project Management
15. Virginia Laszewski – USEPA	48. Bruce Hudson – DLZ Indiana/Section 4 PM
16. Cathy Garra – USEPA	49. Jason Randolph – IDEM OWQ
17. David Franklin – FHWA	50. Matt Buffington – IDNR
18. Pamela S. Drach – INDOT Vincennes District	51. Christie Stanifer – IDNR
19. Karl Leet – INDOT Feasibility Engineering	52. Scott Pruitt – USFWS
20. Mary Jo Hamman – Michael Baker Jr. Inc./Section 5 PM	53. Andy King – USFWS
21. Jim Peyton – Michael Baker Jr. Inc./Section 5 DPM	54. Mark Eckert – Beam, Longest & Neff/TPA
22. Nick Batta – INDOT Feasibility Engineering	55. Chad Costa – Beam, Longest & Neff/TPA
23. David A. Butts – INDOT Feasibility Engineering	56. Kia Gillette – BLA/PMC
24. James Ude – INDOT Seymour District	57. Jaime Sias – BLA/PMC
25. Brock Hoegh – HNTB/Section 6 DPM	58. John Bacone – IDNR/Nature Preserves
26. Tim Miller – HNTB/Section 6 PM	59. Eris S. Johanson – IDEM
27. Henry Huffman – IDNR Nature Preserves/Heritage Prog.	60. Rebecca Travis – IDEM
28. Kevin Allison – Corradino/ Section 3 PM	61. James Sullivan – IDEM
29. David Pluckebaum – Corradino/Section 3 PM	62. Jeremy Kieffner – BLA/PMC
30. Vic Modeer – Jacobs/Section 2 PM	63. Jane Wehner – Qk4/Section 1 DPM
31. Tracey Lober – S Jacobs/Section 2 Asst. PM	64. Roger Wade – Qk4/Section 1 PM
32. Michael Grovak – BLA/PMC	65. Jason Krothe – Hydrogeology, Inc./Section 4
33. Kent Ahrenholtz – BLA/PMC	66. Garre Conner – BLA/PMC

Welcome and Opening Remarks **Tom Seeman and Tony DeSimone**

Introductions

Project Schedules **Kent Ahrenholtz**

- Revised Schedule:
  - Re-evaluation of Tier 1 EIS
    - Tier 1 EIS Re-evaluation Report – Issued June 23, 2006
    - Official Comment Period – Deadline July 24, 2006
    - Amended Tier 1 Record of Decision – mid to late August 2006
  - Refinement of Tier 2 Studies
    - Delay in Issuance of Draft EISs
    - Incorporation of Toll Option
    - Staggered EIS Reviews – Section 1 DEIS issued by 1st part of September 2006, followed by another Section DEIS every 30 days.
      (Section 1 DEIS is now slated for release at the end of September 2006, possibly longer.)
      - Information in the DEIS will include toll and non-toll option and the preferred alternative.
      - By the middle of 2007, the RODs will be ready.
  - Accelerated Project Development Activities
    - Permitting

Q: *Has the schedule changed much since the July 2006 schedule? (USEPA)*
A: It changed by only a week or two since that schedule was developed.

Q: *Will we be given advance notice on the DEIS? (USEPA)*
A. Yes we will try to give you 2 weeks notice. There is a possibility that portions of the DEIS will be provided in draft form for advanced review.

Tier 1 EIS Re-evaluation & Comments **Mike Grovak**

- Why Consider Tolling Now:
  - Major Legislative Changes
    - Six-year federal transportation bill (SAFETEA-LU) signed August 10, 2005
    - Much greater flexibility to mix toll and non-toll funding
    - Was discussed internally; could not be considered as an option during Tier 1
  - Major Toll Collection System Improvements
    - "Open road" tolling – fully electronic
    - Eliminate toll booth congestion and backups
- Tier 1 Re-evaluation was not the "last word":
  - A "high altitude" review of Toll Options
    - Uniform toll rates
    - No variation by location or time
  - Comparison at a Tier 1 (Big Picture) level of detail
  - More detailed Tier 2 Studies
  - "Toll Funding" decision as part of Tier 2 RODs

- Tier 1 Re-evaluation - Highlights:
    - Toll Option Performance Evaluation
        - Tier 1 goals and performance measures
        - More current traffic forecasting model
            - Year 2030 forecast year (vs. Year 2025 in Tier 1)
            - Significant technical enhancements to traffic model
            - Show non-toll performance on project goals along with that of toll options
    - Comparison with Non-Toll Option
        - Performance on some goals unaffected by tolling
            - Evansville to Indianapolis travel time
            - Personal accessibility
        - Performance on other goals reduced by tolling
            - Interstate and international freight movement
            - Crash reduction
            - Congestion relief
            - Economic development
        - Tradeoff between receiving benefits sooner vs. smaller magnitude of benefits
    - Impact Changes from Non-toll Option
        - Traffic Impacts
            - More traffic on other roads
            - Near US 41 and SR 37 – more significant
            - Some roads have more traffic than No Build
            - Very few experience a change in the level of service
        - Environmental Justice Impacts
            - Identifies potential issue to low-income persons
            - Would exist for most alternatives considered
            - Will need to be evaluated in Tier 2 Studies
        - Air Quality Impacts
            - Repeats Tier 1 assessment
            - Emissions in Vanderburgh and Marion counties remain within SIP budget
            - Cites additional issues for Tier 2
                - Additional areas in non-conformance
                - Additional emissions analyses (PM2.5 and 8-hour ozone)
        - Noise Impacts
            - Noise impacts diminished from non-toll
            - Less traffic means less noise
        - Indirect & Cumulative Impacts
            - Non-toll is worst case
            - Development in toll case would be no greater than non-toll
- Tier 1 Re-evaluation – Overall Findings
    - Tolling compresses performance range of alternatives
    - Alternative 3C remains the preferred alternative
        - Best performer on project goals
        - Lowest aquatic-resource impacts among alternatives satisfying project purposes
    - No new significant impacts identified
- Tier 1 Re-evaluation – Other Issues
    - Clarification of Tier 1 ROD
        - Location of interchanges and access roads outside of corridor boundaries
        - Commitment regarding an interchange at Monroe/Greene County line

- Commitment to bridge Patoka River floodplain
  - Has been follow up coordination with USFWS
  - Determined that there will be no change to this commitment.

Q: What will the comment period be for the DEIS documents? (EPA)
A: The schedule includes the standard 60 days for comments on the DEIS; however longer comment periods may be considered – for example, if two I-69 Tier 2 documents are circulating simultaneously.

Tier 2 Agency Review Packages **Mike Grovak**

- The Purpose and Need/Preliminary Alternatives Packages for all Sections has gone out and meetings with the resource agencies have been held and comments have been received from agencies.
- The Preliminary Alternatives Analysis and Screening Package was sent out to the agencies for Section 4 on July 26th. A Webcast/Conference Call meeting is scheduled on August 31st at 9:30 EDT/8:30 CDT to allow agencies to ask questions and go over the Section 4 Screening Package. Formal comments are due to the PMC from the agencies on Tuesday, September 26, 2006.
- In order to keep with the schedule there will not be a third Agency Review Package from the EEACs on Preferred Alternative and Mitigation. The PAMP will be incorporated into the DEIS. There will probably be a Webcast/Conference Call meeting held to discuss mitigation and responses to agency comments.
- Responses to the agencies comments will be a separate coordination with the agencies.

Q: Will the Agency members receive a copy of the CAC input and meeting minutes? (USFWS)
A: These will be made available.

Q: Are there any CAC members who represent environmental justice communities? (USEPA)
A: Yes, for example, in Section 5.

Q: Are there any I-69 opponents on the CACs? (USEPA)
A: All major groups have been invited. Some have agreed to participate and are represented. However, others have declined to participate.

Public/Private Partnerships **Kent Ahrenholtz/Tom Seeman**

- Major Moves:
  - Restrictions on I-69 from Martinsville to Indianapolis: "may not carry out any of the following activities under this (chapter/article) unless the general assembly enacts a statute authorizing the activity".
    - Approve location of a private-public partnership, other than I-69 between I-64 and I-465
    - Construct I-69 in Perry Township
    - Impose tolls on motor vehicles for use of I-69 between Martinsville and Indianapolis

    - Major Moves provided Legislative Approval for use of Public/Private Partnership for I-69
- Procurement Process:
    - Running Parallel to NEPA Process
    - INDOT Proposing to Utilize "Concession"
        - Design
        - Construction
        - Operation
        - Maintenance
    - RFQ to determine "Qualified Bidders"
    - RFP to identify Proposed Concessionaire
- Key P3 Members:
    - Technical Procurement Advisor
        - Design Oversight
        - Construction Oversight
    - Financial Advisor
    - Traffic & Revenue Consultant
    - "Concessionaire"
    - Once the Tier 2 process is completed, I-69 will move forward as one project.
- Environmental Commitments:
    - Technical Procurement Advisor
        - Post-NEPA Environmental Activities
        - Mitigation Right-of-Way
    - "Concessionaire"
        - Post-Permitting Activities & Issue Resolution
        - Project & Mitigation Design
        - Project & Mitigation Construction

Q: *Has the toll been decided? (USEPA)*

A: No final decision has been made. INDOT is seeking to develop I-69 as a toll project, with a public-private partnership (PPP). The PPP procurement process will occur in parallel with NEPA. The non-toll option will remain under consideration and will be documented in the Tier 2 DEISs.

C: *We need to make sure that we are all working together and everyone has information about the teams. (USFWS)*

A: All efforts will be made to that extent.

Q: *Who will be doing the Right-of-Way acquisition (for a PPP)? (USEPA)*

A: If a PPP is used, the responsibility for ROW will be shared by INDOT and the Concessionaire. Depending on the terms of the concession agreement, the concessionaire could handle the bulk of the ROW acquisition work.

Q: *If the tolling decision is being made in Tier 2, how will you account for the possibility that some sections will be tolled and others could be non-tolled? (USEPA)*

A: The traffic modeling will produce forecasts for two "book-end" scenarios: one with all six sections tolled, and one with all six sections non-tolled. If some are tolled and others non-tolled, the forecasts would fall between these two scenarios. The Tier 2 DEISs will

provide additional explanation of the methodology for tolled traffic forecasts and the justifications for that methodology.

Q: Will there be individual mitigation packages for each Tier 2 section?
A: Mitigation will be in each Tier 2 Section's DEIS and FEIS.

Section Status Reports

Section 1 Presentation **Roger Wade, Project Manager**

- Section 1 of the approved corridor is 13 miles long.
- Begins at junction of I64 / I-164 / SR 57 and continues northward to SR 64 west of Oakland City.
- Work tasks include environmental studies and analysis, preliminary design, and interchange locations and configurations
    - Tasks completed or nearly completed:
    - Initiate Public Outreach
    - Identify property owners
    - Survey for endangered Indiana Bats, Wetlands & Streams, Cultural Resources
    - Agency Coordination, including Purpose & Need and Alternatives Screening packages
    - Develop preliminary alternative alignments
    - Refine alternative alignments
    - Prepare Draft EIS with a preferred alignment recommended
    - Tasks ahead:
    - Public Hearing
    - Final Environmental Impact Statement
    - Record of Decision from FHWA
    - Alternative Evaluation Considerations
    - All Alignments: satisfy Purpose & Need, have some beginning and ending points, have interchanges with same crossroads, and approximately at same locations
    - Primary screening tolls were: potential social, economic, & environmental impacts
    - Public and Agency Input
    - Costs
    - Alternative 4 is the recommended preferred alternative.
    - Recommended Preferred Alternative 4 encounters:
    - Agricultural land in ROW - 630 acres (87.5% of total corridor area)
    - Residential relocations - 18
    - Business displacements - 0
    - Forests - 33 acres (8% of forest in corridor)
    - Open water (ponds) - 0.7 acres (4% of open water in corridor)
    - Wetland (emergent) - 1.3 acres (11% of wetlands in corridor)
    - Floodplain - 36 acres
    - Streams - 14,000 linear feet, incl. 2,900 linear feet relocation
    - Section 4(f) resources - 0 in corridor or otherwise impacted
    - Historic resources - 0 in APE
    - Archaeology resources - Phase 1a work in progress
    - Cost estimate - $200 million (in 2010 dollars)

Section 2 Presentation **Victor Modeer, Project Manager**

- Section 2 of the approved corridor is 29 miles long.
- Section 2 begins at SR 64 west of Oakland City and continues northward US 50 east of Washington.
- Work tasks:
    - Environmental studies and analysis
    - Preliminary design
    - Interchange locations and configurations
- Tasks completed or nearly completed:
    - Identifying property owners within/adjacent to the project corridor
    - Indiana bat surveys
    - Identifying the locations, sizes, and types of wetlands
    - Identifying cultural resources
    - Developing preliminary alternatives within the project corridor
    - Refining alternatives based on environmental analysis, engineering feasibility, input from regulatory agencies and the public and cost
    - Preliminary Draft Environmental Impact Statement
- Section 2 tasks ahead:
    - Selection of Preferred Alternative
    - Draft and Final Engineer's Report
    - Public Hearing
    - Final Environmental Impact Statement
    - Record of Decision from FHWA
- Preliminary Alignment Concepts
    - Environmental Impacts
        - Wetlands, Farmland, Forests, and Stream Crossings
    - Agency and public input
    - Engineering feasibility
    - Cost
- Notable Natural Features
    - 323 acres (5%) of wetlands within the corridor
        - Alternatives impact 27.8 to 50.7 acres
    - Primarily agricultural and rural residential lands
        - Alternatives impact 891 to 1,072 acres
    - 1,029 acres (15%) of forest within the corridor
        - Alternatives impact 231 to 330 acres
    - Major Streams
        - Keg Creek Patoka River, Mud Creek, East Fork of the White River, Veale Creek and Hurricane Branch
        - Ephemeral Intermittent and Perennial stream impacts range from approximately 35,700 feet to 49,200 feet

Section 3 Presentation **Dave Pluckebaum, Project Manager**

- Section 3 of the approved corridor is 26 miles long.
- Section 3 begins north of the US 50 Interchange east of Washington and it continues northward to US 231 northwest of Crane NSWC.
- Work tasks:
    - Environmental studies and analysis
    - Preliminary design

    - Interchange locations & configurations
- Tasks completed or nearly completed:
    - Identifying property owners within/adjacent to the project corridor
    - Indiana bat surveys
    - Identifying the locations, sizes, and types of wetlands
    - Identifying cultural resources
    - Developing preliminary alternatives within the project corridor
    - Refining alternatives based on environmental analysis, engineering feasibility, input from regulatory agencies and the public and cost
- Tasks ahead:
    - Selection of Preferred Alternative
    - Draft Environmental Impact Statement
    - Draft and Final Engineer's Report
    - Public Hearing
    - Final Environmental Impact Statement
    - Record of Decision from FHWA
- Local Purpose & Need
    - Increase personal accessibility for area residents
    - Improve traffic safety
    - Support local economic development initiatives
    - Purpose and Need will not be used in screening alternatives but will be used to select a preferred alternative
- Preliminary Alignment Concepts
    - Alternative Evaluation Considerations
        - Environmental impacts
            - Floodplain impacts
            - Forest impacts
            - Residential relocations
            - Neighborhood
        - Impacts to agricultural land
        - Agency and public input
        - Engineering feasibility
        - Cost
- Notable Natural Features
    - Primarily agricultural and rural residential lands
        - Approximately 89% of the corridor is agricultural
        - Residential relocations range from 13 to 30
    - 514 AC (6%) of forest within the corridor
        - Alternatives impact 77 to 144 AC
    - 167 AC (0.2%) of wetlands within the corridor
        - Alternatives impact 9.5 to 27.2 AC
    - Major Streams
        - North and South Forks of Prairie Creek, First Creek, and Doans Creek
    - Rest Area
        - Will probably be located between Elnora and the Odon area

C: Aesthetics should be considered in more thoroughly than was done in the Tier 1 EIS. This analysis should focus on the view of the road; the view from the road should not be as important in the NEPA analysis. (IDNR)

A: Comment noted. Aesthetics will be addressed in the Tier 2 DEISs as appropriate.

Q: What type of land will be used for the rest area? (INDOT)
A: Agricultural land will be used.

Section 4 Presentation **Bruce Hudson, Project Manager**

- Begins at US 231 and ends at SR 37, 26.5 miles long.
- Rolling to hilly terrain.
- The landscape is over 60% forested/undeveloped.
- Several creeks are present: Doan's Creek, Black Ankle Creek, Plummer, and Indian Creek.
- Section 4 Webcast/Conference Call scheduled for August 31st at 9:30 a.m. EDT covering the Screening Agency Review Package.
- Preliminary
    - Historic Properties
    - Wetlands
    - Cemeteries
    - Caves
    - Major Springs
- Screening
    - Lengths & Cost Estimates
    - Forests & Core Forests
    - Agricultural Lands & Prime Farmland
    - Managed Properties: Floodplains
    - Streams
    - Ponds
    - Subsurface Drainage Features
    - Residential & Business Displacements
- Recommendations
    - Mainline
        - Single Alignment Along Five subsections
        - Two Alignments Along One Subsection
        - Three Alignments Along One Subsection
        - Four Alignments Along One Subsection
    - Minor Alignment Shifts
    - Hybrid Alignment Along Subsection E
    - Interchanges
        - US 231 & SR 37
        - One or two Intermediate Interchanges (SR 45, SR 54, County Line)
- Technical Studies
    - Stream Evaluations (QHEI/HHEI)
    - Wetland Functional Assessments (InWRAP)
    - Karst Study
    - Cave and Springs Biota Survey
    - Historic Effects
    - Archaeological Records Review
    - Hazardous Materials Screening
    - Farmland Conversion
    - Mainline and Interchange Engineering Development

Section 5 Presentation **Mary Jo Hamman, Project Manager**

- Local Purpose & Need identified in Tier 2 for Section 5:
  - Complete Section 5 of I-69 between Victor Pike South of Bloomington and SR 39 in Martinsville
  - Reduce existing and forecasted traffic congestion
  - Improve traffic safety
  - Support local economic development initiatives
- Studies and Status
  - Cultural Resources
    - Architectural (Above ground resources)
      - Historic Properties Report – submitted
      - COE in progress
    - Archaeological (Below ground resources)
      - Field review – September 2004
      - Background Report – submitted
    - Cemeteries
      - Baseline Report – submitted
  - Natural Science
    - Threatened and Endangered Species
      - Indiana bat mist netting report – completed
      - Mussels, crayfish, and fishes – report pending
    - Wetlands – fieldwork completed, report in progress
      - Fieldwork completed – report in progress
    - Biological Pedestrian Survey
      - Fall and Spring Survey – completed
    - Stream Analysis
      - Fieldwork completed – report in progress
    - Floodplains/Floodways Analysis
      - Updated and incorporated
  - Physical Science
    - Karst Report – submitted July 2006
    - Hazardous waste, groundwater, geology, oil and gas, mines – in progress
  - Miscellaneous – in progress
    - Utilities relocation coordination
    - Air Quality
    - Noise
- Alternative Development and Screening
  - Incorporation of Tier 1 Corridor and evaluation of Tier 1 access issues
  - Alternative development criteria include: P&N, spacing, functional classification, cost, public input, INDOT long range plan, et al.
  - Environmental constraints include: land use, environmental justice, karst, streams, wetlands, floodplains, et al.
  - Community and agency outreach

Section 6 Presentation **Tim Miller, Project Manager**

- Section 6 is 26 miles.
- Section 6 Local Purpose & Need:
  - Complete Section 6 located between SR 39 in Martinsville and I-465 in Indianapolis
  - Reduce forecasted traffic congestion
  - Improve traffic safety
  - Facilitate and maintain east/west connectivity
- Continuous public involvement/outreach
- Status of Environmental Studies:
  - Wetland & Stream study – completed; additional studies will occur in September 2006 for areas outside the study corridor within ROW of three reasonable alternatives
  - Threatened and Endangered Species surveys – completed
  - Fish and Mussel surveys – complete
  - 1 historic district and 7 eligible properties located within APE – identification of Effects Report in progress
  - Archaeological resources (below ground) – previously recorded and literature review completed Fall 2004 – Draft background report completed
  - Continued baseline fieldwork and coordination with stakeholders in the study corridor, including utilities, communities, landowners, etc.
- Alternative Development and Screening
  - Incorporation of Tier 1 Corridor and Evaluation of Tier 1 access issues
  - Alternative development criteria includes: P&N, spacing, functional classification, cost, INDOT long range plan, traffic volume, et al
  - Environmental Constraints include: land use, environmental justice, cemeteries, wetlands, utilities, parks, schools, farmlands, forests, et al

Q: *What are the wetland impacts? (IDEM)*
A: The wetland impacts in Section 6 are expected to be 20-25 acres or less. More specific calculations will be presented in the Tier 2 DEIS.

Q: *Is there a possibility of a rest area which includes traveler services such as restaurants?*
A: We are currently only looking at rest areas. Current legislation does not allow for additional amenities in a rest area.

C: *Section 5 & 6 need to address urban forests (USEPA).*
A: Impacts to forests in urban areas will be addressed in the DEIS documents for Sections 5 and 6.

Q: *How will you handle invasive weeds?*
A: This will be discussed in the DEIS on how to handle the spread of weeds, etc.

C: *Need to address animal crossings and their design. (IDNR)*
A: INDOT and FHWA will work with appropriate agencies to address this aspect of the study.

Q: *What is the status of the Community Planning Grants (a Tier 1 mitigation commitment)? (USEPA)*

A: A Phase I contract has been signed with a consultant. The consultant is working with communities to plan for the grant process. Phase II will include the actual distribution of the community planning grants.

Introduction to Afternoon Session **Tom Cervone, Ph.D.**

Cumulative Impact Analyses **Sara Dyer**

- Purpose of this session: to provide attendees with the current thinking and efforts to address cumulative impacts within each Tier 2 Section and also to give everyone a chance to ask questions and give input on the issues and resources.
- Cumulative Impact Analysis (CIA):
  - Tier 1 FEIS addressed cumulative impacts of the entire I-69 Evansville to Indianapolis project as a whole, in the context of the 26- county Tier 1 study area. Cumulative impacts for three resources (farmland, forests and wetlands) were analyzed in Tier 1.
  - The findings from the Tier 1 analysis concluded that losses due to I-69 would account for a very small percentage of overall losses for these three resources.
- Geographic Scope
  - CIA in Tier 2 EIS is more localized than the Tier 1 CIA
  - Each Tier 2 EIS will have a different geographic scope for its CIA
- Methodology
  - A memo to all resource agencies was included in handout packages: the memo outlines the 9 basic steps that will be used for the Tier 2 evaluations. All comments should be submitted by September 1, 2006.
  - Proposed methodology will use input from local expert land use panels and various land use models (traffic modeling and traffic analysis zone data) to help identify cumulative impacts that are the result of the I-69 project.
  - Tier 2 documentation will present detailed CIA for key resources impacted in each section.
- FHWA Guidance:
  - "CIA is resource specific and generally performed for the environmental resources directly impacted by a Federal action under study, such as a transportation project. However not all of the resources directly impacted by a project will require a CIA, but determined on a case-by-case basis early in the NEPA process, generally as part of early coordination or scoping".
- EPA Guidance:
  - "While a broad consideration of resources is necessary for the adequate assessment of cumulative impacts, the analysis should be expanded for only those resources that are significantly affected. In similar fashion, ecosystem components should be considered when they are significantly affected by cumulative impacts. The measure of cumulative effects is any change to the function of these ecosystem components".
- Resources
  - After initial analysis and coordination with the EEACs in each section, INDOT and FHWA agreed that the following resources were most likely to require a detailed CIA:
    - Farmland
    - Forest
    - Wetlands

        - Streams and Floodplains
        - Wellhead Protection Areas
        - Karst and Groundwater
- Section Update:
    - Section 1
        - Only resource selected for detailed CIA is farmland.
        - Other resources (wetlands, streams, etc.) were evaluated for cumulative effects, but these resources are not expected to be significantly impacted by the I-69 project.
    - Section 2
        - Only resource selected for detailed CIA is farmland.
        - Other resources (wetlands, forests, streams, etc.) would be affected directly by building I-69; these resources would not be significantly affected by indirect development, based on information received from a local expert land use panel, therefore not included in the cumulative impact evaluation.
    - Section 3
        - Only resource selected for detailed CIA is farmland.
        - Other resources (wetlands, streams, etc.) were evaluated for cumulative effects, but these resources are not expected to be significantly impacted by the I-69 project.
        - Wellhead Protection area analysis will not be included as part of the cumulative discussion, but wellhead protection plans will be obtained from utilities that contain wellhead areas.
    - Section 4
        - Resources selected for detailed CIA are farmland, forest, karst/groundwater.
        - Farmland occurs throughout the project area.
        - Forest is primary land cover and is found on the moderate to steep terrain
        - Karst features (caves, sinkholes, etc.) are abundant throughout the eastern one-half of Section 4. Karst features in Monroe County are protected by local ordinance which requires a karst investigation for any proposed development.
        - The three resources may be significantly impacted as a result of the proposed action. The opinion of the land use expert panel is that potential development will be sparse and limited.
        - Very few wetlands in the section, and those wetlands primarily are narrow riparian wetlands adjacent to streams.
    - Section 5
        - Resources selected for detailed CIA are farmland, forest, wetlands, streams/floodplains (water quality only), karst (water quality only)
        - Due to the nature of these important resources and the likelihood of direct impact, these resources will be included in evaluations for cumulative analysis.
        - There is a great deal of development taking place and being planned along SR 37. The cumulative impacts resulting from proposed I-69 and private development plans will be analyzed to determine impacts to these resources.
    - Section 6
        - Resources selected for detailed CIA are farmland, forest, wetlands, and streams/floodplains.
        - These resources are significant resources that may be significantly impacted within the project limits.
        - There is a great deal of development taking place and being planned along SR 37.

- The cumulative impacts resulting from proposed I-69 and private development plans will be analyzed to determine impacts to these resources.
- Wellhead Protection area analysis will not be included as part of the cumulative discussion, but wellhead protection plans will be obtained from utilities that contain wellhead areas.

- Attendees were informed to submit comments on the Cumulative Impacts memo mentioned earlier in 30 days (September 1, 2006).

Q: *Why has so much importance been given to the local expert land use panels? (USFWS)*
A: We have found that the best and most accurate information about local land use is available from local officials, developers, and others. The expert panels provide a way to gather information from these individuals. The DEIS will describe the expert panel process. In addition, the land use panels served only to ***allocate*** growth forecasted by a economic forecasting model. This model is the same one used to forecast growth in population and employment in the Tier 1 FEIS.

Q: *What guarantee do you have that no one will ask for a permit to build in a sensitive area?*
A: There can be no such guarantee. The panels are assessing what they feel is likely to occur in the future.

Q: *Why isn't wellhead protection a part of the cumulative impact process?*
A: Wellhead protection areas are being analyzed but at this time it doesn't appear that we are significantly impacting the wellhead protection areas in Sections 3 and 6, and future development plans do not appear to be impacting these areas.

Q: *Define the distinction between indirect and cumulative impacts. (IDNR)*
A: Indirect impacts are those caused by development induced by the project; indirect impacts are studied for all resources. Cumulative impacts are all direct and indirect impacts of the project, plus the effects of all other reasonably foreseeable actions. Cumulative impact analysis focuses on significant issues, rather than being performed for all resources. The scope of the cumulative impact analysis for this project is being developed in consultation with resource agencies.

Q: *Have we looked at the degree to which some resources already have been impacted in the past centuries? (IDNR)*
A: Our cumulative impact analysis includes consideration of past trends, including the amount of a resource that has been lost over time. The level of detail of this work depends on the amount of existing data that is available.

Q: *Why aren't wetlands addressed in the cumulative impact analysis for Section 2?*
A: The impact on wetlands in Section 2 is not considered significant. *(Note: subsequently the determination was made to include wetlands in an analysis of cumulative impacts for the Section 2 DEIS, in response to EPA's request).*

C: *You should have an analysis that sums up all impacts to all resources in all sections. (USEPA)*
A: An overall calculation was performed in Tier 1 for the corridor as a whole. The impacts analysis in Tier 2 will be completed on the Tier 2 sections.

C: *Information gathering on future land use trends needs to rely on more than just the land use expert panel. (IDNR)*
A: The analysis is not based solely on input from the expert panels. Additional input from the public will be considered in each section.

Q: *Will we (the agencies) be able to limit access on the roads that come up?*
A: This is something that has to be looked at. However, land use is basically a local and county decision, and the ability of state agencies to intervene in these decisions is limited.

C: *Wording on the impacts needs to be more specific and not glossed over so much. (IDNR)*
A: Appropriate wording will be used in the EISs and all efforts will be made to address issues in an environmentally sensitive manner.

C: *We must consider the visual effects of light pollution. For example, the Milky Way no longer is visible at night several miles from the newly-constructed SR 46 extension between Bloomington and Ellettsville. (IDNR)*
A: Comment noted.

Interagency Water Resources **Jeremy Kieffner/Jamie Sias**

- Coordination with Agencies:
  - Field visits with IDEM and USACE have been completed in each Section.
  - Field work is completed in all Sections
  - Existing 1993 Biota Surveys were used in Sections 1 - 4
  - Additional Biota Data – has been gathered as part of Tier 2 Studies
  - Formal data requests – sent to IDNR, IDEM, and USFWS
  - Data received to date – from IDNR, IDEM, and USFWS
- Technical Reports
  - Methodology: Draft Reports in the DEIS may not include preferred alternative wetland delineations. Progress Reports for each Section are below:
    - Section 1
      - Wetlands: Expected to impact 1 to 5 acres
      - Streams: Majority impacted are intermittent and ephemeral
      - Minimization Efforts: Corridor narrows at the crossing of Pigeon Creek and its perennial tributary to avoid wetlands and forests; proposed wildlife corridor beneath the bridge over the two perennial streams; alternatives were designed to cross streams at a perpendicular angle wherever possible to reduce stream and floodplain impacts; alternatives were shifted to avoid lengthy stream relocations wherever possible
    - Section 2
      - Rivers & Streams: Major stream crossings at Keg Creek, Patoka River, Mud Creek, East Fork of White River, Veale Creek, and Hurricane Branch; Intermittent and perennial streams range from small to large; most headwater habitat streams contain no water or only isolated pools; silt and sand were the predominant substrates identified
      - Wetlands: Expected to impact 30 to 35 acres

    - Minimization Efforts: As appropriate, shifting of the alternatives to avoid large wetland complexes, bridging floodplains and oxbows, minimizing channel clearing and relocation, and utilizing erosion control devices; FHWA and INDOT have committed to bridging the entirety of the floodplains of the Patoka River and Flat Creek
- Section 3
    - Wetlands & Streams: Wetland impacts are anticipated to be between 10 to 15 acres
    - Alternatives were created to avoid wetland areas where possible and to minimize the impacts where avoidance was not possible
    - InWRAP study showed that majority of wetlands are of medium quality with those in the First Creek basin are of medium to poor quality
    - QHEI/HHEI study showed that majority of streams are of low quality
    - Alternatives were designed to cross streams at a perpendicular angle to minimize impacts
    - Alternatives were developed and adjusted to avoid the large forested wetlands adjacent to South Fork of Prairie Creek as well as other wetland areas
- Section 4
    - Wetlands: Anticipated to impact 10 to 15 acres. Many wetlands are in riparian areas which span the entire corridor; some impacts are unavoidable.
    - Alternatives being developed to avoid 70% of the wetlands identified within the corridor
    - InWRAP performed on wetlands within alternatives showed the majority of wetland impacts are of fair quality wetlands
    - Majority of streams crossed are intermittent and ephemeral. Section 4 does cross 7 perennial streams
    - QHEI evaluations performed at all crossing locations indicated that all of the perennial streams crossed are warmwater habitat streams; stream qualities are low to medium
    - Intermittent and ephemeral streams: QHEI Evaluations performed where stream watershed exceeded 1 square mile at crossing location; these indicated that they are of low to medium quality
    - Minimization: Maximum allowable grades, minimized fills; bridge structures; preserve/provide riparian buffers; minor shifts in alignment to avoid wetlands wherever possible; design alternatives to cross streams at a perpendicular angle wherever possible
- Section 5
    - Streams: The biota surveys completed in Section 5 identified no federal or state listed aquatic species; all streams classified as warmwater fisheries; 64% of streams assessed have been previously impacted by SR 37 and/or other roads present within the Study Corridor; all streams exhibit some degree of biological or physical impairment due to commercial, industrial, residential, or agricultural activities.
    - Wetlands: Anticipated to impact 10 to 15 acres
    - No Class III wetlands will be impacted by the alternatives carried forward for detailed analysis
    - No farmed wetlands or farmed wetland pastures were identified

        - The majority of the wetlands assessments with InWRAP were rated as "medium" quality, only 2 were rated as "good" quality
    - Section 6
        - Wetlands were identified in a 2,000 foot Study Corridor
        - Additional wetland and stream assessments will be conducted this fall for areas outside the 2,000 foot Study Corridor for impacts caused by access roads
        - Wetlands: Anticipated to impact 20 to 25 acres
        - NWI wetlands were used in conjunction with the detailed wetland determinations using InWRAP to depict the quality of the wetlands within the Study Corridor
        - Alternatives were created to avoid wetland areas where possible and to minimize the impacts where avoidance was not possible
        - Most streams identified are drainage ditches or smaller headwater streams leading to the larger named streams (i.e. Indian Creek, West Fork Clear Creek, Stotts Creek)
        - Heavy dominance of existing SR 37, agriculture, and urban development in the watershed is evidenced by the modification of most of the streams in the Study Corridor
        - QHEI/HHEI showed that the majority of the streams within Section 6 have been modified and are of low to medium quality
        - Class I is the lowest quality of stream habitat
        - Biota studies in Section 6 identified no federal or state listed aquatic species
- Watershed Permitting Process
    - Coordination with Permitting Agencies
        - Coordination meetings have been held with each permitting agency (IDNR, IDEM, USACE) to discuss the permitting processes
        - Tier 2 Sections will apply for permits individually
        - Various levels of design detail will be used for permit applications; the level required will be determined in consultation with permitting agencies
        - We are working with INDOT and the EEACs at the current time to identify Environmentally Sensitive Water Resource areas within the corridor. These are the areas where the USACE stated that additional design work may be necessary
            - We plan to "over mitigate" in these areas to offset impacts to these specific areas with the assumption that the USACE will be comfortable with the level of design were are using in these areas, and not request additional design work be completed
            - Most, if not all of these areas will require IDNR Construction in a Floodway Permits and therefore, hydraulic studies will need to be completed in these areas anyway which will require additional design
            - Once INDOT and the EEACs have reviewed the list of Environmentally Sensitive Water Resources areas we will be sending them to the regulatory agencies for review and concurrence
- Mitigation
    - Mitigation Site Primary Focus Areas
        - 13 primary mitigation site focus areas have been identified
        - Mitigation may be complete outside of these 13 sites if suitable mitigation cannot be completed within the 13 sites

- INDOT must have purchase property from willing sellers for mitigation sites
- Environmentally attractive areas have been identified within these 13 sites and property ownership information is being researched in these areas
- Mitigation sites should be developed to incorporate multiple mitigation requirements

Q: *Can you use eminent domain to purchase property for mitigation? (USEPA)*
A: INDOT policy is that the owner has to be willing, and the price has to be at fair market value. It is unknown as to whether INDOT could prevail in an eminent domain case for mitigation property, as the proof of public need/use would be great.

Q: *What and how was InWRAP used? (IDEM)*
A: We did not use analysis procedures developed for northern Indiana. We worked with Taylor University to develop an analysis procedure customized for Southwestern Indiana.

Q: *What is the mechanism to add additional primary mitigation sites?*
A: We will attempt to obtain mitigation property within the initially-identified 13 sites; other sites will be identified if the original 13 cannot provide enough suitable land for mitigation.

Q: When will the *Wetland Assessment information for Section 6 be out?*
A: This is being worked on now, no specific date yet.

C: *Please keep USEPA aware of all Water Resource meetings. (USEPA)*
A: INDOT and FHWA will keep USEPA and other agencies aware of all Water Resource meetings.

C: *Near the town of Waverly there is land well-suited for mitigation. Would like to see all agencies brought together to start to discuss mitigation and impacts, and not just meetings with individual agencies. (IDEM)*
A: Thank you and we will contact IDEM for additional information for mitigation in the Waverly area, and work with all other agencies, as appropriate, for mitigation sites.

Section 4 & 5 Karst Session

Section 4 Karst **Jason Krothe**

Overview

- Dye tracing tests of karst features determined groundwater flow paths in the project area: twenty-eight (28) dye tracing tests were conducted and 31 groundwater flowpaths were identified. Eight (8) groundwater flowpaths were shown to cross the Section 4 corridor; four dye traces showed flowpaths to multiple discharge points from a single injection point. The lengths of groundwater flowpaths vary greatly within Section 4. Over 200 dye tracing sampling locations were established, and over 5000 samples were analyzed
- Additional studies were proposed for select features, including additional dye tracing and biota surveys

- Background resources include: Indiana Geological Survey, Indiana Cave Survey, Indiana Karst Conservancy, National Speleological Society, and local karst experts knowledgeable about the area.

Karst Feature Mapping

- Field checks were conducted to verify and map previously recorded karst features
- Field reconnaissance was conducted to determine the presence of, and map previously unrecorded karst features
- Field mapping was conducted within the 27-mile length of Section 4 Corridor and appropriate areas outside the corridor to identify potentially related karst features that may be associated with the corridor via karst groundwater flowpaths or surface run-off
- Features identified within the corridor include: 14 caves, 296 sinkholes, 19 swallets, 6 sinking streams, and 113 springs

Important Features

- Cave, Cave, Cave, Cave, Cave, Spring, Cave, Cave, Interchange Area, Karst

Conclusion

- Karst feature mapped:
  - 63 caves, 14 within the corridor
  - 984 sinkholes, 296 within the corridor
  - 62 swallets, 19 within the corridor
  - 341 springs, 113 within the corridor
- Further studies:
  - Additional dye tracing studies
  - Biota surveys on selected karst features

Q: Are the biota studies ready for review?
A: No we are still working on these.

Q: Will additional studies be done?
A: Yes, with the concurrence of INDOT and FHWA.

Q: What do you look for in runoff water?
A: Contaminants, et al.

Section 5 Karst **Jim Peyton**

Setting

- Three areas of relevant karst in Section 5: Bloomington, Bloomington North, and Simpson Chapel
- 60 % of relevant karst already has been developed

- Local planners anticipate an additional 12.6% development by 2030 without construction of I-69

Methodology

- Karst investigations are consistent with the requirements for such investigations from the 1993 Memorandum of Understanding, Items 1 through 4
- Public and Private Research Sources included: Indiana Geological Survey, Indiana Cave Survey, karst professionals, Indiana University, Bloomington repositories/libraries City of Bloomington, previous INDOT studies, USDA et al.
- Results:
    - Three distinct areas of karst were identified for a total of approximately 11.5 linear miles of karst along SR 37
    - 374 sinkholes, 5 losing/sinking stream basins, and 27 filled or appreciably modified sinkholes were documented within or adjacent to the 2,000 foot corridor
    - Field investigations revealed 164 springs with 138 previously unreported; relevant springs included 10 springs with flows of 20 to 600 gallons per minute (gpm) and 113 springs with 1 to 10 gpm
    - Previously unreported cave and 2 karst windows were identified and documented
    - 197 dye trace sampling stations, 2,800 samples analyzed and 28 dye introductions demonstrated 38 karst groundwater flowpaths and 18 relevant dye traces from other sources were evaluated for a total of 56 groundwater flowpaths
    - Flow velocities ranged from 20 to over 48,000 feet per day and flowpaths ranged from 315 feet to one mile
    - 11 groundwater flowpaths illustrated transfer across sub-watershed boundaries and 9 karst flowpaths were shown to cross under SR 37
    - The Illinois Central Spring recharge area was revised, and preliminary recharge areas were identified for Cave
    - Four areas of special concern were identified: and Superfund sites, Street Interchange, and Cave
    - Following selection of a preferred alternative Annual Pollutant Load Estimates for pre, during, and post construction will be completed
    - No federally listed species were identified in Section 5 caves; however, three state listed threatened/endangered species were identified from cave biological surveys at and caves
- Summary and Conclusion
    - Significant current and planned development within Section 5 regardless of I-69.
    - Although some particular karst features may be avoided, karst geology cannot be avoided within the Section 5 corridor
    - None of the dye traces demonstrated discrete recharge from insurgence features without surface expression
    - The only significant cave system linked hydrologically to the Section 5 corridor is the Cave System
    - Areas of special concern:
        - Landfill – PCB leakage/runoff
        - Interchange at Street and SR 37 – buried sinkholes
        - Cave – existing and planned development within the recharge area

C: *You want to underscore the importance of Cave; there are G1 - G3 rated species ((Fontigens cryptica), the Indiana cave springtail (Sinalla alata), and a spring plant that was found in the cave. (IDNR)*

A: It is correct that Cave is listed as an Outstanding cave in the Indiana Heritage Database, and has state listed species. The preferred alternative does not directly affect the entrance nor its subterranean caverns. Presently, roadside drainage is directed to Cave, but with I-69, opportunities exist for detaining and filtering roadway contaminants. The possibility of diversion of run-off is another option. INDOT and FHWA are committed to working with the agencies for avoiding and minimizing impacts to Cave, and improving conditions from today. Adjacent to SR 37 in this area is a hospital that is being constructed. Run-off from the new Monroe County Hospital complex are planned to ultimately enter into Cave which is part to the Cave system.

Q: *Did you figure out where the stormwater is going? (USEPA)*

A: Drainage areas were determined for each of the karst insurgance features (sinkholes and sinking streams) within the immediate area of the highway upgrades. Stormwater/runoff can also enter the karst environment via buried insurgance features that may "re-open" with changes in surface drainage patterns or engineered drainage systems.

In addition an initial recharge area for the Cave system was determined as well as larger area "maximum recharge area" based on topography and other dye trace results. Stormwater from within this recharge area was demonstrated to enter the Cave system from dye traces, cave maps, and local topography.

Questions/Comments taken from The Index Cards distributed at the meeting:

C: *The EISs should provide detailed information about aquatic habitat for pollutant intolerant fish. The EISs should also describe cold water streams (or trout streams) in detail. In addition, the EISs should provide a cumulative impact analysis for impaired streams. (e.g. – streams impaired by siltation should include a CIA analysis accounting for siltation impacts from the project – if possible). (USEPA – Newton Ellens)*

A: The EIS's will include discussions on aquatic habitat. There are no cold water streams (trout streams) in the project area. All streams are warm-water from QHEI evaluations. Some HHEI evaluations show spring fed ephemeral headruns.

C: Under "methodology" the impact is glossed over as being insignificant overall to the area. You should also acknowledge that this is the largest construction project in Indiana in the last 30 years and its impacts also the largest. (IDNR – Dan Ernst)

A: The EISs will include a description on the magnitude of the study.

Q: *What is the threshold for "significant development"? Why is forest not considered for further analysis in the cumulative impacts analysis in Section 2? (IDNR – Dan Ernst)*

A: *(Note: Following the Overall Agency meeting and based on comments received, a decision was made to add wetlands, forests, and streams/floodplains to the detailed cumulative analysis for Section 2. Wetlands were also added to the detailed cumulative analysis for Section 3.)*

Q: Is the driver for further analysis the potential indirect affects? Is that why forests in Section 2 (which are greater than Section 6) are not considered for further analysis? (IDNR – Dan Ernst)

A: *(Following the Overall Agency meeting and based on comments received, a decision was made to add wetlands, forests, and streams/floodplains to the detailed cumulative analysis for Section 2. Wetlands were also added to the detailed cumulative analysis for Section 3.)*

Q: Will an assessment be made of Direct, Indirect, and Cumulative impacts to 8-digit watersheds from I-69? (USFWS – Andy King)

A: Streams and floodplains in smaller watersheds will be used in the analysis which will give a more comparable description. Meetings will be held with USFWS and other agencies to determine the appropriate watershed size.

Q: Will resource agencies be able to recommend limited access from roads that lead from I-69 interchanges to try to preclude indirect impacts such as housing developments and shopping malls in nearby forests and natural areas? (IDNR – John Bacone)

A: Presently, representatives are working with IDNR on this issue.

C: Please send a copy of biological surveys – plant and animal – for all sections. Have not seen, was even unaware of many if not most of survey work being done. (IDNR- Hank Huffman)

A: *(Note: On August 8, 2006, INDOT and FHWA hand-delivered all special reports to IDNR. Such correspondence was appropriately documented with all appropriate IDNR departments*.)

C: Was unaware of survey work being done on Bean Blossom, Griffy Creeks, and other creeks. Have not seen any Indiana Bat survey work. Have seen mussel, fish, plants survey for Patoka crossing and Jerry Lewis report on Bloomington section. (IDNR – Hank Huffman)

A: *(Note: Reports were hand-delivered to IDNR on August 8, 2006. At that time, representatives went over these reports for use by IDNR.)*

Meeting Conclusion/Closing Remarks **Tom Cervone, Ph.D.**

Details discussed in this meeting are subject to change, but are a reflection of how things stood at the close of the meeting.

These meeting minutes represent my understanding of the events that occurred. Carol Hood/PMC

cc: Kent Ahrenholtz, BLA

103-0001-1PL

U.S. Department of Transportation
Federal Highway Administration

Indiana Division

575 North Pennsylvania Street, Room 254
Indianapolis, Indiana 46204

September 22, 2006

Keith Jeremy
Vince Nicole
Dean Carol
Kent Mike C.
Tom Rusty
Jim B
Daniel
Jason
Carl

HDA-IN

Scott Pruitt
US Fish and Wildlife Service
Bloomington Field Office

Dear Mr. Pruitt:

On August 2, 2006, the draft karst studies for Section 4 and Section 5 of I-69 were provided for your agency's review in cooperation with the Federal Highway Administration in the development of Tier 2 Environmental Impact Statements for the I-69 corridor in southwest Indiana. These technical studies supplement the information that will be provided in the Tier 2 Draft EISs for these sections. This letter is to document that those studies were hand delivered to Mr. Andy King of your staff on that date.

A draft of the Survey of Karst Features Report for Section 4 (US231 to SR37) and the Karst Features and Groundwater Flow Investigation Report for Section 5 (SR37 south of Bloomington to SR39) have been prepared for the I-69 Tier 2 Studies. The primary purpose of theses studies has been to identify and characterize the karst features (i.e., caves, springs, sinkholes, etc.), determine groundwater flow paths based on literature research and study area specific dye tracing, and propose potential measures to offset karst impacts.

The I-69 Team requests that your agency review these draft reports and provide comments in a timely manner. Questions and comments should be directed to Jason DuPont, Chief of Environmental Studies, Bernardin, Lochmueller and Associates, Inc. either via mail at 6200 Vogel Road Evansville, IN 47715 or e-mail at jdupont@blainc.com.

Please be advised that this report includes confidential information concerning cave entrance and passage locations (select Tables, Figures, and Appendices) which should be carefully protected. Should your agency feel the need to have others in the karst community review this document, the Indiana Department of Transportation (INDOT) requests that they be notified for approval prior to any such dissemination of this material. The point of contact at INDOT for any such request is Michelle Hilary at (317) 232-5417 or at mhilary@indot.in.gov.

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We believe this information should be kept confidential in accordance with 5 USC Section 552(b)(9) which protects sensitive information related to "geological and geophysical information and data, including maps, concerning wells" due to the potential relationship of karst to the groundwater in the area. Part of this information was obtained by the Indiana Department of Transportation (INDOT) and its consultants by promising knowledgeable members of the Indiana caving community that the information they disclosed to INDOT would be protected to avoid destruction of the resources through recreational use.

As with all preliminary or potentially sensitive information related to this project that is being provided to your agency in the spirit of cooperation and early consultation, we request that your agency inform and consult with us in the event that there is a request that the information be released so that we can provide you any additional information you may need to assist in making the decision to grant such a request.

If you require further information please contact Tony DeSimone of this office at (317) 226-5307 (e-mail: Anthony.desimone@fhwa.dot.gov).

Sincerely yours,

/S/ ANTHONY M. DESIMONE

Robert F. Tally, Jr., P.E.
Division Administrator

cc:
Ms. Michelle Hilary (INDOT N642)
Kent Ahrenholtz (BLA)

Carol Hood

From: Jason Dupont

Sent: Wednesday, September 27, 2006 5:49 PM

To: dernst@dnr.state.in.us; 'plouks@dnr.in.gov'; 'zsmith@dnr.in.gov'; 'jseifert@dnr.in.gov'

Cc: Tom Cervone; Rusty Yeager; Kent Ahrenholtz; Carol Hood; mhilary@indot.IN.gov; BLAWRENCE@indot.state.in.us; 'DeSimone, Anthony'

Subject: I-69 Division of Forestry Meeting

All,

Attached is a summary of the meeting held with the Division of Forestry to follow up on question from the last agency meeting. If there are any questions or comments, please let me know.

Thanks,
Jason

Jason DuPont, P.E.
Chief of Environmental Services
Bernardin, Lochmueller & Associates
6200 Vogel Road
Evansville, IN 47715
Ph. 812-479-6200
Ph. 800-423-7411
Fax 812-479-6262
jdupont@blainc.com

MINUTES

Meeting with Indiana Department of Natural Resources – Division of Forestry

At the Indiana Government Center South, Room W296

September 11, 2006 at 2:00 a.m. EDT

Attendee	Organization
Dan Ernst	IDNR – Division of Forestry
Zachery Smith	IDNR – Division of Forestry
Pam Louks	IDNR – Division of Forestry
John Seifert	IDNR – Division of Forestry
Jason DuPont	Bernardin Lochmueller & Associates (PMC)
Rusty Yeager	Bernardin Lochmueller & Associates (PMC)

MEETING PURPOSE

The purpose of the Division of Forestry meeting was for the I-69 Project Management Consultant (PMC) to gain further insight into the Divisions concerns regarding potential impacts to urban forest resources and mitigation options, and discuss probable concerns regarding the control of exotic/invasive plant species for the project.

URBAN FORESTS

IDNR provided a basic explanation as to what urban forests are and the functions they serve. The PMC inquired as to what defines the geographic limits of urban forest resources. IDNR indicated that urban forest areas are not necessarily confined to within corporate limits, but may include suburban and ex-urban areas where trees provide local benefits to residences and businesses. The average recommended tree cover for urban forests is 40%. It was noted that aside from aesthetics large trees in urban areas, especially along roadways, serve to trap pollutants, assist in controlling stormwater runoff, sequester carbon and provide various other functions.

A preliminary tabletop review of maps for Sections 5 and 6 by IDNR concluded that urban forest concerns would be primarily along SR37 through Bloomington, through Martinsville possibly as far north as the country club and fish hatchery, Marion County and Johnson County as far south as SR144 at Waverly. IDNR requested ArcView shape files of the corridor so that they might review the project more closely for specific urban forest areas of concern. The PMC agreed to provide the corridor files to Mr. Smith.

IDNR indicated that it was not necessary to evaluate impacts to urban forests for each of the alternatives carried forward for further analysis, but that the preferred alternative should be reviewed for such resources and efforts to incorporate mitigation into the roadway plan should be considered.

IDNR inquired as to how INDOT addressed urban forest impact mitigation. The PMC indicated that they where not aware of any formal policy for such mitigation, but that INDOT Standards included specifications for site preparation, planting and post planting care of trees. IDNR noted that urban forest mitigation should focus on large tree preservation along the existing SR37 where possible and the planting of specific native (non-ornamental) species in the vicinity of the highway.

It was noted by the PMC that mitigation involving the planting of trees for urban forest cover would likely need to occur within the proposed right-of-way, within interchanges, or on excess land purchased

by INDOT. It was explained that as with wetland mitigation sites, the use of property beyond the right-of-way limits requires a willing seller. In the case of Sections 5 and 6, potential sites may include along the outer edge of the right-of-way, areas of bifurcation (if any), or small areas where the right-of-way requirements for existing road realignments and/or new frontage roads create unused remnant pieces of property. These areas could only be considered provided they do not result in sight distance or clear zone problems.

Ms. Louks indicated that she would contact Lee Huss (Bloomington Urban Forester) to obtain additional feedback and information on urban forest concerns specific to this area.

IDNR also inquired as to if urban tree plantings could/would be incorporated into planning grants as part of economic development packages resulting from the I-69 project. The PMC identified that this is currently not a part of the planning grants, but any information provided would be passed on to the consultant conducting the initial phase of this planning process.

IDNR suggested using methods of the Council of Tree and Landscape Appraisers in assessing replacement costs for urban resources and that all tree planting for urban forest mitigation be done according to ANSI standards (A300 Part 6 Transplanting). The PMC identified that this information would be provided to INDOT for consideration.

IDNR summarized their primary interest in the project at this time is understanding what mitigation guidelines would/could be implemented and knowledge of, or input as to where urban forest mitigation would be directed. IDNR provided the PMC with web site and brochure material on urban forests and invasive plants. The PMC identified that in many cases the scale of urban forest (i.e. potentially down to individual trees) that is being considered by IDNR may not be included in the current commitment to mitigate for upland forest.

INVASIVE SPECIES

IDNR indicated that they do not maintain a registry or database of areas where invasive plants are of particular concern in the state. Concerning tree and shrub species, the Division noted bush honeysuckles, buckthorns, autumn olive and tree-of-heaven as those of particular concern. IDNR recommends that invasive species encountered within the right-of-way be properly eradicated to prevent dispersal elsewhere within or beyond the right-of-way.

With respect to the current emerald ashborer situation in Indiana, IDNR requests that wood logged within the right-of-way not be transported out of the general area in an effort to prevent the unintentional migration of any individuals within the wood to other locations. This is of particular importance since an infestation is typically not observed for as much as seven years after inception.

The PMC was advised to consult the Midwest Invasive Plants web site as an additional source of information on invasive species concerns and control.

Carol Hood

From: Garra.Catherine@epamail.epa.gov
Sent: Friday, September 29, 2006 9:07 AM
To: Jeremy Kieffner
Cc: amy.s.babey@lrl02.usace.army.mil; andrew_king@fws.gov; Carol Hood; cstanifer@dnr.in.gov; dernst@dnr.in.gov; doug.shelton@lrl02.usace.army.mil; james.m.townsend@lrl02.usace.army.mil; Jason Dupont; jrandolp@idem.in.gov; Kent Ahrenholtz; MGrovak@aol.com; Tom Cervone; laszewski.virginia@epamail.epa.gov
Subject: Re: I-69 Envirnmentally Sensitive Water Resource Areas

Hi Jeremy--

I'd be open to suggestions for additions from others, but this looks like a good list.

Please bear in mind in the Tier 2 process that EPA is also concerned about avoiding adverse impacts to impaired waters, with the goal of not making them worse and the aspiration of being a part of the work that gets them to a point of being de-listed. As we have noted earlier, this would be water bodies included on the current 303(d) list for such things as nutrients, habitat or sediment, that would have some bearing on road construction impacts. Additional compensatory mitigation and mitigation that relates specifically to correcting the impacts to these water bodies must be factored into the EIS.

Cathy Garra

103-0001-1PL

United States Department of Agriculture

NRCS
Natural Resources Conservation Service
6013 Lakeside Blvd.
Indianapolis, IN 46278

Keith Nicole
Vince Carol
Dean Mike G.
Kent Rusty
Tom
Jim G.
Daniel
Jason
Carl
Jeremy

October 18, 2006

Rusty Yeager
Bernardin-Lochmueller & Associates, Inc.
6200 Vogel Road
Evansville, IN 47715-4006

RE: Project No. 103-0001-1PL
I-69 Evansville-Indianapolis
Morgan, Monroe and Greene Counties, Indiana

Dear Mr. Yeager:

Enclosed are the completed AD-1006 Farmland Conversion Rating Forms from the Natural Resources Conservation Service (NRCS) for the above named project(s). It has been found that there will be a conversion of prime farmland.

The attached packet of information is for your use in completing Parts VI and VII of the AD-1006. After completion the federal funding agency needs to forward one copy to NRCS for our records.

If you need additional information, please contact Lisa Bolton at (317) 290-3200, extension 342.

Sincerely,

ACTING FOR

JANE E. HARDISTY
State Conservationist

Enclosures

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U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request 8/22/06	4. Sheet 1 of 1 of 2
1. Name of Project **Sect. 4, I-69 Evansville to Indianapolis Tier 2**	5. Federal Agency Involved **Federal Highway Administration**	
2. Type of Project **Interstate Highway**	6. County and State **Greene County, Indiana**	

PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS 9-11-06	2. Person Completing Form Rick Nelson
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form) YES ☒ NO ☐		4. Acres Irrigated / Average Farm Size 203 Acres
5. Major Crop(s) Corn	6. Farmable Land in Government Jurisdiction Acres: 284,994 % 82	7. Amount of Farmland As Defined in FPPA Acres: 173,641 %50
8. Name Of Land Evaluation System Used LESA	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS 10-16-08

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment			
	Alt. 1	Alt. 2	Alt. 3	
A. Total Acres To Be Converted Directly	1,082.9	1,217.8	1,082.9	
B. Total Acres To Be Converted Indirectly, Or To Receive Services	9.7	14.5	9.7	
C. Total Acres In Corridor	1,092.6	1,232.3	1,092.6	0.0
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland	313.04	324.88	313.04	
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	0.383	0.432	0.383	
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value	87	87	87	
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*	35	33	35	

PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))*	Maximum Points				
1. Area in Nonurban Use	15				
2. Perimeter in Nonurban Use	10				
3. Percent Of Corridor Being Farmed	20				
4. Protection Provided By State And Local Government	20				
5. Size of Present Farm Unit Compared To Average	10				
6. Creation Of Nonfarmable Farmland	25				
7. Availablility Of Farm Support Services	5				
8. On-Farm Investments	20				
9. Effects Of Conversion On Farm Support Services	25				
10. Compatibility With Existing Agricultural Use	10				
TOTAL CORRIDOR ASSESSMENT POINTS	160	0	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland (From Part V)	100	35	33	35	
Total Corridor Assessment (From Part VI above or a local site assessment)	160	0	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	0	0	0	0

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES ☐ NO ☐

5. Reason For Selection:

Signature of Person Completing this Part: | DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request 8/22/06	4. Sheet 1 of 2 of 2
1. Name of Project Sect. 4, I-69 Evansville to Indianapolis Tier 2	5. Federal Agency Involved Federal Highway Administration	
2. Type of Project Interstate Highway	6. County and State Monroe County, Indiana	
PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS 9-11-06	2. Person Completing Form Rick Nelson
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form) YES ☒ NO ☐		4. Acres Irrigated / Average Farm Size 126 Ac
5. Major Crop(s) Corn	6. Farmable Land in Government Jurisdiction Acres: 143,550 % 55	7. Amount of Farmland As Defined in FPPA Acres: 59,941 % 23
8. Name Of Land Evaluation System Used LESA	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS 10-18-06

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment			
	Alt. 1	Alt. 2	Alt. 3	
A. Total Acres To Be Converted Directly	713.4	631.4	680.5	
B. Total Acres To Be Converted Indirectly, Or To Receive Services	14.0	10.6	14.1	
C. Total Acres In Corridor	727.4	642.0	694.6	0.0
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland	137.90	111.50	133.82	
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	0.506	0.447	0.483	
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value	76	76	76	
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*	50	47	49	

PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))*	Maximum Points				
1. Area in Nonurban Use	15				
2. Perimeter in Nonurban Use	10				
3. Percent Of Corridor Being Farmed	20				
4. Protection Provided By State And Local Government	20				
5. Size of Present Farm Unit Compared To Average	10				
6. Creation Of Nonfarmable Farmland	25				
7. Availablility Of Farm Support Services	5				
8. On-Farm Investments	20				
9. Effects Of Conversion On Farm Support Services	25				
10. Compatibility With Existing Agricultural Use	10				
TOTAL CORRIDOR ASSESSMENT POINTS	160	0	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland (From Part V)	100	50	47	49	
Total Corridor Assessment (From Part VI above or a local site assessment)	160	0	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	0	0	0	0

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES ☐ NO ☐

5. Reason For Selection:

Signature of Person Completing this Part: | DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request 9/1/06	4. Sheet 1 of 3
1. Name of Project Sect. 6, I-69 Evansville to Indianapolis Tier 2	5. Federal Agency Involved Federal Highway Administration	
2. Type of Project Interstate Highway	6. County and State Morgan County, Indiana	
PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS 9-11-06	2. Person Completing Form Rick Nelson
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☑ NO ☐		4. Acres Irrigated / Average Farm Size 176 acres
5. Major Crop(s) Corn	6. Farmable Land in Government Jurisdiction Acres: 201,267 % 77	7. Amount of Farmland As Defined in FPPA Acres: 154,228 % 59
8. Name Of Land Evaluation System Used LESA	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS 10-16-06

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment			
	Alt 1	Alt 2	Alt 3	
A. Total Acres To Be Converted Directly	739.0	687.2	742.8	
B. Total Acres To Be Converted Indirectly, Or To Receive Services	0.0	0.0	0.0	
C. Total Acres In Corridor	739.0	687.2	742.8	0.0
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland	385.3	419.6	385.9	
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	0.3670	0.3410	0.3690	
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	85.0	75.0	85.0	
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*	58	62	58	

PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))*	Maximum Points				
1. Area in Nonurban Use	15				
2. Perimeter in Nonurban Use	10				
3. Percent Of Corridor Being Farmed	20				
4. Protection Provided By State And Local Government	20				
5. Size of Present Farm Unit Compared To Average	10				
6. Creation Of Nonfarmable Farmland	25				
7. Availablility Of Farm Support Services	5				
8. On-Farm Investments	20				
9. Effects Of Conversion On Farm Support Services	25				
10. Compatibility With Existing Agricultural Use	10				
TOTAL CORRIDOR ASSESSMENT POINTS	160	0	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland (From Part V)	100	58	62	58	
Total Corridor Assessment (From Part VI above or a local site assessment)	160	0	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	58	62	58	0

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES ☐ NO ☐

5. Reason For Selection:

Signature of Person Completing this Part: | DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

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FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request 8/22/06 — 4. Sheet 1 of 1 of 2
1. Name of Project Sect. 4, I-69 Evansville to Indianapolis Tier 2	5. Federal Agency Involved Federal Highway Administration
2. Type of Project Interstate Highway	6. County and State Greene County, Indiana
PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS 9-11-06 — 2. Person Completing Form Rick Nelson
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form) YES [X] NO [ ]	4. Acres Irrigated — Average Farm Size 203 Acres
5. Major Crop(s) Corn — 6. Farmable Land In Government Jurisdiction Acres: 284,994 % 82	7. Amount of Farmland As Defined in FPPA Acres: 173,641 % 50
8. Name Of Land Evaluation System Used LESA — 9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS 10-16-08

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment			
	Alt. 1	Alt. 2	Alt. 3	
A. Total Acres To Be Converted Directly	1,082.9	1,217.8	1,082.9	
B. Total Acres To Be Converted Indirectly, Or To Receive Services	9.7	14.5	9.7	
C. Total Acres In Corridor	1,092.6	1,232.3	1,092.6	0.0
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland	313.04	324.88	313.04	
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted	0.383	0.432	0.383	
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value	87	87	87	
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*	35	33	35	

PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))*	Maximum Points				
1. Area in Nonurban Use	15				
2. Perimeter in Nonurban Use	10				
3. Percent Of Corridor Being Farmed	20				
4. Protection Provided By State And Local Government	20				
5. Size of Present Farm Unit Compared To Average	10				
6. Creation Of Nonfarmable Farmland	25				
7. Availablility Of Farm Support Services	5				
8. On-Farm Investments	20				
9. Effects Of Conversion On Farm Support Services	25				
10. Compatibility With Existing Agricultural Use	10				
TOTAL CORRIDOR ASSESSMENT POINTS	160	0	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland (From Part V)	100	35	33	35	
Total Corridor Assessment (From Part VI above or a local site assessment)	160	0	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	0	0	0	0

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES [ ] NO [ ]

5. Reason For Selection:

Signature of Person Completing this Part: | DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request 8/22/06	4. Sheet 1 of 2 of 2
1. Name of Project Sect. 4, I-69 Evansville to Indianapolis Tier 2	5. Federal Agency Involved Federal Highway Administration	
2. Type of Project Interstate Highway	6. County and State Monroe County, Indiana	

PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS 9-11-06	2. Person Completing Form Rick Nelson
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form) YES ☒ NO ☐		4. Acres Irrigated / Average Farm Size 126 Ac
5. Major Crop(s) Corn	6. Farmable Land in Government Jurisdiction Acres: 143,550 % 55	7. Amount of Farmland As Defined in FPPA Acres: 59,941 % 23
8. Name Of Land Evaluation System Used LESA	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS 10-18-06

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment			
	Alt. 1	Alt. 2	Alt. 3	
A. Total Acres To Be Converted Directly	713.4	631.4	680.5	
B. Total Acres To Be Converted Indirectly, Or To Receive Services	14.0	10.6	14.1	
C. Total Acres In Corridor	727.4	642.0	694.6	0.0
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland	137.90	111.50	133.82	
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	0.506	0.447	0.483	
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	76	76	76	
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*	50	47	49	

PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))*	Maximum Points				
1. Area in Nonurban Use	15				
2. Perimeter in Nonurban Use	10				
3. Percent Of Corridor Being Farmed	20				
4. Protection Provided By State And Local Government	20				
5. Size of Present Farm Unit Compared To Average	10				
6. Creation Of Nonfarmable Farmland	25				
7. Availability Of Farm Support Services	5				
8. On-Farm Investments	20				
9. Effects Of Conversion On Farm Support Services	25				
10. Compatibility With Existing Agricultural Use	10				
TOTAL CORRIDOR ASSESSMENT POINTS	160	0	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland (From Part V)	100	50	47	49	
Total Corridor Assessment (From Part VI above or a local site assessment)	160	0	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	0	0	0	0

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES ☐ NO ☐

5. Reason For Selection:

Signature of Person Completing this Part: | DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor

U.S. DEPARTMENT OF AGRICULTURE
Natural Resources Conservation Service

NRCS-CPA-106
(Rev. 1-91)

FARMLAND CONVERSION IMPACT RATING FOR CORRIDOR TYPE PROJECTS

PART I *(To be completed by Federal Agency)*	3. Date of Land Evaluation Request 9/1/06	4. Sheet 1 of 3
1. Name of Project Sect. 6, I-69 Evansville to Indianapolis Tier 2	5. Federal Agency Involved Federal Highway Administration	
2. Type of Project Interstate Highway	6. County and State Morgan County, Indiana	
PART II *(To be completed by NRCS)*	1. Date Request Received by NRCS 9-11-06	2. Person Completing Form Rick Nelson
3. Does the corridor contain prime, unique statewide or local important farmland? (If no, the FPPA does not apply - Do not complete additional parts of this form). YES ☑ NO ☐		4. Acres Irrigated / Average Farm Size 176 acres
5. Major Crop(s) Corn	6. Farmable Land in Government Jurisdiction Acres: 201,267 % 77	7. Amount of Farmland As Defined in FPPA Acres: 154,228 % 59
8. Name Of Land Evaluation System Used LESA	9. Name of Local Site Assessment System	10. Date Land Evaluation Returned by NRCS 10-16-06

PART III *(To be completed by Federal Agency)*	Alternative Corridor For Segment			
	Alt 1	Alt 2	Alt 3	
A. Total Acres To Be Converted Directly	739.0	687.2	742.8	
B. Total Acres To Be Converted Indirectly, Or To Receive Services	0.0	0.0	0.0	
C. Total Acres In Corridor	739.0	687.2	742.8	0.0
PART IV *(To be completed by NRCS) Land Evaluation Information*				
A. Total Acres Prime And Unique Farmland	385.3	419.6	385.9	
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted	0.3670	0.3410	0.3690	
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value	85.0	75.0	85.0	
PART V *(To be completed by NRCS) Land Evaluation Information Criterion Relative value of Farmland to Be Serviced or Converted (Scale of 0 - 100 Points)*	58	62	58	

PART VI *(To be completed by Federal Agency) Corridor Assessment Criteria (These criteria are explained in 7 CFR 658.5(c))*	Maximum Points				
1. Area in Nonurban Use	15				
2. Perimeter in Nonurban Use	10				
3. Percent Of Corridor Being Farmed	20				
4. Protection Provided By State And Local Government	20				
5. Size of Present Farm Unit Compared To Average	10				
6. Creation Of Nonfarmable Farmland	25				
7. Availablility Of Farm Support Services	5				
8. On-Farm Investments	20				
9. Effects Of Conversion On Farm Support Services	25				
10. Compatibility With Existing Agricultural Use	10				
TOTAL CORRIDOR ASSESSMENT POINTS	160	0	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland (From Part V)	100	58	62	58	
Total Corridor Assessment (From Part VI above or a local site assessment)	160	0	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	58	62	58	0

1. Corridor Selected:	2. Total Acres of Farmlands to be Converted by Project:	3. Date Of Selection:	4. Was A Local Site Assessment Used? YES ☐ NO ☐

5. Reason For Selection:

Signature of Person Completing this Part: | DATE

NOTE: Complete a form for each segment with more than one Alternate Corridor

FARMLAND PROTECTION POLICY ACT
FPPA

This information is included for your consideration in completing sections I, III, VI and VII of Form AD-1006.

Natural Resources Conservation Service
6013 Lakeside Boulevard
Indianapolis, IN 46278

~~Phil Bousman~~ Lisa Bolton
(317) 290-3220 ext. ~~385~~
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401.24 Farmland Protection Policy Act (FPPA) Rule.

(c) The Act and these regulations do not authorize the Federal Government in any way to regulate the use of private or non-Federal land, or in any way affect the property rights of owners of such land. In cases where either a private party or a non-Federal unit of government applies for Federal assistance to convert farmland to a nonagricultural use, the Federal agency should use the criteria set forth in this part to identify and take into account any adverse effects on farmland of the assistance requested and develop alternative actions that would avoid or mitigate such adverse effects. If, after consideration of the adverse effects and suggested alternatives, the landowners want to proceed with conversion, the Federal agency, on the basis of the analysis set forth in Sec. 658.4 and any agency policies or procedures for implementing the Act, may provide or deny the requested assistance. Only assistance and actions that would convert farmland to nonagricultural uses are subject to this Act. Assistance and actions related to the purchase, maintenance, renovation, or replacement of existing structures and sites converted prior to the time of an application for assistance from a Federal agency, including assistance and actions related to the construction of minor new ancillary structures (such as garages or sheds), are not subject to the Act.

(d) Section 1548 of the Act, as amended, 7 U.S.C. 4209, states that the Act shall not be deemed to provide a basis for any action, either legal or equitable, by any person or class of persons challenging a Federal project, program, or other activity that may affect farmland. Neither the Act nor this rule, therefore, shall afford any basis for such an action. However, as further provided in section 1548, the governor of an affected state, where a state policy or program exists to protect farmland, may bring an action in the Federal district court of the district where a Federal program is proposed to enforce the requirements of section 1541 of the Act, 7 U.S.C. 4202, and regulations issued pursuant to that section.

Sec. 658.4 Guidelines for use of criteria.

As stated above and as provided in the Act, each Federal agency shall use the criteria provided in Sec. 658.5 to identify and take into account the adverse effects of Federal programs on the protection of farmland. The agencies are to consider alternative actions, as appropriate, that could lessen such adverse effects, and assure that such Federal programs, to the extent practicable, are compatible with State, unit of local government and private programs and policies to protect farmland. The following are guidelines to assist the agencies in these tasks:

(a) An agency may determine whether or not a site is farmland as defined in Sec. 658.2(a) or the agency may request that NRCS make such a determination. If an agency elects not to make its own determination, it should make a request to NRCS on Form AD-1006, the Farmland Conversion Impact Rating Form, available at NRCS offices, for determination of whether the site is farmland subject to the Act. If neither the entire site nor any part of it is subject to the Act, then the Act will not apply and NRCS will so notify the agency. If the site is determined by NRCS to be subject to the Act, then NRCS will measure the relative value of the site as farmland on a scale of 0 to 100 according to the information sources listed in Sec. 658.5(a). NRCS will respond to these requests within 10 working days of their receipt except that in cases where a site visit or land evaluation system design is needed, NRCS will respond in 30 working days. In the event that NRCS fails to complete its response within the required period, if further delay would interfere with construction activities; the agency should proceed as though the site were not farmland.

(b) The Form AD 1006, returned to the agency by NRCS will also include the following incidental information: The total amount of farmable land (the land in the unit of local government's jurisdiction that is capable of producing the commonly grown crop); the percentage of the jurisdiction that is farmland

401.24 Farmland Protection Policy Act (FPPA) Rule.

(g) To meet reporting requirements of section 1546 of the Act, 7 and for data collection purposes, after the agency has made a final decision on a project in which one or more of the alternative sites contain farmland subject to the FPPA, the agency is requested to return a copy of the Form AD-1006, which indicates the final decision of the agency, to the NRCS field office.

(h) Once a Federal agency has performed an analysis under the FPPA for the conversion of a site, that agency's, or a second Federal agency's determination with regard to additional assistance or actions on the same site do not require additional redundant FPPA analysis.

Sec. 658.5 Criteria.

This section state the criteria required by section 1541(a) of the Act, 7 U.S.C. 4202(a). The criteria were developed by the Secretary of Agriculture in cooperation with other Federal agencies. They are in two parts, (1) the land evaluation criterion, relative value, for which NRCS will provide the rating or score, and (2) the site assessment criteria, for which each Federal agency must develop its own ratings or scores.
The criteria are as follows:

(a) Land Evaluation Criterion--Relative Value. The land evaluation criterion is based on information from several sources including national cooperative soil surveys or other acceptable soil surveys, NRCS field office technical guides, soil potential ratings or soil productivity ratings, land capability classifications, and important farmland determinations. Based on this information, groups of soils within a local government's jurisdiction will be evaluated and assigned a score between 0 to 100, representing the relative value, for agricultural production, of the farmland to be converted by the project compared to other farmland in the same local government jurisdiction, This score will be the Relative Value Rating on Form AD 1006.

(b) Site Assessment Criteria. Federal agencies are to use the following criteria to assess the suitability of each proposed site or design alternative for protection as farmland along with the score from the land evaluation criterion described in Sec. 658.5(a). Each criterion will be given a score on a scale of 0 to the maximum points shown. Conditions suggesting top, intermediate and bottom scores are indicated for each criterion. The agency would make scoring decisions in the context of each proposed site or alternative action by examining the site, the surrounding area, and the programs and policies of the State or local unit of government in which the site is located. Where one given location has more than one design alternative, each design should be considered as an alternative site. The site assessment criteria are:

(1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?

More than 90 percent--15 points
90 to 20 percent--14 to 1 point(s)
Less than 20 percent--0 points

(2) How much of the perimeter of the site borders on land in nonurban use?

More than 90 percent--10 points
90 to 20 percent--9 to 1 point(s)
Less than 20 percent--0 points

(3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than 5 of the last 10 years?

401.24 Farmland Protection Policy Act (FPPA) Rule.

All required services are available--5 points
Some required services are available--4 to 1 point(s)
No required services are available--0 points

(10) Does the site have substantial and well-maintained on-farm investments such as barns, other storage buildings, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?

High amount of on-farm investment--20 points
Moderate amount of on-farm investment--19 to 1 point(s)
No on-farm investment--0 points

(11) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?

Substantial reduction in demand for support services if the site is converted--10 points
Some reduction in demand for support services if the site is converted--9 to 1 point(s)
No significant reduction in demand for support services if the site is converted--0 points

(12) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use?

Proposed project is incompatible with existing agricultural use of surrounding farmland--10 points
Proposed project is tolerable to existing agricultural use of surrounding farmland--9 to 1 point(s)
Proposed project is fully compatible with existing agricultural use of surrounding farmland--0 points

(c) Corridor-type Site Assessment Criteria. The following criteria are to be used for projects that have a linear or corridor-type site configuration connecting two distant points, and crossing several different tracts of land. These include utility lines, highways, railroads, stream improvements, and flood control systems. Federal agencies are to assess the suitability of each corridor-type site or design alternative for protection as farmland along with the land evaluation information described in Sec. 658.4(a). All criteria for corridor-type sites will be scored as shown in Sec. 658.5(b) for other sites, except as noted below:

(1) Criteria 5 and 6 will not be considered.

(2) Criterion 8 will be scored on a scale of 0 to 25 points, and criterion 11 will be scored on a scale of 0 to 25 points.

Form AD-1006

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request
Name Of Project	Federal Agency Involved
Proposed Land Use	County And State
PART II *(To be completed by NRCS)*	Date Request Received By NRCS

Does the site contain prime, unique, statewide or local important farmland? Yes ☐ No ☐ | Acres Irrigated | Average Farm Size
(If no, the FPPA does not apply -- do not complete additional parts of this form).

Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres: %	Amount Of Farmland As Defined in FPPA Acres: %
Name Of Land Evaluation System Used	Name Of Local Site Assessment System	Date Land Evaluation Returned By NRCS

PART III *(To be completed by Federal Agency)*	Alternative Site Rating: Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly				
B. Total Acres To Be Converted Indirectly				
C. Total Acres In Site	0.0	0.0	0.0	0.0
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value				
PART V *(To be completed by NRCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*	0	0	0	0

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(These criteria are explained in 7 CFR 658.5(b)*	Maximum Points				
1. Area In Nonurban Use	15				
2. Perimeter In Nonurban Use	10				
3. Percent Of Site Being Farmed	20				
4. Protection Provided By State And Local Government	20				
5. Distance From Urban Builtup Area	15				
6. Distance To Urban Support Services	15				
7. Size Of Present Farm Unit Compared To Average	10				
8. Creation Of Nonfarmable Farmland	10				
9. Availability Of Farm Support Services	5				
10. On-Farm Investments	20				
11. Effects Of Conversion On Farm Support Services	10				
12. Compatibility With Existing Agricultural Use	10				
TOTAL SITE ASSESSMENT POINTS	160	0	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	0	0	0	0
Total Site Assessment *(From Part VI above or a local site assessment)*	160	0	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	0	0	0	0

Site Selected: | Date Of Selection | Was A Local Site Assessment Used? Yes ☐ No ☐

Reason For Selection:

(See Instructions on reverse side) Form AD-1006 (10-83)

This form was electronically produced by National Production Services Staff

Completing the AD-1006/CPA-106

- Where to find the form: The form should be provided by the originating agency. NRCS has this as a paper copy or on a CD.
- NRCS is initiating an electronic submission process for the AD-1006. Maps and specific site information will still be needed to process the request. The electronic submission process will facilitate tracking and reporting responsibilities.

Steps in processing the AD-1006/CPA-106

- Originating agency: complete parts I and III and send to NRCS
- NRCS: Consider using register to track AD1006/CPA106 (see exhibit)
- NRCS will complete parts II, IV, V
- NRCS steps to complete form
- Part II: date received by NRCS

  Information in this section should be in the ~~local field~~ state office. If this is not available, contact soils section in state office for guidance.
- Part IV. This information should be in ~~local field~~ state office. If this is not available, contact appropriate soil scientist.
- Part V. This information should be in the ~~local field~~ state office. If it is not available, contact appropriate soil scientist.
- NRCS returns AD-1006/CPA-106 to originating agency
- Part VI and VII: completed by originating agency (section 658.5 of Farmland Protection Policy Act list the specific criteria for scoring)
- Alternative Site Rating: If the total SA and LE score exceeds 160 alternative sites must be considered. 404.5 (310-GM) requires 2 alternatives for scores between 160 and 220 and 3 alternatives for scores over 220.
- Originating agency returns completed form to NRCS

Completing Form AD-1006, Steps 1-7

Step 1. Federal Funding agencies involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA) to nonagricultural used, will initially complete Parts I and III of this form.

Step 2. Originator will send three copies of AD 1006 together with maps indicating locations of the site(s) to the Natural Resources Conservation Service (NRCS) ~~local field~~ State office and retain one copy for your files. A list of NRCS field offices is available from the NRCS State Conservationist in each or from the NRCS website.

Step 3. NRCS will return 2 copies of the AD1006 to the originating federal agency within 10 working days of receipt of the request unless a land evaluation has not been completed or a site visit is required (30 working days are allowed if a land evaluation must be completed or a site visit must be made). If more than 10 days are required, NRCS will notify the agency of the need for additional time, up to 30 working days. See exhibit 403.26.

Step 4. In cases where farmland covered by the FPPA will be converted by the proposed project; NRCS field offices will complete parts II, IV, and V of the form.

Step 5. NRCS will return 2 copies of the form to the federal agency involved in the project. (One copy will be retained for NRCS records).

Step 6. The federal agency involved in the proposed project will complete parts VI and VII of the form.

Step 7. The federal agency involved in the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA and the agencies internal policies.

Carol Hood

From: Louks, Pam [PLouks@dnr.IN.gov]
Sent: Thursday, October 19, 2006 3:10 PM
To: Jason Dupont; Ernst, Dan; Smith, Zachary; Seifert, John
Cc: Tom Cervone; Rusty Yeager; Kent Ahrenholtz; Carol Hood; Hilary, Michelle; Lawrence, Ben; Desimone, Anthony
Subject: RE: I-69 Division of Forestry Meeting

Hi Jason. These meeting notes are accurate. Thanks for understanding the urban forests. I have contacted Lee Huss, Bloomington and Paul Pinco, Indianapolis (city foresters for these areas). Each has said that their ordinances have a 1:1 replacement policy. Both would like to see large, native tree, cluster plantings to help mitigate the pollution caused by vehicular traffic.

Pamela C. Louks

Community & Urban Forestry Coordinator
Indiana DNR, Division of Forestry
6515 E. 82nd Street, Ste 204
Indianapolis, IN 46250
PH-317-915-9390
FAX-317-915-9392
E-mail: plouks@dnr.IN.gov

website (s). IDNR, Division of Forestry: www.in.gov/dnr/forestry Indiana Urban Forest Council-the urban forestry umbrella non-profit in Indiana: www.iufc.org

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From: Jason Dupont [mailto:JDupont@blainc.com]
Sent: Wed 9/27/2006 5:48 PM
To: Ernst, Dan; Louks, Pam; Smith, Zachary; Seifert, John
Cc: Tom Cervone; Rusty Yeager; Kent Ahrenholtz; Carol Hood; Hilary, Michelle; Lawrence, Ben; Desimone, Anthony
Subject: I-69 Division of Forestry Meeting

All,

Attached is a summary of the meeting held with the Division of Forestry to follow up on question from the last agency meeting. If there are any questions or comments, please let me know.

Thanks,

Jason

Jason DuPont, P.E.

Chief of Environmental Services

Bernardin, Lochmueller & Associates

6200 Vogel Road

Evansville, IN 47715

Ph. 812-479-6200

Ph. 800-423-7411

Fax 812-479-6262

jdupont@blainc.com

INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

100 North Senate Avenue
Room N642
Indianapolis, Indiana 46204 (317) 232-5348

Mitchell E. Daniels, Jr., Governor
Thomas O. Sharp, Commissioner

October 31, 2006

Virginia Laszewski
Environmental Scientist
U.S. EPA, Region 5
77 W. Jackson Blvd.
Chicago, IL 60604

Dear Ms. Laszewski:

Enclosed herewith is an executed original of the interagency agreement to fund a karst specialist at EPA for the I-69 project.

If you have any questions, please contact me at 317-232-5336.

Sincerely,

Thomas H Seeman

Thomas H. Seeman
I-69 Project Manager

cc: Michelle Hilary
Gary Eaton
Tony DeSimone – FHWA
✓ Kent Ahrenholtz – BLA

RECEIVED

NOV - 6 2006

BLA - EVANSVILLE

INTERAGENCY AGREEMENT

Between The

FEDERAL HIGHWAY ADMINISTRATION

ENVIRONMENTAL PROTECTION AGENCY

And The

INDIANA DEPARTMENT OF TRANSPORTATION

RELATIVE TO EXPEDITING AND IMPROVING
THE ENVIRONMENTAL REVIEW PROCESS FOR I-69

July 21, 2006

PREAMBLE: This Interagency Agreement between the Indiana Department of Transportation (INDOT), the Federal Highway Administration (FHWA), and the United States Environmental Protection Agency (EPA) sets forth the responsibilities of the signatory agencies (Parties) relative to travel to meetings in Indiana concerning the project and the review of environmental studies and documents including karst information in the Environmental Impact Statements for Sections 4 & 5 of I-69 Evansville to Indianapolis Tier 2, an INDOT, project with the goal of achieving timely design and construction of adequate, safe and economical highway improvements while also assuring such design and construction is sensitive to the protection of natural resources for which the EPA is responsible under federal statute and regulation.

WHEREAS, this Agreement is entered into under the authority of 23 U.S.C. § 139(j) ("Section 139(j)"); and

WHEREAS, pursuant to Section 139(j), funds made available under Title 23 may be provided to a Federal agency, such as EPA, "to support activities that directly and meaningfully contribute to expediting and improving transportation project planning and delivery for projects in that State"; and

WHEREAS, the Parties have determined that supplementing the EPA staffing with travel funds and expert contractor services, as provided in this Agreement and the Appendix which includes the Scope of Services, would provide expedited review by the EPA for the I-69 Evansville-to-Indianapolis highway project; and

WHEREAS, this expedited review would enable the I-69 within Indiana to proceed with expedited project review, analysis and consultation by the EPA; and

WHEREAS, the FHWA and INDOT are willing to provide funding to the EPA for travel for project involvement and contractor services relative to the review of karst studies for Sections 4 & 5 of I-69 Evansville to Indianapolis - Tier 2; and

WHEREAS, Section 139(j) allows for a State to request to use funds made available under Title 23, United States Code, to provide resources to affected Federal agencies necessary to conduct such activities; and

WHEREAS, the FHWA has indicated and agrees that INDOT's allocated discretionary Federal-aid Highway funds are eligible to support this Agreement; and

NOW, THEREFORE, in consideration of the mutual promises and agreements contained herein, the signatory parties to this Agreement concur with the following responsibilities and terms.

SCOPE OF WORK

1. Background

The Evansville-to-Indianapolis section of I-69 is part of the 1,600 mile I-69 High Priority Corridor, which runs from the U.S.-Canada border to the U.S.-Mexico border. Its development was originally supported by ISTEA in 1991 and more recently by TEA-21 in 1998

The Indiana Division of FHWA serves as the lead Federal agency for the project. FHWA provides support and oversight to INDOT, the State lead. In this capacity, FHWA is establishing environmental streamlining partnerships with the EPA. The goal of this partnership is the expeditious delivery of I-69, in a manner that is safe, timely, cost-effective, and environmentally sound.

The timeline for development of the Indiana portion of I-69 increases the need for expedited environmental review. This interagency Agreement sets forth the responsibilities of the parties relative to the provision of additional resources for expedited environmental review of I-69. The goal is to achieve timely design and construction of adequate, safe and economical highway improvements while also assuring such design and implementation is sensitive to the protection of the environment.

2. INDOT and FHWA responsibilities. INDOT and FHWA will:

   A. Provide funding to the EPA in the amount of $95,300.00 over the two-year term of this Agreement for the costs contemplated by this Agreement. This agreement shall not be interpreted to require FHWA or INDOT to pay EPA any amount in excess of $95,300.00, unless later amended.

   B. Review EPA documentation for expenditures for contractor services as drawn against this account in support of work under this agreement which is included in the Appendix.

   C. Review EPA documentation for travel expenditures

   D. Approve or dispute EPA documentation for expenditures and negotiate with EPA in good faith toward reconciliation of any disputed amount.

3. EPA responsibilities. EPA will:

   A. Seek to hire an experienced contractor to undertake work contemplated by this Agreement to fulfill Part A of the Scope of Service in the attached appendix.

   B. Ensure that the contractor contemplated by this Agreement is dedicated to work on only I-69.

C. Attend required project meetings and web cast/conference calls to expedite review of environmental studies and documents. Reimbursement of travel expenses will be in compliance with Federal Travel Regulations and as defined in Part B of the Scope of Services in the attached Appendix.

D. EPA will submit semi-annual expenditure reports to INDOT and FHWA and use the funds provided under this Agreement to defray the costs of the contractor services and travel associated with this project. EPA will only submit expenditures for contractor services or travel spent on work performed under this Agreement.

E. EPA will ensure that the contractor maintains time records identifying the hours spent on each specific task relative to this Agreement. These records shall be available to FHWA and INDOT for at least four (4) years after the final billing is submitted.

F. At the completion of this agreement or upon termination, the EPA will reimburse the INDOT all unexpended funds within 90 days of the termination date.

4. General Terms

A. Length of Agreement. This Agreement is two years from the date of signature of the last signing party or July 31, 2008, whichever comes last, unless extended or terminated as provide in 4B and 4C.

B. Modification and Extension. This Agreement may be modified, amended or extended by the agreement of the signatory parties, for an additional two years.

C. Termination. This Agreement may be terminated by INDOT, FHWA or EPA upon 30 days written notice to the Signatory of the other parties. All costs incurred by EPA prior to termination date will remain valid to be applied against this Agreement.

D. The point of contact/project manager in each signatory agency is as listed below unless such responsibilities are delegated by this individual.

EPA:

Kenneth Westlake
Chief, NEPA Implementation Section
U.S. EPA Region 5
77 W. Jackson Blvd.
Chicago, IL 60604
Phone: 312-886-2910

Fax: 312-353-5374
westlake.kenneth@epa.gov

FHWA:

Anthony DeSimone
I-69 Project Manager
Federal Highway Administration
575 N. Pennsylvania Street, Room 254
Indianapolis, IN 46204
(317) 226-5307 Fax No.: (317) 226-7341
Anthony.DeSimone@fhwa.dot.gov

INDOT:

Michelle C. Hilary
INDOT, Office of Environmental Services
100 N. Senate Ave., Room N642
Indianapolis, IN 46204
(317) 232-5417
mhilary@indot.in.gov

E. Nothing in this Agreement may be construed to obligate FHWA to provide, or entitle the EPA to receive, any current or future expenditure of funds in advance of the availability of appropriations from Congress or in excess of the funds provided to EPA pursuant to this Agreement.

F. During the performance of this Agreement, the parties agree to abide by the terms of Executive Order 11246 on non-discrimination and will not discriminate against any person because of race, color, religion, sex or national origin. The participants will take affirmative action to ensure that applicants are employed without regard to their race, color, religion, sex or national origin.

G. No member of or delegate of Congress, or appointed transportation official or commissioners, shall be admitted to any share or part of this Agreement or any benefit that may arise there from; but this provision shall not be construed to extend to this Agreement if made with a corporation for its general benefit.

H. The parties to this Agreement are acting in an independent capacity in the performance of their respective functions under this agreement. Regardless of the funding source for any staff employed by EPA, such staff shall not be construed as an officer, agency or employee of the FHWA or INDOT. In the event of a liability claim, each party shall defend their own interests. Neither party shall be required to provide indemnification of the other party.

I. In no way do INDOT, EPA or FHWA intend to abrogate through this Agreement any obligations or duties assigned by law to their agencies.

J. This Agreement does not preclude the signatory agencies from entering into other interagency agreements relative to their respective roles and responsibilities; however, such other agreements shall not alter any party's obligations under this Agreement and must be consistent with the duties and responsibilities established under this agreement if the other agreement relates to the Scope of Work of this Agreement.

IN WITNESS WHEREOF, each Party has caused this Agreement to be executed by an authorized official on the date and year set forth next to their signature.

SIGNATURES OF THE PARTIES TO THE AGREEMENT

FOR THE ENVIRONMENTAL PROTECTION AGENCY

9/18/06

for Bharat Mathur, Acting Regional Administrator
US Environmental Protection Agency, Chicago, Illinois

DATE

FOR THE US FEDERAL HIGHWAY ADMINISTRATION

7/21/06

Robert F. Tally, Jr., P.E., Division Administrator
Federal Highway Administration, Indianapolis, Indiana

DATE

FOR THE INDIANA DEPARTMENT OF TRANSPORTATION

Deputy Commissioner

10/04/06

For Thomas O. Sharp, Commissioner
Indiana Department of Transportation

DATE

APPROVED BY THE INDIANA DEPARTMENT OF ADMINISTRATION

FOR

10-6-06

Carrie Henderson, Commissioner
Department of Administration

DATE

APPROVED BY THE INDIANA OFFICE OF BUDGET AND MANAGEMENT

FOR

10/12/2006

Charles Schalliol, Director
Indiana State Budget Agency

DATE

APPROVED AS TO FORM AND LEGALITY

(FOR)
Stephen Carter, Attorney General

Date: 10-23-06

APPENDIX

Scope of Services:

PURPOSE AND OBJECTIVE:
The general purpose of this Scope of Services is to provide support for EPA's comprehensive technical and NEPA review of the Tier 2 EISs and supporting documentation for the I-69 project and EPA's further consultation during the Section 404 permitting process. The first objective is to provide for contractor assistance and expertise in the field of Karst geology/hydrogeology for review of the Tier 2 EISs and supporting documentation (Tier 2 studies) for Sections 4 and 5 of the I-69 project. The information will be used by the EPA in developing its comments on the Tier 2 EISs for Sections 4 and 5 of the I-69 project pursuant to Section 309 of the Clean Air Act. The second objective is to provide the EPA the flexibility to participate in I-69 project related meetings in the State of Indiana beyond the normal NEPA and permitting consultation to help accelerate the project and open pathways of communication.

STATEMENT OF WORK:

PART A: EPA Karst Contractor Services

The EPA shall perform the following tasks in Part A of the Statement of work by the hiring of a contractor using $70,000 of the funding provided by the Federal Highway Administration and the Indiana Department of Transportation. No additional tasks will be added without the consent of the Federal Highway Administration and the Indiana Department of Transportation. The definition of the tasks may be adjusted by the EPA during their contract negotiations. Any remaining funds at the competition of this part of the statement of work or cancellation of the Agreement and payment of any outstanding expenses prior to cancellation will be reimbursed in accordance with the Agreement.

The contractor shall <u>not</u> directly contact the project proponents (FHWS/INDOT), other federal/state agencies or their contractors for any information or clarification relative to preparing comments and information on the Tier 2 studies, without the permission of the EPA. All information needs shall be directed to the EPA. As necessary, the EPA will arrange for meetings or teleconferences between FHWA/INDOT and contractor to facilitate the exchange of information or clarification of data/assumptions, and will participate in all such informational exchanges.

The contractor may be required to travel by the EPA and these funds may be used for those purposes.

The contractor shall review and independently assess the adequacy of the Karst related information in the I-69 Tier 2 EISs and supporting documentation (Tier 2 studies) for Sections 4 and 5, and provide narrative reports as identified below to the EPA summarizing their findings.

The focus of the contractor reviews of the Tier 2 studies and the contractor reports/comments to EPA shall be to:

(1) assess the adequacy of the analysis methods/assumptions/data collection used to develop the Karst information to determine the potential for direct, indirect/secondary and cumulative impacts (impacts) to Karst geology/ hydrogeology and Karst related resources (resources), potential effects to Superfund site remedies, and safety concerns;

(2) independently analyze and identify the project's potential impacts to resources and Superfund site remedies, and safety concerns;

(3) identify potential for significant impacts and any additional Karst related concerns/issues;

(4) identify whether the Tier 2 EISs adequately identify Karst geology/hydrogeology and the potential and level of impacts to resources, Superfund site remedies and safety concerns, and identify adequate mitigation measures to protect Karst resources, Superfund site remedies and public safety concerns; and

(5) identify feasible additional measures to avoid and/or reduce potential impacts.

The contractor shall also be responsible for review and comment to EPA on the relevance/merit of any additional Karst information and/or potential safety and/or resources impact concerns brought to EPA's attention by the public, elected officials or resource agencies during I-69 Tier 2 Studies for Sections 4 and 5.

Task 1 - Meetings

Task 1a - Kickoff Teleconference - The contractor may participate in a teleconference with the EPA to:

1) review the scope of this project;
2) review the EPA Karst related concerns/issues for the I-69 Tier 2 studies for Sections 4 and 5;
3) discuss the materials identified in paragraph 7 below; and
4) identify materials and information that EPA has already collected;
5) discuss materials that EPA believes needs to be collected; and
6) provide technical direction for collecting the required information.

Prior to the meeting the contractor will submit a 1 to 2 page bulleted summary of any issues identified. Following the meeting the contractor will submit a 2 to 3 page summary of the issues, decisions made, and the agreed upon process to complete this project for the EPA's review and approval.

Task 1b - Technical Work Sessions - The contractor may participate in technical work sessions/web cast/conference calls with EPA and others involved with the I-69 project to be scheduled by the EPA. This will include approximately 6 (six) periodic review meetings/web cast/conference calls with EPA, FHWA, INDOT, and the Tier 2 PMC and the Engineering and Environmental Assessment Consultants (EEACs). It is anticipated the contractor will travel to EPA Region 5 offices up to three (3) times to attend technical

work sessions. The contractor may be required to prepare presentations and handouts for the meetings.

Prior to the meetings the contractor will submit a 1 to 2 page bulleted summary of any issues identified. Following the meetings the contractor will submit a 2 to 3 page summary of the issues, decisions made, and action items for the EPA's review and approval.

Task 2 – Karst Background Data Collection
The contractor may gather and become familiar with all appropriate documentation and materials pertaining to the conduct of the Tier 2 Studies and their specific Karst Geology/Hydrogeology investigations. This information will include, but not be limited to, the Karst Memorandum of Understanding between INDOT and other resource agencies, the I-69 Tier 2 Studies Guidance Manual section(s) concerning Karst Geology investigations, and background information on the Karst Geology in south-central Indiana particularly the counties associated with, or that may be impacted by, the construction, operation and/or maintenance of the I-69 roadway or by construction, operation and/or maintenance of induced/secondary development associated with the I-69 project from Evansville to Indianapolis. Some of the documentation and materials may be provided during meetings and field visits identified below in Task 3.

The contractor will prepare a summary list report of all materials collected and a list of any known materials yet to be collected and provide the EPA with both printed copies and an electronic copy, and update these lists on an "as needed" basis.

Task 3 – I-69 Tier 2 Studies Orientation
The contractor along with the EPA may participate in a one-day orientation on the I-69 Tier 2 Studies with the FHWA/INDOT Tier 2 Project Management Consultant (PMC) (i.e., Bernardin, Lochmueller and Associates) where the PMC will share Karst information gathered as part of the Tier 2 Studies including Karst features (caves, springs, sinkholes, etc.), pollutant loading, and dye tracings. The contractor may also travel to the appropriate I-69 Section Project Offices with EPA to meet with the EEACs and their Karst specialists to discuss the ongoing Karst Geology investigations. The contractor will have an opportunity to meet with the hydrogeologists that are conducting the Karst investigations, and be able to accompany them into the field with EPA to review the Karst features, if appropriate. It is anticipated that up to four (4) trips to Southwest Indiana will be required for completion of this project.

The contractor will prepare summary reports of each of the meetings/field visits and update the summary list report of all materials collected and a list of any known materials yet to be collected and provide the EPA with both printed copies and an electronic copy.

Task 4 – Review and Independent Analysis of Karst Investigations
The contractor will review and analyze the information obtained during Tasks 2 and 3 above, and summarize issues associated with the technical adequacy of the Karst

investigations for identification of Karst geology and hydrogeology and provide EPA with comments on, but not limited to, the following:

a. Appropriateness and technical adequacy of the analytical methods and assumptions used, with suggestions for additional analyses, when appropriate.
b. Appropriateness and technical adequacy of the supporting information, with suggestions for additional information, when appropriate.
c. Appropriateness and technical adequacy of the scope of the analysis in that all potential direct, indirect/secondary and cumulative impact areas/resources were considered and, if not, identify what additional areas/resources and issues should be considered and explain why.

The contractor will provide two printed copies and an electronic copy of the summary report on the technical adequacy of the Karst investigations to the EPA.

Task 5 – Karst Investigation Reports Review

The contractor may review the final reports documenting the Karst Geology and hydrogeology studies completed by the Engineering and Environmental Assessment Consultants (EEACs) in areas of the I-69 Corridor where Karst is present and prepare comments for EPA's consideration. The EEACs will have adhered to Items 1-4 of the INDOT Karst MOU, completed Karst studies within a boundary as set by the reach of potential impacts of the project within their section, evaluated all Karst features (e.g., sinkholes, sinking stream basins, caves, springs, etc.) and performed dye tracing or additional hydrogeologic analyses.

It is anticipated that the reports will include, but may not be limited to, the following:

a. Inventory of Caves by the I-69 Tier 2 PMC with Indiana Geological Survey.
b. Karst Geology Investigation Report for I-69 Tier 2 Sections 4 and 5.
c. Biological Surveys of Cave Fauna for I-69 Tier 2 Sections 4 and 5.
d. Autumn, winter and Spring Indiana bat Cave Surveys for 2004 to 2006.

The contractor will analyze and summarize the issues associated with the technical adequacy of the Karst information and will provide EPA with comments on, but not limited to, the following:

a. Appropriateness and technical adequacy of the analytical methods and assumptions used, with suggestions for additional analyses, when appropriate.
b. Appropriateness and technical adequacy of the supporting information, with suggestions for additional information, when appropriate.
c. Appropriateness and technical adequacy of the scope of the analysis in that all potential direct, indirect/secondary impact areas/resources were considered and, if not, identify what additional areas/resources and issues should be considered and explain why.
d. Identify any additional potential Karst related resources issues/concerns that EPA has not anticipated.

The contractor will provide two printed copies and an electronic copy of the summary reports on the technical adequacy of each of the Karst Reports reviewed to the EPA.

Task 6 – Alternatives Screening Analysis Packages Review
The contractor may review the alternatives screening analysis packages and based on the contractor's knowledge of the Karst information obtained from Tasks 2, 3 and 4 provide EPA with a report that summarizes the Karst issues associated with each alternative, and:

a. Identifies the alternatives that pose the greatest risk of adversely impacting Karst features/resources, Superfund site remedies, and public safety, through direct and/or indirect/secondary impacts associated with each alternative, explaining why.
b. Identifies the alternatives that would pose the lowest risk of adversely impacting Karst features/resources, Superfund remedies and public safety, through direct and/or indirect/secondary impacts, explaining why.
c. Identifies additional alternatives and/or modifications to each alternative to avoid and/or minimize direct, indirect/secondary impacts to Karst features/resources, Superfund site remedies and public safety, explaining why. Additional alternatives identified should be reasonable and feasible (e.g., an alternative that is practical in the technical, economic, and social sense, even if the alternative is outside the jurisdiction of the lead agency). Measures to reduce impacts could include, but are not limited to, relocation of an alternative roadway alignment or a portion of that alignment (including relocation outside the Tier 1 preferred study corridor), and elimination and/or relocation of associated I-69 interchanges and frontage roads.
d. Comments on the adequacy of the Karst information and the methods and assumptions used for the alternatives screening analysis. If applicable, identify additional Karst information, methods and/or assumptions that should be used for the screening analysis, explaining why.

The contractor will provide two printed copies and an electronic copy of the summary reports on each of the alternatives screening analysis packages reviewed to the EPA.

Task 7 – Tier 2 Draft Environmental Impact Statements (DEISs) Review
The contractor may review the Karst Geology sections of the DEISs for Tier 2 Sections 4 and 5 documenting the Karst Geology and hydrogeology studies and prepare comments for EPA's consideration. This will most likely include EIS Karst Geology sections within Chapter 4, Affected Environment; Chapter 5, Environmental Consequences; and Chapter 7, Mitigation, Appendices and DEIS referenced supporting documents.

The contractor will analyze and summarize the issues associated with the technical adequacy of the Karst information and will:

a. Comment on the appropriateness and technical adequacy of the analytical methods and assumptions used, with suggestions for additional analyses, when appropriate.
b. Comment on the appropriateness and technical adequacy of the supporting information, with suggestions for additional information, when appropriate.
c. Comment on the appropriateness and technical adequacy of the scope of the analysis in that all potential impact areas were considered and, if not, identify

what additional areas and issues should have been considered.

d. Identify the alternatives that have the potential for violation of national or state environmental standards or significant impacts not subject to standards. For example, identify the alternatives that have the potential for violating Indiana's Ground Water Quality Standards (GWQS) found at http://www.in.gov/idem/water/dwb/groundwater. If impacts associated with the Tier 2 alternatives have the potential for violation of national or state environmental standards or significant impacts not subject to standards, identify measures including other feasible alternatives that may reduce impacts. Additional alternatives identified should be reasonable and feasible (e.g., an alternative that is practical in the technical, economic, and social sense, even if the alternative is outside the jurisdiction of the lead agency). Measures to reduce impacts could include, but are not limited to, relocation of an alternative roadway alignment or a portion of the alignment (including relocation outside the Tier 1 preferred corridor), and elimination or relocation and/or new design of interchanges and frontage roads that are part of an alternative alignment.

e. Identify the alternatives that would pose the lowest risk to adversely impacting Karst features/resources, Superfund remedies and public safety, and explain why.

f. Identify the alternatives that have the greatest potential risk to adversely impacting Karst/features/resources, Superfund site remedies and public safety, and explain why.

g. Identify all alternatives that could potentially have a significant impact on Karst resources, Superfund site remedies, and/or public safety, explain why.

h. Provide suggestions for mitigation measures, if appropriate, with recommendations oriented toward mitigation measures that are technically feasible, of long term effectiveness, or have a high likelihood of being implemented.

The contractor will provide two printed copies and an electronic copy of the summary report on each of the Draft Environmental Impact Statements reviewed to the EPA.

Task 8 – Tier 2 Pre-FEIS Mitigation Packages Review

The contractor may review the Karst Geology sections of the Tier 2 pre-FEIS mitigation packages for Segments 4 and 5 and prepare comments for EPA's consideration.

The contractor will analyze and summarize the issues associated with the technical adequacy of the Karst information and will:

i. Comment on the adequacy of the direct, indirect/secondary impacts mitigation being proposed for the Tier 2 Preferred Alternative identified for protecting Superfund site remedies, public safety, and Karst related resources [i.e., surface/ground water (quality, quantity, direction of flow), public/private drinking water supplies, surface/subsurface aquatic and terrestrial wildlife (including federal and state listed species) and their Karst associated habitats (e.g., caves, spring fed wetlands).

j. Provide suggestions for additional mitigation measures, if appropriate, with recommendations oriented toward mitigation measures that are technically feasible, of long term effectiveness, or have a high likelihood of being

implemented.

The contractor will provide two printed copies and an electronic copy of the summary report on each of the Pre-FEIS Mitigation Packages reviewed to the EPA.

Task 9 – Tier 2 Final Environmental Impact Statements (FEISs) Review
The contractor may review the Karst related sections of the Tier 2 FEISs for Sections 4 and 5 documenting the Karst geology and hydrogeology studies, impacts analysis, and mitigation; and prepare comments for EPA's consideration. This will most likely include Tier 2 FEIS Karst Geology sections within Chapter 4, Affected Environment; Chapter 5, Environmental Consequences; and Chapter 7, Mitigation. The review and comments will substantially focus on how well EPA's Karst issues/concerns/recommendations made on the Tier 2 DEISs and Pre-FEIS Mitigation Packages have been addressed in the Tier 2 FEISs.

The contractor will:

k. Provide comments on any outstanding issues associated with the technical adequacy of the Karst information and impacts analysis.
l. Identify the potential for the Tier 2 Preferred Alternative to have irreparable (significant) impacts to resources, Superfund site remedies and safety concerns.
m. Provide suggestions for mitigation, if necessary to further reduce impacts, with recommendations oriented toward mitigation measures that are technically feasible, of long term effectiveness, or have a high likelihood of being implemented.

The contractor will provide two printed copies and an electronic copy of the summary report on each of the Final Environmental Impact Statements reviewed to the EPA.

Task 10 – Tier 2 Record of Decisions (RODs) Review
The contractor will review the Tier 2 RODs for Sections 4 and 5 for Karst information related to mitigation and comment to EPA on the adequacy of the mitigation for protecting Karst resources, Superfund site remedies, safety concerns and any additional Karst concerns/issues identified through the NEPA process.

The contractor will provide two printed copies and an electronic copy of the summary report on each of the Record of Decisions reviewed to the EPA.

PART B: EPA Travel for Participation in I-69 Meetings Planned by FHWA and/or the Indiana Department of Transportation

For the implementation of Part B of this Scope of Services, $25,300 of the funding provided to the EPA shall be used for the following tasks and any remaining funds at the competition or cancellation of the Agreement will be reimbursed in accordance with the Agreement. Any additional travel outside these tasks will receive prior concurrence from the FHWA and INDOT.

Task 1 – EPA Attendance at I-69 Interagency Coordination Meetings
EPA staff will travel to and participate in Interagency Coordination Meetings for I-69 as scheduled by INDOT and FHWA. It is anticipated that these meetings will occur two times a year and will be two full days. It is anticipated that the EPA will send 4 to 6 staff members to these meetings. The EPA staff will be reimbursed from this funding for MI&E and Lodging and other miscellaneous expenses associated with normal travel and appropriate for reimbursement. EPA will be responsible for furnishing the mode of transportation which is anticipated to be by Government provided vehicle. The deliverable will consist of EPA's participation in the meeting and so documented in the meeting notes and minutes completed by FHWA, INDOT or their Consultant.

Task 2 – EPA Attendance at I-69 Meetings/Workshops, in General
This task is to provide the EPA the travel funds necessary to participate in meetings and Workshops scheduled by the INDOT and FHWA to discuss individual issues and improve processes related to the I-69 project. These issues could be related to a variety of topics which may include NEPA processes or Clean Water Act issues and Permitting. It is anticipated that there may be 15 of these meetings and EPA would send 1 to 3 individuals to these meetings. The same deliverables and reimbursement for travel would be as is defined in Task 1 of this Part of this Scope of Services. If air transportation is necessary due to special circumstances, EPA will request concurrence from FHWA and INDOT for use of funds provided in this Agreement.

INDIANA DEPARTMENT OF TRANSPORTATION

Driving Indiana's Economic Growth

100 North Senate Avenue
Room N758
Indianapolis, Indiana 46204-2216 (317) 232-5533 FAX: (317) 232-0238

Mitchell E. Daniels, Jr., Governor
Thomas O. Sharp, Commissioner

November 22, 2006

Electronic copy/hard copy to following U.S. Mail

Mr. Robert F. Tally, Jr., P.E.
Division Administrator, Indiana
Federal Highway Administration
575 N. Pennsylvania St., Room 254
Indianapolis, Indiana 46204

Re: I-69 Evansville-to-Indianapolis Project

Dear Mr. Tally:

As we have discussed, Governor Daniels announced on November 9, 2006, that the I-69 Evansville-to-Indianapolis project will be developed as a non-toll Interstate. The Governor also announced that construction of this project will begin as soon as possible at the southern end of the project, and will proceed from south to north. Construction will begin with $700 million, which the State received from Major Moves funding. We are exploring innovative opportunities to develop additional revenue sources, including concession fees for public-private partnerships on other projects, to assist in completing I-69 from Evansville to Indianapolis.

Based on the Governor's announcement, we intend to proceed with the ongoing Tier 2 studies for I-69 in accordance with the original Tier 1 Record of Decision (ROD), which was issued in March 2004. We will not be asking FHWA to finalize the Tier 1 Reevaluation, which was issued in June 2006, nor will we be asking FHWA to issue a Tier 1 Amended ROD approving the consideration of tolling in the Tier 2 studies.

Finally, we will be proceeding with the Tier 2 studies for all six sections of the I-69 project. The Tier 2 Draft EIS ("DEIS") for Section 1 (the southernmost section) will be submitted for your approval within the next few weeks. We intend to submit the Tier 2 DEISs for Sections 2 and 3 in early 2007; we are also moving ahead with the DEISs for Sections 4, 5, and 6, and intend to submit those documents on a rolling basis later in 2007. All of these studies will examine alternatives for completing I-69 as a non-tolled project. Tolling is no longer being considered as a financing option in these studies.

I deeply appreciate your work as our federal partner in the I-69 studies, including your assistance in considering tolling options for I-69. While we have decided not to proceed with tolling for this project, your agency's expertise and advice has been invaluable. We look forward to completing the remaining studies and commencing construction on I-69 in the summer of 2008.

Sincerely,

Thomas Sharp
Commissioner INDOT

U.S. Department
of Transportation

**Federal Highway
Administration**

Indiana Division

575 North Pennsylvania Street, Room 254
Indianapolis, Indiana 46204

December 1, 2006

HDA-IN

Thomas Sharp, Commissioner
Indiana Department of Transportation
100 North Senate Avenue
Indianapolis, Indiana 46204

Dear Mr. Sharp:

Thank you for your letter to our office dated November 22, 2006, concerning the announcement that tolling of I-69 between Evansville and Indianapolis is no longer being considered and that finalization of the Re-evaluation of Tier 1 or a revised Tier 1 ROD will no longer be necessary.

We agree that a revised Tier 1 ROD will not be necessary based on this decision and others that negated most of the issues that were considered in the Tier 1 Re-evaluation report to which most comments received on that document pertained. The Tier 2 studies can proceed as appropriate.

Please note that it will be necessary to continue to consider the comments received on the Re-evaluation report and, if necessary, address them in the appropriate Tier 2 study or studies. These issues typically relate to Section 7 of the Re-evaluation. As we have discussed, it has been determined that the Tier 1 commitment regarding bridging the Patoka River Floodplain will not be changed (Section 7.3 of the Re-evaluation) and, therefore, that issue requires no further consideration in Tier 2.

We appreciate the opportunity you have given us to assist in the development of the tolling concept. The experience gained will contribute to a number of projects in Indiana and across the country that are considering a number of similar concepts.

If you require further information please contact Tony DeSimone of this office at (317) 226-5307 (e-mail: Anthony.desimone@fhwa.dot.gov).

Sincerely,

Robert F. Tally, Jr., P.E.
Division Administrator

Celebrating 50 Years
1956 2006
Eisenhower Interstate System

BUCKLE UP AMERICA

cc:
Ms. Michelle Hilary (INDOT N855)
Mr. Tom Seeman (INDOT)

103-0001-1PL

United States Department of the Interior
Fish and Wildlife Service

Bloomington Ecological Services Field Office
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273

7 December 2006

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RE: USFWS' Review of Draft Reports for Tier 2 Karst Studies of Sections 4 and 5 of INDOT's proposed I-69 corridor between Indianapolis and Evansville, Indiana.

Dear Mr. DuPont,

This letter is in response to your request and a letter from the Federal Highway Administration (dated 22 September2006) requesting the U.S. Fish and Wildlife Service's Bloomington Field Office (USFWS BFO) to review the draft reports referenced above. Our agency's review is in accordance with Term and Condition Number 3 of the 1993 Memorandum of Understanding between INDOT, IDNR, IDEM and the USFWS, which set guidelines for construction of transportation projects in karst regions of the State of Indiana. We submit the following comments for your consideration.

General Comments

- While both draft reports were well written and comprehensive, we preferred the organization of the Section 5 report over that used in the Section 4 report. Overall, we found the Section 5 report easier to read.
- We believe it would be useful to have a large map(s) (e.g., wall sized) depicting most or all of the various karst features (sinkholes, swallets, springs, cave entrances/passages, sinking streams) and groundwater flow paths for each section. All significant features should be clearly labeled. If alternative alignments currently under consideration could be included on such maps that would be very helpful as well. These maps could be made using either aerial photos or USGS topographic maps as the background or a combination of the two (e.g., aerial photos with contour lines added).

Specific Comments

Section 4, US 231 to SR 37 Draft Report

- We concur with the designation of each of the ten "Areas of Importance" identified within

the report and would like to see additional studies of these areas progress as warranted.

- The report stated that the scope of this project only required surface descriptions of caves, not detailed surveying and exploration. Will/have more detailed studies been conducted of the caves that are within or in close proximity to the current corridor or those that otherwise may have underground passages that could underlie the proposed I-69 alignment? What additional studies are planned for , , , !, and caves, which are all hydrologically linked to the Section 4 corridor?
- We strongly recommend that baseline biological surveys for karst invertebrates be conducted for each cave (n=5) and significant springs that are hydrologically connected to the Section 4 corridor.
- The Table of Contents included and the text referenced an "Appendix H Field Photographs", however, this appendix was missing from both the hardcopy and electronic copy /CD of the report provided to us. According to the 1993 Karst MOU, draft reports are to include photographs of karst features.
- Figures 5, 6, and 7 – Please consider labeling ALL of the caves (using the assigned numbers for the unnamed ones) in these figures so we can look up their associated information in the Appendices. At a minimum, please clearly label all 14 caves that fall within the corridor.
- Nearly all of the colored highlighting used to distinguish features that fell within the Section 4 corridor in the tables in Appendix D was not discernable in our hardcopy of the report.
- Many/most of the color figures/maps in our hardcopy of the report were quite faint. Appears the printer's ink cartridge was in need of replacement at time of printing. Please rectify in future reports.
- Appendix D has Tables 1-4 and 6, but no Table 5 in either the hardcopy or electronic file. We believe this may be an oversight. From our review, it seems that Table 5 may have pertained to sinking stream features.
- Numbered features depicted in several of the dye-trace figures are not included in any of the appendices making the reader hunt through the text for their possible identification. This is extremely time consuming and awkward.
- It would be helpful to reader if all dye detection sampling stations depicted in figures in Appendix G were labeled (i.e., dye recovery sites and non-detect sites).
- It seems that the data in Appendix E could be combined as an additional column(s) to the tables in Appendix D instead of being a separate appendix.
- Inserting tabs for each appendix would be helpful to the reader.
- We concur with the recommendations for additional studies and the BMPs outlined in Chapter 7 of the Section 4 Report.
- We liked that the consultants assessed airflow at cave entrances and included this in the report.

Section 5, SR 37 South of Bloomington to SR 39 Draft Report

- We concur with the designation of each of the four "Areas of Special Concern" designated in the report.
- We applaud INDOT for subcontracting Dr. Jerry Lewis to conduct baseline biological surveys for karst invertebrates in several caves/karst windows in Section 5 and including his findings in the draft report.
- Given Dr. Lewis' 2005 discovery of the aquatic, hidden springsnail (*Fontigens cryptica*) in Cave, and its rarity (state endangered) and very narrow distribution (this cave is currently its only known extant population), and the presence of numerous other obligate

subterranean species including three additional state-listed species in Cave, the Service is particularly interested in the conservation and protection of this cave and its fauna. Similarly, we hope that adverse impacts to the karst fauna within Cave can be avoided.

- The Service is supportive of INDOT undertaking additional studies in order to refine the recharge areas/boundaries of and caves and to further establish karst flowpaths that may be linked to these cave systems.
- Given the reported shallowness of the passages of Cave relative to the surface, we believe INDOT and its design engineers and contractors should take every necessary precaution to not disturb or cause a potential collapse of any passages within the SR 37 corridor during construction or operation of I-69, nor during the operation of existing SR 37 during the interim period.
- The high-resolution aerial photographs used in the figures/maps were very helpful in visualizing precise locations of karst features relative to current development and land use.
- The inclusion of numerous photographs in the appendices was also greatly appreciated.
- We concur with the recommendations for additional studies and the BMPs outlined in Chapter 7 of the Section 5 Report.

Thank you for the opportunity to review the draft karst reports prepared for the proposed I-69 project. We look forward to continued coordination in addressing I-69 related impacts to karst resources and karst-dependent fauna. If you have any questions or require clarification of our comments, please contact Andy King (812-334-4261, extension 216).

Sincerely,

Scott E. Pruitt
Field Supervisor

cc (via e-mail): Catherine Gremillion-Smith, IDNR
John Bacone, IDNR
Jason Randolf, IDEM
Virginia Laszewski, US EPA
Michelle Hillary, INDOT
Tony DeSimone, FHWA
Tom Cervone, BLA
Garre Conner, BLA