Dominguez-Escalante National Conservation Area

Proposed Resource Management Plan & Final Environmental Impact Statement

Volume 2: Appendices

NATIONAL CONSERVATION LANDS

BLM

Dominguez-Escalante National Conservation Area • COLORADO

Dominguez-Escalante National Conservation Area

Proposed Resource Management Plan & Final Environmental Impact Statement

BLM/CO/PL-16/009

Volume 2: Appendices

Prepared by
U.S. Department of the Interior
Bureau of Land Management
Dominguez-Escalante National Conservation Area
Grand Junction, CO

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Table of Contents

Dear Reader Letter ..... **xvii**

Abstract ..... **xxi**

Commonly Used Acronyms ..... **xxiii**

Executive Summary ..... **xxvii**

Introduction xxvii
Purpose of and Need for This Plan xxvii
Planning Process and Public Collaboration xxix
Management Alternatives xxxi
Affected Environment xxxiii
Environmental Consequences xxxiii

1. Introduction **1**

1.1. Purpose of and Need for the Plan 2
1.2. Description of the Planning Area 3
1.3. Overall Vision 5
1.4. Planning Process 6
1.5. Scoping and Planning Issues 9
1.6. Planning Criteria and Legislative Constraints 13
1.7. Collaboration 17
1.8. Related Land Use Plans and Assessments 19
1.9. Public Comments on the Draft RMP 21
1.10. Implementation and Monitoring of the Resource Management Plan 26
1.11. Changes to the Draft RMP 26

2. Alternatives **33**

2.1. Introduction 35
2.2. Alternative Development 36
2.3. Alternatives Considered but Eliminated from Detailed Analysis 36
2.4. Management Common to All Alternatives 38
2.5. Summary Description of Alternatives 41
2.5.1. Alternative A (No Action) 44
2.5.2. Alternative B 45
2.5.3. Alternative C 46
2.5.4. Alternative D 47
2.5.5. Proposed Plan Alternative 49
2.6. Alternatives Matrix 50
2.7. Summary of Impacts 225

3. Affected Environment 245

3.1. Introduction 247
3.2. Resources 247
3.2.1. Geological and Paleontological Resources 247
3.2.2. Biological Systems 254
3.2.2.1. Priority Species and Habitats 254
3.2.2.2. Special Status Species and Natural Communities 267
3.2.2.3. Non–Special Status Fish and Wildlife 280
3.2.2.4. Noxious and Invasive Weeds 283
3.2.2.5. Fire and Fuels 285
3.2.2.6. Soils and Water Quality 288
3.2.2.7. Climate and Climate Change 305
3.2.3. Cultural Resources 306
3.2.4. Wilderness 310
3.2.5. Lands with Wilderness Characteristics (outside of Dominguez Canyon Wilderness and Remaining Wilderness Study Areas) 319
3.2.6. Scenic Resources 321
3.2.7. Air Resources 324
3.3. Resource Uses 330
3.3.1. Recreational Use 330
3.3.2. Scientific Use 352
3.3.3. Educational Use 354
3.3.4. Livestock Grazing 355
3.3.5. Transportation and Travel Management 360
3.3.6. Land Tenure and Land Use Authorizations 361
3.4. Special Designations 362
3.4.1. Areas of Critical Environmental Concern 362
3.4.2. National Trails 364
3.4.3. Wild and Scenic Rivers 367
3.4.4. Wilderness Study Areas 369
3.4.5. Watchable Wildlife Areas 370
3.5. Social and Economic Concerns 370
3.5.1. Tribal Interests 370
3.5.2. Public Safety 372
3.5.3. Social and Economic Conditions 375

4. Environmental Consequences 395

4.1. Introduction 397
4.1.1. Analytical Assumptions 398
4.1.2. General Methodology for Analyzing Impacts 399
4.1.3. Incomplete or Unavailable Information 399
4.2. Cumulative Impacts 400
4.2.1. Cumulative Analysis Methodology 401
4.2.2. Past, Present, and Reasonably Foreseeable Future Actions 402
4.3. Resources 406
4.3.1. Geological and Paleontological Resources 407

4.3.2. Biological Systems 421
4.3.2.1. Priority Species and Vegetation 421
4.3.2.2. Special Status Species and Natural Communities 459
4.3.2.3. Non–Special Status Fish and Wildlife 487
4.3.2.4. Noxious and Invasive Weeds 501
4.3.2.5. Fire and Fuels 509
4.3.2.6. Soils and Water Quality 516
4.3.3. Cultural Resources 535
4.3.4. Wilderness 557
4.3.5. Lands with Wilderness Characteristics (outside Dominguez Canyon Wilderness and Remaining Wilderness Study Areas) 573
4.3.6. Scenic Resources 582
4.3.7. Air Resources, Including Climate Change 597
4.4. Resource Uses 608
4.4.1. Recreational Use 609
4.4.2. Scientific Use 635
4.4.3. Educational Use 640
4.4.4. Livestock Grazing 646
4.4.5. Transportation and Travel Management 664
4.4.6. Land Tenure and Land Use Authorizations 664
4.5. Special Designations 672
4.5.1. Areas of Critical Environmental Concern 672
4.5.2. National Trails 689
4.5.3. Wild and Scenic Rivers 699
4.5.4. Wilderness Study Areas 715
4.5.5. Watchable Wildlife Areas 720
4.6. Social and Economic Concerns 725
4.6.1. Tribal Interests 725
4.6.2. Public Safety 740
4.6.3. Social and Economic Conditions 746
4.7. Unavoidable Adverse Impacts 766
4.8. Irreversible and Irretrievable Commitment of Resources 767
4.9. Relationship Between Local Short-Term Uses and Long-Term Productivity 768

5. Consultation and Coordination 771

5.1. D-E NCA Advisory Council 773
5.2. Cooperating Agencies 775
5.3. Tribal Consultation 776
5.4. State Historic Preservation Office Consultation 777
5.5. Public Scoping 778
5.6. Natural Resource and Land Policy Institute at Colorado Mesa University 779
5.7. Gunnison River Basin Wild and Scenic River Stakeholders 780
5.8. Travel Management Outreach 781
5.9. Socioeconomic Workshops 781
5.10. Canyon Clarion 781
5.11. List of Preparers 781

6. References 785

7. Glossary 813

Appendix A. Planning for Priority Species and Vegetation 845

Appendix B. Description of Surface Disturbance Restrictions 863

B.1. Prohibit Surface-Disturbing Activities 863
B.2. Prohibit Disruptive Activities 864
B.3. Site-Specific Relocation Restrictions 865
B.4. Prohibit In-Channel Work 865

Appendix C. Modeling the Probability of Bighorn/Domestic Sheep Association 867

C.1. Probability of Interaction Model 868
C.2. Risk of Contact Model 871
C.3. Additional Discussion 877
C.4. References 881

Appendix D. Colorado Standards for Public Land Health 885

Appendix E. Raptor Species Breeding Periods 889

Appendix F. Colorado Noxious Weed List 891

Appendix G. Naturalness in the Dominguez Canyon Wilderness 893

Appendix H. Minimum Requirements Decision Guide Overview 903

H.1. Introduction 903
H.2. Use of This Guide 904
H.3. Emergencies 905
H.4. Safety 905
H.5. The MRDG and NEPA 905
H.6. The MRDG and the Planning Process 906
H.7. Habits, Assumptions, and the Spirit of the Wilderness Act 906

Appendix I. Special Recreation Permit Program Overview 909

I.1. Permit Process 909
I.2. Application Evaluation 910
I.3. Matrix for Determining Need for an Organized Group SRP 911

I.4. Determining Permit Classification 912

Appendix J. Best Management Practices for Management Actions 917

J.1. Air Resources 917
J.2. Soils 917
J.3. Water Resources 920
J.4. Vegetation: Rangeland 924
J.5. Vegetation: Riparian Habitat and Wetlands 925
J.6. Noxious and Invasive Weed Prevention 926
J.7. Fire 931
J.8. Fish and Wildlife Management and Special Status Species 933
J.9. Wildlife Damage Management 937
J.10. Cultural Resources 938
J.11. Tribal Consultation 940
J.12. Geological and Paleontological Resources 942
J.13. Visual Resources 942
J.14. Wildland Fire Ecology and Management 944
J.15. Wilderness and Wilderness Study Areas 946
J.16. Forestry 946
J.17. Livestock Grazing 949
J.18. Recreation 953
J.19. Lands and Realty 954
J.20. Transportation and Access 956

Appendix K. Trail Design Criteria 959

Appendix L. Special Recreation Management Area Recreation Setting Descriptions 963

Appendix M. Evaluation of Proposed and Existing Areas of Critical Environmental Concern 967

M.1. Executive Summary 967
M.2. Introduction 967
M.2.1. Area of Critical Environmental Concern 968
M.2.2. Special Management Attention 968
M.3. Steps in the ACEC Process 969
M.3.1. Nomination 969
M.3.2. Relevance, Importance, and Special Management Criteria 969
M.3.3. Consideration of Potential ACECs 971
M.3.4. Comments on Proposed ACECs 972
M.3.5. Designation 972
M.4. Evaluation of Proposed ACECs 972
M.4.1. Description of Proposed ACECs Not Carried Forward as Potential ACECs ... 974
M.4.2. Description of Potential ACECs 983
M.4.2.1. Gunnison Gravels ACEC 984
M.4.2.2. Escalante Canyon ACEC 985

M.4.2.3. Expanded Escalante Canyon ACEC and Watchable Wildlife Area 989
M.4.2.4. Gibbler Mountain ACEC 993
M.4.2.5. Gunnison River ACEC 996
M.4.2.6. River Rims ACEC 1000
M.4.2.7. Big Dominguez Canyon ACEC 1003
M.5. Interdisciplinary Team Members 1007
M.6. References 1008

Appendix N. Comprehensive Travel and Transportation Management Plan 1009

N.1. Introduction 1009
N.2. Background 1010
N.2.1. Description of Route System 1010
N.2.2. Description of Process 1010
N.2.3. Laws, Regulations, Policies, and Program Guidance 1012
N.3. Area-Allocation Travel Decisions 1014
N.3.1. Management Common to All Alternatives 1015
N.3.2. Description of Area-Allocation Travel Decisions for Each Alternative 1015
N.4. Implementation-Level Travel Decisions 1017
N.4.1. Designation Criteria for Each Route 1018
N.4.2. Route-by-Route Designation 1021
N.4.3. Cultural Resources 1024
N.4.4. Guidance for Implementation of Proposed Travel Management Plan 1025
N.5. Maintenance Intensities 1028
N.6. Trail Development Process 1029

Appendix O. Wild and Scenic River Suitability Report 1037

O.1. Executive Summary 1037
O.2. Introduction 1038
O.3. Public Participation 1040
O.4. Eligibility 1043
O.5. Suitability 1047
O.6. Assessment and Recommendations 1049
O.7. Participation 1098
O.8. References 1098

Appendix P. Air Resources 1099

P.1. Introduction 1099
P.2. Emission Calculation Tables 1099

Appendix Q. Omnibus Public Land Management Act of 2009 (Subtitle E—Dominguez-Escalante National Conservation Area) 1107

Appendix R. Maps Cited in the Proposed RMP 1115

Appendix S. Economic Impact Analysis Methodology 1227

S.1. Introduction 1227
S.2. The IMPLAN Model 1227
S.3. Livestock Grazing 1228
S.4. Recreation 1228
S.5. Payments to Counties 1232

Appendix T. Conservation Measures for Listed Plant Species in the D-E NCA 1235

Appendix U. The BLM's Responses to Public Comments 1241

U.1. Introduction 1241
U.2. Index of Commenters 1242
U.3. The BLM's Responses to Public Comments on the Draft RMP 1258
U.3.1. Non-Substantive Comments 1258
U.3.2. Comments on Authorities 1258
U.3.2.1. Constitutionality and State Rights 1258
U.3.2.2. Statutory Authorities 1259
U.3.2.3. R.S. 2477 Rights-of-Way 1261
U.3.3. Request for Extension of Public Comment Period 1261
U.3.4. Implementation-Level Comments 1262
U.3.5. Comments Regarding Other Planning Areas 1262
U.3.6. Route-Specific Comments Made Prior to Draft RMP Release 1262
U.3.7. General Comments on the Entire Draft RMP 1263
U.3.7.1. Data Adequacy 1263
U.3.7.2. Range of Alternatives 1264
U.3.7.3. Need for a Monitoring Plan 1265
U.3.8. Comments on Chapter 1. Introduction 1265
U.3.8.1. Purpose of and Need for the Plan 1265
U.3.8.2. Planning Process 1266
U.3.9. Comments on Chapters 2–4: Resources 1267
U.3.9.1. Geological and Paleontological Resources 1267
U.3.9.2. Priority Vegetation and Habitats 1268
U.3.9.3. Special Status Species and Natural Communities—Plants 1278
U.3.9.4. Special Status Species and Natural Communities—Wildlife 1279
U.3.9.5. Special Status Species and Natural Communities—Desert Bighorn Sheep 1283
U.3.9.6. Non–Special Status Fish and Wildlife 1284
U.3.9.7. Noxious and Invasive Weeds 1287
U.3.9.8. Fire and Fuels 1289
U.3.9.9. Soils and Water Quality 1289
U.3.9.10. Climate and Climate Change 1292
U.3.9.11. Cultural Resources 1293
U.3.9.12. Wilderness 1295
U.3.9.13. Lands with Wilderness Characteristics 1301
U.3.9.14. Scenic Resources 1304
U.3.9.15. Air Resources 1304

U.3.10. Comments on Chapters 2–4: Resource Uses 1305
U.3.10.1. Recreation 1305
U.3.10.2. Recreational Target Shooting 1344
U.3.10.3. Scientific Use 1350
U.3.10.4. Educational Use 1351
U.3.10.5. Livestock Grazing 1352
U.3.10.6. Transportation and Travel Management 1358
U.3.10.7. Land Tenure and Land Use Authorizations 1363
U.3.11. Comments on Chapters 2–4: Special Designations 1364
U.3.11.1. Areas of Critical Environmental Concern 1364
U.3.11.2. National Trails 1369
U.3.11.3. Wild and Scenic Rivers 1370
U.3.11.4. Wilderness Study Areas 1373
U.3.11.5. Watchable Wildlife Areas 1374
U.3.12. Comments on Chapters 2–4: Social and Economic Concerns 1375
U.3.12.1. Public Safety 1375
U.3.12.2. Social and Economic Conditions 1375
U.3.13. Comments on Chapter 5. Consultation and Coordination 1376
U.3.14. Comments on Appendix A. Planning for Priority Vegetation/Habitats and Species 1377
U.3.15. Comments on Appendix B. Description of Surface Disturbance Restrictions 1377
U.3.16. Comments on Appendix C. Bighorn/Domestic Sheep Probability of Interaction Model 1378
U.3.17. Comments on Appendix I. Special Recreation Permit Program Overview .. 1380
U.3.18. Comments on Appendix J. Best Management Practices for Management Actions 1381
U.3.18.1. Water Resources 1381
U.3.18.2. Noxious and Invasive Weed Prevention 1381
U.3.18.3. Fish and Wildlife Management and Special Status Species 1382
U.3.19. Comments on Appendix K. Criteria for the Placement of Trails 1382
U.3.20. Comments on Appendix N. Comprehensive Travel and Transportation Management Plan 1383
U.3.20.1. Comments on the Travel Management Planning Process 1383
U.3.20.2. Route-Specific Travel Management Comments 1387

Appendix V. BLM Manual 6220 – National Monuments, National Conservation Areas, and Similar Designations 1391

List of Figures

Figure 1.1. Steps in D-E NCA RMP Development 8
Figure 1.2. Categories of Comments Received during D-E NCA Public Scoping 10
Figure 3.1. Geological Formations in the D-E NCA 249
Figure 3.2. Gunnison River Stream Flow at USGS Gage No. 09152500 266
Figure 3.3. Annual High Male Lek Count for the Pinyon Mesa Population 277
Figure 3.4. General Illustration of the Hydrologic Cycle 302
Figure 3.5. Generalized Movement of Groundwater Along Flow Paths of Varying Lengths 302
Figure 3.6. Population Growth In the Three-County Area 376
Figure 3.7. Analysis Area Employment Distribution, 2012 378
Figure 3.8. Service and Non-Service Employment History 379
Figure 3.9. Three-County Area Labor Income Distribution, 2012 381
Figure 3.10. Analysis Area Income Specialization, 2012 382
Figure C.1. Criteria for Assessing Domestic/Bighorn Sheep Probability of Interaction 871
Figure M.1. Proposed ACECs Not Carried Forward as Potential ACECs 975
Figure M.2. ACECs Carried Forward for D-E NCA 983
Figure M.3. Existing and Proposed Expansion of Gunnison Gravels ACEC 985
Figure M.4. Existing and Adjusted Escalante Canyon ACEC 989
Figure M.5. Expanded Escalante ACEC and Watchable Wildlife Area 993
Figure M.6. Gibbler Mountain ACEC 996
Figure M.7. Gunnison River ACEC 1000
Figure M.8. River Rims ACEC 1003
Figure M.9. Big Dominguez Canyon ACEC 1007
Figure O.1. Planning Area Overview 1039
Figure O.2. Overview of the Wild and Scenic River Study Process 1040
Figure O.3. Suitability Findings for D-E NCA 1050
Figure O.4. Gunnison River Segment 3 1051
Figure O.5. Gunnison River Segment 1 1057
Figure O.6. Big Dominguez Creek Segment 1 1062
Figure O.7. Big Dominguez Creek Segment 2 1067
Figure O.8. Little Dominguez Creek Segment 1 1071
Figure O.9. Little Dominguez Creek Segment 2 1075
Figure O.10. Rose Creek 1079
Figure O.11. Escalante Creek Segment 1 1083
Figure O.12. Escalante Creek Segment 2 1089
Figure O.13. Cottonwood Creek 1093
Figure O.14. Cottonwood Creek Suitable Segment 1095
Figure P.1. Livestock Grazing Fugitive Dust Emissions from Heavy Equipment Operations .. 1099
Figure P.2. Livestock Grazing Exhaust Emissions Factors for Diesel Heavy Equipment 1100
Figure P.3. Livestock Grazing Exhaust Emissions from Diesel Heavy Equipment 1100
Figure P.4. Livestock Grazing Fugitive Dust Emissions from Commuting Traffic 1101
Figure P.5. Livestock Grazing Exhaust Emissions from Commuting Traffic 1102
Figure P.6. Livestock Grazing Methane Emissions Factors 1102
Figure P.7. Livestock Grazing Methane Emissions 1103
Figure P.8. Recreation Exhaust Emissions Factors for OHVs 1103
Figure P.9. Recreation Exhaust Emissions from OHVs 1103
Figure P.10. Recreation Fugitive Dust from OHV Use 1104
Figure P.11. Trail and Travel Management Exhaust Emissions Factors for Heavy Equipment 1104
Figure P.12. Trail and Travel Management Exhaust Emissions from Heavy Equipment 1105

Figure P.13. Trail and Travel Management Dust and Exhaust Emissions from Road Maintenance 1106
Figure U.1. Sample Page from the Online *D-E NCA Travel Management Plan Route Comment Report* 1388

List of Tables

Table 1. Surface Land Status of Planning Area by County (in Acres) xxvii
Table 1.1. Surface Land Status of Planning Area by County (in Acres) 4
Table 1.2. Subsurface Land Status of Planning Area by County (in Acres) 4
Table 1.3. Draft RMP Open House Schedule and Attendance 21
Table 1.4. Public Comments by Issue Category 22
Table 2.1. Summary Comparison of Alternatives 41
Table 2.2. Links to Sections in Alternatives Matrix 51
Table 2.3. Alternatives Matrix 52
Table 2.4. Impact Summary Table 225
Table 3.1. Paleontological Resources by Geologic Rock Unit 252
Table 3.2. Potential Fossil Yield Classes in D-E NCA 253
Table 3.3. Results of Recent Land Health Assessments in Upland Sites in the D-E NCA 255
Table 3.4. Attributes for Evaluating Desert Shrub/Saltbush 256
Table 3.5. Attributes for Evaluating Pinyon-Juniper Woodland 258
Table 3.6. Attributes for Evaluating Condition of Sagebrush Shrublands 259
Table 3.7. Attributes for Evaluating Ponderosa Pine 260
Table 3.8. Attributes for Evaluating Mountain Shrub 261
Table 3.9. Attributes for Evaluating Riparian Health 262
Table 3.10. Attributes for Evaluating Health of Seeps and Springs 263
Table 3.11. Attributes for Evaluating Health of Aquatic Systems 267
Table 3.12. Numbers of Desert Bighorn Sheep by Herd in Colorado 269
Table 3.13. Attributes for Measuring the Health of Desert Bighorn Sheep 269
Table 3.14. Attributes for Measuring the Health of Colorado Hookless Cactus 273
Table 3.15. Exemplary and Imperiled Native Vegetation Communities in the D-E NCA 280
Table 3.16. State Listed Noxious Weeds Known To Occur in the D-E NCA 283
Table 3.17. Fire Occurrence (Size and Acreage) 1980 to 2009 285
Table 3.18. Fire Regimes within the D-E NCA (Calculated Only on BLM Lands) 285
Table 3.19. Fire Regime Condition Class Definitions and Acreages 287
Table 3.20. Wildland-Urban Interface (Square Miles in the Year 2000) 288
Table 3.21. Findings on Public Land Health Standard 1 291
Table 3.22. WBID Stream Designations, Classifications and Numeric Standards from CDPHE Regulation No. 35 295
Table 3.23. Status of Assessment and Determination of Water Quality within the D-E NCA by WBID 299
Table 3.24. WBID Segments within the Planning Area Identified in CDPHE Regulation No. 93 300
Table 3.25. Wells Constructed within the Planning Area 303
Table 3.26. Cultural Time Periods Represented in D-E NCA 308
Table 3.27. Overall Current Rating for Priority Vegetation/Habitat and Species in the Wilderness 313
Table 3.28. Weeds in the Wilderness 314
Table 3.29. Grazing in the Wilderness 315
Table 3.30. Responses by Community 318
Table 3.31. Areas with Wilderness Characteristics 320
Table 3.32. VRI Inventory Class 322
Table 3.33. VRI Scenic Quality Rating 323
Table 3.34. VRI Sensitivity Rating 323
Table 3.35. VRI Distance Zone 323
Table 3.36. Air Pollutant Emissions by County (Tons per Year) 324

Table 3.37. Estimated Criteria Pollutant Emissions by Activity – Base Year of 2008 325
Table 3.38. Estimated GHG Pollutant Emissions by Activity – Base Year of 2008 325
Table 3.39. D-E NCA Recreation Setting Characteristics Matrix 335
Table 3.40. Allotments by Use 355
Table 3.41. Land Health Assessment Results by Grazing Allotment 358
Table 3.42. Route Inventory within the D-E NCA 360
Table 3.43. River and Stream Segments Found Eligible for Inclusion in the National Wild and Scenic Rivers System 368
Table 3.44. Additional Tribes Engaged During RMP Development for the D-E NCA and Grand Junction Field Office 371
Table 3.45. Racial and Hispanic Composition of 2010 Population 377
Table 3.46. Estimated Annual Total (Direct, Indirect, and Induced) Employment and Labor Income Contributions from D-E NCA Management 384
Table 3.47. PILT Entitlement Acreages and Payments by County 389
Table 4.1. Past, Present, and Reasonably Foreseeable Projects, Plans, or Actions that Make up the Cumulative Impact Scenario 403
Table 4.2. Priority Vegetation Indicators 422
Table 4.3. Priority Vegetation Communities Where Surface-Disturbing Activities Would Be Prohibited, by Alternative 424
Table 4.4. Priority Vegetation Communities Where Site-Specific Relocation Would Be Required, by Alternative 425
Table 4.5. Acres of Natural Unplanned Ignitions Allowed to Burn for Resource Benefit within Priority Vegetation Communities 435
Table 4.6. Impacts from Lands with Wilderness Characteristics Management on Priority Vegetation Communities 439
Table 4.7. Priority Vegetation Communities within Recreation Management Areas 442
Table 4.8. Livestock Grazing Allocations in Priority Vegetation Communities, Alternative A .. 445
Table 4.9. Livestock Grazing Allocations in Priority Vegetation Communities, Alternative B .. 445
Table 4.10. Livestock Grazing Allocations in Priority Vegetation Communities, Alternative C 446
Table 4.11. Livestock Grazing Allocations in Priority Vegetation Communities, Alternative D 446
Table 4.12. Livestock Grazing Allocations in Priority Vegetation Communities, Proposed Plan Alternative 447
Table 4.13. Travel Management Impacts on Priority Vegetation Communities 449
Table 4.14. Acres of Priority Vegetation Communities Managed as ROW Avoidance and Exclusion 451
Table 4.15. Priority Vegetation Communities Managed within an ACEC by Alternative 454
Table 4.16. Special Status Species Nested Under Priority Vegetation 462
Table 4.17. Special Status Species Habitat Where Surface-Disturbing Activities Would Be Prohibited by Alternative 466
Table 4.18. Priority Species Habitat Where Surface Disturbance Would Be Prohibited by Alternative 467
Table 4.19. Special Status Species and Priority Species Habitat Managed as VRM Class I and II, Alternative A 472
Table 4.20. Special Status Species Habitat Managed as Recreation Management Areas by Alternative 476
Table 4.21. Priority Species Habitat Managed as Recreation Management Areas by Alternative 476
Table 4.22. Special Status Species Habitat Open and Closed to Grazing, by Alternative 480
Table 4.23. Priority Species Habitat Impacted by Livestock Grazing, by Alternative 480

Table 4.24. Acres of Big Game Habitat Where Surface-disturbing Activities Would Be Prohibited, by Alternative ... 491
Table 4.25. Big Game Habitat Managed as VRM Class I and II, Alternative A ... 492
Table 4.26. Acres of Big Game Habitat Managed as Recreation Management Areas by Alternative ... 494
Table 4.27. Acres of Big Game Habitat Available and Unavailable for Grazing, by Alternative 495
Table 4.28. Route Densities in D-E NCA, Spring–Fall ... 496
Table 4.29. Route Densities in D-E NCA, Winter ... 497
Table 4.30. Perennial and Intermittent Stream Crossings by Route Type and Alternative ... 528
Table 4.31. Miles of Routes Overlapping Fragile Soils by Alternative ... 529
Table 4.32. Miles of Routes Overlapping Steep Slopes by Alternative ... 529
Table 4.33. Miles of Routes Overlapping Mapped Mancos Shale Areas by Alternative ... 530
Table 4.34. Miles of Routes Overlapping Saline Soils by Alternative ... 530
Table 4.35. Summary of Acreage Impacts on Wilderness ... 560
Table 4.36. Miles of Routes Open within Wilderness by Alternative ... 568
Table 4.37. Impacts on Wilderness Characteristics within the Dominguez Canyon Wilderness by Alternative ... 570
Table 4.38. Summary of Acreage Impacts on Lands with Wilderness Characteristics ... 575
Table 4.39. Impacts of VRM Class on Lands with Wilderness Characteristics ... 578
Table 4.40. Anticipated Intensity of Impacts on Inventoried Visual Resources from VRM Classifications ... 583
Table 4.41. Summary of VRI Class by VRM Class ... 587
Table 4.42. WSR Segments by Acre, Tentative Classification, and Scenic ORV ... 594
Table 4.43. Criteria Pollutant Emissions from Recreation ... 601
Table 4.44. GHG Pollutant Emissions from Recreation ... 601
Table 4.45. Criteria Pollutant Emissions from Livestock Grazing ... 602
Table 4.46. GHG Pollutant Emissions from Livestock Grazing ... 602
Table 4.47. Criteria Pollutant Emissions from Travel and Transportation Management ... 603
Table 4.48. GHG Pollutant Emissions from Travel and Transportation Management ... 603
Table 4.49. Total Criteria Pollutant Emissions for Each Alternative ... 604
Table 4.50. Total GHG Pollutant Emissions for Each Alternative ... 604
Table 4.51. Total Criteria Pollutant Emissions for Each Alternative Compared to Three-County Area ... 605
Table 4.52. Total GHG Pollutant Emissions for Each Alternative Compared to Three-County Area Emissions ... 607
Table 4.53. Acreage Impacts from Biological Resources in the D-E NCA ... 614
Table 4.54. Designated Routes (Miles) by Alternative ... 628
Table 4.55. Remoteness and Access Settings (Acres) by Alternative ... 629
Table 4.56. Overview of Livestock Grazing Impacts by Alternative ... 648
Table 4.57. VRM and Grazing Management by Alterative ... 655
Table 4.58. Acres of ACECs and Livestock Grazing Management by Alternative ... 660
Table 4.59. Summary of Areas of Critical Environmental Concern ... 674
Table 4.60. Acres of Potential ACECs Overlapping with Surface Use Restrictions by Alternative ... 674
Table 4.61. Livestock Allocations in Undesignated ACECs ... 682
Table 4.62. Miles of Motorized and Non-motorized Routes Open and Closed within Potential ACECs ... 684
Table 4.63. Summary of Wild and Scenic River Study Segments ... 699

Table 4.64. Acres of WSR Segments Overlapping Surface Disturbance Restrictions by Alternative 701
Table 4.65. Surface Disturbance Limitations/Protections for Unsuitable Segments 702
Table 4.66. Acres of WSR Segments Overlapping VRM Classes by Alternative 709
Table 4.67. Average Annual BLM Outputs by Alternative 747
Table 4.68. Average Annual Employment by Program by Alternative (Full and Part-Time Jobs) 751
Table 4.69. Average Annual Labor Income by Program by Alternative (in Thousands of 2012 Dollars) 752
Table 4.70. Average Annual Payments to Study Area (2012 Dollars) 756
Table 4.71. Acres Managed for Resource Protection 758
Table 4.72. Designated Recreation Areas 759
Table 5.1. D-E NCA Advisory Council Meeting Dates and Locations 775
Table 5.2. Native American Tribes Contacted During RMP Process 777
Table 5.3. Scoping Open House Information 778
Table 5.4. Focus Group Meetings 779
Table 5.5. List of Preparers 781
Table A.1. Description of Attributes, Indicators and Current Condition of the Health of Priority Vegetation and Priority Species 847
Table C.1. Bighorn Sheep Probability of Interaction Allotment Risk Categories 870
Table C.2. Model Results for Desert Bighorn Risk of Contact with Allotments (Probability That a Bighorn Sheep Will Intersect an Allotment) 874
Table C.3. Years Between Potential Disease Events for Allotments That Did Not Intersect with CHHR 876
Table C.4. Comparison of PoI and RoC Model Results for Desert Bighorn Risk of Contact with Domestic Sheep Allotments 879
Table C.5. Comparison of PoI and RoC Model Results for Desert Bighorn Risk of Contact with Non-Domestic Sheep Allotments 879
Table G.1. Indicators Used for Monitoring Naturalness in the Dominguez Canyon Wilderness 894
Table I.1. Criteria to Determine Whether a Special Recreation Permit is Needed 912
Table I.2. Permit Classification Criteria 913
Table I.3. Permit Classification Matrix 914
Table L.1. D-E NCA Recreation Setting Characteristics Matrix 964
Table M.1. Colorado Natural Heritage Program Element Imperilment Rankings 970
Table M.2. Existing and Proposed ACECs in the Planning Area 972
Table N.1. Area Designations (in Acres) for Motorized Travel Under Each Alternative 1015
Table N.2. Area Designations (in Acres) for Mechanized Travel Under Each Alternative 1016
Table N.3. Area Designations (in Acres) for Foot and Horse Travel Under Each Alternative . 1016
Table N.4. Miles of Route Designations by Alternative 1023
Table O.1. Summary of Preliminary Suitability Determinations 1038
Table O.2. Recommendations Regarding Suitability Provided to the BLM by Stakeholders ... 1041
Table O.3. Summary of Eligible Rivers/Streams in the D-E NCA 1047
Table O.4. Members of the BLM's Interdisciplinary Team 1098
Table S.1. Average Annual AUMs 1228
Table S.2. Spending Profiles by Trip Segments for Average Spending Forests 1230
Table S.3. Annual DE-NCA Recreation Visitor Days by Trip Segment 1230
Table S.4. Average Consumer Surplus Values per Person per Day by Activity 1231
Table S.5. Visits by Activity Under the Alternatives 1231
Table S.6. Distribution of Natural Resource–Related Payments to State/Counties 1233
Table U.1. Index of Commenters 1243

Appendix A. Planning for Priority Species and Vegetation

The BLM used a multi-step process when planning for biological resources in the D-E NCA for this Proposed RMP. The BLM's interdisciplinary team relied in part on a process called "planning for priority species and vegetation" (PPSV) to help organize biological data and analyses, which were used to support decision-making during the development of the Proposed Plan Alternative. PPSV was developed as part of a working agreement between the BLM and the Nature Conservancy. The idea of this process is to systematically focus planning efforts on those priority vegetation types and species that require specific management attention to help streamline biological resource planning.

The first step in this process was to identify species and vegetative types that would be treated as priorities for planning. Priority species were identified as those species in the D-E NCA that require significant management attention from the BLM beyond management of their respective habitat types. This resulted in two priority species for the D-E NCA: desert bighorn sheep and Colorado hookless cactus. Priority vegetation types were those that covered a large portion of the D-E NCA and/or required substantial management attention due to their value for the larger ecosystem. This resulted in eight priority vegetation types for the D-E NCA: desert shrub/saltbush, pinyon-juniper woodlands, sagebrush shrublands, ponderosa pine woodlands, mountain shrub, riparian, seeps and springs, and aquatic systems. These priority vegetation types cover all major vegetation types in the D-E NCA. A list of species that could be considered "nested" special status species under each vegetation type was then produced. "Nested" species are those whose health within the D-E NCA is largely tied to management of a vegetation type. Some of these species are "nested" under multiple vegetation types.

Second, a list of attributes and indicators for assessing the health of these species or vegetative communities was identified. Attributes are general characteristics that could be used to measure the health of a priority species or vegetation type. For example, one way to assess the health of the sagebrush shrublands vegetation type is the composition of invasive species in sagebrush communities. Indicators are more specific and are measurable. The indicator for the attribute described above could be the percentage of understory plants that are invasive. Areas that have a high relative cover of invasive species are not healthy for this attribute and indicator.

Third, the planning team developed standards for assessing the health of each indicator, so that each indicator could be measurably ranked into "poor," "fair," "good" and "very good" categories. Once these standards had been created, the current condition of each indicator was assessed using existing data as much as possible. The majority of the data used to determine current condition were taken from land health assessments conducted in the D-E NCA from 2007 through 2009.

During the development of alternatives for this RMP (Chapter 2), the standards used to assess priority vegetation types and priority species were used as a starting point for the creation of management objectives those vegetation types and species. It is anticipated that this system of attributes, indicators and standards will be used for monitoring in the D-E NCA once this RMP has been completed.

The steps outlined above were initiated in the fall of 2010 when specialists from the BLM met with representatives of CPW, the Nature Conservancy, CNHP, USFS, and USFWS. Over the

subsequent months, BLM specialists continued to refine and assemble the attributes, indicators, standards and current condition for each priority species and habitat/vegetation type.

Table A.1 provides a detailed summary of the information assembled for the D-E NCA's priority species and vegetation types.

Table A.1. Description of Attributes, Indicators and Current Condition of the Health of Priority Vegetation and Priority Species

				Indicator Standards				
Priority Species or Vegetation	**Attribute**	**Indicator**	**Existing Data Source**	**Poor**	**Fair**	**Good**	**Very Good**	**Current Condition**
Desert Shrub/Saltbush								
Desert Shrub/ Saltbush	Vegetation structural composition	Percentage of sampled acres containing adequate mixtures of warm and cold season grasses, shrubs and forbs	Land health assessments	Less than 60% of sampled acres	60-79% of sampled acres	80-94% of sampled acres	95% or more of sampled acres	**Poor**
	Plant species composition/ dominance	Percentage of sampled acres meeting land health standard 3	Land health assessments	Less than 60% of sampled acres	60-79% of sampled acres	80-94% of sampled acres	95% or more of sampled acres	**Poor**
	Understory invasive species	Percentage of sampled acres exhibiting an acceptable composition of understory invasive plant species (<10% relative cover)	Land health assessments	Less than 60% of sampled acres	60-79% of sampled acres	80-94% of sampled acres	95% or more of sampled acres	**Poor**
	Disturbance regime	Percentage of sampled acres in early seral stage	Ecological site inventory (GJFO) and land health assessments (UFO)	Greater than 39% of sampled acres	1-7% or 33-39% of sampled acres	8-14% or 26-32% of sampled acres	15-25% of sampled acres	**Good**

				Indicator Standards				
Priority Species or Vegetation	**Attribute**	**Indicator**	**Existing Data Source**	**Poor**	**Fair**	**Good**	**Very Good**	**Current Condition**
Pinyon-Juniper Woodlands								
Pinyon-Juniper Woodlands	Age class structure	Percentage of acres of pinyon-juniper woodlands classified as old growth (GJFO) or late seral (UFO)	Ecological site inventory (GJFO) and PhD dissertation work (UFO)	Less than 35% or more than 95% of sampled acres	35-45% or 86-95% of sampled acres	46-55% or 76-85% of sampled acres	55-75% of sampled acres	**Good**
	Vegetation structural composition	Percentage of sampled acres containing adequate mixtures of warm and cold season grasses, shrubs and forbs	Land health assessments	Less than 60% of sampled acres	50-79% of sampled acres	80-94% of sampled acres	95% or more of sampled acres	**Good**
	Dominance of crested wheatgrass	Percentage of sampled acres with acceptable levels (less than 50% relative understory cover) of crested wheatgrass	Land health assessments	Less than 60% of sampled acres	60-79% of sampled acres	80-94% of sampled acres	95% or more of sampled acres	**Very Good**
	Presence/ abundance of BLM sensitive plant species	Population trend of BLM sensitive plant species	Best estimation based on CNHP data	Loss of populations	Decreasing population trends	Static to increasing population trend	Increasing population trend	**Very Good**
	Understory invasive species	Percentage of sampled acres exhibiting an acceptable composition of understory invasive plant species (<10% relative cover)	Land health assessments	Less than 60% of sampled acres	60-79% of sampled acres	80-94% of sampled acres	95% or more of sampled acres	**Very Good**

				Indicator Standards				
Priority Species or Vegetation	**Attribute**	**Indicator**	**Existing Data Source**	**Poor**	**Fair**	**Good**	**Very Good**	**Current Condition**
Sagebrush Shrublands								
Sagebrush Shrublands	Age class structure	Percentage of acres that have decadent sagebrush	Land health assessments	More than 50% of sampled acres	20-50% of sampled acres	5-20% of sampled acres	Less than 5% of sampled acres	**Good**
	Vegetation Structural Composition	Percentage of sampled acres containing adequate mixtures of warm and cold season grasses, shrubs and forbs (adequate as described by Ecological Site Descriptions and the Gunnison Sage Grouse Rangewide Conservation Plan guidelines)	Land health assessments	Less than 60% of sampled acres	60-79% of sampled acres	80-94% of sampled acres	95% or more of sampled acres	**Poor**
	Dominance of crested wheatgrass	Percentage of sampled acres with acceptable levels (less than 50% relative understory cover) of crested wheatgrass	Land health assessments	Less than 60% of sampled acres	60-79% of sampled acres	80-94% of sampled acres	95% or more of sampled acres	**Fair**
	Understory invasive species	Percentage of sampled acres exhibiting an acceptable composition of understory invasive plant species (<10% relative cover)	Land health assessments	Less than 60% of sampled acres	60-79% of sampled acres	80-94% of sampled acres	95% or more of sampled acres	**Fair**
	Gunnison sage-grouse winter habitat condition	Percentage of sampled acres with moderate cover of sagebrush (10-30% cover)	Land health assessments	Less than 60% of sampled acres	60-79% of sampled acres	80-94% of sampled acres	95% or more of sampled acres	**Poor**

				Indicator Standards				
Priority Species or Vegetation	**Attribute**	**Indicator**	**Existing Data Source**	**Poor**	**Fair**	**Good**	**Very Good**	**Current Condition**
	Sagebrush fragmentation and extent	Average size of un-fragmented (defined as route-free) sagebrush parks	BLM vegetation cover data and route inventory information	Average of 40 (or less) acres per unfragmented sagebrush parks	Average of 40-50 acres per unfragmented sagebrush parks	Average of 50-60 acres per unfragmented sagebrush parks	Average of 60 acres (or more) per unfragmented sagebrush parks	**Good**

				Indicator Standards				
Priority Species or Vegetation	**Attribute**	**Indicator**	**Existing Data Source**	**Poor**	**Fair**	**Good**	**Very Good**	**Current Condition**
Ponderosa pine								
Ponderosa pine	Fire regime	Fire regime condition class (FRCC)	FRCC	FRCC 3	FRCC 2	FRCC 2 trending toward 1	FRCC 1	**Fair**
	Understory species composition	Presence of understory ladder fuels	Best estimation based on specialist opinion	Ladder fuels very likely to cause crown fires	Ladder Fuels likely to cause crown fires	Ladder Fuels unlikely to cause crown fires	Few to no Ladder Fuels present	**Good**
	Number and size of stands	Number of stands and size of stands relative to current situation	Best estimation based on specialist opinion	Loss of stands	Decreasing stand size	Increasing stand size	Increasing stand size and new stands	**Good**

				Indicator Standards				
Priority Species or Vegetation	**Attribute**	**Indicator**	**Existing Data Source**	**Poor**	**Fair**	**Good**	**Very Good**	**Current Condition**
Mountain Shrub								
Mountain Shrub	Age class structure	Percentage of acres in early, mid and late age classes	Best estimation based on specialist opinion	Less than 5% of the D-E NCA's mountain shrub communities are within each of the following age classes: early, mid and late seral	At least 5% of the D-E NCA's mountain shrub communities are within each of the following age classes: early, mid and late seral	15-25% of the D-E NCA's mountain shrub communities are within each of the following age classes: early, mid and late seral	25% (or more) of the D-E NCA's mountain shrub communities are within each of the following age classes: early, mid and late seral	**Good**
	Vegetation structural Composition	Percentage of sampled acres containing adequate mixtures of warm and cold season grasses, shrubs and forbs (taken from existing LHA data)	Land health assessments	Less than 60% of sampled acres	60-79% of sampled acres	80-94% of sampled acres	95% or more of sampled acres	**Very Good**
	Understory invasive species	Percentage of sampled acres exhibiting an acceptable composition of understory invasive plant species (<10% relative cover)	Land health assessments	Less than 60% of sampled acres	60-79% of sampled acres	80-94% of sampled acres	95% or more of sampled acres	**Good**
	Vigor	Percent hedging by big game and livestock	Land health assessments (UFO only)	> 50 percent of sites with most of the palatable shrubs severely hedged	25-50 percent of sites with most of the palatable shrubs severely hedged	10-24 percent of sites with most of the palatable shrubs severely hedged	less than 10 percent of sites with most of the palatable shrubs severely hedged	**Very good**

				Indicator Standards				
Priority Species or Vegetation	**Attribute**	**Indicator**	**Existing Data Source**	**Poor**	**Fair**	**Good**	**Very Good**	**Current Condition**
Riparian								
Riparian	Fire fuel load on Gunnison River	Percentage relative cover of tamarisk (dead or alive)	BLM greenline data (UFO only)	greater than 50% relative cover of tamarisk (dead or alive)	26-50 % relative cover of tamarisk (dead or alive)	11-25% relative cover of tamarisk (dead or alive)	Under 10% relative cover of tamarisk (dead or alive)	**Good**
	Stream function	Percentage of sampled miles in proper functioning condition	BLM proper functioning condition data	Less than 60% of sampled miles	60-79% of sampled miles	80-94% of sampled miles	More than 95% of sampled miles	**Good**
	Invasive species composition on Gunnison River	Percentage of sample sites along the Gunnison River with acceptable levels of invasive plants (less than 20% relative cover)	BLM greenline data (UFO only)	Less than 60% of sample sites	60-79% of sample sites	80-94% of sample sites	95% or more of sample sites	**Poor**
	Invasive species composition on tributary creeks	Percentage of sample sites along tributary creeks with acceptable levels of invasive plants (less than 20% relative cover)	BLM greenline data (UFO only)	Less than 60% of sample sites	60-79% of sample sites	80-94% of sample sites	95% or more of sample sites	**Very Good**
	Presence of saline grasslands	Percent variation from present conditions in extent of saline grasslands in riparian zones	Best estimate based on specialist opinion	>25% decrease from present condition	6-25% decrease from present condition	Present condition +/- 5%	Greater than 5% increase from present condition	**Good**

				Indicator Standards				
Priority Species or Vegetation	**Attribute**	**Indicator**	**Existing Data Source**	**Poor**	**Fair**	**Good**	**Very Good**	**Current Condition**
	Presence of wetland obligate plant species	Trend (compared to present conditions) in wetland obligate plant cover along riparian reaches	BLM greenline data (UFO only)	loss of obligates from >25 percent of riparian reaches	loss of obligates from 5-25 percent of riparian reaches	loss or gain of obligates from +- 5% percent of riparian reaches	gain of obligates in more than 5% of riparian reaches	**Fair**
	Vegetation structure	Percentage of suitable stream reaches that support the historical proportions of age classes and vegetation composition of woody native riparian species (e.g., willows, cottonwoods, and others)	BLM greenline data (UFO only)	less than 60% of suitable stream reaches	60-79% of suitable stream reaches	80-94% of suitable stream reaches	95% (or more) of suitable stream reaches	**Fair**

				Indicator Standards				
Priority Species or Vegetation	**Attribute**	**Indicator**	**Existing Data Source**	**Poor**	**Fair**	**Good**	**Very Good**	**Current Condition**
Seeps and Springs								
Seeps and Springs	Groundwater hydrology	Number of well and water catchments in the recharge area	BLM Range Improvement Projects inventory	More than current number of water developments at full capacity	Current number of water developments at full capacity	Current number of water developments at current capacity	Fewer water developments than current condition	**Good**
	Groundwater hydrology	10-year trend in size of wetland/riparian area around naturally occurring seeps and springs	Best estimate based on specialist opinion	Trends toward smaller riparian/ wetland area	Stable to trend toward smaller riparian /wetland area	Stable Trend	Trend toward enlargement	**Good**
	Invasive species composition/ dominance	Percentage of naturally occurring seeps and springs with non-native perennial plant species (e.g., tamarisk, Canada thistle, bull thistle)	Best estimate based on specialist opinion	Greater than 50% of naturally occurring seeps and springs	16-49% of naturally occurring seeps and springs	5-15% of naturally occurring seeps and springs	Less than 5% of naturally occurring seeps and springs	**Fair**
	Presence of wetland obligate plant species	Trend (compared to present conditions) in wetland obligate plant cover around naturally occurring seeps and springs	Best estimate based on specialist opinion	loss of obligates from >15% of springs/seeps	loss of obligates from 5-15% of springs/seeps	loss or gain of obligates from +- 5% percent of springs/seeps	gain of obligates in more than 5% of springs/seeps	**Fair**
	Rare plant presence	Number of seeps with continued presence of rare plants (e.g., canyon bog orchid, Eastwood's monkey-flower, giant helleborine)	Best estimate based on specialist opinion	More than 20% reduction in sites with continued presence	5-19% reduction in sites with continued presence	plus or minus 5% of continued presence of rare plants	More than 5% increase in presence of rare plants	**Good**

				Indicator Standards				
Priority Species or Vegetation	**Attribute**	**Indicator**	**Existing Data Source**	**Poor**	**Fair**	**Good**	**Very Good**	**Current Condition**
	Surface water hydrology	Percentage of seeps impacted by surface water diversions	Best estimate based on specialist opinion	Increased number of diversions and an increased overall rate	Current number of water diversions at an increased rate	Current number of water diversions at current rate	Decrease in the number of diversions and/or the rate	**Good**
	Trampling and human disturbance	Percentage of naturally occurring seeps and springs with evidence of trampling and human disturbance	BLM inventory data (UFO only)	50% or more of sites	21-49% of sites	6-20% of sites	Less than 5% of sites	**Fair**

				Indicator Standards				
Priority Species or Vegetation	**Attribute**	**Indicator**	**Existing Data Source**	**Poor**	**Fair**	**Good**	**Very Good**	**Current Condition**
Aquatic Systems								
	Gunnison River channel movement	Percentage of the Gunnison River with evidence of channelization and riprap	BLM GIS data	more than 50% of the Gunnison River has evidence of channelization and riprap	26- 50% of the Gunnison River has evidence of channelization and riprap	6-25% of the Gunnison River has evidence of channelization and riprap	5% (or less) of the Gunnison River has evidence of channelization and riprap	**Fair**
	Gunnison River hydrologic regime/surface water	Gunnison River hydrograph comparison to pre-dam conditions	USGS water flow data	Monthly median of the average daily flows during critical spring runoff months (4/1-6/30) falls below the 35th percentile; OR the shape of the natural hydrograph is altered; OR minimum base-flows established by USFWS and BOR for special status fish	Monthly median of the average daily flows is equal to or exceeds the 35th percentile value during critical spring runoff periods (4/1-6/30); and The shape of the natural hydrograph is maintained; and Minimum base-flows established by USFWS and BOR for special status fish	Monthly median of the average daily flows is at or above the median value (50th percentile) during critical spring runoff periods (4/1-6/30); and The shape of the natural hydrograph is maintained; and Timing of peak runoff is consistent with pre-dam conditions; and Minimum base-flows established by USFWS and BOR for special status fish	Monthly median of the average daily flows ranks at or above 75th percentile during critical spring runoff periods (4/1-6/30); and The shape of the natural hydrograph is maintained; and Timing of peak runoff is consistent with pre-dam events; and Minimum base-flows established by USFWS and BOR for special status fish	**Fair**

				Indicator Standards				
Priority Species or Vegetation	**Attribute**	**Indicator**	**Existing Data Source**	**Poor**	**Fair**	**Good**	**Very Good**	**Current Condition**
Aquatic Systems	Gunnison River presence/ abundance of native fish species	Percentage of fish (by number of fish collected) in Gunnison River that are native	BLM and Division of Wildlife fish sampling	Less than 60% native fish in the Gunnison River	60-79% native fish in the Gunnison River	80-95% native fish in the Gunnison River	More than 95% native fish in the Gunnison River	**Good**
	Tributary creek hydrologic regime/surface water	Tributary hydrograph comparison	Best estimate based on BLM specialist opinion and intermittent data	Monthly median of the average daily flows during critical spring runoff months (4/1-6/30) falls below the 35th percentile; OR the shape of the natural hydrograph is altered; OR minimum base-flows established by USFWS and BOR for special status fish	Monthly median of the average daily flows is equal to or exceeds the 35th percentile value during critical spring runoff periods (4/1-6/30). The shape of the natural hydrograph is maintained; Minimum base-flows established by USFWS and BOR for special status fish	Monthly median of the average daily flows is at or above the median value (50th percentile) during critical spring runoff periods (4/1-6/30); and The shape of the natural hydrograph is maintained; and Timing of peak runoff is consistent with pre-dam conditions	Monthly median of the average daily flows ranks at or above 75th percentile during critical spring runoff periods (4/1-6/30); and The shape of the natural hydrograph is maintained; and Timing of peak runoff is consistent with pre-dam events	**Good**
	Tributary creek presence/ abundance of native fish	Percentage of fish in warm-water reaches of tributary creeks that are native	BLM and Division of Wildlife fish sampling	Less than 60% native fish in perennial warm-water reaches	60-79% native fish in perennial warm-water reaches	80-95% native fish in perennial warm-water reaches	More than 95% native fish in perennial warm-water reaches	**Good**

				Indicator Standards				
Priority Species or Vegetation	**Attribute**	**Indicator**	**Existing Data Source**	**Poor**	**Fair**	**Good**	**Very Good**	**Current Condition**
	Warm-water aquatic habitat connectivity	Percentage of historic warm-water habitat in the D-E NCA's tributary creeks that is accessible to fish residing in the Gunnison River	Best estimate based on BLM specialist opinion	Access to less than 50% of historic habitats due to human stream modifications	Access to 51-60% of historic/native habitats due to human stream modifications	Access to 61-75% of historic/native habitats due to human stream modifications	Access to more than 75% of historic/native habitats	**Good**
	Cold-water fish composition	Percentage of fish in cold-water reaches that are native	BLM and Division of Wildlife fish sampling	Less than 60% native fish in perennial cold-water reaches	60-79% native fish in perennial cold-water reaches	80-95% native fish in perennial cold-water reaches	More than 95% native fish in perennial cold-water reaches	**Poor**
	Cold-water aquatic habitat quality	Percentage of cold-water fish bearing stream miles that rank is good in the Pfankuch stability rating	Best estimate based on BLM specialist opinion	less than 60% of sites in tributary streams have a good rating on the Pfankuch stability rating	60-79% of sites in tributary streams have a good rating on the Pfankuch stability rating	less than 80-95% of sites in tributary streams have a good rating on the Pfankuch stability rating	Greater than 95% of sites in tributary streams have a good rating on the Pfankuch stability rating	**Good**

				Indicator Standards				
Priority Species or Vegetation	**Attribute**	**Indicator**	**Existing Data Source**	**Poor**	**Fair**	**Good**	**Very Good**	**Current Condition**
Desert bighorn sheep								
Desert bighorn sheep	Population structure and recruitment	Lamb to ewe ratio	CPW surveys	Ratio that will lead to downward population trend	Ratio that will lead to stable to decreasing population trend	Ratio that will lead to stable to increasing population trend	Ratio that will lead to upward population trend	**Good**
	Potential for disease transmission	Potential for disease transmission between domestic sheep and goats with desert bighorn sheep	BLM and CPW GIS data	Significant overlap (overlap within high risk areas) occurs between domestic sheep/goats and desert bighorn sheep on BLM lands.	High risk overlap (permitted sheep/goat grazing within high risk allotments) occurs between domestic sheep/goats and desert bighorn sheep on BLM lands. Risk is reduced in low, medium and high risk allotments using WAFWA recommendations.	There is no high risk overlap (permitted sheep/goat grazing within high risk allotments) between domestic sheep/goats and desert bighorn sheep on BLM lands. Risk is reduced in low and medium risk allotments using WAFWA recommendations.	There is no risk of disease transmission between domestic sheep/goats and desert bighorn sheep on BLM lands.	**Poor**
	Population size* *This attribute will only go into effect after CPW develops a herd population goal.	Size (5-year floating average) of the desert bighorn sheep herd	CPW surveys	Population at or below lowest goal	Mid to lower population goal	Mid to upper population goal	Greater than or equal to upper population goal	**Good**

				Indicator Standards				
Priority Species or Vegetation	**Attribute**	**Indicator**	**Existing Data Source**	**Poor**	**Fair**	**Good**	**Very Good**	**Current Condition**
Colorado hookless cactus								
Colorado hookless cactus	Habitat quality	Percentage of sites occupied by Colorado hookless cactus that have low levels of invasive weeds (10% or less relative cover)	CNHP specialist opinion	0-49% of sites	50-79% of sites	80-9% of sites	95% of sites or more	**Good**
	Population structure and recruitment	Percent of populations with evidence of recruitment	CNHP specialist opinion	0-49% of sites	50-79% of sites	80-94% of sites	Greater than 95% of sites	**Good**
	Population size	Population trend (20-year trend) in number of individual hookless cactus in known populations	CNHP	Loss of populations	Decreasing population	Static to increasing population	Increasing population	**Fair**

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Appendix B. Description of Surface Disturbance Restrictions

This appendix defines surface disturbance restrictions found in Chapter 2 of this Proposed RMP. Three surface disturbance restrictions are described below: prohibit surface-disturbing activities (PSD), prohibit disruptive activities, site-specific relocation (SSR), and prohibit in-channel work.

B.1. Prohibit Surface-Disturbing Activities

This restriction is applied within Chapter 2 to protect sensitive resources from degradation resulting from human-caused disturbance. In some cases, this restriction applies only to a specific time of year. For example, this restriction may be applied within bighorn sheep production areas during the bighorn sheep calving season. See the specific row of Chapter 2 for details regarding the protected resource for a particular restriction.

Description of Activities Covered in This Restriction

This restriction applies to human-caused disturbance that results in direct and pronounced alteration, damage, removal, displacement, or mortality of vegetation, soil, or substrates; usually entail motorized or mechanized vehicles or tools; typically can also be described as disruptive activities (see following definition). Examples of typical surface disturbing activities include the following:

- Earth-moving and drilling.
- Geophysical exploration.
- Off-route motorized and mechanized travel.
- Vegetation treatments including woodland thinning with chain saws.
- Pyrotechnics and explosives
- Construction of power lines, pipelines, oil and gas wells, recreation sites, livestock improvement facilities, wildlife waters, or new roads.

Examples of casual use and authorized activities that would not normally be considered surface disturbing activities include the following:

- Equestrian use
- Proper livestock grazing
- Cross-country hiking
- Hand-spraying weeds
- Minimal trimming of vegetation to maintain ROWs.
- Motorized and mechanized travel on designated routes.

- Maintenance of permitted areas and facilities under valid existing rights.
- Minimum impact emergency response activities such as construction of fire line using hand tools as a tactic for suppression and management of unplanned wildland fire.

Standard Exceptions to Restriction

The D-E NCA Manager may grant an exception if an environmental analysis indicates that the proposed action can be conditioned so as not to adversely impact the protected resource within the project vicinity (the subject of the restriction). The D-E NCA Manager may also be grant an exception for actions intended to a) enhance the long-term utility or availability of suitable habitat or b) to meet a PPSV objective.

Disturbances that may improve the resource that is the subject of the limitation (whether it be natural, cultural, geological, paleontological, etc.) are exempt, such as designated camp sites in areas where dispersed camping is damaging vegetation, or vegetation/fuel treatments designed to improve habitat conditions. In addition, essential roads, trails, and spring development may be exempted subject to BMPs. When use of heavy equipment is necessary for emergency response activities such as wildland fire suppression, management of unplanned fire, and emergency stabilization, the standard exception would be approved verbally by the BLM authorized officer, as delegated.

B.2. Prohibit Disruptive Activities

This restriction is applied within Chapter 2 to protect sensitive wildlife resources from activities that could decreases individual fitness of a species or population. This restriction is generally accompanied by a set of dates that indicate the time of year when this restriction applies.

Description of Activities Covered in This Restriction

This restriction applies to human-caused disturbance that induces stress on an individual of a species population, community, or ecosystem and that causes potential loss of fitness (survival, reproduction, and recruitment) within crucial habitats or other sensitive areas during specified time periods; may or may not entail surface disturbance. This does not include regular background levels of activity (such as hiking or routine livestock management) to which individuals would be accustomed. It also does not include minimum impact emergency response activities such as construction of fire line using hand tools as a tactic for suppression and management of unplanned fire. Examples of disruptive activities:

- Commercial recreation activities, especially large groups
- Abnormally loud or sustained noise
- Road maintenance

Standard Exceptions to Restriction

The D-E NCA Manager may grant an exception if the proposed action can be conditioned so as not to interfere with habitat function or compromise animal condition within the project vicinity

for the subject species of the limitation. An exception may also be granted for a) actions intended to enhance the long term utility or availability of suitable habitat for that species (e.g., vegetation treatment to improve species habitat) or b) to meet PPSV objectives.

Disruptive activities that may have long-term benefits to the resource that is the subject of the limitation are exempted (e.g., tamarisk removal). In addition, essential roads, trails, and spring development may be exempted subject to BMPs. When use of heavy equipment is necessary for emergency response activities such as wildland fire suppression, management of unplanned fire, and emergency stabilization, the standard exception would be approved verbally by the BLM authorized officer as delegated.

Modification: The D-E NCA Manager may modify the size and time frames of this restriction if CPW monitoring information indicates that current animal use patterns are inconsistent with dates established for animal occupation, or under mild winter conditions for the first 60 days of the closure. Severity of the winter will be determined on the basis of snow depth, snow crusting, daily mean temperatures, and whether animals were concentrated on the winter range during the winter months. Modifications could be authorized if the proposed action could be conditioned so as not to interfere with critical habitat function or compromise animal condition.

Waiver: The D-E NCA Manager may grant a waiver if CPW determines that the area is no longer utilized by big game as crucial winter range.

B.3. Site-Specific Relocation Restrictions

This restriction is applied throughout Chapter 2 in order to protect sensitive resources from potentially damaging activities.

Allows some use and occupancy of public land while protecting identified resources or values. SSR areas are potentially open to surface-disturbing activities but the restriction allows the BLM to require special constraints, or the activity can be shifted (spatially or temporally) to protect the specified resource or value. Activities that are not considered surface disturbing include, but are not limited to, livestock grazing, cross-country hiking or equestrian use, installing signs, minimum impact filming, vehicular travel on designated routes, and general use of the area by wildlife. rights-of-way are not subject to the SSR restriction, because their impacts are mitigated in other ways.

B.4. Prohibit In-Channel Work

This restriction is applied within Chapter 2 to protect aquatic habitats from potentially damaging activities during critical spawning times for fish.

Description of Activities Covered in This Restriction

This restriction applies to human-caused disturbance that results in direct and pronounced alteration or damage to stream banks, stream substrate, or riparian vegetation associated with important spawning times of resident fish. Work is usually associated with motorized or mechanized equipment or tools. Examples of typical disturbing activities include the following:

- Earth-moving and drilling

- Geophysical exploration
- Off-route motorized and mechanized travel
- Pyrotechnics and explosives
- Construction of roads, power lines, and pipelines that cross fish bearing streams. In-channel structure work including construction of diversion ditches, headgates, culverts, bridges, and low water crossings.

Examples of casual use and authorized maintenance activities that would not normally be considered in-channel disturbances include the following:

- Minor diversion ditch or headgate maintenance.
- Proper livestock grazing.
- Hand-spraying weeds.
- Minimal trimming of vegetation to maintain ROWs.
- Motorized and mechanized travel on designated routes.
- Maintenance of permitted areas under valid existing rights.

Standard Exceptions to Restriction

The D-E NCA Manager may grant an exception if an environmental analysis indicates that the proposed action can be conditioned so as not to adversely impact the protected resource within the project vicinity (the subject of the restriction). An exception may also be granted for emergency actions needed to protect life and property.

Where both spring and fall spawning species are present in a given stream, the timing limitation will apply to the more sensitive species (e.g., spring spawning cutthroat trout versus fall spawning brook trout). Generally speaking, the late summer and fall base flow time period is the preferred time to complete in-channel work if conflicting resources exist. In addition, essential roads, trails, fire management activities (including fire line construction) and spring developments may be exempted subject to BMPs.

Appendix C. Modeling the Probability of Bighorn/Domestic Sheep Association

The potential effect that association (intermingling) with domestic sheep has on bighorn sheep populations (probability of die-off and population viability) is well documented and recognized. Current science indicates that the bacteria that cause pneumonia in bighorn sheep populations, *Mycoplasma ovipneumoniae* and *Mannheimia haemolytica*, appear only to be transmitted between domestic and bighorn sheep when they come into direct contact (<30-foot separation) (Besser et al. 2012a; Lawrence et al. 2010; Schommer and Woolever 2008). Besser et al. (2012b) identified that epizootic pneumonia of bighorn sheep is a devastating disease, and etiology regarding the bacterial respiratory pathogens is unclear. This is also the case in Colorado (Miller and Wolf 2011). Transmission of *Mannheimia haemolytica* from domestic sheep to bighorn sheep is irrefutable, as demonstrated by Lawrence et al. (2010), and provides justification sufficient for preventing range overlap and potential association of domestic sheep and goats with bighorn sheep (Wild Sheep Working Group 2012). No one form of evidence can conclusively demonstrate that contact with domestic sheep frequently leads to die-offs of bighorn sheep populations in the wild. Taken together, however, the experiments and observations from the lab and the field do indicate that contact of wild bighorn populations with domestic sheep does pose a risk of disease transmission and die-offs in free-ranging bighorn populations.

Lab experiments demonstrate the particular sensitivity of bighorn sheep to some pneumonia-causing bacteria. The controlled conditions available in inoculation and pen experiments show that healthy domestic sheep often carry bacteria that are fatal to bighorn sheep, and that they can transmit those bacteria through close contact. Finally, nearly a century of observations in the field supports the view that proximity to domestic sheep is a risk factor for bighorn sheep due to disease transmission from domestic sheep to bighorn sheep.

Garde et al. (2005) offer the following conclusions summarizing the risk to wild bighorn sheep from *Pasteurella* spp. and *Mannheimia* spp.:

- These bacteria can cause pneumonia in bighorn sheep, but there are benign commensal strains in the upper respiratory tract that have no harmful effects.
- Pathogens that are benign in domestic sheep can be lethal in bighorn sheep.
- The transference of pathogens from domestic to bighorn sheep has been documented in laboratory settings, with resulting mortality in bighorn sheep.
- Domestic sheep, goats, and llamas have been reported to have these bacteria species.
- Wild sheep and mountain goats have been reported to have these bacteria species.
- Transmission is by direct contact and aerosolization (e.g., fine mist from breathing).
- These bacteria species do not persist in the environment.
- Acute-to-chronic die-offs in bighorn sheep populations can result in low- to 100-percent mortality, although these bacteria can be present in healthy sheep.
- These bacteria are considered opportunistic and can result in pneumonia outbreaks.

- These bacteria can cause clinical disease in domestic sheep and goats but are rarely primary pathogens.

In summary, field observations suggest that bighorn sheep have a high probability of contracting fatal pneumonia following contact with domestic sheep, which has led to numerous independent experiments. These experiments provide strong corroboration that bighorn sheep have a high probability of contracting fatal pneumonia following contact with domestic sheep. The impact of disease on bighorn sheep conservation is likely to increase as habitat loss and fragmentation restrict their movement and concentrate them into smaller areas, increasing contact rates and the spread of disease (Cahn et al. 2011; Scott 1988; Levins et al. 1994). Given the substantial concern raised in the published literature over the past 30 years, management guidance has focused on the separation of these species to prevent disease transmission from domestic sheep to bighorn sheep (The Wildlife Society 2014; Wild Sheep Working Group 2012; Cahn et al. 2011; Foreyt 1989; O'Brien, O'Brien, McCarthy, and Carpenter 2014; USFS 2009).

The Western Association of Fish and Wildlife Agencies (WAFWA) recommends that land management agencies and State wildlife agencies cooperate to complete comprehensive risk assessments of domestic sheep grazing allotments to inform the land use planning process (Wild Sheep Working Group 2012). WAFWA provides recommendations for land management agencies, State wildlife agencies, and domestic sheep permittees to consider implementing in order to minimize risk of association between bighorn sheep and domestic sheep commensurate with level of risk. The BLM used GIS modeling to quantify the risk of association between domestic and bighorn sheep populations. Two modeling efforts were conducted: Probability of Interaction (PoI) developed by the Uncompahgre Field Office in 2011 and Risk of Contact (RoC) developed in Idaho by the U.S. Forest Service and the BLM (see additional discussion below). The BLM used the level of risk of each allotment to inform the management actions in each alternative in Chapter 2, to minimize risk of association. The parameters used in this model were based on existing science, where information could be obtained (see references), but they were also based on professional judgment.

C.1. Probability of Interaction Model

Assumptions for Probability of Interaction Model

The BLM assumed that CPW's mapping of bighorn sheep range was equivalent to suitable, occupied habitat and used those data as the basis for the highest priority habitat for bighorn sheep. Additionally, the BLM model is concerned with bighorn sheep herds or populations and not with individual wandering bighorns (most often sub-adult rams) (Wild Sheep Working Group 2012). The PoI model (PoIM) attempts to quantify the probability of intermingling between domestic and bighorn sheep populations given that either is free to move across the land naturally (i.e., without herders, for domestic sheep).

Explanation of Probability of Interaction Model Assumptions

In order to use the model at a landscape level and to maintain parsimony[1], the BLM made the following assumptions:

[1]The ability of a model to keep the number of variables small and still retain enough predictive power to be useful.

1. CPW bighorn sheep overall range maps (CPW 2013) are equivalent to occupied bighorn sheep habitat, for the purposes of the PoIM. Suitable habitat maps for desert bighorn sheep were not available.

2. When bighorn and domestic sheep occur in the same space, risk of interaction is high; as distance increases away from bighorn sheep mapped range (occupied habitat), the risk of interaction decreases. Risk of interaction is also affected by a great number of other variables (e.g., sex of animal, proximity of escape terrain, source habitats, and unsuitable habitat) that the BLM was unable to factor into this model.

3. Allotments have particular natural barriers to movement for both bighorn and domestic sheep that may prove to naturally mitigate some risk:

    a. Domestic sheep barriers to movement (Holechek, Pieper, and Herbel 1989, McDaniel and Tiedeman 1981) are as follows:

        i. Continuous cliffs (>70% slope) = barrier to movement.

        ii. Major rivers = barrier to movement.

        iii. Continuous steep slopes (40–70%) = partial (50%) barrier to movement.

    b. Bighorn sheep barriers to movement are determined as follows:

        i. As distance from occupied habitat increases, the barrier to movement outward increases.

        ii. At greater than 9 miles from bighorn sheep range, the probability of the presence of a bighorn sheep is extremely low, and interaction is unlikely.

        iii. At greater than 2 miles from bighorn sheep range, extensive flat terrain (0–10% slope; interconnected areas >0.5 mile in diameter) would increase the barriers to movement outward from the bighorn sheep range.

4. Seasonal overlap of domestic sheep during breeding seasons would increase the likelihood of interaction between domestic and bighorn sheep because of the following:

    a. Attraction between bighorn sheep and domestic sheep would increase during bighorn sheep breeding season and during domestic sheep breeding season.

    b. Risk of interaction is higher when both bighorn and domestic sheep are present during either breeding season.

5. Additional assumptions used in the assessment of seasonal overlap include the following:

    a. Female domestic sheep are not turned out on BLM lands until after breeding.

    b. Male domestic sheep are not permitted on BLM lands.

    c. Desert bighorn sheep breeding season for the Middle Dolores (S-63) and Uncompahgre (S-62) bighorn sheep populations is August 1–September 30 (Banulis 2011).

d. Rocky Mountain bighorn sheep breeding season for the Black Canyon (S-80), Cow Creek/Wetterhorn (S-21), Dillon Mesa (S-80) and Snowmass West (S-25) bighorn sheep population is November 1 to December 31 (Banulis 2011).

e. Domestic sheep grazing season is defined by the dates of permitted use on an allotment.

f. Seasonal overlap = number of days of domestic sheep grazing season that overlap with bighorn sheep breeding season.

Probability of Interaction Model Methods

The following is a description of the methodology used to quantify the probability of mingling between domestic sheep (DS), and bighorn sheep (BHS) to determine risk posed by domestic sheep grazing within BLM allotments.

1. In an initial risk assessment, allotment risk was characterized by the percentage of the allotment that fell within the BHS occupied habitat, as follows:

   a. >75% = high risk

   b. ≤75% = undetermined

2. The rest of the process consisted of evaluating the undetermined areas for physiographic barriers to movement and the compounding temporal effects that allotment usage incurs for increasing the risk, as follows (see also Figure C.1 below):

   a. Phase 1: proximity to bighorn sheep range

   b. Phase 2: natural barriers to movement

   c. Phase 3: season of use

3. Using ArcGIS, natural breaks in the data were determined using the Natural Breaks (Jenks) option for displaying graduated color groups (Jenks 1967; Esri 2012), with four categories for those allotments falling within 9 miles of BHS habitat *in the UFO and in all of the D-E NCA RMP planning area only*. Using the results of the statistical analysis combined with the analysis of proximity to BHS range, the classifications in Table C.1 were developed. These risk categories were applied to all of the allotments in both the UFO and D-E NCA on the basis of their respective PA2 values.

Table C.1. Bighorn Sheep Probability of Interaction Allotment Risk Categories

Allotment Risk Category	PA2 low	PA2 high
Low (>9 miles from BHS range)	0.00	0.00
Some	0.000001	1.5
Moderate	1.500001	3.22
High	3.22001	5+

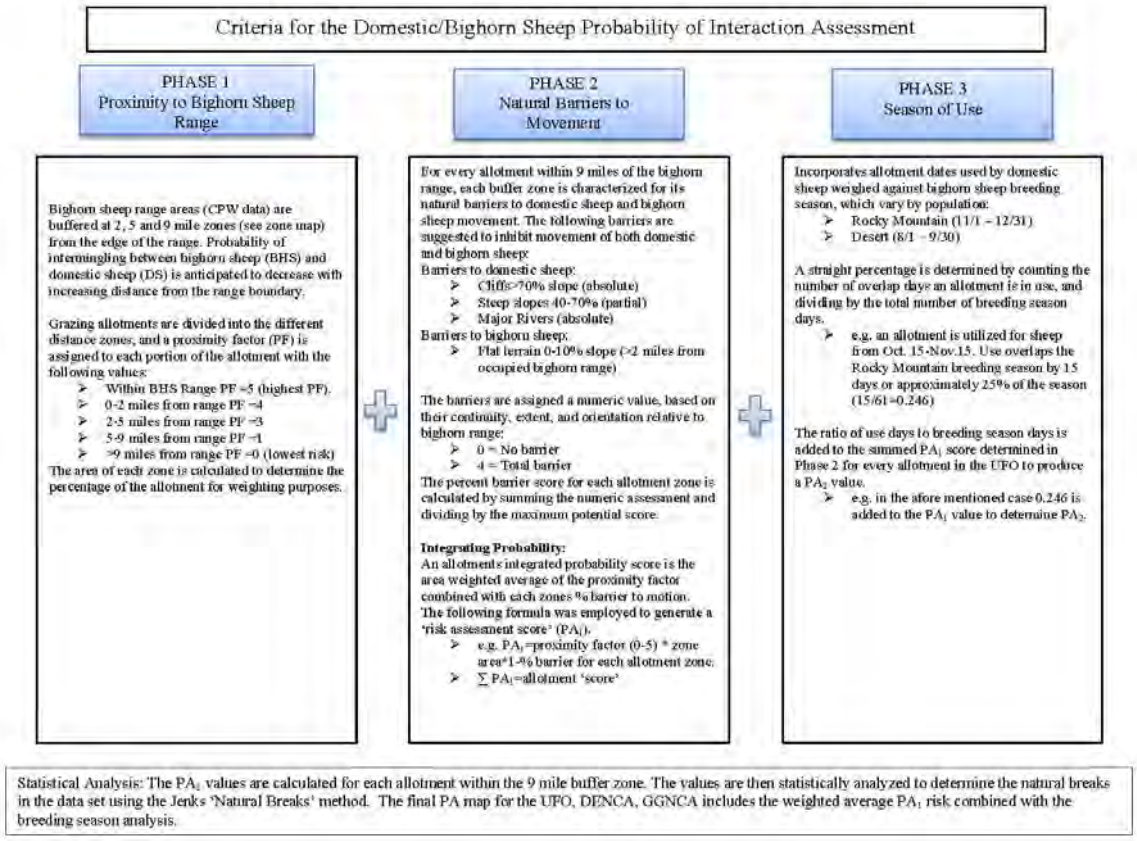

Figure C.1. Criteria for Assessing Domestic/Bighorn Sheep Probability of Interaction

C.2. Risk of Contact Model

In response to bighorn sheep population viability concerns, the Payette National Forest developed a methodology for calculating the probability and rates of contact between bighorn sheep and active domestic sheep allotments. Subsequently, in 2011, the U.S. Forest Service initiated a process to develop a geospatial platform based on the concepts used in the Payette analyses for application on other national forests. This was subsequently expanded to include the BLM and became an ArcGIS extension available to BLM in early 2014. Information for this model can be found in the extension tool user's guide (USFS 2013a).

This model was developed in an area that was rich in bighorn sheep movement and habitat data. For analysis of the risk of contact, the BLM modified the use of the RoC model based on the best available data for our local bighorn populations. In order to utilize the best available data for model inputs, a series of webinars were conducted between the BLM and CPW biologists to agree upon data usage and assumptions (BLM and CPW 2015)[2]

[2]December 12, 2014, January 15, 2015, and February 20, 2015.

The RoC model estimates the probability that foraying bighorn sheep will reach a domestic sheep allotment. However, within an allotment it is not possible to determine where and when domestic sheep would consistently occur or for how long. Use of some areas within an allotment may present less chance of contact with bighorn sheep than others, while some areas may have higher probability of occurrence (e.g., source habitats). Consequently, because of this uncertainty, the RoC model predicts potential interspecies contact by assuming that contact with an allotment results in interspecies contact.

Of key importance to the model, the core herd home range (CHHR) defines the most important portion of a herd's use area, characterized by most (95 percent) of the use. By definition, where a CHHR overlaps an allotment, there is contact with the allotment, and the assumption is that one or more contacts per year may occur. It is recognized that stray domestic sheep could have implications for bighorn sheep herds, and in many rangeland settings may pose a risk of disease transmission as large as or greater than from foraying bighorn sheep. However, the bighorn sheep risk of contact tool (USFS 2013a) does not model the risk of stray domestic sheep and the subsequent potential for contact with bighorn sheep.

The following is a description of the methodology used to quantify the probability of bighorn sheep (BHS) to have contact with a grazing allotment—and ultimately make contact with domestic sheep (DS), to determine risk posed by domestic sheep grazing within BLM allotments. The model was developed according to procedure outlines in the RoC ArcGIS extension tool user's guide (USFS 2013a).

Inputs to the model include the following:

1. Bighorn suitable habitat model
2. Bighorn CHHR
3. Relative preference for habitat
4. Bighorn ram distance/ewe distance files[3]
5. Bighorn adult herd size and sex ratios

Suitable Habitat Model

Bighorn sheep occupy rugged canyons, foothills, and mountainous terrain at elevations ranging from 1,450 to 10,500 feet. Key habitat features include steep, rugged, escape terrain; grasses and forbs for forage; and a limited amount of tall vegetation. Bighorn sheep have habitat preferences and select habitat based on factors such as proximity of steep-sloped escape terrain, forage availability, and horizontal visibility (USFS 2013a; O'Brien, O'Brien, McCarthy, and Carpenter 2014).

[3]"Foray distance distribution files" provide the probabilities that individual ram or ewe forays will reach each of the 1-km-wide concentric rings emanating from the CHHR boundary. "Sample data" are provided with the model and were derived from 12 years of Hells Canyon (Idaho) area telemetry data used as part of the Payette National Forest analysis. "The foray distance distributions exhibited by the Hells Canyon area bighorn sheep were consistent with published observations of bighorn sheep movements from several other areas of western North America. These default data should be used unless other well-supported, scientifically derived estimates of foray distance distributions are available for the area under consideration" (USFS 2013a, pages 4–12).

CPW developed a Rocky Mountain bighorn sheep suitable habitat model for the State of Colorado in 2012 (Eichoff et al. 2012), but a desert bighorn sheep model was not available until late in 2014. This was made available by CPW for this modeling effort during the webinars. This model is similar to the Rocky Mountain suitable habitat model, but uses a less rugged terrain feature and only shows habitat to within 35 km of the Dolores and Dominguez desert bighorn herds. As prescribed in the User's Guide (USFS 2013a), based on the source habitat model, all areas in the Rocky Mountain and desert suitable habitat models were assigned to one of three habitat classes—source habitat, connectivity area, and non-habitat. Source habitat for bighorn sheep occurs within BLM domestic sheep allotments and adjacent landscape.

Telemetry Data/Core Herd Home Range Modeling

Usually, CHHR analysis uses bighorn sheep telemetry location points to identify and enclose an area that contains 95 percent of all telemetry points from radio-collared bighorn sheep. CPW did not feel that they had enough telemetry locations to conduct this portion of the model. As stated in the User's Guide (USFS 2013a), "If point location data are not available, a polygon layer containing the CHHR boundaries must be supplied." CPW biologists reviewed their existing spatial data for bighorn sheep home range polygons for overall, summer, and winter ranges and provided their best professional judgment for boundaries for the populations involved. It was acknowledged that these areas were overestimates of actual CHHR, and will therefore overestimate foray distances.

Foray Analysis

Bighorn sheep, particularly rams, make occasional long-distance movements beyond their CHHR. Singer, Spicer, and Zeigenfuss (2001) defined these forays as any short-term movement of an animal away from and back to its CHHR. This life-history trait can put bighorn sheep at risk of contact with domestic sheep, particularly when suitable habitats are well connected and overlap with domestic sheep use areas (Singer, Bellew, Moses, and Sloan 2000; Gross, Singer, and Moses 2000), or even when domestic sheep use is outside of CHHR areas. The risk of contact between dispersing bighorn sheep and domestic sheep is related to the number of bighorn sheep in a herd, proximity of domestic sheep use areas (allotments) to a bighorn sheep CHHR, distribution of bighorn sheep source habitats across the landscape, and frequency and distance of bighorn sheep forays outside of the CHHR. The risk of contact can be increased by straying domestic sheep (stocking rates and numbers of straying sheep, frequency and distance of straying, the distance that grazing occurs from bighorn sheep source habitat, and straying sheep persistence on the range), although these risk factors were not analyzed.

The foray model analyzes how often bighorn sheep leave the CHHR, whether they travel far enough to reach an allotment, and whether they then actually intersect an allotment (i.e., rather than intersecting a different area at the same distance from the CHHR). For this analysis, information on habitat preference and foray distance (ram/ewe) are used to generate a foray probability raster. Again, local bighorn herd information was limited, and during the webinar discussion (BLM and CPW 2015), it was agreed by BLM and CPW biologists to use the default Idaho (summer) values as the best available information in the absence of more local information.

Analysis of the Probability that a Bighorn Sheep will Intersect an Allotment

Many animals (particularly ewes) may not travel far, even if they are observed outside of the CHHR. The probability that a bighorn sheep on a foray will reach an allotment decreases as the travelling distance increases. Bighorn sheep rams are more mobile and leave CHHRs significantly more than ewes and have a higher probability of interspecies contact. For this portion of the analysis, information on herd size, sex ratios and foray rates are needed. CPW population and sex ratio information typically includes juvenile bighorn. This model assumes that herd size and sex ratios are of adult animals only. CPW biologists provided their professional adjustment of adult survey numbers for model use. Again, local information was limited on foray rates and during the webinar discussion (BLM and CPW 2015), it was agreed by BLM and CPW biologists to use the default Idaho (summer) values as the best available information in the absence of more local information.

Within the RoC model, given that an animal has reached a ring, the probability that it will be in an allotment is proportional to the size of the allotment and to the quality of the habitat in the allotment relative to the size and quality of habitat in the ring as a whole (Table C.2).

Table C.2. Model Results for Desert Bighorn Risk of Contact with Allotments (Probability That a Bighorn Sheep Will Intersect an Allotment)

Allotment Name	Allotment Number	Type of Livestock	Probability of Contact		Rate of Contact		
			Ram	Ewe	Ram	Ewe	Herd
Antelope	14020	Sheep	[a]				
Bean	16206	Cattle	0.000453	0.000261	0.005936	0.000694	0.006629
Cactus Park/Club Gulch	3278	Sheep	[a]				
Dominguez Individual	14001	Cattle	[a]				
Dominguez Rims	4293	Sheep	[a]				
Dry Mesa	14006	Cattle	[a]				
Escalante Flats	14003	Cattle	[a]				
Gibbler Common	26301	Cattle	[a]				
Huff	4294	Sheep	[a]				
Joker	14014	Cattle	0.00811	0.003867	0.10634	0.010268	0.116608
Kannah Creek Common	16202	Cattle	[a]				
Kannah Creek Individual	6207	Cattle	[a]				
Lower Escalante	14002	Sheep	[a]				
Sawmill Mesa	14007	Cattle or horse	[a]				
Twenty Five Mesa N	14008	Cattle	[a]				
Wagon Park AMP	26302	Cattle	[a]				
White Ranch	14015	Cattle	0.011617[b]	0.004463	0.152335[c]	0.011849	0.164184[d]

[a]This allotment intersects the home range polygon and is therefore not included in the RoC analysis.

[b]Given that a ram is on foray, there is a 1.2 percent probability that it will make contact with this allotment.

[c]Given the probability of ram on foray, predicts a rate of 1.5 ram contacts with allotment in 10 years.

[d]Given the probability of foray of bighorn in the population, predicts a rate of 1.6 contacts with allotment in 10 years.

Analysis of the Probability of Disease Outbreak

The RoC model assumes that allotments that intersect with the CHHR have contact with domestic sheep and therefore potential to transmit the disease. The sequence of events by which a disease

outbreak could result from contact between a bighorn sheep and a domestic sheep or goats in an active allotment located outside of bighorn sheep CHHR can be broken down into a number of steps. To reach an occupied allotment, a bighorn sheep must 1) leave the CHHR, 2) travel far enough to reach the allotment, then 3) intersect the allotment (i.e., rather than some other area at the same distance from the CHHR). Once this occurs, in order for disease transmission to occur, the bighorn sheep must 4) come into contact with domestic sheep in the allotment and 5) contract the disease from the domestic sheep. For an outbreak to affect the animal's home herd, the infected bighorn sheep must 6) make its way back to the CHHR and 7) transmit the disease to other members of the herd. Uncertainty is identified within the literature regarding what levels of interspecies contact in a rangeland situation result in disease transmission and disease outbreaks within a bighorn sheep population. Because of this uncertainty, the BLM did not conduct herd-specific modeling in regard to disease transmission and herd persistence.

There is no scientific evidence to support a specific assumption for acceptable risk-of-contact and disease outbreak. The results should be viewed as a means of comparing the relative risk of disease outbreak, not as definitive values. Model results support the current knowledge about, and characteristics of, the bighorn sheep herds, and are based on the science behind disease outbreaks that potentially occur from contact between bighorn sheep within an allotment.

A high degree of uncertainty exists regarding the probability that contact of bighorn sheep with an allotment will lead to disease outbreak occurring within a herd (USFS 2013a; Carpenter et al. 2014; O'Brien, O'Brien, McCarthy, and Carpenter 2014). Quantification of disease transmission and outbreaks in bighorn sheep populations following contact with domestic sheep or goats, and the subsequent ability of a population to recover, are key to interpreting the results from the above models; however, the mechanisms of disease transmission and resulting disease outbreaks in bighorn sheep is not fully understood. The BLM currently lacks empirical data to make recommendations regarding the frequency of outbreaks and the effects on population persistence, so the following factors were considered when interpreting results.

- The effects of respiratory disease outbreaks on bighorn sheep populations are often severe (Besser et al. 2012a, 2012b). Controlled pen experiments identified in Besser et al. (2012b) resulted in complete or nearly complete die-offs of bighorn sheep following contact with domestic sheep. It has also been documented that disease perturbations can affect lamb recruitment for several years following a severe population decline resulting from a disease outbreak that rapidly affects many animals in a specific area at the same time (Besser et al. 2012a; Coggins and Matthews 1992; Foreyt 1990). Consequently, when bighorn sheep disease die-offs occur, there is a substantial immediate mortality (population decline) and a delayed recovery due to poor lamb recruitment that can follow the disease outbreak for many years (Besser et al. 2013). Population recovery is unlikely where interspecies contact, potentially resulting in disease transmission and subsequent disease outbreak, occurs within a few decades of each other (BLM and CPW 2015). There is no specific guidance on the number of decades required to recover from a disease outbreak; observations of herds that have experienced pneumonic events indicate it likely requires several.

- Another important trend of wild-domestic sheep disease transmission is that an illness's effect on individual bighorn populations can be long-lasting (USFS 2013b). Cahn et al. (2011) explained the trend of suppressed lamb recruitment: "Whether mild or severe, most respiratory disease outbreaks in bighorn populations are followed by several years of pneumonia-caused mortality of lambs, resulting in low recruitment rates and juvenile survival. Continuing lamb infection apparently results from females that remain infective following an outbreak,

although mortality or morbidity among the females may not be detectable. Such recurring lamb infections can substantially delay the recovery of depleted populations to pre-outbreak levels."

The BLM recognizes the uncertainty regarding the relationship between the number of bighorn sheep contacts with a domestic sheep allotment and predictions for disease transmission and outbreaks. Because of the uncertainty regarding the probability that contact of a bighorn sheep within an allotment will lead to disease outbreak within a population, modelers ran the disease model with assumptions for a range of values from 0.05 (1 in 20 contacts would result in a disease outbreak) to 1.00 (every contact would result in a disease outbreak). The range of values modeled include the following: 0.05, 0.10, 0.25, 0.50, 0.75, 0.90, and 1.00 (Table C.3).

It is important to disclose that accurate, individual-level modeling of the impacts of disease events is difficult, as the dynamics of respiratory disease in the wild are only partly known. An individual-based model would require understanding many factors, such as the incubation period and active infection durations, the probability and rate of recovery from disease, the rate of effective contact between individuals within the herd, and the possible role of persistently infected individuals in harboring and spreading the disease. Variations in the resistance to disease of individual bighorn sheep and in the virulence of the disease-causing organisms themselves can also affect population dynamics.

Furthermore, modeling population dynamics of large herbivores at the individual level requires estimating numerous parameters, from adult and juvenile survival rates to age at sexual maturity, fecundity, and lamb survival (Gaillard et al. 2000). In addition, the average values for each of those life-history parameters may be modified by interacting impacts of density dependence, weather, forage availability, and predation. Properly estimating these parameters would require extensive age- and class-specific population data, ideally from the populations being modeled. Such data are not currently available.

Table C.3. Years Between Potential Disease Events for Allotments That Did Not Intersect with CHHR

Allotment Name	Allotment Number	Type of Livestock	Herd Rate of Contact[a]	Years Between Contact[b]	Years Between Potential Disease Events						
					1:1 (1.0)	1:1.11 (0.9)	1:1.333 (0.75)	1:2 (0.50)	1:4 (0.25)	1:10 (0.10)	1:20 (0.05)
Bean	16206	Cattle	0.006629	151	151	168	201	302	603	1508	3017
Joker	14014	Cattle	0.116608	9	9	10	11	17	34	86	172
White Ranch	14015	Cattle	0.164184	6	6	7	8	12	24	61	122

[a] From Table C.2

[b] 1/herd rate of contact

In a review of other RoC model efforts, general trends appear to develop. The Payette National Forest analysis (USFS 2010b) stated that total foray contact rates >0.04 annually (less than a 25-year interval) were deemed unacceptable due to estimated disease return intervals and subsequent impacts to long term viability to bighorn herds. Additionally, they assumed that one in four contacts (0.25) would result in disease transmission, based on local information. The Rio Grande National Forest stated that a disease event occurring within a bighorn herd every 25 years or less would result in high risk to bighorn long term viability and a low probability of population persistence (USFS 2013b).This would result in a bighorn sheep population that is constantly being exposed to ongoing disease transmission and resultant outbreaks.

Given these assumptions, the Joker and White Ranch allotments may be of concern if they were converted to domestic sheep use, with estimated 34- and 24-year (respectively) intervals between potential disease events given the assumption that one in four contacts results in a disease event.

C.3. Additional Discussion

Probability of Interaction Model

At the time that planning for this RMP began, there were no standardized approaches to modeling potential disease transfer between wild and domestic sheep. In the spring of 2012, the BLM completed a local PoIM and used this for planning purposes.

In the initial stages of spatial mapping of risk for bighorn sheep, scores for risk of exposure to domestic sheep were highest for the allotment zones within the bighorn sheep range. This, despite the resulting risk layer, automatically results in that zone being a high-risk zone. In addition, the zone greater than 9 miles from bighorn sheep range is automatically a low-risk zone despite the resulting risk-layer results. The zones between 0 and 9 miles from bighorn sheep range had increasing point values in the zones closest to the bighorn sheep range, and lowest point values in the zones farthest from the bighorn sheep range. In this way, proximity to bighorn sheep range within and outside of 9 miles had a weighted effect on all other inputs to the model. In order to reduce the risk of a biased model result, no other weighting was used in the model. Additional parameters for natural barriers to movement (domestic sheep or bighorn) and season of use were used to refine the model.

This risk assessment (PoIM) is the first cut at the *landscape level* for RMP analysis. It was meant to be a generalized model to assess risk levels for the RMP analysis of effects. Once the D-E NCA RMP is finalized, the BLM would assess each allotment in more detail during implementation, to evaluate site-specific risk factors and how to mitigate those factors. This is germane to the process of renewing grazing permits and will be discussed with the permittees before turnout. The BLM intends to develop the implementation process in cooperation with CPW and the permittees.

The assessment model was based on peer-reviewed research to the extent possible. However, Johnson (1995) is the origin of the assumptions that bighorn sheep and domestic sheep habitat overlap within 16 km (9.94 miles) is a high-risk situation and that habitat overlap beyond 33 km (20.50 miles) is a no-risk situation, and this document is a Master's thesis, not a peer-reviewed document. This was additionally refined by Johnson and Swift (2000).

Distance information was based on the WAFWA bighorn sheep recommendations (Wild Sheep Working Group 2012), which state that buffer zones to minimize association between wild sheep and domestic sheep or goats are frequently said to be a minimum of 9 airline miles when applied to bighorn herds or populations rather than to individual, wandering bighorn. The Desert Bighorn Council (1990) recommends a 13.5-km (8.5-mile) buffer. Smaller buffer increments (0–2, 2–5 and 5–9 miles) were based on discussions with CPW and BLM biologists and on professional judgment.

Barrier factors were assessed separately for bighorn sheep and domestic sheep. WAFWA (Wild Sheep Working Group 2012) recommends the use of geographic/topographic barriers that enhance species separation and seasonal or spatial separation through domestic sheep or goat management.

Each natural barrier was assessed individually, and barrier scores were cumulatively assessed for each combination of allotment and distance buffer zone (0–2, 2–5, and 5–9 miles). The barriers to movement between a particular buffer zone and bighorn sheep range increase with distance from the range. Thus, if a continuous cliff band exists in the 0–2 mile buffer zone, this cliff also poses a barrier to movement in the 2- to 5-mile and 5- to 9-mile buffer zones, along with barriers assessed within those particular zones.

Domestic sheep are only permitted during a specific season. The permittee is only permitted a certain number of days during the time period on the permit. The seasonal overlap was assessed on the basis of the entire length of time that a permit could be on the allotments rather than on the number of days domestic sheep are permitted on the allotment, because the time when domestic and wild sheep may be attracted to each other biologically (i.e., during breeding season) was of greater concern. The BLM assumed that there is a base level of attraction between wild and domestic sheep, but that during bighorn breeding season, attraction between wild and domestic sheep would increase.

Risk of Contact Model

In response to comments on the PoIM in the Draft RMP (see Appendix U), the BLM conducted additional analysis for the Proposed RMP, using the currently available risk of contact (RoC) model and following the risk of contact tool user's guide (USFS 2013a). With assistance from CPW biologist Brad Banulis, the RoC model was run using the best available local bighorn population information to provide the parameters. However, much of the needed data were not available. The following assumptions/issues were made/addressed:

1. CPW bighorn sheep overall range maps (CPW 2013) approximate bighorn sheep CHHR for the purposes of the RoC model.
    a. CHHR is the area occupied by bighorn sheep 95 percent of the time, based on telemetry or other location data.
    b. Telemetry data to generate CHHR within the model were unavailable for this population.
    c. These areas overestimate the CHHR concept and therefore overestimate foray distances.
2. Suitable habitat is mapped for the time frame of interest (i.e., domestic sheep grazing period) and is mapped as suitable, corridor, and non-habitat.
    a. Domestic sheep grazing is predominantly during the winter months.
    b. Year-round desert bighorn suitable habitat was mapped and provided by CPW for this modeling effort (K. Eichoff, personal communication, January 26, 2015).
    c. Summer Rocky Mountain bighorn suitable habitat was mapped and provided by CPW for this modeling effort for those populations.
3. Default values from Idaho (summer) approximate local desert and Rocky Mountain populations for the domestic grazing season for the following factors:
    a. Habitat preference
    b. Ram and ewe foray distances

c. Foray probabilities

Comparison of Model Results

Given that within the D-E NCA RMP planning area, domestic sheep allotments and desert bighorn home range overlap greatly, it is not surprising that the results of the RoC and the local BLM PoI models are very similar (see Tables C.4 and C.5). In general, an allotment that was found to foster a high probability of interaction in the local BLM model was classified in the RoC model as one that "intersects the home range polygon and is therefore not included in the analysis," which would be equivalent to "high risk" in the local BLM model, and will be managed as such under the Proposed Plan Alternative.

There are five domestic sheep allotments within the D-E NCA RMP planning area, all of which overlap the bighorn home range. The Antelope allotment has a very small sliver of overlap with the CHHR on the eastern shore of the Gunnison River from the CHHR. Because of this, Antelope received a "moderate" rating for the PoIM, while it was rated high for the RoC model. This allotment will be managed as "moderate risk" under the Proposed Plan Alternative. At permit renewal, these allotments will be re-evaluated with available data to see if management changes are warranted.

Table C.4. Comparison of PoI and RoC Model Results for Desert Bighorn Risk of Contact with Domestic Sheep Allotments

Allotment Name	Allotment No.	Type of Livestock	PoI	RoC[a]
Huff	14017	Sheep	HIGH	HIGH
Antelope	14020	Sheep	MODERATE	HIGH
Cactus Park-Club Gulch	3278	Sheep	HIGH	HIGH
Lower Escalante	14002	Sheep	HIGH	HIGH
Dominguez Rim	14016	Sheep	HIGH	HIGH

[a]All sheep allotments intersect the CHHR.

Results for domestic cattle or horse allotments were similar for the PoIM and RoC models. The Bean Allotment had a lower rating, and the White Ranch a higher rating, in the RoC model.

Table C.5. Comparison of PoI and RoC Model Results for Desert Bighorn Risk of Contact with Non-Domestic Sheep Allotments

Allotment Name	Allotment No.	Type of Livestock	Assessment Zone[a]	PoI	RoC
Bean	16206	Cattle	0–2 Miles	MODERATE	LOW (>600 years)
			2–5 Miles	MODERATE	
Dominguez Individual	14001	Cattle	Range	HIGH	HIGH[b]
			0–2 Miles	HIGH	
			2–5 Miles	HIGH	
Dry Mesa	14006	Cattle	Range	HIGH	HIGH[b]
			0–2 Miles	HIGH	
			2–5 Miles	HIGH	
Escalante Flats	14003	Cattle	Range	HIGH	HIGH[b]
Gibbler Common	26301	Cattle	Range	HIGH	HIGH[b]
			0–2 Miles	HIGH	
			2–5 Miles	HIGH	
			5–9 Miles	HIGH	

Allotment Name	Allotment No.	Type of Livestock	Assessment Zone[a]	PoI	RoC
Joker	14014	Cattle	2–5 Miles	MODERATE	MODERATE (34 years)
			5–9 Miles	MODERATE	
Kannah Creek Common	16202	Cattle	Range	HIGH	HIGH[b]
			0–2 Miles	MODERATE	
			2–5 Miles	MODERATE	
Kannah Creek Individual	6207	Cattle	Range	HIGH	HIGH[b]
			0–2 Miles	HIGH	
Twenty Five Mesa N	14008	Cattle	Range	HIGH	HIGH[b]
			0–2 Miles	HIGH	
			2–5 Miles	HIGH	
			5–9 Miles	HIGH	
Wagon Park AMP	26302	Cattle	Range	HIGH	HIGH[b]
			0–2 Miles	HIGH	
			2–5 Miles	HIGH	
White Ranch	14015	Cattle	5–9 Miles	MODERATE	HIGH (24 years)
Sawmill Mesa	14007	Cattle or Horse	Range	HIGH	HIGH[b]
			0–2 Miles	HIGH	
			2–5 Miles	HIGH	
			5–9 Miles	HIGH	

[a]Cattle allotments tended to cross assessment zones. Results are shown here for those zones.
[b]Allotments intersect the CHHR.

Two large domestic sheep allotments (Alkali Flats and Wells Gulch) straddle the boundary between the D-E NCA and the Uncompahgre Field Office (U.S. Highway 50). As a result of comments on the Draft RMP, these allotments were re-analyzed using both the local BLM PoI and RoC models. These two large domestic sheep allotments were split at the D-E NCA-Uncompahgre Field Office boundary for the Proposed RMP, creating Huff and Dominguez Rim allotments (respectively) within the D-E NCA. The resulting allotments (Huff, Dominguez Rim) at least partially overlap bighorn home range, are considered to foster a high probability of interaction, and will be managed as high risk under the Proposed Plan Alternative.

Both the PoIM and the Draft Preferred Alternative were developed using the best available science, professional judgment, and knowledge of the local bighorn herd at the time (2011). The RoC model also was run using the best available science, professional judgment, and knowledge of the local bighorn herd at the time (2015), but those data were highly limited compared to the needs of the model. The RoC model provides additional information for the relationship between wild and domestic sheep in the area for the Proposed Plan. The model and the RMP are the first big-scale look at the management situation. At the time of future grazing permit renewal for these areas, the BLM will conduct NEPA analysis using more site-specific information and any new data to determine the bighorn herd's current condition and possible subsequent changes in management. At that time, the BLM will also utilize the currently accepted methodology and model to conduct the analysis. Because there is uncertainty regarding the management of this species, a flexible management process is prescribed in the Proposed Plan Alternative.

In the intervening time, the BLM has developed an agreement with CPW to fund and begin a GPS transmitter study on the Uncompahgre bighorn herd, and 14 of the eventual 20 collars have been deployed to date (13 working; 1 failed). Once the RMP is finalized and mitigation measures are implemented, new information may drive management changes in the future.

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See Chapter 6 of this document for a comprehensive list of references.

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Appendix D. Colorado Standards for Public Land Health

Standards describe conditions needed to sustain public land health, and relate to all uses of the public lands. Standards are applied on a landscape scale and relate to the potential of the landscape.

Standard 1: Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate, land form, and geologic processes. Adequate soil infiltration and permeability allows for the accumulation of soil moisture necessary for optimal plant growth and vigor, and minimizes surface runoff.

Indicators:

- Expression of rills, soil pedestals is minimal.
- Evidence of actively eroding gullies (incised channels) is minimal.
- Canopy and ground cover are appropriate.
- There is litter accumulating in place and is not sorted by normal overland water flow.
- There is appropriate organic matter in soil.
- There is diversity of plant species with a variety of root depths.
- Upland swales have vegetation cover or density greater than that of adjacent uplands.
- There are vigorous, desirable plants.

Standard 2: Riparian systems associated with both running and standing water function properly and have the ability to recover from major disturbance such as fire, severe grazing, or 100-year floods. Riparian vegetation captures sediment, and provides forage, habitat and bio-diversity. Water quality is improved or maintained. Stable soils store and release water slowly.

Indicators:

- Vegetation is dominated by an appropriate mix of native or desirable introduced species.
- Vigorous, desirable plants are present.
- There is vegetation with diverse age class structure, appropriate vertical structure, and adequate composition, cover, and density.
- Stream bank vegetation is present and is comprised of species and communities that have root systems capable of withstanding high stream-flow events.
- Plant species present indicate maintenance of riparian moisture characteristics.
- Stream is in balance with the water and sediment being supplied by the watershed (e.g., no headcutting, no excessive erosion or deposition).
- Vegetation and free water indicate high water tables.

- Vegetation colonizes point bars with a range of age classes and successional stages.
- An active floodplain is present.
- Residual floodplain vegetation is available to capture and retain sediment and dissipate flood energies.
- Stream channels with size and meander pattern appropriate for the stream's position in the landscape, and parent materials.
- Woody debris contributes to the character of the stream channel morphology.

Standard 3: Healthy, productive plant and animal communities of native and other desirable species are maintained at viable population levels commensurate with the species and habitat's potential. Plants and animals at both the community and population level are productive, resilient, diverse, vigorous, and able to reproduce and sustain natural fluctuations, and ecological processes.

Indicators:

- Noxious and invasive weeds and undesirable species are minimal in the overall plant community.
- Native plant and animal communities are spatially distributed across the landscape with a density, composition, and frequency of species suitable to ensure reproductive capability and sustainability.
- Plants and animals are present in mixed age classes sufficient to sustain recruitment and mortality fluctuations.
- Landscapes exhibit connectivity of habitat or presence of corridors to prevent habitat fragmentation.
- Photosynthetic activity is evident throughout the growing season.
- Diversity and density of plant and animal species are in balance with habitat/landscape potential and exhibit resilience to human activities.
- Appropriate plant litter accumulates and is evenly distributed across the landscape.
- Landscapes composed of several plant communities that may be in a variety of successional stages and patterns.

Standard 4: Special status, threatened and endangered species (Federal and State), and other plants and animals officially designated by the BLM, and their habitats are maintained or enhanced by sustaining healthy, native plant and animal communities.

Indicators:

- All the indicators associated with the plant and animal communities standard apply.
- There are stable and increasing populations of endemic and protected species in suitable habitat.
- Suitable habitat is available for recovery of endemic and protected species.

Standard 5: The water quality of all water bodies, including ground water where applicable, located on or influenced by BLM lands will achieve or exceed the water quality standards established by the State of Colorado. Water quality standards for surface and ground waters include the designated beneficial uses, numeric criteria, narrative criteria, and anti-degradation requirements set forth under State law as found in (5 CCR 1002-8), as required by Section 303(c) of the Clean Water Act.

Indicators:

- Appropriate populations of macroinvertebrates, vertebrates, and algae are present.

Surface and ground waters only contain substances (e.g., sediment, scum, floating debris, odor, heavy metal precipitates on channel substrate) attributable to humans within the amounts, concentrations, or combinations as directed by the water quality standards established by the State of Colorado (5 CCR 1002-8).

Guidelines for Livestock Grazing Management

Guidelines are the management tools, methods, strategies, and techniques (e.g., BMPs) designed to maintain or achieve healthy public lands as defined by the standards. Currently, the only guidelines for BLM Colorado that have been developed in concert with the D-E NCA Resource Advisory Council are livestock grazing management guidelines.

1. Grazing management practices promote plant health by providing for one or more of the following:

   - periodic rest or deferment from grazing during critical growth periods.
   - adequate recovery and regrowth periods.
   - opportunity for seed dissemination and seedling establishment.

2. Grazing management practices address the kind, numbers, and class of livestock, season, duration, distribution, frequency and intensity of grazing use and livestock health.

3. Grazing management practices maintain sufficient residual vegetation on both upland and riparian sites to protect the soil from wind and water erosion, to assist in maintaining appropriate soil infiltration and permeability, and to buffer temperature extremes. In riparian areas, vegetation dissipates energy, captures sediment, recharges ground water, and contributes to stream stability.

4. Native plant species and natural revegetation are emphasized in the support of sustaining ecological functions and site integrity. Where reseeding is required, on land treatment efforts, emphasis will be placed on using native plant species. Seeding of non-native plant species will be considered based on local goals, native seed availability and cost, persistence of non-native plants and annuals and noxious and invasive weeds on the site, and composition of non-natives in the seed mix.

5. Range improvement projects are designed consistent with overall ecological functions and processes with minimum adverse impacts to other resources or uses of riparian/wetland and upland sites.

6. Grazing management will occur in a manner that does not encourage the establishment or spread of noxious and invasive weeds. In addition to mechanical, chemical, and biological methods of weed control, livestock may be used where feasible as a tool to inhibit or stop the spread of noxious and invasive weeds.

7. Natural occurrences such as fire, drought, flooding, and prescribed land treatments should be combined with livestock management practices to move toward the sustainability of biological diversity across the landscape, including the maintenance, restoration, or enhancement of habitat to promote and assist the recovery and conservation of threatened, endangered, or other special status species, by helping to provide natural vegetation patterns, a mosaic of successional stages, and vegetation corridors, and thus minimizing habitat fragmentation.

8. Colorado BMPs and other scientifically developed practices that enhance land and water quality should be used in the development of activity plans prepared for land use.

Appendix E. Raptor Species Breeding Periods

The information in Appendix E will be used to determine the dates associated with stipulations for raptors described in Chapter 2. The information was assembled from *Recommended Buffer Zones and Seasonal Restrictions for Colorado Raptors* (Craig 2002 and CDOW 2008), and internal BLM data (File: Table of Seasonal(Breeding)Buffers.xls, BLM Colorado State Office). Dates were updated using information obtained from CDOW 2008.

Falconiformes Breeding Period		
Osprey	*Pandion haliaetus*	4/1-8/31
Bald eagle	*Haliaeetus leucocephalus*	10/15-7/31
Northern harrier	*Circus cyaneus*	4/1-8/15
Sharp-shinned hawk	*Accipiter striatus*	3/15-8/31
Cooper's hawk	*Accipiter cooperii*	3/15-8/31
Northern goshawk	*Accipiter gentilis*	3/1-9/15
Swainson's hawk	*Buteo swainsoni*	4/1-7/15
Red-tailed hawk	*Buteo jamaicensis*	2/15-7/15
Ferruginous hawk	*Buteo regalis*	2/1-7/15
Rough-legged hawk	*Buteo lagopus*	*Non-breeding*
Golden eagle	*Aquila chrysaetos*	12/15-7/15
American kestrel	*Falco sparverius*	4/1-8/15
Merlin	*Falco columbarius*	4/1-8/31
Peregrine falcon	*Falco peregrinus*	3/15-8/31
Prairie falcon	*Falco mexicanus*	3/15-7/15
Strigiformes Breeding Period		
Common barn owl	*Tyto alba*	2/1-9/15
Flammulated owl	*Otus flammeolus*	4/1-9/30
Western screech owl	*Megascops kennicottii*	3/1-8/15
Eastern screech owl	*Megascops asio*	3/1-8/15
Great horned owl	*Bubo virginianus*	12/1-9/31
Northern pygmy owl	*Glaucidium gnoma*	4/1-8/1
Burrowing owl	*Athene cunicularia*	3/15-10/31
Mexican spotted owl	*Strix occidentalis lucida*	3/1-8/31
Great gray owl	*Strix nebulosa*	3/1-8/31
Long-eared owl	*Asio otus*	2/1-8/15
Short-eared owl	*Asio flammeus*	3/1-8/1
Boreal owl	*Aegolius funereus*	2/1-7/31
Northern saw-whet owl	*Aegolius acadicus*	3/1-8/31

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Appendix F. Colorado Noxious Weed List

Information for this appendix was taken from the Colorado Department of Agriculture (http://www.colorado.gov/ag/weeds).

List A

Species in Colorado that are designated by the Commissioner for eradication:

Common Name	Scientific Name
African rue	*Peganum harmala*
Camelthorn	*Alhagi pseudalhagi*
Common crupina	*Crupina vulgaris*
Cypress spurge	*Euphorbia cyparissias*
Dyer's woad	*Isatis tinctoria*
Giant salvinia	*Salvinia molesta*
Hydrilla	*Hydrilla verticillata*
Meadow knapweed	*Centaurea pratensis*
Mediterranean sage	*Salvia aethiopis*
Medusahead	*Taeniatherum caput-medusae*
Myrtle spurge	*Euphorbia myrsinites*
Orange hawkweed	*Hieracium aurantiacum*
Purple loosestrife	*Lythrum salicaria*
Rush skeletonweed	*Chondrilla juncea*
Sericea lespedeza	*Lespedeza cuneata*
Squarrose knapweed	*Centaurea virgata*
Tansy ragwort	*Senecio jacobaea*
Yellow starthistle	*Centaurea solstitialis*

List B

Species for which the Commissioner, in consultation with the State noxious weed advisory committee, local governments, and other interested parties, develops and implements State noxious weed management plans designed to stop the continued spread of these species:

Common Name	Scientific Name
Absinth wormwood	*Artemisia absinthium*
Black henbane	*Hyoscyamus niger*
Bouncingbet	*Saponaria officinalis*
Bull thistle	*Cirsium vulgare*
Canada thistle	*Cirsium arvense*
Chinese clematis	*Clematis orientalis*
Common tansy	*Tanacetum vulgare*
Common teasel	*Dipsacus fullonum*
Corn chamomile	*Anthemis arvensis*
Cutleaf teasel	*Dipsacus laciniatus*
Dalmatian toadflax- broad leaved	*Linaria dalmatica*
Dalmatian toadflax- narrow leaved	*Linaria genistifolia*
Dame's rocket	*Hesperis matronalis*
Diffuse knapweed	*Centaurea diffusa*
Eurasian watermilfoil	*Myriophyllum spicatum*
Hoary cress	*Cardaria draba*
Houndstongue	*Cynoglossum officinale*

Common Name	Scientific Name
Jointed goatgrass	*Aegilops cylindrica*
Leafy spurge	*Euphorbia esula*
Mayweed chamomile	*Anthemis cotula*
Moth mullein	*Verbascum blattaria*
Musk thistle	*Carduus nutans*
Oxeye daisy	*Chrysanthemum leucanthemum*
Perennial pepperweed	*Lepidium latifolium*
Plumeless thistle	*Carduus acanthoides*
Quackgrass	*Elytrigia repens*
Russian knapweed	*Acroptilon repens*
Russian-olive	*Elaeagnus angustifolia*
Salt cedar	*Tamarix chinensis, T. parviflora, and T. ramosissima*
Scentless chamomile	*Matricaria perforata*
Scotch thistle	*Onopordum acanthium*
Scotch thistle	*Onoporfum tauricum*
Spotted knapweed	*Centaurea maculosa*
Spurred anoda	*Anoda cristata*
Sulfur cinquefoil	*Potentilla recta*
Venice mallow	*Hibiscus trionum*
Wild caraway	*Carum carvi*
Yellow nutsedge	*Cyperus esculentus*
Yellow toadflax	*Linaria vulgaris*

List C

Species for which the Commissioner, in consultation with the State noxious weed advisory committee, local governments, and other interested parties, will develop and implement State noxious weed management plans designed to support the efforts of local governing bodies to facilitate more effective integrated pest management on private and public lands. The goal of such plans will not be to stop the continued spread of these species but to provide additional education, research, and biological control resources to jurisdictions that choose to require management of List C species.

Common Name	Scientific Name
Chicory	*Cichorium intybus*
Common burdock	*Arctium minus*
Common mullein	*Verbascum thapsus*
Common St. Johnswort	*Hypericum perforatum*
Downy brome	*Bromus tectorum*
Field bindweed	*Convolvulus arvensis*
Halogeton	*Halogeton glomeratus*
Johnsongrass	*Sorghum halepense*
Perennial sowthistle	*Sonchus arvensis*
Poison hemlock	*Conium maculatum*
Puncturevine	*Tribulus terrestris*
Velvetleaf	*Abutilon theophrasti*
Wild proso millet	*Panicum miliaceum*
Redstem filaree	*Erodium cicutarium*

Appendix G. Naturalness in the Dominguez Canyon Wilderness

Naturalness is one of the five wilderness values identified in the Wilderness Act of 1964. Within the BLM, various methods are used to plan for, and monitor, naturalness in designated Wilderness Areas.

For the Dominguez Canyon Wilderness (the Wilderness), the BLM decided to use a multistep process for planning for naturalness. First, the BLM identified priority vegetation types and priority species for the Wilderness. Priority vegetation types for the Wilderness were identified as: desert shrub/saltbush, pinyon-juniper woodlands, sagebrush shrublands, riparian, seeps and springs and aquatic systems. Priority species were identified as desert bighorn sheep and Colorado hookless cactus. Second, the BLM generated key attributes and measurable indicators for the health of those priority vegetation types and species. Third, the BLM came up with standards for each set of attributes/indicators so that health of each set could be placed into one of four categories: "poor," "fair," "good," or "very good." Finally the current condition of each attribute/indicator was calculated, relying as much as possible on existing data sources.

This process was also completed for the entire D-E NCA (including both the Wilderness and non-wilderness lands), and is described in more detail in Appendix A (Planning for Priority Species and Vegetation). The process completed for the entire D-E NCA was used as the basis for the Wilderness process. The attributes, indicators and standards used for the Wilderness can be considered a subset of the larger set of indicators and standards identified in Appendix A.

Table G.1 shows the attributes, indicators, standards and current ratings for each of the six vegetation/habitat types and two priority species identified for the Wilderness.

Table G.1. Indicators Used for Monitoring Naturalness in the Dominguez Canyon Wilderness

				Indicator Standards				
Priority Species or Vegetation	**Attribute**	**Indicator**	**Existing Data Source**	**Poor**	**Fair**	**Good**	**Very Good**	**Current Condi-tion**
Desert Shrub/Saltbush								
Desert Shrub/ Saltbush	Vegetation structural composition	Percentage of sampled acres containing adequate mixtures of warm and cold season grasses, shrubs and forbs	Land health assessments	Less than 60% of sampled acres	60-79% of sampled acres	80-94% of sampled acres	95% or more of sampled acres	**Fair**
	Plant species composition/ dominance	Percentage of sampled acres meeting land health standard 3	Land health assessments	Less than 60% of sampled acres	60-79% of sampled acres	80-94% of sampled acres	95% or more of sampled acres	**Good**
	Understory invasive species	Percentage of sampled acres exhibiting an acceptable composition of understory invasive plant species (<10% relative cover)	Land health assessments	Less than 60% of sampled acres	60-79% of sampled acres	80-94% of sampled acres	95% or more of sampled acres	**Fair**
	Disturbance regime	Percentage of sampled acres in early seral stage	Ecological site inventory (GJFO) and land health assessments (UFO)	Greater than 39% of sampled acres	1-7% or 33-39% of sampled acres	8-14% or 26-32% of sampled acres	15-25% of sampled acres	**Very Good**
Pinyon-Juniper Woodlands								

				Indicator Standards				
Priority Species or Vegetation	**Attribute**	**Indicator**	**Existing Data Source**	**Poor**	**Fair**	**Good**	**Very Good**	**Current Condi-tion**
Pinyon-Juniper Woodlands	Age class structure	Percentage of acres of pinyon-juniper woodlands classified as old growth or late seral	Ecological Site Inventory (GJFO) and PHD dissertation work (UFO)	Less than 35% or more than 95% of sampled acres	35-45% or 86-95% of sampled acres	46-55% or 76-85% of sampled acres	55-75% of sampled acres	**Good**
	Vegetation structural composition	Percentage of sampled acres containing adequate mixtures of warm and cold season grasses, shrubs and forbs (taken from existing LHA data)	Land health assessments	Less than 60% of sampled acres	60-79% of sampled acres	80-94% of sampled acres	95% or more of sampled acres	**Good**
	Dominance of crested wheatgrass	Percentage of sampled acres with acceptable levels (less than 50% relative understory cover) of crested wheatgrass	Land health assessments	Less than 60% of sampled acres	60-79% of sampled acres	80-94% of sampled acres	95% or more of sampled acres	**Very Good**
	Presence/ abundance of BLM sensitive plant species	Population trend of BLM sensitive plant species	Best estimation based on (CNHP data	Loss of populations	Decreasing population trends	Static to increasing population trend	Increasing population trend	**Very Good**
	Understory invasive species	Percentage of sampled acres exhibiting an acceptable composition of understory invasive plant species (<10% relative cover)	Land health assessments	Less than 60% of sampled acres	60-79% of sampled acres	80-94% of sampled acres	95% or more of sampled acres	**Very Good**

				Indicator Standards				
Priority Species or Vegetation	**Attribute**	**Indicator**	**Existing Data Source**	**Poor**	**Fair**	**Good**	**Very Good**	**Current Condi-tion**
Sagebrush Shrublands								
Sagebrush Shrublands	Age class structure	Percentage of acres that have decadent sagebrush	Land health assessments	More than 50% of sampled acres	20-50% of sampled acres	5-20% of sampled acres	Less than 5% of sampled acres	**Very Good**
	Vegetation structural composition	Percentage of sampled acres containing adequate mixtures of warm and cold season grasses, shrubs and forbs	Land health assessments	Less than 60% of sampled acres	60-79% of sampled acres	80-94% of sampled acres	95% or more of sampled acres	**Poor**
	Dominance of crested wheatgrass	Percentage of sampled acres with acceptable levels (less than 50% relative understory cover) of crested wheatgrass	Land health assessments	Less than 60% of sampled acres	60-79% of sampled acres	80-94% of sampled acres	95% or more of sampled acres	**Fair**
	Understory invasive species	Percentage of sampled acres exhibiting an acceptable composition of understory invasive plant species (<10% relative cover)	Land health assessments	Less than 60% of sampled acres	60-79% of sampled acres	80-94% of sampled acres	95% or more of sampled acres	**Good**
	Gunnison sage-grouse winter habitat condition	Percentage of sampled acres with moderate cover of sagebrush (10-30% cover)	Land health assessments	Less than 60% of sampled acres	60-79% of sampled acres	80-94% of sampled acres	95% or more of sampled acres	**Poor**

Priority Species or Vegetation	Attribute	Indicator	Existing Data Source	Indicator Standards: Poor	Fair	Good	Very Good	Current Condition
	Sagebrush fragmentation and extent	Average size of unfragmented (fragmentation by routes) sagebrush parks	BLM vegetation cover data and route inventory information	Average of 40 (or less) acres per unfragmented sagebrush parks	Average of 40-50 acres per unfragmented sagebrush parks	Average of 50-60 acres per unfragmented sagebrush parks	Average of 60 acres (or more) per unfragmented sagebrush parks	**Very Good**
Riparian								
Riparian	Stream functionality	Percentage of sampled miles in proper functioning condition	BLM proper functioning condition data	Less than 60% of sampled miles	60-79% of sampled miles	80-94% of sampled miles	More than 95% of sampled miles	**Very Good**
	Invasive species composition on tributary creeks	Percentage of sample sites along tributary creeks with acceptable levels of invasive plants (less than 20% relative cover)	Best estimate based on specialist opinion	Less than 60% of sample sites	60-79% of sample sites	80-94% of sample sites	95% or more of sample sites	**Very Good**
	Presence of saline grasslands	Percent variation from present conditions in extent of saline grasslands in riparian zones	Best estimate based on specialist opinion	>25% decrease from present condition	6-25% decrease from present condition	Present condition +/- 5%	Greater than 5% increase from present condition	**Good**
	Presence of wetland obligate plant species	Trend (compared to present conditions) in wetland obligate plant cover along riparian reaches	Best estimate based on specialist opinion	loss of obligates from >25 percent of riparian reaches	loss of obligates from 5-25 percent of riparian reaches	loss or gain of obligates from +- 5% percent of riparian reaches	gain of obligates in more than 5% of riparian reaches	**Good**
	Vegetation structure	Percentage of suitable stream reaches that support the historical proportions of age classes	Best estimate based on specialist opinion	less than 60% of suitable stream reaches	60-79% of suitable stream reaches	80-94% of suitable stream reaches	95% (or more) of suitable stream reaches	**Very Good**

Priority Species or Vegetation	Attribute	Indicator	Existing Data Source	Indicator Standards: Poor	Fair	Good	Very Good	Current Condition
		and vegetation composition of woody native species (willows and cottonwoods)						
Seeps and Springs								
Seeps and Springs	Groundwater hydrology	Number of well and water catchments in the recharge area	BLM Range Improvement Projects inventory	More than current number of water developments at full capacity	Current number of water developments at full capacity	Current number of water developments at current capacity	Fewer water developments than current condition	**Good**
	Groundwater hydrology	10-year trend in size of wetland/ riparian area around naturally occurring seeps and springs	Best estimate based on specialist opinion	Trends toward smaller riparian/ wetland area	Stable to trend toward smaller riparian /wetland area	Stable Trend	Trend toward enlargement	**Good**
	Invasive species composition/ dominance	Percentage of naturally occurring seeps and springs with non-native perennial plant species (e.g., tamarisk, Canada thistle, bull thistle)	Best estimate based on specialist opinion	Greater than 50% of naturally occurring seeps and springs	16-49% of naturally occurring seeps and springs	5-15% of naturally occurring seeps and springs	Less than 5% of naturally occurring seeps and springs	**Good**
	Presence of wetland obligate plant species	Trend (compared to present conditions) in wetland obligate plant cover around naturally occurring seeps and springs	Best estimate based on specialist opinion	loss of obligates from >15% of springs/seeps	loss of obligates from 5-15% of springs/seeps	loss or gain of obligates from +- 5% percent of springs/seeps	gain of obligates in more than 5% of springs/seeps	**Good**
	Rare plant presence	Number of seeps with continued presence of rare plants (e.g., canyon	Best estimate based on specialist opinion	More than 20% reduction in sites with continued presence	5-19% reduction in sites with continued presence	plus or minus 5% of continued presence of rare plants	More than 5% increase in presence of rare plants	**Good**

Priority Species or Vegetation	Attribute	Indicator	Existing Data Source	Indicator Standards: Poor	Fair	Good	Very Good	Current Condition
		bog orchid, Eastwood's monkey-flower, Giant Helleborine)						
	Surface water hydrology	Percentage of seeps impacted by surface water diversions	Best estimate based on specialist opinion	Increased number of diversions and an increased overall rate	Current number of water diversions at an increased rate	Current number of water diversions at current rate	Decrease in the number of diversions and/or the rate	**Good**
	Trampling and human disturbance	Percentage of naturally occurring seeps and springs with evidence of trampling and human disturbance	BLM inventory data (UFO only)	50% or more of sites	21-49% of sites	6-20% of sites	Less than 5% of sites	**Fair**
Aquatic Systems								
Aquatic Systems	Tributary creek hydrologic regime/surface water	Tributary hydrograph comparison	Best estimate based on BLM specialist opinion and intermittent data	Monthly average of the average daily flows during critical spring runoff months (4/1-6/30) falls below the 35th percentile; OR the shape of the natural hydrograph is altered; OR minimum base-flows established by USFWS and BOR for special status fish	Monthly average of the average daily flows is equal to or exceeds the 35th percentile value during critical spring runoff periods (4/1-6/30). The shape of the natural hydrograph is maintained; Minimum base-flows established by USFWS and BOR	Monthly average of the average daily flows is at or above the median value (50th percentile) during critical spring runoff periods (4/1-6/30); and The shape of the natural hydrograph is maintained; and Timing of peak runoff is consistent with pre-dam conditions	Monthly average value of the average daily flows ranks at or above 75th percentile during critical spring runoff periods (4/1-6/30); and The shape of the natural hydrograph is maintained; and Timing of peak runoff is consistent with pre-dam events	**Very Good**

Priority Species or Vegetation	Attribute	Indicator	Existing Data Source	Indicator Standards: Poor	Fair	Good	Very Good	Current Condition
					for special status fish			
	Warm-water Aquatic habitat connectivity	Percentage of historic warm-water habitat in the D-E NCA's tributary creeks that is accessible to fish residing in the Gunnison River	Best estimate based on BLM specialist opinion	Access to less than 50% of historic habitats due to human stream modifications	Access to 51-60% of historic/native habitats due to human stream modifications	Access to 61-75% of historic/native habitats due to human stream modifications	Access to more than 75% of historic/native habitats	**Poor**
	Cold-water fish composition	Percentage of fish in cold-water reaches that are native	BLM and Division of Wildlife fish sampling	Less than 60% native fish in perennial cold-water reaches	60-79% native fish in perennial cold-water reaches	80-95% native fish in perennial cold-water reaches	More than 95% native fish in perennial cold-water reaches	**Poor**
	Tributary creek presence/ abundance of native warm-water fish	Percentage of fish in warm-water reaches of tributary creeks that are native	BLM and Division of Wildlife fish sampling	Less than 60% native fish in perennial warm-water reaches	60-79% native fish in perennial warm-water reaches	80-95% native fish in perennial warm-water reaches	More than 95% native fish in perennial warm-water reaches	**Good**
	Cold-water aquatic habitat quality	Percentage of cold-water fish bearing stream miles that rank is good in the Pfankuch stability rating	Best estimate based on BLM specialist opinion	less than 60% of sites in tributary streams have a good rating on the Pfankuch stability rating	60-79% of sites in tributary streams have a good rating on the Pfankuch stability rating	less than 80-95% of sites in tributary streams have a good rating on the Pfankuch stability rating	Greater than 95% of sites in tributary streams have a good rating on the Pfankuch stability rating	**Very Good**
Desert Bighorn Sheep								

Priority Species or Vegetation	Attribute	Indicator	Existing Data Source	Indicator Standards: Poor	Fair	Good	Very Good	Current Condition
Desert Bighorn Sheep	Population structure and recruitment	Lamb to ewe ratio	CPW surveys	Ratio that will lead to downward population trend	Ratio that will lead to stable to decreasing population trend	Ratio that will lead to stable to increasing population trend	Ratio that will lead to upward population trend	**Good**
	Potential for disease transmission.	Potential for disease transmission between domestic sheep and goats with desert bighorn sheep.	BLM and CPW GIS data	Significant overlap (overlap within high risk areas) occurs between domestic sheep/goats and desert bighorn sheep on BLM lands.	High risk overlap (permitted sheep/ goat grazing within high risk allotments) occurs between domestic sheep/goats and desert bighorn sheep on BLM lands. Risk is reduced in low, medium and high risk allotments using WAFWA recommendations.	There is no high risk overlap (permitted sheep/goat grazing within high risk allotments) between domestic sheep/goats and desert bighorn sheep on BLM lands. Risk is reduced in low and medium risk allotments using WAFWA recommendations.	There is no risk of disease transmission between domestic sheep/goats and desert bighorn sheep on BLM lands.	**Poor**
	Population size	Size (5-year floating average) of the desert bighorn sheep herd	CPW surveys	Population at or below lowest goal	Mid to lower population goal	Mid to upper population goal	Greater than or equal to upper population goal	**Good**
Colorado Hookless Cactus								
Colorado Hookless Cactus	Habitat quality	Percentage of sites occupied by Colorado hookless cactus that have low levels of invasive weeds (10% or less relative cover)	CNHP specialist opinion	0-49% of sites	50-79% of sites	80-94% of sites	95% of sites or more	**Good**
	Population structure and recruitment	Percent of populations with evidence of recruitment	CNHP specialist opinion	0-49% of sites	50-79% of sites	80-95% of sites	Greater than 95% of sites	**Good**

				Indicator Standards				
Priority Species or Vegetation	**Attribute**	**Indicator**	**Existing Data Source**	**Poor**	**Fair**	**Good**	**Very Good**	**Current Condi-tion**
	Population size	Population trend (20-year trend) in number of individual hookless cactus in known populations	CNHP	Loss of populations	Decreasing population	Static to increasing population	Increasing population	**Fair**

Appendix H. Minimum Requirements Decision Guide Overview

This overview was provided by the Arthur Carhart National Wilderness Training Center.

H.1. Introduction

The Minimum Requirements Decision Guide (MRDG) is designed to assist wilderness managers in making appropriate decisions in wilderness. Use of the MRDG requires familiarity with the difference between wilderness and other public lands as defined by the Wilderness Act

This Overview document provides general information about the MRDG process, its origination, and how it relates to other processes such as NEPA analysis. Please refer to the accompanying MRDG Instructions and MRDG Worksheets for specific information about completing the MRDG.

Wilderness Act Guidance

The concept of minimum requirements comes from Section 4(c) of the Wilderness Act of 1964:

"Except as specifically provided for in this Act, and subject to existing private rights, there shall be no commercial enterprise and no permanent road within any wilderness area designated by this Act and except as necessary to meet minimum requirements for the administration of the area for the purpose of this Act (including measures required in emergencies involving the health and safety of persons within the area), there shall be no temporary road, no use of motor vehicles, motorized equipment or motorboats, no landing of aircraft, no other form of mechanical transport, and no structure or installation within any such area" (emphasis added).

Applicable actions include, but are not limited to, scientific monitoring, research, recreational developments (trails, bridges, signs, etc.), and activities related to special provisions mandated by the Wilderness Act or subsequent legislation (such as grazing, exercising mineral rights, access to inholdings, maintenance of water developments, and commercial services).

The following three questions/answers contain excerpts from the Wilderness Act of 1964 that may be useful reminders of key provisions of the law applicable to the use of this Minimum Requirements Decision Guide. In addition to the Wilderness Act, subsequent legislation and agency policy may influence determination of the minimum required for action. In some instances, agencies have included more guidance and definitions in their respective policies. Please see Agency Guidelines for more specific information.

What Is the Purpose of Wilderness?

"In order to assure that an increasing population, accompanied by expanding settlement and growing mechanization, does not occupy and modify all areas within the United States…, leaving no lands designated for preservation and protection in their natural condition, it is hereby declared to be the policy of Congress to secure for the American people of present and future generations the benefits of an enduring resource of wilderness." Section 2(a).

What Is Wilderness?

"*…lands designated for preservation and protection in their natural condition…*" Section 2(a).

"*…an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation…*" Section 2(c).

"*…generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable…*" Section 2(c).

"*…has outstanding opportunities for solitude or a primitive and unconfined type of recreation…*" Section 2(c)

"*…may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value*" Section 2(c).

How Is Wilderness Administered?

"*…shall be administered for the use and enjoyment of the American people in such manner as will leave them unimpaired for future use and enjoyment as wilderness, and so as to provide for the protection of these areas, the preservation of their wilderness character, and for the gathering and dissemination of information regarding their use and enjoyment as wilderness…*" Section 2(a).

"*A wilderness, in contrast with those areas where man and his works dominate the landscape, is hereby recognized as an area where the earth and its community of life are untrammeled by man, where man is a visitor who does not remain*" Section 2(c).

"*An area of wilderness is…protected and managed so as to preserve its natural conditions and… its preservation and use in an unimpaired condition...*" Section 2(c).

"*…each agency administering wilderness... shall be responsible for preserving the wilderness character of the area...*" Section 4(b).

"*…wilderness areas shall be devoted to the public purposes of recreational, scenic, scientific, educational, conservation, and historical use*" Section 4(b).

H.2. Use of This Guide

The MRDG is a process to identify, analyze, and select management actions that are the minimum necessary for wilderness administration. It applies this direction from the Act and incorporates a two-step process. Step 1 determines whether administrative action is necessary. If action is found to be necessary, then Step 2 provides guidance for determining the ***minimum*** activity. Step 2 has been referred to as determining the minimum tool but could include any type of activity, method, or equipment.

The MRDG can be used as:

- a process for evaluation and documentation;
- a guide to help discuss proposals with interested parties; or

- a review of on-going management practices to determine if they are necessary or if a less intrusive practice can be implemented

The level of detail and effort necessary to effectively utilize the MRDG process depends on the scope and complexity of the issue or problem being considered. One person might adequately analyze simple actions; complex actions may require the coordination of several resource specialists. Likewise, some issues warrant public scoping and involvement with stakeholders to provide information, gather input, and make a better decision.

The MRDG Worksheets provide a series of questions about the necessity of taking any action to resolve a situation and the most appropriate methods or tools to use. The decision to approve an action is a critical aspect of wilderness management. At times, the decision is not straightforward and requires a delicate balancing act.

H.3. Emergencies

Do not use the MRDG for emergency situations; follow procedures already outlined in approved emergency plans. The minimum requirements concept should be incorporated into such plans when they are being prepared, so that minimum necessary methods and tools are being utilized to meet the needs of the emergency.

H.4. Safety

The safety of wilderness visitors, employees, volunteers, and contractors is a priority in all decisions and actions. Complying with Section 4(c) of The Wilderness Act and conducting a minimum requirements analysis using the MRDG does not alter or diminish this need.

The MRDG is intended to help identify, analyze and select management actions that are the minimum necessary for wilderness without compromising safety. A fair and honest evaluation of all available options, within agency safety requirements, is needed to make an appropriate decision for wilderness. Wilderness managers are encouraged to learn, cultivate, and share traditional and primitive skills and develop alternative minimum impact methods and tools that allow activities to be accomplished safely with a minimal amount of impairment to the wilderness character.

H.5. The MRDG and NEPA

The Minimum Requirements Decision Guide is designed to assist with preparation of a NEPA analysis, if needed, but is not a substitute for a NEPA analysis. Portions of the MRDG may be transferable to a subsequent NEPA analysis as shown below.

Agency NEPA guidelines do not necessarily require a process to determine if administrative action in wilderness is necessary or to select the administrative activity that causes the least adverse effect to the wilderness resource and character. The MRDG provides a method to determine the necessity of an action and how to minimize impacts; NEPA analysis compares and discloses the environmental effects of alternatives, documents a decision, and requires public involvement.

Minimum Requirements Decision Guide	NEPA Analysis
STEP 1: Determine if Action Is Necessary	
Description	Purpose and need for action Existing environment or condition

Minimum Requirements Decision Guide	NEPA Analysis
Valid existing rights, special provisions, other legislation, or other guidance from policy or plans (Step 1 A-C)	Management direction
Wilderness character (Step 1 E) Public purposes of wilderness (Step 1 F)	Issues
STEP 2: Determine the Minimum Tool	
Alternative descriptions	Proposed Action and Alternatives
Alternative comparison criteria	Alternative comparison by issues
Effects to wilderness character	Environmental consequences
Selected alternative	Decision
Rationale	Reasons for the decision
Monitoring/reporting requirements	Decision conditions

H.6. The MRDG and the Planning Process

The degree to which a MRDG can be useful in the planning process will vary depending on the scope of the process and the objectives for the plan. Listed below are the three typical planning levels in use by the agencies and a suggested use of the MRDG.

Planning Level	Use of the MRDG
Comprehensive Land Use Planning (i.e., forest plans, park plans, refuge plans, resource management plans, and wilderness management plans) - Establish or modify desired condition, general unit standards or guidelines and/or make land use allocations	Use the MRDG to help screen alternatives in anticipation of the need to authorize actions in the future while insuring the preservation of wilderness resource and character.
Programmatic Planning (i.e., trail plans, weed treatment plans, monitoring plans, restoration plans, step down plans, etc.) - Analysis of multiple, similar, or routine project proposals or activities (trail maintenance, monitoring, dam maintenance, etc.) in one assessment	Use the MRDG to prepare a single analysis for similar, current, and/or future actions where the social and biophysical values and potential effects will be nearly identical. Create a 'decision tree' or 'GO/NO GO checklist' to be able to assess the necessity for action involving the Section 4(c) uses as similar needs come along in the future.
Project or Site-Specific Planning (i.e., wildlife survey, stream crossing, trail repair, weed treatment, etc.) - Analysis of site-specific or non-recurring actions.	Use the MRDG to determine if administrative action is necessary, and if so, determine the minimum activity.

H.7. Habits, Assumptions, and the Spirit of the Wilderness Act

Limited budgets and other priorities for staff and crew time make implementing the minimum requirements provision of the Wilderness Act more challenging. It's tempting to use the Section 4(c) provision, and the MRDG, to justify an exception to allow use of motorized equipment, or any of the other prohibited uses, thinking the job will get done more quickly, easily, or cheaply without staff having to obtain the additional primitive/traditional skill training or tools or utilize an unfamiliar method.

The National Wilderness Preservation System was established, in part, to designate lands as wilderness to guard against a "growing mechanization" and to provide for areas to be managed "in contrast" to other lands. The Wilderness Act contains no provision that mandates the use of "quicker, cheaper, and easier" methods as criteria for authorizing any of the prohibited uses. The

only criterion is to determine that it is the minimum necessary requirement. Agency policy further defines or adds to this decision criterion.

The myths about safety, cost, efficiency, and resource protection related to use of primitive/traditional skills, tools, and travel methods versus motorized equipment can be dispelled. Training and tools are available, and the wilderness resource and character can be protected with creative use of information, education, and even temporary closures if necessary. Habits that make people think that motorized equipment is the best choice can be changed, and the MRDG can help if it is used as an analysis tool and not a justification statement or approval form.

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Appendix I. Special Recreation Permit Program Overview

The BLM will evaluate all commercial, competitive, and organized group special recreation permit proposals on a case-by-case basis, and their approval or disapproval will be at the discretion of the authorized officer. All SRPs are considered undertakings under the National Environmental Policy Act. Permit approval is dependent on conformance with all applicable land use planning documents and environmental review in accordance with NEPA. All existing permits will be analyzed for conformance to the Land Use Plan Revision.

In order to provide good customer service, to reduce unnecessary application submissions, and to ensure consistent consideration of permit proposals, all new SRP proposals will be evaluated using the process described below. The BLM will complete additional implementation guidance for activities in the D-E NCA, and this will provide applicants with specific information including but not limited to application deadlines, timelines for processing, application package requirements, fees, use reporting, and penalties.

I.1. Permit Process

Pre-Application Consultation

The BLM will use a pre-application consultation to determine whether an SRP is required and if so, what type of permit is required. Proposals will be evaluated to determine whether they are consistent with recreation objectives; whether the opportunity is already available under an existing permit; whether there is adequate market competition; and whether the event would create conflict with the public and/or other existing permitted activities; among other factors. Additionally, during the pre-application consultation, permit proposals will be classified using the classification criteria described below. Once a class determination is made and the type of permit (competitive, organized, or commercial) is established, the following guidelines and administration practices will apply:

1. **Commercial Administration**: If a proposed activity conforms to the BLM's land use planning decisions, will not exceed the carrying capacity of the proposed area, and is within the deadlines described in the D-E NCA permit policy, the applicant will be asked to fulfill all the required SRP application package requirements and pay applicable fees.

2. **Competitive Event Administration**: If a proposed activity conforms to the BLM's land use planning decisions and is submitted at least 180 days prior to the event date, the applicant will be asked to fulfill all the required SRP application package requirements and pay applicable fees.

3. **Vending**: If a proposed activity conforms to the BLM's land use planning decisions, will be held in conjunction with a competitive event or an organized group event, and the proposal is submitted at least 180 days prior to the event date, the applicant will be asked to fill out the required paperwork and pay applicable fees.

4. **Organized Group Permit Administration**: Organized group/event permits are for group outdoor recreational activities or events that are neither commercial nor competitive. The

authorized officer determines when a permit is required on the basis of planning decisions, resource concerns, user conflicts, public health and safety, and/or the need for monitoring.

Organized groups above the group size limit of 12 in the Wilderness[1], WSAs, and lands with wilderness characteristics or above 25 in the remaining D-E NCA are required to contact the BLM prior to their event to determine whether an SRP is required. After reviewing the activity and location with the organizers, the BLM will determine whether or not a permit is required (see section I.3, Matrix for Determining Need for Organized Group SRP). If a permit is not required, the BLM may document this determination in the form of a *Letter of Agreement.*

General Permit Administration

All permit administration will be done in accordance with National Environmental Policy Act, BLM Manual: H-2930-1-Recreation Permit Administration, BLM Colorado State SRP Handbook, and all associated BLM SRP instruction memoranda and information bulletins.

I.2. Application Evaluation

The authorized officer will evaluate the application using the permit application review criteria listed below. The criteria include specific objectives identified in the land use plan for recreation management areas. The issuance or denial of SRPs will be made in accordance with these criteria:

Permit Application Review Criteria

Permit proposals described in business and operating plans will be evaluated using the following criteria. These criteria establish an objective framework for the evaluation of SRP applications. The authorized officer will use any or all of the criteria to approve or deny a permit (subject to potential modifications):

1. **Compliance History**: Applicant must be in compliance, and have a history of compliance, with local, State and Federal regulations. Applicant or authorized representatives must not have been convicted of a Federal, State, or local violation in connection with the proposed activities within the last three years.

2. **Safety and Safety History**: Applicant must demonstrate that they have a history of providing an acceptable level of safety for clients and the affected public.

3. **Consistency with Land Use Planning documents**: Proposals will be evaluated for consistency with current planning documents, including but not limited to the most current revision of the D-E NCA resource management plan and other applicable implementation plans. All activities in the wilderness study areas must be consistent with the BLM's interim management policy, and all proposals in the Dominguez Canyon Wilderness must be consistent with the 1964 Wilderness Act.

4. **Conflicts:** Permits will not be issued in areas where conflicts exist between permittees or between permittees and the public or landowners. Valid conflicts include but are not limited to the following:

[1]Group size limit of 12 applies to Wilderness Zones 2 and 3. The group size limit for Wilderness Zone 1 is 25, the same as for other parts of the NCA.

- Overlapping use areas where the same type of use is currently permitted
- Conflicts with livestock grazing
- Limited public land ownership and/or related access
- Camps; location, number, and distance between camps
- Activities that are not consistent with management guidance for an area or that currently exist within an area (permitted or non-permitted activities)
- Overcrowding and/or use levels during specific time periods, supporting infrastructure at capacity
- Enforcement/compliance problems
- Improper conduct by permittee or employees
- Unacceptable resource impacts

5. **Diversity of Services**: Applicants must demonstrate that their activity will enhance the diversity of recreational opportunities available for visitors and that the services are needed by the public.

6. **Low Percentage of BLM Public Lands:** Applications may be refused where public lands comprise a low percentage of the total area and recreational management goals are already being met.

7. **Adjoining Lands and Joint Permits:** Preference will not be given to applicants who own or lease private land adjacent to BLM public lands. Preference will not be given to permittees that have a joint permit issued by another land management agency.

These criteria are a means to analyze applications and offset potential problems. Many complex issues are best addressed through an ongoing dialogue between the permittees and the BLM.

If the proposal meets the application review criteria, the appropriate NEPA document will be completed. Permits may be denied as a result of issues identified during the NEPA process. Any stipulations identified during the NEPA process will be included on approved permits.

I.3. Matrix for Determining Need for an Organized Group SRP

Organized group SRPs are for group outdoor recreational activities or events that are neither commercial nor competitive. The authorized officer determines when a permit is required on the basis of planning decisions, resource concerns, user conflicts, public health and safety, and/or the need for monitoring. The matrix depicted in Table I.1 is to guide a decision process to determine whether a SRP is needed. When determining if an SRP is needed, first determine if the activity is recreational. If it is not recreational, it may need a lands permit. Secondly, determine if the proposal is consistent with recreation program goals and objectives. If the proposal is not consistent with recreation program goals and objectives, the proposal should be denied.

If the proposal is recreational and it is consistent with recreation program goals and objectives, consider the criteria in the matrix to help determine if a permit is needed. If a permit is not

needed, consider using a letter of agreement to document that, if the outing is conducted as proposed, a permit is not needed.

Table I.1. Criteria to Determine Whether a Special Recreation Permit is Needed

Criteria	Decision Guidance		
	Permit Not Required	Permit Required	Deny as proposed
Is the use appropriate to the site? Is there a management concern for cultural or natural resources or facilities on public land?	Yes; site very conducive to the proposed use; provided for in planning.	Site is appropriate for group size and activity; not specifically provided for in plan.	No; site is not appropriate for use as proposed; does not conform with recreation planning goals; violates recreational opportunity spectrum class (see Glossary) or experience prescriptions.
Is monitoring needed?	Nothing beyond one simple site visit.	Monitoring beyond a one-time site visit is required.	Long term monitoring of one or more resources is required.
Are there any health and safety concerns?	None	The health and safety of event participants or other public land users may be jeopardized.	Unmitigated, high risk to human health and safety; unreasonable risk, especially to non-participants.
Is bonding desirable to cover reclamation or damage to government property or resources?	No	Bonding is desirable or required.	
Is insurance desirable to protect the U.S. Government from claims by group participants or third parties?	No, liability exposure is negligible.	Insurance is desirable due to possible claims for personal injury or property damage.	
Are special services required, such as law enforcement, fire protection, exclusive use of public lands, reserved sites, etc?	No	Yes	

I.4. Determining Permit Classification

The purpose of classifying SRPs is to screen proposals to ensure they are consistent with and support planning objectives.

All permit proposals will be evaluated using the classification criteria in Table I.2 and will be assigned to one of the classes in the classification matrix (Table I.3). The classification criteria table includes factors to determine the potential impacts to resources as a result of the proposed activities. Each factor is evaluated as either present or not present or along a continuum ranging from low to moderate or high for each resource.

After permit proposals have been evaluated using the classification criteria table, the results will be applied to the classification matrix to determine whether the proposal is either Class 1 (low impact), Class II (medium impact), Class III (moderate impact), or Class IV (high impact). Different proposed activities and outings will have different impacts to the various resources. Not all proposed activities will clearly be classified as I, II, III, or IV. In many situations, there will be one or two resources where impacts are higher than impacts to the other resources. In these cases, the BLM may deny the application, require modification to the proposal, or mitigate the resource concern through permit stipulations.

Table I.2. Permit Classification Criteria

Resource		Anticipated Impact	Description of Impact
Wildlife	Visual	No	Artificial lighting system will not be used or will be less than 1000 candle power.
		Yes	Artificial lighting system will be 1000 candle power or greater.
	Audio	No	A loudspeaker or other broadcasting device will not be used.
		Yes	A loudspeaker or other broadcasting device will be used.
Water Quality		No	Proposed activity will not fall within a water quality impaired stream segment or won't affect stream.
		Yes	Proposed activity will fall within a water quality impaired stream segment, and the activity would affect the stream.
Cultural Sensitivity Zones		Low	Proposed activity will be within area classified as low in the Class 1 cultural survey.
		Moderate	Proposed activity will be within area classified as medium in the Class 1 cultural survey.
		High	Proposed activity will be within area classified as high in the Class 1 cultural survey.
Paleontological		Low	Surface geology consists of PFYC Class 1-3 formations.
		Moderate	Surface geology consists of PFYC Class 4-5 formations.
		High	Known vertebrate fossil site(s) can be seen.
Soils/Vegetation		Low	Site and associated features demonstrate resilience and resistance to anticipated activity or are sufficiently disturbed that they would not be affected.
		Moderate	Site and associated features demonstrate some ability to resist/recover from impacts.
		High	Site and associated features demonstrate limited ability to resist/recover from impacts.
Desert Shrub/Saltbush Vegetation Type		Low	Proposed activity will be outside of desert shrub/saltbush community.
		Moderate	Proposed activity will be within desert shrub/saltbush community but outside intact desert shrub/saltbush vegetation.
		High	Proposed activity will be within intact desert shrub/saltbush vegetation.
Riparian Vegetation, Perennial Waters, Seeps and Springs		Low	Proposed activity will be more than 100 meters from the edge of riparian vegetation and wetlands.
		Moderate	Proposed activity will include use within 100 meters of riparian vegetation on designated trails that cross riparian vegetation or camping at designated campsites.
		High	Proposed activity will include use within riparian vegetation off designated trails or outside designated campsites.
Bighorn Sheep		Low	Proposed activity will be outside bighorn sheep production and summer concentration areas.
		Moderate	Proposed activity will be outside bighorn sheep production areas and within summer concentration areas.
		High	Proposed activity will be within bighorn sheep production areas.
Special Status Species (Colorado Hookless Cactus, Special Status Raptors, Kit Fox, Bats, Prairie Dogs, Gunnison Sage-Grouse)		Low	Proposed activity will be greater than 200 meters from sensitive species.
		Moderate	Proposed activity will be greater than 100 meters from sensitive species.
		High	Proposed activity will be less than 100 meters from sensitive species.

Resource	Anticipated Impact	Description of Impact
Timing for Wildlife	Low	Proposed activity will not occur between November 1 and April 30 or between May 15 and July 15.
	Moderate	Proposed activity will occur between November 1 and April 30 or between May 15 and July 15 and will not affect wildlife.
	High	Proposed activity will occur between November 1 and April 30 or between May 15 and July 15 and will affect wildlife.
Within Existing Disturbance (Designated Routes, Staging Areas, Designated Campsites, etc.)	Low	< 5 acres
	Moderate	5–40 acres
	High	> 40 acres
Duration of Use	Low	1 day or less
	Moderate	2–6 days
	High	> 6 days
Anticipated Number of Participants (including Wilderness Zone 1)	Low	< 12
	Moderate	13-25
	High	25+
Anticipated Number of Vehicles	Low	1-6
	Moderate	6-10
	High	10+
Competitive Event	Yes	The event or activity will be competitive in nature.
	No	The event or activity will be noncompetitive.
Motorized/Mechanized Support	Yes	Vehicles or other mechanized equipment will be required to support activity.
	No	No vehicles or other mechanized equipment will be required.
BLM Monitoring and Inspection Requirements	Low	No significant pre- or post-permit oversight activities will be required
	Moderate	Pre- or post-permit activities will require up to eight hours of BLM oversight.
	High	Pre- or post-permit activities will require more than eight hours of BLM oversight.
Wilderness Zones 2 and 3 (Group Size)	Low	< 4
	Moderate	5–9
	High	10–12

Table I.3. Permit Classification Matrix

Evaluation Factors	Permit Class			
	I	II	III*	IV*
Wildlife (Visual)	No	Yes	Yes	Yes
Wildlife (Audio)	No	Yes	Yes	Yes
Water Quality	No	Yes	Yes	Yes
Cultural	Low	Moderate	Moderate	High
Paleontological	Low	Moderate	Moderate	High
Soils/Vegetation	Low	Moderate	Moderate	High
Desert Shrub/Saltbush Vegetation	Low	Moderate	Moderate	High
Riparian Vegetation	Low	Moderate	Moderate	High
Bighorn Sheep	Low	Moderate	Moderate	High
Sensitive Species	Low	Moderate	Moderate	High
Timing for Wildlife	Low	Moderate	Moderate	High
Within Existing Disturbance	Low	Low	Moderate	High
Duration of Use	Low	Moderate	Moderate	High
Anticipated Number of Participants	Low	Moderate	Moderate	High

Anticipated Number of Vehicles	Low	Low	Moderate	High
Competitive Event	No	No	Yes	Yes
Motorized Support	No	No	Yes	Yes
Monitoring and Inspection Requirements	Low	Low	Moderate	High
*Class III and IV events are more likely to require cost recovery, because these events will probably need more than 50 hours of BLM staff time for permit administration.				

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Appendix J. Best Management Practices for Management Actions

This appendix provides a list of common standard operating procedures and BMPs that are applicable to all alternatives in the resource management plan. Standard operating procedures are established guidelines that are followed by the BLM in carrying out management activities. While the list of standard operating procedures is complete, the list is not intended to be comprehensive; additional standard operating procedures could be developed and implemented to support achieving resource objectives.

BMPs are mitigation measures applied on a site-specific basis to avoid, minimize, reduce, rectify, or compensate for adverse environmental or social impacts. They are applied to management actions to aid in achieving desired outcomes for safe, environmentally responsible resource development, by preventing, minimizing, or mitigating adverse impacts and reducing conflicts. BMPs can also be proposed by project applicants for activities on public lands (e.g., trail construction). BMPs not incorporated into the permit application by the applicant may be considered and evaluated through the environmental review process and incorporated into the use authorization as conditions of approval or right-of-way stipulations. Standard conditions of approval and rights-of-way stipulations are also provided in this appendix as appropriate. Additional BMPs, conditions of approval, and right-of-way stipulations could be developed to meet resource objectives on the basis of local conditions and resource specific concerns.

J.1. Air Resources

During construction, decommissioning or maintenance projects, reduce emissions of fugitive dust by requiring operators implement watering (minimum twice daily during dry conditions) or application of other dust-suppressant agents at disturbed areas, including access roads. The authorized officer may direct the operator to change the level and type of dust abatement if the measures being used are insufficient to prevent visible plumes of fugitive dust or deposition of excessive dust on nearby surfaces in conjunction with vehicular traffic, equipment operations, or wind events. Require fugitive dust control plans in conjunction with project construction/development plans.

J.2. Soils

Best Management Practices

1. Loosen compacted subsoil if needed by ripping to appropriate depth depending on site-specific conditions.

2. Consider hydrologic setting and existing hydrologic features in project design and layout

3. Minimize soil exposure to erosional forces of wind and water by waiting until just before beginning construction to clear vegetation and to disturb the soil.

4. Minimize the area of bare soil within the approved work zone as much as possible.

5. Where applicable, cover entrances of construction sites with gravel to prevent trucks from tracking sediment from the construction site onto roads. This sediment will eventually end up clogging roadway drainage systems or settling into wetlands.

6. Protect and maximize existing native vegetation and natural forest/rangeland floor, thereby reducing impervious areas on the site.

7. Disperse storm water to areas of undisturbed forest/rangeland floor wherever possible, rather than concentrating it into channels.

8. Determine the volume of available topsoil existing on the site. Topsoil shall be spread at a minimum compacted depth of 4 inches (or as appropriate determined by soil type).

9. Stockpile topsoil so that it meets specifications and does not interfere with work on the site.

10. Allow sufficient time in scheduling for topsoil to be spread and bonded with the subsoil prior to seeding, sodding, or planting.

Conditions of Approval

1. When saturated soil conditions exist on or along the right-of-way, construction shall be halted until soil material dries out sufficiently for construction to proceed without undue damage and erosion to the right-of-way.

2. All construction and travel on the road and right-of-way shall stop until soils dry if ruts greater than three inches are formed by vehicles and equipment.

3. The grant holder shall provide satisfactory reclamation of all sites disturbed by their activity. This may include installation of additional erosion control devices and seeding at the discretion of the BLM Authorized Officer.

4. Storm water BMPs identified in the Storm Water Management Plan shall be in place prior to any earth-disturbing activity. Additional BMPs will be installed as determined necessary by the BLM Authorized Officer. All temporary BMPs shall be removed once site stabilization and reclamation efforts have been deemed successful by the BLM Authorized Officer.

5. Topsoil shall be conserved during excavation and reused as cover on disturbed areas to facilitate regrowth of vegetation. Topsoil shall only be used for reclamation and shall not be used to bed or pad the pipe during backfilling.

6. To control erosion and sediment transport, roads shall be crowned or sloped, ditched, surfaced, drained with culverts and/or water dips, and constructed to BLM Gold Book standards. Culvert outlets shall incorporate controls such as rip-rap, sediment catchments, and anchored straw bales, to slow water velocity and prevent erosion and soil transport. Initial gravel application shall be a minimum of four inches.

7. The operator shall provide timely year-round road maintenance and cleanup on roads. A regular schedule for maintenance shall include, but not be limited to, crown or slope reconstruction, blading, ditch, culvert and catchment cleaning, road surface replacement, and dust abatement. When rutting within the traveled way becomes greater than three inches, blading, and/or gravelling shall be conducted as approved by the BLM Authorized Officer.

8. The grantee shall construct water bars, kicker dikes, ditch breaks, pocking, or other erosion control techniques, on all of the right-of-way, as directed by the BLM Authorized Officer. The water bars or dikes shall be constructed across the full width of the disturbed area.

9. Disturbed portions of the right-of-way surface shall be left rough and not smoothed to facilitate seed germination and seedling survival.

10. Top soil segregation will not occur when soils are saturated or frozen unless special authorization is granted by the BLM Authorized Officer.

11. A Winter Construction Plan will be submitted and approved by the BLM Authorized Officer before a Notice to Proceed will be authorized for construction activities in frozen soils.

12. Soil or loam that is stored or stockpiled during construction shall be handled in a way to preserve soil quantity and natural soil properties and productivity.

13. The face of cut/fill slopes will be stabilized and the face of all graded slopes shall be protected from surface runoff until they are stabilized.

14. The face of the slope shall not be subject to any concentrated flows of surface water such as from natural drainage ways, graded swales, and downspouts.

15. Subsurface drainage shall be provided where necessary to intercept seepage that would otherwise adversely affect slope stability or create excessively wet site conditions.

16. Slopes shall not be created so close to property lines as to endanger adjoining properties without adequate protection against sedimentation, erosion, slippage, settlement, subsidence or other related damages.

17. All disturbed areas shall be stabilized structurally or with vegetation in compliance with the appropriate BMPs.

18. All graded or disturbed areas including slopes shall be protected during clearing and construction in accordance with the approved erosion and sediment control plan until they are adequately stabilized.

19. All erosion and sediment control practices and measures shall be constructed, applied, and maintained in accordance with the approved erosion and sediment control plan.

20. Frozen material or soft, mucky, or highly compressible materials shall not be incorporated into fill slopes or structural fills.

21. Fill shall not be placed on a frozen foundation.

22. Any sign of rill or gully erosion shall be immediately investigated and repaired as needed or requested by the authorizing officer.

23. Fall and winter erosion control measures must be upgraded and refined to protect the site from spring runoff and snowmelt.

24. Topsoil stripping shall be confined to the immediate construction areas. A 4 to 6-inch stripping depth is common, but depth may vary depending on the particular soil. All perimeter dikes, basins, and other sediment controls shall be in place prior to stripping.

25. After the areas to be topsoiled have been brought to grade, and immediately prior to spreading the topsoil, the subgrade shall be loosened by disking or scarifying to a depth of at least two inches (or as site-specific analysis determines appropriate for soil type) to ensure bonding with subsoil.

26. Topsoil shall not be placed while in a frozen or muddy condition, when the subgrade is excessively wet, or in a condition that may otherwise be detrimental to proper grading or proposed sodding or seeding.

J.3. Water Resources

Best Management Practices

1. Design roads for minimal disruption of natural drainage patterns.

2. Reduce road corridor widths by building vertical cut slopes and stabilizing with rock retaining walls.

3. Provide energy dissipaters (e.g., rock piles and logs) where necessary at the downstream end of ditch relief culverts to reduce the erosion energy of the emerging water.

4. Drainage structures shall not be discharged onto erodible soils or fill slopes without outfall protection.

5. Avoid using roads during wet periods if such use will likely damage the road drainage features.

6. Grade road surfaces only as often as necessary to maintain a stable running surface and to retain the original surface drainage.

7. Avoid cutting the toe of cut slopes when grading roads or pulling ditches.

8. Keep road inlet and outlet ditches, catch-basins, and culverts free of obstructions, particularly before and during spring runoff. Routine machine-cleaning of ditches shall be kept to a minimum during wet weather. Leave the disturbed area in a condition that provides drainage with no additional maintenance.

9. Provide for erosion-resistant surface drainage by adding necessary drainage facilities and armoring prior to fall rain or snow. When erosion is anticipated, sediment barriers shall be constructed to slow runoff, allow deposition of sediment, and prevent sediment from leaving the site. In addition, straining or filtration mechanisms may also contribute to sediment removal from runoff.

10. Avoid grading sections of road that do not need maintenance, as this elevates sediment production from the newly disturbed surface. Raise the blade where grading is not needed.

11. Remove berms from the outside edge or roads where runoff is channeled.

12. Leave abandoned roads in a condition that provides adequate drainage without further maintenance. Close these roads to traffic, reseed and/or scarify, and if necessary, re-contour and provide cross ditches or drain dips.

13. Cross stream channels at right angles if at all possible.

14. Concentrate right-of-way actions adjacent to stream courses as far landward as safety allows.

15. Remove all temporary stream crossings immediately after use and cross-ditch the ends of skid trails/two tracks/rights-of-way to mitigate erosion from disturbed areas.

16. Place all excess material removed by maintenance operations in safe disposal sites and stabilize these sites to prevent erosion. Avoid locations where erosion will carry materials into a stream.

17. Evaluate potential effects of stream crossings/channel work on existing structures such as culverts, bridges, buried cables, pipelines, and irrigation flumes prior to construction activities to identify and mitigate foreseen impacts.

18. When designing protective/mitigation measures, consider the changes that may occur in the watershed hydrology and sedimentation over the design life of the measure. Moreover, design and construct roads that are self-maintaining and consider using road surfacing, such as gravel. Design and construct stream crossings that handle the 100-year flood, and consider culvert and bridge designs that facilitate aquatic life passage.

19. Exclude livestock and vehicles from spring sources and riparian areas in which on site evaluation and/or monitoring data indicate degrading conditions.

20. Exclude livestock, wildlife, and vehicles from developed spring sources.

21. Stabilize and maintain grades in natural or artificial channels to prevent the formation and advancement of gullies.

22. Utilize erosion control structures including but not limited to head-cut lay-backs, zuni-bowls, check dams, and sediment basins to retain soils in highly erodible areas and protect water quality.

23. Use vegetation or structures to stabilize and protect banks of streams, lakes, or excavated channels against scour and erosion.

24. Manage and manipulate invasive stands of brush and weeds on forest, range, pasture land by mechanical, chemical, or biological means or by prescribed burning to improve watershed function and condition.

25. Reduce soil erosion and sediment delivery to surface waters by protecting, maintaining, and reestablishing desirable vegetative communities in areas of highly erodible or critically eroding soils.

26. Utilize mechanical treatment methods to roughen and aerate soils in degraded sites identified for reclamation.

27. Avoid alteration of natural hydrologic function and condition in source areas for springs, seeps, and fens. Relocate surface-disturbing activities away from these sensitive areas as site conditions warrant.

28. Restore modified or damaged streams as close as practicable to natural conditions using bioengineering techniques to protect banks, and to reestablish riparian vegetation.

29. Maintain to the greatest extent practicable natural flow rates and chemical and physical properties of surface and groundwater during work within stream channels, floodplains, and/or riparian areas.

30. Low water crossings will be constructed at original streambed elevation in a manner that prevents any blockage or restriction of the existing channel. Material removed will be stockpiled for use in reclamation of the crossings.

31. The operator shall institute measures such as surfacing, watering, and use of non-saline dust suppressants on all roads authorized in this project to minimize impacts from fugitive dust emissions. The use of chemical dust suppressants on public surface will require prior approval from the BLM Authorized Officer.

32. Livestock management practices, such as animal health, feeding, watering, and salting, shall be done in a manner to protect water quality.

33. Minimize crossing of streams (intermittent and perennial) and wetlands with vehicles and heavy machinery.

34. Maintain appropriate vegetative/riparian buffers around water bodies to slow runoff and trap sediments and protect water quality.

35. Time work in wetlands and watercourses to occur during low flow season when conditions are driest. High flows occur during late summer and early fall as a result of high intensity convective thunderstorm events, and in spring due to high flows from snow-melt runoff.

36. Temporary BMPs used to filter sediments from water, thereby preventing sedimentation, shall be installed (per manufacturers recommendations) before any construction begins and shall subsequently be removed when the project is completed.

37. Consider rehabilitating closed routes to reduce erosion and restore landscapes.

Conditions of Approval

1. The holder shall adhere to all requirements under the Clean Water Act.

2. Storm water BMPs identified in the applicant's State approved Storm Water Pollution Prevention Plan shall be in place prior to any earth-disturbing activity.

3. Additional BMPs will be implemented as determined necessary by the BLM Authorized Officer.

4. All temporary BMPs shall be removed once site stabilization and reclamation efforts have been deemed successful by the BLM Authorized Officer.

5. Culverts and water-bars shall be installed according to 9113 standards and sized for the 10-year storm event with no static head and to pass a 25-year event without failing.

6. Culverts shall be located on stable and straight stream reaches and along the stream grade. In steeper streams, it may be necessary to install natural channel design techniques downstream to minimize erosion. A hydrologist shall be consulted.

7. Erosion control features shall be maintained through periodic inspection and maintenance, including cleaning dips and cross-drains, repairing ditches, marking culvert inlets to aid in location, and clearing debris from culverts.

8. If requested by the BLM Authorized Officer, the holder shall furnish and install culverts of the gauge, materials, diameter(s), and length(s) as indicated and approved.

9. Culverts shall be free of corrosion, dents, or other deleterious conditions.

10. Spoil material from clearing, grubbing, and channel excavation shall be disposed of in a manner that will not interfere with the function of the channel and in accordance with all local, State, and Federal laws and regulations.

11. To protect water quality, anti-backflow devices shall be utilized while drafting fresh water from streams, springs, and wells.

12. Actions shall not result in adverse effects on the function of streams or stream corridors.

13. Actions shall not impair floodplain function.

14. New stream crossings shall be designed to accommodate a 100-year flood.

15. Provide for erosion-resistant surface drainage by adding necessary drainage facilities and armoring prior to fall rain or snow. When erosion is anticipated, sediment barriers shall be constructed to slow runoff, allow deposition of sediment, and prevent it from leaving the site. In addition, straining or filtration mechanisms may also contribute to sediment removal from runoff.

16. No operations using chemical processes (except for vegetation management) or other pollutants in their activities will be allowed to occur within 200 feet of any water bodies.

17. All stream crossings affecting perennial streams or streams supporting riparian habitat shall be professionally engineered (design, construction, and maintenance).

18. Water developments (springs, reservoirs, catchments; wells, pipeline and water troughs) will conform to BLM Manual H 1741-2.

19. Actual work in spring and stream beds will be done by hand where possible.

20. The source of all spring developments shall be fenced.

21. The BLM or proponent shall acquire a storm water permit from the State of Colorado and Army Corps of Engineers for new construction that exceeds one-acre, and a 404 permit for activities that affect the average high water mark of a stream.

J.4. Vegetation: Rangeland

Guidance may come from various sources. See individual resources.

Standard Operating Procedures

1. When making decisions about proposed projects/actions in known sagebrush habitat, existing plans and guidance will be used by interdisciplinary teams and considered in the decision making process. This guidance includes the conservation actions/guidelines identified in the WAFWA's *Conservation Assessment of Greater Sage-grouse and Sagebrush Habitats* (Connelly, Knick, Schroeder, and Stiver 2004), the *Gunnison Sage Grouse Rangewide Conservation Plan* (Gunnison Sage-grouse Rangewide Steering Committee 2005), local working group population plans (Pinyon Mesa population of Gunnison sage-grouse (Pinyon Mesa Gunnison Sage-Grouse Partnership 2000) and Parachute-Piceance-Roan population of greater sage-grouse), the final rule for listing the Gunnison sage-grouse as threatened, the designation of critical habitat, and the anticipated recovery plan for the species.

2. Utilize the techniques and methods for vegetation treatments identified in the *Record of Decision for Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States* (BLM 2007b).

Best Management Practices

1. Close and rehabilitate roads quickly once they are no longer needed.

2. Close selected routes to protect special status species and significant plant communities

3. Build roads to the appropriate standard, no higher than necessary for use and safety, and utilize primitive or two-track roads rather than newly constructed roads where feasible.

4. Pipelines (and electrical power lines when possible) shall be placed within road corridors to minimize disturbance.

5. Minimize disturbance to soil and native vegetation as much as possible.

6. Stockpile topsoil for use in final reclamation. Topsoil shall be stored separately from other fill materials.

7. When timely natural regeneration of the native plant community is not likely to occur, carefully select species that will not compete with or exclude botanical resources for revegetation efforts. Bare sites shall be seeded as soon as appropriate to prevent establishment of undesirable plant species.

8. Ensure that seed used for revegetation as well as straw and hay bales used for erosion control are certified free of noxious and invasive weeds.

9. Monitor revegetation sites to ensure successful establishment of desired species.

10. Monitor the long-term success of revegetation efforts to ensure successful establishment of desired species and detect any noxious and invasive weed infestations. If revegetation is unsuccessful, continue efforts to establish desired species in disturbed sites.

11. In desert shrub/saltbush communities with biological soil crusts, require reclamation that includes but is not limited to: broadcasting bacterial inoculants, planting native grass, forbs, and shrubs seedlings, and exclosure fences.

References

See Chapter 6 of this document for a comprehensive list of references.

BLM. 2007b. *Record of Decision. Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States: Programmatic Environmental Impact Statement*. June 2007. Reno, NV: U.S. Department of the Interior, Bureau of Land Management.

Connelly, J.W., Knick, S.T., Schroeder, M.A., & Stiver, S.J. 2004. *Conservation Assessment of Greater Sage-grouse and Sagebrush Habitats.* Cheyenne, WY: Western Association of Fish and Wildlife Agencies. Available online: http://sagemap.wr.usgs.gov/docs/Greater_Sage-grouse_Conservation_Assessment_060404.pdf.

Elliot, B.A., Kurzell, B., & Spackman Panjabi, S. 2011. *Recommended Best Management Practices for Plants of Concern: Practices Developed to Reduce the Impacts of Oil and Gas Development Activities to Plants of Concern*. Prepared by the Rare Plant Conservation Initiative for the National Fish and Wildlife Foundation. August 25, 2011. Available online: https://cpw.state.co.us/.

J.5. Vegetation: Riparian Habitat and Wetlands

Standard Operating Procedures

1. Utilize the techniques and methods for vegetation treatments identified in the *Record of Decision for Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States* (BLM 2007b).

Best Management Practices

1. Minimize crossing of streams (intermittent and perennial) and wetlands with vehicles and heavy machinery.

2. Locate residue piles (e.g., sawdust, field chipping residue) away from drainages where runoff may wash residue into water bodies or wetlands.

3. Maintain appropriate vegetative/riparian buffers around water bodies to protect water quality.

4. Manage riparian areas to provide adequate shade, sediment control, bank stability, and recruitment of wood into stream channels.

5. Locate project staging areas for refueling, maintenance equipment, materials, and operating supplies in areas not designated as riparian and/or stream bank management zones.

6. Determine the best locations and design for roads, the slope of roads, and the approach to stream crossings through proper planning. On perennial streams roads, which will be

used for longer than one year, the crossings will be engineered and approved by the BLM Authorized Officer.

7. Do not locate roads or trails parallel to streams. Where roads must cross streams, cross perpendicularly and immediately exit the buffer zone.

8. Appropriate improvements, such as culverts, must be placed at stream crossings to keep vehicles/equipment out of the stream flow and to prevent direct sedimentation of streams.

9. Maintain a minimum of six inch stubble height at the end of October on stream bank (lotic) riparian.

10. Maintain a minimum of four inch stubble height at the end of October on wet meadows (lentic) systems.

11. Roads and trails (off-highway vehicle, horse, bicycle, hiking) will avoid wetlands and if avoidance is not possible will be designed and constructed in Technical Reference 2E22A68-NPS, Off-highway Vehicle Management.

12. Install and maintain cottonwood protection on existing and planted trees where beaver loss threatens survival. Work with volunteer groups and user groups to help with the maintenance of installed structures.

References

See Chapter 6 of this document for a comprehensive list of references.

BLM. 2007b. *Record of Decision. Vegetation Treatments Using Herbicides on Bureau of Land Management Lands in 17 Western States: Programmatic Environmental Impact Statement*. June 2007. Reno, NV: U.S. Department of the Interior, Bureau of Land Management.

J.6. Noxious and Invasive Weed Prevention

This list incorporates many suggested practices under various land uses, and is designed to allow managers to pick and choose those practices that are most applicable and feasible for each situation.

Site-Disturbing Projects

Pre-Project Planning

1. Environmental analyses for projects and maintenance programs shall assess weed risks, analyze high-risk sites for potential weed establishment and spread, and identify prevention practices.

2. Determine site-specific restoration and monitoring needs and objectives at the onset of project planning.

3. Learn to recognize noxious and invasive weeds.

4. Inventory all proposed projects for weeds prior to ground-disturbing activities. If weeds are found, they will be treated (if the timing is appropriate) or removed (if seeds are present) to limit weed seed production and dispersal.

5. Be cognizant of moving equipment and machinery *from* weed-contaminated areas *to* non-contaminated areas.

6. Locate and use weed-free project staging areas. Avoid or minimize travel through weed infested areas, or restrict travel to periods when spread of disseminules is least likely.

7. Identify sites where equipment can be cleaned. Remove mud, dirt, and plant parts from project equipment before moving it into a project area. Seeds and plant parts shall be collected and incinerated when possible.

8. If certified weed-free gravel pits become available, the use of certified weed-free gravel will be required wherever gravel is applied to public lands (e.g., roads).

9. Maintain stockpiled, non-infested material in a weed-free condition. Topsoil stockpiles shall be promptly revegetated to maintain soil microbial health and reduce the potential for weeds.

10. Use competitive seed mixes when practical. A certified seed laboratory shall test each lot according to the Association of Official Seed Analysts standards (which include an all-State noxious weed list) and provide documentation of the seed inspection test. The seed shall contain no noxious and invasive, prohibited, or restricted weed seeds and shall contain no more than 0.5 percent by weight of other weed seeds. Seed may contain up to 2.0 percent of "other crop" seed by weight, including the seed of other agronomic crops and native plants; however, a lower percentage of other crop seed is recommended.

11. Livestock feed brought into the NCA shall be certified weed-free per the Colorado Department of Agriculture weed-free forage certification program.

Project Implementation

1. Minimize soil disturbance. To the extent practicable, native vegetation shall be retained in and around project activity areas, and soil disturbance kept to a minimum.

2. If a disturbed area must be left bare for a considerable length of time, cover the area with weed barrier until revegetation is possible.

Post-Project

1. Clean all equipment before leaving the project site when operating in weed infested areas.

2. Inspect, remove, and properly dispose of weed seed and plant parts found on clothing and equipment. Proper disposal means bagging and incinerating seeds and plant parts or washing equipment in an approved containment area.

3. Revegetate disturbed soil where appropriate to optimize plant establishment for that specific site. Define revegetation objectives for each site. Revegetation may include topsoil replacement, planting, seeding, fertilization, and certified weed-free mulching as necessary. Use native material where appropriate and feasible.

4. Monitor sites where seed, hay, straw, or mulch has been applied. Eradicate weeds before they form seed. In contracted projects, contract specifications could require that the contractor control weeds for a specified length of time.

5. Inspect and document all ground-disturbing activities in noxious and invasive weed infested areas for at least three growing seasons following completion of the project. For ongoing projects, continue to monitor until reasonably certain that no weeds are present. Plan for follow-up treatments on the basis of inspection results.

Roads and Utilities

Pre-Project Planning

1. Communicate with contractors, local weed districts or weed management areas about projects and BMPs for prevention.

2. Remove mud, dirt, and plant parts from project equipment before moving it into a project area. Seeds and plant parts shall be collected and incinerated when practical, or washed off in an approved containment area.

3. Avoid acquiring water for road dust abatement where access to water is through weed-infested sites.

4. Treat weeds on travel rights-of-way before seed formation so construction equipment doesn't spread weed seed.

5. Schedule and coordinate blading or pulling of noxious and invasive weed-infested roadsides or ditches in consultation with the local weed specialist. When it is necessary to blade weed-infested roadsides or ditches, schedule the activity when disseminules are least likely to be viable.

Project Implementation

1. Retain shade to suppress weeds by minimizing the removal of trees and other roadside vegetation during construction, reconstruction, and maintenance; particularly on south aspects.

2. Do not blade or pull roadsides and ditches infested with noxious and invasive weeds unless doing so is required for public safety or protection of the roadway. If the ditch must be pulled, ensure weeds remain on-site. Blade from least infested to most infested areas.

Post-Project

1. Clean all equipment (power or high-pressure cleaning) of all mud, dirt, and plant parts before leaving the project site if operating in areas infested with weeds. Seeds and plant parts shall be collected and incinerated when possible.

2. When seeding has been specified for construction and maintenance activities, seed all disturbed soil (except travel route) soon after work is completed.

3. Use a certified weed-free seed mix suitable for local environmental conditions that includes fast, early growing (preferably native) species to provide quick revegetation. Consider applying weed-free mulch with seeding.

4. Periodically inspect roads and rights-of-way for noxious and invasive weeds. Train staff to recognize weeds and report locations to the local weed specialist. Follow-up with treatment when needed.

5. When reclaiming roads, treat weeds before roads are made impassable. Inspect and follow up on the basis of initial inspection and documentation.

6. To avoid weed infestations, create and maintain healthy plant communities whenever possible, including utility rights-of-way, roadsides, scenic overlooks, trailheads, and campgrounds.

Recreation Activities

1. Inspect and clean mechanized trail vehicles of weeds and weed seeds.

2. Wash boots and socks before hiking into a new area. Inspect and clean packs, equipment, and bike tires.

3. Avoid hiking through weed infestations whenever possible.

4. Keep dogs and other pets free of weed seeds.

5. Avoid picking unidentified wildflowers and discarding them along trails or roadways.

6. Maintain trailheads, campgrounds, visitor centers, boat launches, picnic areas, roads leading to trailheads, and other areas of concentrated public use in a weed-free condition. Consider high-use recreation areas as high priority sites for weed eradication.

7. Sign trailheads and access points to educate visitors on noxious and invasive weeds and the consequences of their activities.

8. Inspect and document travel corridors for weeds and treat as necessary.

9. Encourage use of pelletized feed for backcountry horsemen and hunters. Pelletized feed is unlikely to contain weed seed.

Watershed Management

1. Frequently and systematically inspect and document riparian areas and wetlands for noxious and invasive weed establishment and spread. Eradicate new infestations immediately since effective tools for riparian-area weed management are limited.

2. Promote dense growth of desirable vegetation in riparian areas (where appropriate) to minimize the availability of germination sites for weed seeds or propagules transported from upstream or upslope areas.

3. Address the risk of invasion by noxious weeds and other invasive species in watershed restoration projects and water quality management plans.

Grazing Management

1. Consider prevention practices and cooperative management of weeds in grazing allotments. Prevention practices may include:

    a. Altering season of use

    b. Minimizing ground disturbance

    c. Exclusion

    d. Preventing weed seed transportation

    e. Maintaining healthy vegetation

    f. Revegetation

    g. Inspection

    h. Education

    i. Reporting

2. Provide certified weed-free supplemental feed in a designated area so new weed infestations can be detected and treated immediately. Pelletized feed is unlikely to contain viable weed seed.

3. If livestock may contribute to seed spread in a weed-infested area, schedule livestock use prior to seed-set or after seed has fallen.

4. If livestock were transported from a weed-infested area, annually inspect and treat entry units for new weed infestations.

5. Consider closing infested pastures to livestock grazing when grazing will either continue to exacerbate the condition or contribute to weed seed spread. Designate those pastures as unsuitable range until weed infestations are controlled.

6. Manage the timing, intensity (utilization), duration, and frequency of livestock activities to maintain the competitive ability of desirable plants and retain litter cover. The objective is to prevent grazers from selectively removing desirable plant species and leaving undesirable species.

7. Exclude livestock grazing on newly seeded areas with fencing to ensure that desired vegetation is well established, until objectives for seeding have been met.

8. Reduce ground disturbance, including damage to biological soil crusts. Consider changes in the timing, intensity, duration, or frequency of livestock use; location and changes in salt grounds; restoration or protection of watering sites; and restoration of yarding/loafing areas, corrals, and other areas of concentrated livestock use.

9. Inspect areas of concentrated livestock use for weed invasion, especially watering locations and other sensitive areas that may be particularly susceptible to invasion. Inventory and manage new infestations.

10. Livestock are to be excluded from burned areas until monitoring results show emergency stabilization and rehabilitation objectives have been met.

Outfitting/Recreation Pack and Saddle Stock Use

1. Allow only certified weed-free hay/feed on BLM lands.
2. Inspect, brush, and clean animals (especially hooves and legs) before entering public land. Inspect and clean tack and equipment.
3. Regularly inspect trailheads and other staging areas for backcountry travel. Bedding in trailers and hay fed to pack and saddle animals may contain weed seed or propagules.
4. Tie or contain stock in ways that minimize soil disturbance and prevent loss of desirable native species.
5. Authorized trail sites for tying pack animals shall be monitored several times per growing season to quickly identify and eradicate new weeds. Trampling and permanent damage to desired plants are likely. Tie-ups shall be located away from water and in shaded areas where the low light helps suppress weed growth.
6. Educate outfitters to look for and report new weed infestations.

Wildlife

1. Periodically inspect and document areas where wildlife concentrate in the winter and spring and cause excess soil disturbance.
2. Use weed-free materials for all wildlife management activities.
3. Incorporate weed prevention into all wildlife habitat improvement project designs.

J.7. Fire

Fire Management Plans

1. Prescribed fire plans shall include pre-burn invasive weed inventory and risk assessment components as well as post-burn mitigation components.
2. Integrate prescribed fire and other weed management techniques to achieve best results. This may involve post-burn herbicide treatment or other practices that require careful timing.
3. Include weed prevention and follow-up monitoring in all prescribed fire activities. Include in burn plans the possibility for post-burn weed treatment.

Incident Planning

1. Increase weed awareness and weed prevention by providing training to new and/or seasonal fire staff on invasive weed identification and prevention.

2. For prescribed burns, inventory the project area and evaluate potential weed spread with regard to the fire prescription. Areas with moderate to high weed cover shall be managed for at least 2 years prior to the prescribed burn to reduce the number of weed seeds in the soil. Continue weed management after the burn.

3. On wildfires or prescribed burns in or near weed-infested areas ensure that a qualified resource advisor familiar with weed issues or who has access to the relevant information is assigned. Include weed prevention practices in fire management briefings

4. Use operational practices to reduce weed spread (e.g., avoid weed infestations when locating fire lines).

5. Identify and periodically inspect potential helispots, staging areas, incident command posts, and base camps and maintain a weed-free condition. Encourage network airports and helibases to do the same.

6. Develop a burned-area integrated pest management plan, including a monitoring component to detect and eradicate new weeds early.

Firefighting

1. Ensure that all equipment (including borrowed or rental equipment) is free of weed seed and propagules before entering incident location.

2. When possible, use fire suppression tactics that reduce disturbances to soil and vegetation, especially when creating fire lines.

3. Use wet or scratch-lines where possible instead of fire breaks made with heavy equipment.

4. Given the choice of strategies, avoid ignition and burning in areas at high risk for weed establishment or spread.

5. Hose off vehicles on site if they have traveled through infested areas.

6. Inspect clothing for weed seeds if foot travel occurred in infested areas.

7. When possible, establish incident bases, fire operations staging areas, and aircraft landing zones in areas that have been inspected and are verified to be free of invasive weeds.

8. Cover weed infested cargo areas and net-loading areas with tarps if weeds exist and can't be removed or avoided.

9. Flag off high-risk weed infestations in areas of concentrated activity and show weeds on facility maps.

10. If fire operations involve travel or work in weed infested areas, a power wash station shall be staged at or near the incident base and helibase. Wash all vehicles and equipment upon arrival from and departure to each incident. This includes fuel trucks and aircraft service vehicles.

11. . Identify areas affected by suppression activities that may be vulnerable to weed invasion, and utilize suppression funds to repair.

Post-Fire Rehabilitation

1. Have a weed specialist review burned area rehabilitation reports to ensure proper and effective weed prevention and management is addressed.

2. Thoroughly clean the undercarriage and tires of vehicles and heavy equipment before entering a burned area.

3. Treat weeds in burned areas. Weeds can recover as quickly as 2 weeks following a fire.

4. Schedule inventories 1 month and 1 year post-fire to identify and treat infestations. Eradicate or contain newly emerging infestations.

5. Restrict travel to established roads to avoid compacting soil that could hinder the recovery of desired plants.

6. Determine soon after a fire whether revegetation is necessary to speed recovery of a native plant community, or whether desirable plants in the burned area will recover naturally. Consider the severity of the burn and the proportion of weeds to desirable plants on the land before it burned. In general, more severe burns and higher pre-burn weed populations increase the necessity of revegetation. Use a certified weed-free seed mix.

7. Inspect and document weed infestations on fire access roads, equipment cleaning sites, and staging areas. Control infestations to prevent spread within burned areas.

8. Seed and straw mulch to be used for burn rehabilitation (e.g., for wattles, straw bales, dams) shall be certified weed-free.

9. As nearly as possible, replace soil and vegetation right side up when rehabbing fire line.

J.8. Fish and Wildlife Management and Special Status Species

Standard Operating Procedures

1. Fences constructed will comply with applicable wildlife fence standards, such as those described in BLM Handbook H-1741-1, Fencing (BLM 1989b). Current standards for fencing cattle out in deer and elk range is a four strand fence, 40 inches high with a spacing of wires from ground to top of 60” (smooth bottom wire), 6” (second wire barbed), 6” (third wire barbed), 12” (top wire preferably smooth but may need to be barbed in areas of intense cattle use).

2. The BLM will consult agency species management plans and other conservation plans as appropriate to guide management and devise mitigation measures when needed. Examples of these plans include but are not limited to the Colorado Wildlife Action Plan, Colorado Sagebrush: A Conservation Assessment and Strategy, National, Rangewide, statewide and local working group conservation plans for Gunnison and greater sage-grouse, Sharing the land with pinyon-juniper birds, Birds in a sagebrush sea: managing sagebrush habitats for bird communities, North American Landbird Conservation Plan, North American Waterbird conservation Plan, National and Colorado Partners in flight Bird Conservation Plans,

Colorado Gunnison's and White-tailed Prairie Dog Conservation Strategy and Recovery plans for federally listed species.

3. Lessees will be notified that a lease parcel contains potential habitat for threatened (T), endangered (E), proposed (P), candidate (C) and BLM sensitive (S) plants, fish and wildlife.

4. Existing plant location records will be consulted and site inventories will be conducted to identify suitable habitat for these plants. Surveys for occupied suitable habitat will be conducted prior to any ground disturbance. Surveys will take place when the plants can be positively identified, during the appropriate flowering periods. Surveys will be conducted by qualified field botanists/biologists who will provide documentation of their qualifications, experience and knowledge of the species prior to starting work.

5. For Colorado hookless cactus and other T, E, P, and C species surface-disturbing activities will be avoided within 200 meters of occupied plant habitat

6. For BLM sensitive species surface-disturbing activities will be avoided within 100 meters of occupied plant habitat1 wherever possible and where geography and other resource concerns allow. Fragmentation of existing populations and identified areas of suitable habitat will be avoided wherever possible.

7. Where development is allowed within 100 meters of occupied habitat for T, E, P and C species or BLM sensitive species, unauthorized disturbance of plant habitat will be avoided by on-site guidance from a biologist, and by fencing the perimeter of the disturbed area, or such other method as agreed to by the Fish and Wildlife Service. In such instances, a monitoring plan approved by the Service will be implemented for the duration of the project to assess impacts to the plant population or seed bank. If detrimental effects are detected through monitoring, corrective action will be taken through adaptive management.

8. Surface disturbance closer than 100 meters from a listed plant may be considered an adverse effect. Mitigating measures within this narrow buffer are very important and helpful to individual plants, but the BLM does not expect that all adverse effects can be fully mitigated within this distance. Some adverse effects due to dust, dust suppression, and loss of pollinator habitat will likely remain. There are two possible exceptions to this rule of thumb: 1) The new disturbance is no closer to a listed plant than preexisting disturbance and no new or increased impacts to the listed plant are expected; or 2) the listed plant is screened from the proposed disturbance (e.g., tall, thick vegetation or a berm acts as a screen or effective barrier to fugitive dust and other potential impacts).

9. Transplantation of potentially affected plants will not be used as a rationale to defend a "not likely to adversely affect" or a "no effect" determination for listed plant species.

10. Documentation will include individual plant locations and suitable habitat distributions. Prior to conducting plant surveys, the operator will provide maps (as hard copy and GIS files) of all proposed areas of disturbance to the BLM. Maps will include existing and proposed roads, pipelines, well pads, pits, parking lots, and all other work areas. Post-construction or as-built maps will also be submitted to account for any deviations from pre-project maps. Specific polygons where rare plant surveys have been conducted will be included, along with the results of those surveys (positive or negative). The locations of any monitoring plots established to measure the status of rare plants and habitat in the vicinity of project activities will also be provided.

11. Protect pollinator species for endangered or threatened species by incorporating the standard operating procedures found in the PEIS for *Vegetation Treatments Using Herbicides on BLM Lands in 17 Western States* (BLM 2007b).

12. Biological inventories must be completed prior to approval of operations in areas of known or suspected habitat of special status species, or habitat of other species of interest such as, but not limited to, raptor nests, sage-grouse leks, or rare plant communities. Surveys shall be conducted by qualified biologist(s) using protocols established for potentially affected species during the appropriate time period(s) for the species. Survey reports, data, and determinations shall be submitted to the BLM for review and confirmation according to BLM protocols. Operators, the BLM, and the BLM Authorized Officer will use the information gathered to develop an appropriate mitigation plan. Mitigating measures may include, but are not limited to, timing restrictions, relocation of development activities and fencing operations or habitat. If special status species are encountered during operation, operations will cease immediately, and the BLM Authorized Officer will be notified.

13. To protect key wildlife species, special status species, and their habitats, surveys may be required prior to surface disturbance, habitat treatments, or similar activities. Develop and implement standard survey protocol for key species on the basis of the latest science, conservation assessments, CDOW recommendations, and similar information. Special design and construction measures may also be required in order to minimize impacts to special status species

Best Management Practices

1. Coordinate with the Colorado Division of Wildlife (CDOW) on BLM projects and BLM-authorized projects that are proposed within 0.5-mile of a small capacity water development and 2.0-mile of a large capacity wildlife water development. Projects determined to have a detrimental effect on wildlife using wildlife water developments will be avoided or rerouted if possible.

2. Coordinate with CDOW on migratory bird inventories when migratory bird inventories are proposed by the BLM or required of third parties.

3. Raptors:

    a. Protect nest sites from human disturbances by implementing CPW recommended buffers around known nest sites.

    b. Provide perching and nesting structures as mitigation where disturbances are impacting raptors.

    c. Apply guidance from *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006* (APLIC 2006) and *Avian Protection Plan (APP) Guidelines* (APLIC and USFWS 2005) or most current guidance for new power line construction (including upgrades and reconstruction) to prevent electrocution of raptors.

4. Coordinate with CDOW when wildlife inventories are proposed by the BLM or required of third parties. The inventories shall be completed using standardized protocols for individual species.

5. Control noxious and invasive weeds using integrated pest management techniques. Limit chemical control in areas with rare plant species to avoid damage to non-target species. Mechanical or chemical control in and near rare plant habitat shall only be implemented by personnel familiar with the rare plants.

6. Prohibit collection of rare plants or plant parts, except as permitted by the BLM Authorized Officer for scientific research. The BLM cannot permit the collection of plant species listed as threatened or endangered under the ESA. The U.S. Fish and Wildlife Service is the responsible agency for granting collection permits for scientific research.

7. The use of deicers and dust suppressants within 100 meters (328 feet) of road-side occurrences of special status plant species will require prior approval from the BLM.

8. Herbicide application shall be kept at least 200 meters from known plant populations, except in instances where weed populations threaten habitat integrity or plant populations. Great care shall be used to avoid pesticide drift in those cases.

9. Retain existing snags for wildlife use in places where they will not create a human hazard

10. Where linear disturbance is proposed edges of vegetation shall be feathered to avoid long linear edges of habitat and allow for greater habitat complexity for wildlife.

11. Protect existing temporary pools to providing breeding and hibernating habitat for amphibians.

12. Avoid fragmentation of wildlife habitat especially in wildlife migration and movement corridors.

13. Where water is taken directly from areas containing special status fish a meshed screen will be placed on the intake hose of an appropriate size to minimize potential intake of specials status fishes.

14. Identify in-channel features (e.g., culverts, water diversion structures) that block aquatic organism movement and/or impair stream connectivity and replace, modify, or remove these impediments as they are identified and as opportunities allow. Consider and address aquatic organism passage and appropriate life-stage requirements when designing new or modifying existing stream crossings.

15. Where construction of in-channel barriers will benefit aquatic species by limiting access from competitive species and/or disease vectors, consider barriers as a management tool on a site-specific basis.

Note

- Occupied habitat includes areas historically or currently supporting plants and/or soils containing a viable seed bank. Suitable habitat is defined as an area that contains or exhibits the specific components or constituents necessary for plant persistence, as determined by existing maps plus field inspection and/or surveys. It may or may not be occupied by plants or a seed bank. Potential habitat is defined as an area that satisfies the broad criteria of the species' habitat description. It is usually determined by preliminary in-house assessment.
- An avoidance buffer helps to minimize dust transport, weed invasion, unauthorized vehicular activities, chemical and produced-water spills; and helps to protect pollinator habitat.

References

See Chapter 6 of this document for a comprehensive list of references.

APLIC. 2006. *Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006.* Washington, DC and Sacramento, CA: Edison Electric Institute, APLIC, and the California Energy Commission.

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USFWS and BLM. 2008. *Recommendations for Avoiding Adverse Effects on Threatened, Endangered, Proposed, Candidate and BLM Sensitive plants on BLM Lease Lands in Colorado*. Draft. July 25, 2008.

J.9. Wildlife Damage Management

Standard Operating Procedures

1. Control activities conducted by the U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services, will be coordinated with the BLM on an annual

basis, including review of authorized control areas and annual submittal of control activities on D-E NCA lands.

2. U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services, will notify the D-E NCA before any damage control activity is implemented within the restricted area(s), and exceptions will be approved on a case-by-case basis.

3. All U.S. Environmental Protection Agency use restrictions and requirements for toxicants are to be followed where control devices are used on public lands. The D-E NCA must be notified before any toxicants are deployed and a map of the treatment area must be provided. Adequate signage must be provided and maintained.

4. The GJFO will identify through the U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services, annual work plan process areas of public lands considered special resource use areas on which control activities be avoided except as requested by CPW, or other protective restrictions may apply. Examples may include special status species habitats (e.g., sage-grouse leks and nesting areas, and bald eagle nests).

J.10. Cultural Resources

Standard Operating Procedures

1. If newly discovered historic or archaeological materials or other cultural resources are uncovered during operations, all work in the vicinity of the discovery will stop, and the BLM Authorized Officer (AO) must be notified immediately. The operator shall take any additional measures requested by the BLM to protect discoveries until they can be adequately evaluated by a permitted archaeologist.

   Unless previously determined in treatment plans or agreements, BLM will evaluate the cultural resources, and in consultation with the State Historic Preservation Office and consulting parties, select the appropriate mitigation option within 48 hours of the discovery. The operator/holder/applicant, under guidance of the BLM, will implement the mitigation in a timely manner. The BLM, in cooperation with the operator, will ensure that the discovery is protected from further disturbance until mitigation is completed. The process will be fully documented in reports, site forms, maps, drawings, and photographs. The BLM will forward documentation to the SHPO for review and concurrence. Operations may resume at the discovery site when notification to proceed is issued by the AO.

2. A standard Education/Discovery stipulation for cultural resource protection shall be attached to the land use authorization. The operator or its contractor is responsible for informing all persons who are associated with the project operations that Federal laws protect cultural resources and they will be subject to prosecution for disturbing or destroying any historic or archaeological sites, or collecting any cultural objects, prehistoric or historic from Federal lands.

3. Strict adherence to the confidentiality of information concerning the nature and location of archeological resources will be required of any company issued a land use authorization and all of their subcontractors (Archaeological Resource Protection Act, 16 U.S. Code 470hh).

Best Management Practices

1. BLM specialists shall complete a File Search Request form and submit to the D-E NCA Archaeologist as soon as there is proposed BLM activity or BLM authorized activity that will require preparation of a NEPA document. This will provide the specialist with immediate information as to the need for Class III inventory, whether that will be contracted or in-house, or the presence of Cultural Resources that may preclude or impede their project.

2. Once it has been determined that a project will require contracted cultural inventory the BLM specialists shall complete a *Request for CR Compliance* form and submit to the D-E NCA Archaeologist as soon as they have a final design for a BLM proposed project or activity.

3. Evaluation of all BLM activities and BLM authorized activities shall be made in compliance with BLM Manual 8100, The Foundations for Managing Cultural Resources (BLM 2004a), and subsequent 8100 series (BLM 2004b, 2004c, 2004d, 2004e, 2004f, 2004g, and 2004h); Handbook of Guidelines and Procedures for Inventory, Evaluation, and Mitigation of Cultural Resources (BLM 1998b); and the current State Protocol Agreement between the Colorado BLM and the Colorado State Historic Preservation Office.

4. When possible, locate projects in areas that are previously disturbed. To comply with the NHPA, the BLM must identify significant cultural resources. Under the current regulations and guidelines the BLM may decide that no inventory needs to be conducted, because the proposed action is located in an environment where ground disturbance has modified the surface so extensively that the likelihood of finding intact cultural resources is negligible.

5. When a NEPA document specifically stipulates the need for an archaeological monitor during construction or a project is located in areas that require an archaeological monitor to be present it is the applicant's responsibility to contract an archaeological consultant holding a current Colorado BLM permit and authorized to work in the D-E NCA. Fieldwork authorizations are required prior to any construction monitoring.

6. Where proposed projects or development will adversely affect a cultural resource, testing, data recovery or full excavation to recover scientific information may be required as mitigation. The applicant or operator bears the full cost of mitigation and is encouraged to consider avoiding adverse effects through project relocation or redesign rather than mitigating adverse effects.

7. A cultural resource must be allocated to public use prior to a) authorizing or implementing any heritage tourism project; b) when special recreation permits are issued that will use a cultural resource; or c) a BLM recreation project is proposed that involves the use or interpretation of a cultural resource.

A *File Search Request* form must be submitted to the Field Office Archaeologist identifying the site and the proposed use, so the allocation to public use can be confirmed.

References

See Chapter 6 of this document for a comprehensive list of references.

BLM. 1998b. *Handbook of Guidelines and Procedures for Inventory, Evaluation, and Mitigation of Cultural Resources*. Revised 2007. Lakewood, CO: U.S. Department of the Interior, Bureau of Land Management.

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_____. 2004e. *8130 – Planning for Uses of Cultural Resources.* Release 8-76. BLM, Washington, DC. December 3, 2004. Washington, DC: U.S. Department of the Interior, Bureau of Land Management.

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_____. 2004g. *8150 – Permitting Uses of Cultural Resources*. Release 8-78. BLM, Washington, DC. December 3, 2004. Washington, DC: U.S. Department of the Interior, Bureau of Land Management.

_____. 2004h. *8170 – Interpreting Cultural Resources for the Public.* Release 8-79. BLM, Washington, DC. December 3, 2004. Washington, DC: U.S. Department of the Interior, Bureau of Land Management.

J.11. Tribal Consultation

Standard Operating Procedures

1. The BLM has a responsibility to develop a government-to-government relationship with the tribes: the formal relationship that exists between the Federal Government and tribal governments under the laws of the United States. Tribal governments are considered dependent domestic sovereignties with primary and independent jurisdiction (in most cases) over tribal lands. Concerning proposed BLM plans and actions, at least the level of

consideration and consistency review provided to State governments must be afforded to tribal governments.

2. The BLM is responsible for consultation under General Authorities defined as "laws, executive orders, and regulations that are not considered 'cultural resource authorities'." The regulations implementing both Federal Land Policy and Management Act and NEPA require Native American consultation. The American Indian Religious Freedom Act and the Indian sacred sites order (Executive Order 13007) pertain to the free exercise clause of the First Amendment—see BLM H-8120-1,*General Procedural Guidance for Native American Consultation* (BLM 2004d);, FLPMA Title II, NEPA Section 102; and 40 CFR 1501.2 and 1501.7.

3. Tribes must be consulted whenever other governmental entities or the public are formally involved in the BLM's environmental review process in any NEPA documentation that entails public involvement or initial discussions with local or State governments—see BLM Handbook H-1790-1, National Environmental Policy Act (BLM 2008a).

4. NHPA Section 106 consultations for cultural resources that are significant to Indian tribes. Consultation with an Indian tribe must recognize the government-to-government relationship between the Federal Government and Indian tribes. The agency official shall consult with representatives designated or identified by the tribal government. Consultation shall be conducted in a manner sensitive to the concerns and needs of the Indian tribe. (36 CFR 800.2(c)(2)(ii)(C).

Best Management Practices

1. Notification is conducted by simple one-way written means. Consultation is generally construed to mean direct, two-way communication.

2. When publishing notices or open letters to the public indicating that the BLM is contemplating an action and that comments are welcome, managers shall send individual letters, certified mail or delivery confirmed to tribes requesting their input on actions being considered. If this is an opening dialogue, prior to having developed a strong working relationship with the tribe, if a timely response is not received the manager shall follow up with personal telephone calls.

3. For the benefit of both parties, managers are encouraged to strive for the most efficient and effective method of consultation. Whatever method is chosen, all consultation activities shall be carefully documented in the official record.

4. Consultation roles can be facilitated but may not be transferred to others. Cultural resource consulting firms working for land use applicants cannot negotiate, make commitments, or otherwise give the appearance of exercising the BLM's authority in consultations.

5. Owing to their status as self-governing entities, tribes shall be notified and invited to participate at least as soon as (if not earlier than) the Governor, State agencies, local governments, and other Federal agencies.

6. Tribal consultation means dialogue between a BLM manager and an American Indian Tribe. The BLM managers are encouraged to visit tribal councils and appropriate tribal leaders on a recurring basis. This face-to-face meeting helps to develop relationships

that can reduce the time and effort spent in later consultation or individual projects. This government-to-government consultation shall be treated with appropriate respect and dignity of position.

References

See Chapter 6 of this document for a comprehensive list of references.

BLM. 2004c. *8120 – Tribal Consultation Under Cultural Resources.* Release 8-74. December 3, 2004. Washington, DC: U.S. Department of the Interior, Bureau of Land Management.

_____. 2004d. *8120-1 – General Procedural Guidance for Native American Consultation*. Release 8-75. December 3, 2004. Washington, DC: U.S. Department of the Interior, Bureau of Land Management.

_____. 2008a. *BLM National Environmental Policy Act Handbook H-1790–1*. Washington, DC: U.S. Department of the Interior, Bureau of Land Management.

J.12. Geological and Paleontological Resources

Standard Operating Procedures

1. Attach lease notices, stipulations, and other requirements to permitted activities to prevent damage to paleontological resources.

2. Require a geologic hazard survey prior to construction projects (e.g., camping areas, trailheads, communication structures, and BLM roads) in order to protect public health and safety.

3. Require pre-construction paleontological surveys for PFYC 4-5 geologic formations.

4. If paleontological materials (fossils) are uncovered during project activities, the operator is to immediately cease activities that might further disturb such materials and to contact the authorized officer (AO). The operator will consult with the authorized officer to determine the best option for avoiding or mitigating paleontological site damage.

J.13. Visual Resources

Best Management Practices

1. Impacts to dark night skies will be prevented or reduced through the application of specific mitigation measures identified in activity level planning and NEPA level review. These measures may include directing all light downward, using shielded lights, using only the minimum illumination necessary, using lamp types such as sodium lamps (less prone to atmospheric scattering), using circuit timers, and using motion sensors.

2. Any facilities authorized will use the best technology available to minimize light emissions

3. Any new permits/authorizations, including renewals, will be stipulated to use the best technology available to minimize light emissions as compatible with public health and safety.

4. All new surface-disturbing projects or activities, regardless of size or potential impact, will incorporate visual design considerations during project design as a reasonable attempt to meet the visual resource management (VRM) class objectives for the area and minimize the visual impacts of the proposal. Visual design considerations will be incorporated by:

    a. Using the VRM contrast rating process (required for proposed projects in highly sensitive areas, high impact projects, or for other projects where it appears to be the most effective design or assessment tool), or by

    b. Providing a brief narrative visual assessment for all other projects that require an EA or EIS.

    c. Measures to mitigate potential visual impacts could include the use of natural materials, screening, painting, project design, location, or restoration (See Appendix H; BLM Handbook H-8431-1, Visual Resource Contrast Rating for information about the contrast rating process).

5. Restrict visual intrusion in VRM Class I and II areas and within 0.25-mile of historic trails.

6. Screening facilities from view and avoiding placement of production facilities on steep slopes, hilltops, and ridgelines.

7. Paint all facilities a color that best allows the facility to blend with the background (operator-committed BMP).

8. Gravel color of road shall be similar to adjacent dominant soil colors.

9. Bury distribution power lines and flow lines in or adjacent to access roads.

10. Repeat form, line, color, and texture elements to blend facilities with the surrounding landscape

11. All aboveground facilities including power boxes, building doors, roofs, and any visible equipment will be painted a color selected from the latest national color charts that best allows the facility to blend into the background.

12. Conduct final reclamation recontouring of all disturbed areas, including access roads, to the original contour or a contour that blends with the surrounding topography.

13. To the extent opportunities are practicable, extreme visual contrast created by past management practices or human activities will be minimized. Examples include right-of-way amendments, mineral material sites, abandoned mines, and areas impacted by unauthorized off-road driving.

14. All new roads will be designed and constructed to a safe and appropriate standard, “no higher than necessary” to accommodate intended vehicular use. Roads will follow the contour of the land where practical.

J.14. Wildland Fire Ecology and Management

Standard Operating Procedures/Best Management Practices: Fuel Management

1. Construct fuel breaks or green strips to protect wildland-urban interface communities and important wildlife habitat and provide for firefighter safety by using mechanical, chemical, biological, and prescribed fire treatment methods.

2. Construct fuel breaks and green strips in areas containing a good understory of native vegetation in order to successfully compete with and deter the establishment and spread of invasive species.

3. Seed green strips in areas that do not have a good understory of desirable native perennials that can successfully compete with annual species.

4. Where practicable, use large-scale landscape planning to connect fuel breaks and avoid small piecemeal projects.

5. Maintain fuel breaks and green strips to ensure effectiveness.

6. Prevent seeded species from being grazed during the first two growing seasons (>18 months) following seeding, or until site-specific analysis and/or monitoring data indicate that vegetation cover, species composition and litter accumulation are adequate to support and protect watershed values, meet vegetation objectives and sustain grazing use.

7. Provide fire prevention and mitigation outreach information and education to communities surrounding the D-E NCA.

Standard Operating Procedures

Fire Suppression

1. Resource Advisors and other applicable specialists shall be utilized to advise the Incident Commander and suppression resources on the natural resource values during the suppression effort.

2. Avoid applying fire retardant in or near drinking water sources.

3. Avoid the application of retardant or foam within 300 feet of a waterway or stream channel. Deviations from this procedure are acceptable if life or property is threatened.

4. Fire lines will not be constructed by heavy equipment within riparian stream zones. If construction is necessary due to threats to life or property, control lines shall terminate at the edge of the riparian zone at a location determined appropriate to meet fire suppression objectives on the basis of fire behavior, vegetation/fuel types, and fire fighter safety.

5. For streams currently occupied by green lineage cutthroat trout, Colorado River cutthroat trout or other aquatic special status species, extractions of water from ponds or pools shall

not be allowed if stream inflow is minimal and extraction of water will lower the existing pond or pool level.

6. Lands will be temporarily closed to other uses in areas where fire suppression is being implemented.

7. Stream flow shall not be impounded or diverted by mechanical means in order to facilitate extraction of water from the stream for fire suppression efforts.

8. If it is determined that use of retardant or surfactant foam within 300 feet of a waterway or stream channel is appropriate due to threats to life or property; alternative line construction tactics are not feasible because of terrain constraints, congested areas, or lack of ground personnel; or potential damage to natural resources outweighs possible loss of aquatic life, the unit administrator shall determine whether there have been any adverse effects to federally listed species. If the action agency determines that adverse effects were incurred by federally listed species or their habitats, then the action agency must consult with the Service, as required by 50 CFR 402.05, as soon as practicable.

9. Avoid whenever possible burning out unburned islands of native vegetation, specifically sagebrush communities.

10. Minimize/mitigate impacts to cultural resources and pristine vegetative communities.

11. Before using it on lands administered by the D-E NCA, thoroughly rinse to remove mud and debris from all fire suppression equipment from off-district or out of State and used to extract water from lakes, ponds, streams, or spring sources. Examples of this equipment are helicopter buckets, draft hoses, and screens. After cleaning the equipment, disinfect it to prevent the spread of invasive aquatic species. Do not rinse equipment with disinfectant solutions within 100 feet of natural water sources. Suppression equipment used to extract water from sources known to be contaminated with invasive aquatic species, as identified by the U.S. Fish and Wildlife Service and CPW, also shall be disinfected beforehand on lands administered by the D-E NCA.

12. Vehicle and equipment shall be washed before being assigned to fires to minimize the spread of noxious and invasive weeds. Especially out of area equipment. Larger fires with incident management teams assigned may need to have a weed wash station.

Emergency Stabilization and Rehabilitation

Stabilize areas that have low potential to naturally re-vegetate and that have high wind and soil erosion potential. Treatments include the following:

1. Installing water bars and other drainage diversions, culverts along fire roads, dozer lines, and other cleared areas

2. Seeding and planting to provide vegetative cover

3. Spreading mulch to protect bare soil and discourage runoff

4. Repairing damaged roads and drainage facilities

5. Clearing stream channels of structures or debris that is deposited by suppression activities

6. Installation of erosion control structures
7. Installation of channel stabilization structures
8. Fence or restrict areas to livestock and wild horse and burro grazing to promote success of natural revegetation or establishment of seeded species
9. Lands may be temporarily closed to other uses during emergency stabilization and rehabilitation practices if activities inhibit treatment
10. Repair or replace range improvements and facilities
11. Monitor emergency stabilization and rehabilitation treatments

J.15. Wilderness and Wilderness Study Areas

Standard Operating Procedure

All wilderness study areas will be managed in accordance with BLM Manual 6330, *Management of BLM Wilderness Study Areas* (BLM 2012e) and BLM Manual 6340, *Management of Designated Wilderness Areas* (BLM 2012d).

References

See Chapter 6 of this document for a comprehensive list of references.

BLM. 2012d. *6340 – Management of Designated Wilderness Areas*. Release 6-135. July 13, 2012. Washington, DC: U.S. Department of the Interior, Bureau of Land Management.

_____. 2012e. *6330 – Management of Wilderness Study Areas.* Release 6-134. July 13, 2012. Washington, DC: U.S. Department of the Interior, Bureau of Land Management.

J.16. Forestry

Standard Operating Procedures

No fuel wood cutting of live trees will be allowed for cottonwood, willow, alder; unless resource objectives allow otherwise.

Standard Design Practices for Forestry Projects

1. The closure of new roads will be considered and planned for during sale preparation in accordance with existing policy.
2. Clear cuts will be considered for use in the pinyon-juniper and aspen types in critical big game winter ranges and other areas where economically feasible.
3. Cuts will maximize the length of edge per amount of area considering natural and man-made boundaries.

4. No point within an opened stand will be more than 200 yards from cover.

5. The removal of cover along edges of existing openings (foraging areas) in the pinyon-juniper type will be discouraged.

6. Cuts that thin the pinyon-juniper canopy cover to 20 percent or less will be favored for use in bighorn sheep ranges. These cuts will focus on the smaller trees in the stand,

7. Large conifer seed trees (three to seven trees per acre) will be left where practical as wildlife shelter on south facing slopes of big game winter ranges to ensure the succession of quality snags.

8. An average of three to seven trees per acre of the largest nonhazardous snags, particularly those adjacent to openings and open water will be left on commercial sale areas.

9. Sale areas with less than 15 percent ground cover in the understory on critical deer and elk winter ranges will be seeded using a mixture of grasses, forbs, and shrubs and will be paid for with wildlife funds.

10. Minimum of 180 year rotation will be allowed for pinyon-juniper stands. Other species will be managed on a rotation of sufficient length to produce cavity trees for flickers and small owls.

11. Harvest plans will be completed on all commercial sales within woodlands and forests, showing access roads, decks and skid trail locations. Approval of these plans by the BLM Authorized Officer is required before harvest can start.

12. A minimum 50 foot buffer will be maintained along all riparian areas.

13. Snags with existing cavities or nests will be priority for retention.

14. Snag diameter for retention will be the largest class on site and will be retained in clusters if possible.

15. If site potential allows, will retain 5-7 snags per acre, preferably in a clumped configuration.

16. If possible, will retain at least 15 live trees per acre for future snag recruitment. Recruitment snags will not have to be structurally superior; live tree with forked and broken tops may be preferred.

17. Do not disturb or destroy active or inactive nests of raptors that are reused.

Best Management Practices

1. Avoid heavy equipment use in stands of cottonwood, willow, alder. If heavy equipment use is necessary, allow on a case by case basis and mitigate for adverse impacts.

2. Allow dead and down collection of cottonwood for personal use.

3. Protect seed and important wildlife habitat trees in pinyon-juniper stands.

4. Allow removal of pinyon-juniper encroachment utilizing mechanical, biological, and chemical treatments. Allow tree harvesting for Christmas trees and transplants other woodland products and biomass reduction.

5. Minimize disturbance to the soil such that surface runoff does not result in sediment transport into water bodies. Concentrate skidding on as few skid trails as needed.

6. Limit primary skid trails to 10 percent of the total working area.

7. Avoid widespread or random skidding patterns with repeated passes.

8. Minimize placement and use of skid trails in ephemeral drainages. If skid trails must be within or cross an ephemeral drainage, additional BMPs are needed to protect water quality.

9. Create skid trails only as wide as necessary to safely operate your equipment and conduct the forestry operation. Avoid creating two-lane skid trails, which disturb more soil area.

10. Minimize the extent of gouges or trenches upon the ground surface that are created by the skidding of trees or logs.

11. On sloping terrain, skid trails shall follow along the land contours and shall be kept to 25 percent grade or less when practical.

12. If trails must be located on steeper slopes, more BMPs than usual are needed to control and capture runoff to protect water quality.

13. Establish decks at locations where soil disturbance is minimized.

14. Maintain as close to normal (pre-construction) stream flow by maintaining depth, width, gradient and capacity of the stream channel at the crossing.

15. Conduct construction, installation, and removal work during low-water flow if circumstances allow.

16. Stabilize the approach ways and/or stream crossing locations so sediment is not transported into the stream.

17. Approaches to the stream are relatively flat to better control runoff.

18. The crossing can be installed at a right-angle (90 degrees) to the stream channel so crossing distance is minimized.

19. Any trees removed during these processes will be purchased by the applicant prior to construction. The applicant is responsible for a per-cord fee unless removed from the project by the applicant.

Guidelines for Christmas Tree and Firewood Harvesting

1. Vehicle use is restricted to existing roads and trails.

2. Do not damage adjacent trees.

3. When cutting down standing trees, cut the stump 12 inches or less, or as close to the ground as possible.

4. Scatter lopped branches at least 50 feet from the stump.

5. Do not top a larger tree to obtain a Christmas tree. The tree may be cut at the base and then topped.

6. Do not cut trees that have been posted as "Seed Tree Do Not Fall" or "Wildlife Tree Do Not Disturb."

7. Do not harvest any trees within 100 feet of a spring or creek unless trees are identified for selective removal to meet resource objectives.

8. Please pack out your trash as well as trash left by others.

9. No harvesting when soils are saturated to a depth of 6 inches to prevent damage to roads.

J.17. Livestock Grazing

Standard Operating Procedures

1. Exclude livestock grazing on newly seeded areas with fencing to ensure that desired vegetation is well established, until objectives for seeding have been met.

2. Development of springs and seeps or other projects affecting water and associated resources shall be designed to maintain the associate riparian area and assure attainment of standards.

3. Disturbance to established rangeland study sites shall be avoided to provide for the continuation of monitoring efforts, which involves comparisons of data to previous records of that site.

4. Facilities shall be constructed a minimum of 0.125-mile from livestock gathering spots such as water sources and gathering facilities to prevent disruption of the use of these facilities and potential damage to the facility by livestock.

5. Exclosures shall be established in areas where the vegetative potential of the area is questionable or to compare the effectiveness of grazing management.

6. New fences shall be constructed to BLM standards allowing for the appropriate wildlife passage.

7. Bird ramps shall be installed in all troughs.

8. Access routes to functioning range improvements shall be retained to allow for periodic maintenance and prevent cross country travel.

9. Maintain range developments to maintain or improve distribution.

10. Rangeland and vegetation monitoring will be conducted to detect changes in grazing use, trend, and range conditions. These data will be used to support and direct grazing management decisions consistent with national policy. These efforts will help ensure that

livestock grazing meets objectives for rangeland health and resolves conflicts with wildlife habitats or may provide a benefit to wildlife habitats.

11. Grazing management decisions will be based on monitoring data, both short-term and long-term, which will be jointly developed by grazing permittees and the appropriate Federal land management agency. Protocols for monitoring will be consistent with the memorandum of understanding in place between the National Public Lands Council and the BLM

12. All water development activities for livestock grazing use that exceed the minimum depletion level established by U.S. Fish and Wildlife Service must comply with all U.S. Fish and Wildlife Service fees and prescribed mitigations to offset water depletion in the Colorado River.

13. Surface-disturbing activities will be coordinated with livestock grazing permittees to minimize the effects of the surface disturbance on other approved operations. To the maximum extent practicable, this effort will include consulting on scheduling of operations to mutually minimize effects.

14. Any damage to the function of range improvements (e.g., fence damage, cattle guard cleaning, livestock loss) from other approved operations will be repaired immediately or remedied by the operator causing the damage.

Best Management Practices

1. Follow the Grazing Guidelines established along with the Colorado Standards for Rangeland Health.

2. Livestock grazing could be used as an intensively managed prescriptive grazing practice to control cheatgrass and noxious or invasive weeds.

3. Use grazing systems that contain rotation, deferment, and rest to produce a mosaic of habitat patches and increases the density, height and distribution of native plants.

4. Rotate livestock use areas year to year - not in the same place at the same time each year.

5. Avoid re-grazing the same plants in one growing season.

6. Adjust grazing seasons to benefit both warm and cool season grass species by providing periodic rest from grazing for each type.

7. Avoid grazing an area during the spring and fall period in one year's time.

8. Allow for adequate litter cover following grazing use to protect soil surface and enhance soil moisture retention.

9. In spring, graze for a short duration earlier in the season so that sufficient soil moisture remains for plant recovery.

10. Allow for rest/recovery periods before or after grazing during critical growth periods. Recovery shall include the production of seed to allow for the regeneration of desirable plant species.

11. Occasional grazing use during the dormant season will provide rest during the growing season and will allow plants to recover.

12. Adjust intensity, timing and/or duration of grazing during periods of forage drought

13. Manage livestock grazing, including dormant season use, to insure adequate residual grass when soil moisture and wildlife habitat are concerns.

14. In stands where cheatgrass and native perennial grasses are mixed, grazing during early spring when cheatgrass is sprouting but perennials are still dormant may allow the perennials to better compete with cheatgrass.

15. Avoid use most years in areas of valuable woody plants during times when they are selected.

16. Avoid the following grazing management practices:

    a. Long seasonal use with no recovery time

    b. Heavy use - stresses plants,

    c. Little or no regrowth before winter - little stubble for root crown protection

    d. Use at the same time every year - repeating the stress

    e. No rest or growing season recovery - little recovery with long seasons of use

    f. Little or ineffective herding

    g. Salt placed in the same locations year after year

    h. Livestock left behind after pasture moves

    i. Grazing during the critical growth period year after year

17. When using livestock to control cheatgrass or noxious or invasive weeds, match animal dietary preference or tolerance to the target species.

18. Use the target weed's biology when developing a grazing strategy.

19. Manage heavy grazing on target weed species to account for any intermixed desirable species.

20. If practical, storage pits of water catchments should be covered to prevent evaporation loss during warm to hot months.

Best Management Practices (Vegetation/Riparian Zone Management Guidelines)

1. To reduce negative impacts to grazing, determine the critical period(s) of a riparian site, and then limit grazing during the critical period(s) to no more often than once every three or four years. Critical periods and impacts are likely to be either in late spring-early summer, when stream banks are more easily broken down by trampling; or late summer-early fall, when excessive browsing may damage vegetation. Each site has its own critical period that shall be individually determined. Important critical period variables are soil moisture, plant

species composition, animal behavior patterns. Site may be grazed every year if use does not occur during the critical period(s). Extended periods of rest or deferment from grazing may be needed to enable recovery of badly degraded sites. Graze earlier in the season when cattle use uplands. (Mosley, Cook, Griffis, and O'Laughlin 1997)

2. To maintain stream bank stability, limit cattle access to surface water when adjacent stream banks and shorelines are overly wet and susceptible to trampling and sloughing. Stream bank trampling can often be reduced by capitalizing on the natural foraging behavior of cattle. Cattle generally avoid grazing excessively wet sites or in cold-air pockets. Cattle seek out wind-swept ridges, and they graze on upland forage when it is more palatable than forage in riparian areas. Avoid hot season grazing of riparian areas. (Mosley, Cook, Griffis, and O'Laughlin 1997)

3. To graze a site more than once per growing season, moisture and temperature conditions shall be conducive to plant growth. For such sites, allow a recovery period of at least 30 to 60 days, depending on vegetation type, before re-grazing within the same growing season. Grazing more often and for shorter periods-that is, 3 weeks or less at a time-is preferable to fewer and longer grazing periods. (Mosley, Cook, Griffis, and O'Laughlin 1997)

4. To control the timing, frequency, and intensity of cattle grazing, managers shall consider creating smaller riparian pastures with similar, or homogenous, features. Adjusting timing, frequency, and intensity of grazing in individual pasture units is more important than adopting a formalized grazing season. (Mosley, Cook, Griffis, and O'Laughlin 1997)

5. To protect stream banks, prevent cattle from congregation near surface waters. Fencing, supplemental feeding, and herding work best. Provide remote watering systems for cattle. Manage the riparian area as a separate and unique pasture. Inappropriate cattle grazing will usually first be evidenced by excessive physical disturbance to stream banks and shorelines. (Mosley, Cook, Griffis, and O'Laughlin 1997)

6. On riparian areas that are determined to be non-functioning or functioning at risk as a result of livestock grazing impacts, limits of bank disturbance will be determined and included within the *Terms and Conditions* of the Grazing Permit. Monitoring of bank disturbance will use the Multiple Indicator Method.

7. Winter grazing minimizes soil compaction and potential stream bank deterioration and allows maximum growth of vegetation and plant vigor. Livestock use shall not exceed 70 percent and stubble height shall be at least four to six inches after the grazing period.

8. Spring grazing can increase herbaceous plant species, but it must be completed in time to allow plant regrowth. At least 60 to 75 percent of the current growth and six inches of stubble height shall remain at the end of the grazing period.

9. Hot season grazing (mid to late summer) shall be avoided. During this period livestock tend to concentrate heavily in riparian areas, damaging the vegetation and stream channel.

10. To protect stream banks, discourage trailing up and down the channel by placing logs across trails, perpendicular to the stream channel.

11. Adjust intensity, timing and/or duration of grazing during periods of forage drought.

References

See Chapter 6 of this document for a comprehensive list of references.

Mosley, J.C., Cook, P.C., Griffis, A.J., & O'Laughlin, J. 1997. *Guidelines for Managing Cattle Grazing in Riparian Areas to Protect Water Quality: Review of Research and Best Management Practices Policy*. Report No. 15. December 1997. Moscow, ID: University of Idaho—Idaho Forest, Wildlife and Range Policy Analysis Group.

J.18. Recreation

1. Special recreation permits will contain noxious and invasive weed management stipulations (e.g., pre-event inventories to avoid infested areas, event management to avoid or isolate activities that could cause weed introduction or spread, monitoring and treatment of infestations exacerbated by the activity, and other appropriate noxious and invasive weed management stipulations).

2. Lands may be temporarily closed to other uses during recreation events that are conducted under special recreation permits (e.g., equestrian endurance rides or motorcycle events).

3. Roads and trails (off-highway vehicle, horse, bicycle, and hiking) will avoid wetlands and if avoidance is not possible will be designed and constructed in accordance with Technical Reference 2E22A68 (USFS 2002).

4. Use the following strategies to reduce conflicting user interactions: clearly communicate recreation management goals and objectives for different RMAs; manage recreation areas based on social and environmental carrying capacities; separate uses in time or space; Educate users to ensure they know what to expect in different recreation areas; provide a wide spectrum of different recreational opportunities (Marcouiller, Scott, and Prey 2008).

5. Use guidelines in Trail Design Criteria (Appendix K) for new trail construction or reroutes of existing trails

6. Manage recreation to minimize or prevent adverse effects to biological and cultural impact using *Recreation Guidelines to Meet Public Land Health Standards on Bureau of Land Management Lands in Colorado* (BLM 2000b)

7. For recreation facility development, utilize the BLM Guidelines for a Quality Built Environment manual (BLM 2010c)

8. Utilize information portals (e.g., information/education kiosks, signs, brochures, maps, websites) and management strategies (i.e., on-site staff and/or volunteer information, education, and enforcement patrols) to inform recreation participants about targeted recreation opportunities in the NCA.

9. Promote the seven standard principles of Leave No Trace (www.lnt.org) outdoor ethics through print and electronic media, and through personal communications with recreation participants.

10. .Promote the principles of Tread Lightly (www.treadlightly.org) and Colorado Stay The Trail (www.staythetrail.org) outdoor ethics through print and electronic media, and through personal communications with recreation participants.

11. In SRMAs, monitor outcome attainment and preferences through customer assessments (e.g., focus group interviews or visitor studies) on five year intervals or as funding allows. Monitor activity participation and recreation settings annually during the primary use season.

12. In ERMAs, monitor activity participation and recreation settings annually during the primary use season.

13. Actively pursue partnerships to support all facets of the recreation program; management, monitoring, and information and education. Potential partners include but are not limited to local governments, businesses, user organizations, educational institutions, other Federal agencies, State government, volunteers, non-profit organizations,.

References

See Chapter 6 of this document for a comprehensive list of references.

Marcouiller, D.W., Scott, I., & Prey, J. 2008. Outdoor recreation planning: a comprehensive approach to understanding use interaction. *CAB Reviews: Perspectives in Agriculture, Veterinary Science, Nutrition and Natural Resources* 3(090):1–12.

USFS. 2002. *Managing Degraded Off-Highway Vehicle Trails in Wet, Unstable, and Sensitive Environments*. Technical Reference 2E22A68—NPS OHV Management. October 2002. Missoula, MT: U.S. Department of Agriculture, Forest Service, Technology and Development Program.

BLM. 2000b. *Recreation Guidelines to Meet Public Land Health Standards on Bureau of Land Management Lands in Colorado*. December 11, 2000. Attachment to I CO-2001-001: Final Recreation Guidelines. December 20, 2000. Lakewood, CO: U.S. Department of the Interior, Bureau of Land Management.

BLM. 2010c. *Guidelines for A Quality Built Environment*. First Edition. Prepared for Bureau of Land Management by Belt Collins (Belt Collins West, Boulder, CO). December 2010. U.S. Department of the Interior, Bureau of Land Management.

J.19. Lands and Realty

Standard Operating Procedures

Power lines shall be constructed in accordance to standards outlined in *Suggested Practices for Raptor Protection on Power Lines: The State of the Art in 2006* (APLIC 2006). Right-of-way applicants shall assume the burden and expense of proving that proposed pole designs not shown in the above publication are “raptor safe.” Such proof shall be provided by a raptor expert approved by the BLM Authorized Officer.

rights-of-way and other lands and realty authorizations, including power lines, pipelines and transmission corridors will contain noxious and invasive plant management terms or stipulations

for all ground-disturbing actions. These will include conducting a pre-disturbance noxious and invasive weed inventory, designing to avoid or minimize vegetation removal and weed introduction or spread, managing weeds during the life of the right-of-way or authorization to prevent or minimize weed introduction or spread, abandoning the right-of-way or authorization to establish competitive vegetation on bare ground areas, and monitoring revegetation success and weed prevention and control for a reasonable number of years.

rights-of-way will be constructed to avoid physical damage to range improvements and rangeland study areas.

Standard Design Practices

1. All construction activities shall be confined to the minimum area necessary. The exterior boundaries of the construction area shall be clearly flagged prior to any surface-disturbing activities.

2. Existing roads will be used wherever possible. Additional roads shall be kept to the minimum. Route locations must be approved by the BLM prior to construction.

3. When blasting is necessary, the following precautions will be used:

    a. In areas of human use, blasting blankets will be used.

    b. Landowners or tenants in close proximity to the blasting will be notified in advance of the blasting so that livestock and other property can be adequately protected.

    c. Access to the blasting area will be restricted by construction personnel stationed at each end of the area to be blasted.

    d. Blasting within 0.125 mile of federally owned or controlled springs and flowing water wells must be approved in writing by the area manager.

    e. No blasting will be permitted within 0.25 mile of historic trails, natural areas, identified archaeological sites, and recreation areas.

    f. Powder magazines will be located out of sight or at least 0.5 mile from roads. Loaded shot holes will not be left unattended. Approval from the area manager will be obtained for the magazine locations.

4. Roads will be constructed and maintained to BLM road standards (see BLM 1985b). All vehicle travel will be within the approved driving surface.

Stipulations

1. The Holder shall notify the BLM Authorized Officer at least 48 hours prior to the commencement construction, reclamation, maintenance, or any surface-disturbing activities under this grant.

2. Copies of the right-of-way grant with the stipulations shall be kept on site during construction and maintenance activities. All construction personnel shall review the grant and stipulations before working on the right-of-way or permitted area.

3. All facilities shall be labeled with the authorization number, operator, and contact information.

4. No signs or advertising devices shall be placed on the premises or on adjacent public lands, except those posted by or at the direction of the BLM Authorized Officer.

5. The Holder shall promptly remove and dispose of all waste caused by its activities. The term "waste" as used herein means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, petroleum products, ashes, and equipment. No burning of trash, trees, brush, or any other material shall be allowed.

6. The Holder shall notify all existing right-of-way holders in the project area prior to beginning any surface-disturbance or construction activities. The Holder shall obtain an agreement with any existing right-of-way holders or other parties with authorized facilities that cross or are adjacent to those of the holder to assure that no damage to an existing right-of-way or authorized facility will occur. The agreement(s) shall be obtained prior to any use of the right-of-way or existing facility.

7. The Holder shall participate in the formation of a Road User's Association for the road if new rights-of-way are granted for use of the existing road. All new users will be required to join the association.

8. The Holder will provide a performance bond for the authorized facility, acceptable to the BLM Authorized Officer, in the amount of $(_) that must be maintained in effect until restoration of the right-of-way has been accepted by the BLM Authorized Officer. The bond shall be furnished by the holder within 30 days of signing the grant (_) and shall be applied to all additional authorizations associated with the project as necessary.

References

See Chapter 6 of this document for a comprehensive list of references.

_____. 1985b.*9113 – Roads*. Release 9-247. June 7, 1985. Washington, DC: U.S. Department of the Interior, Bureau of Land Management.

J.20. Transportation and Access

Standard Operating Procedures

1. Continue coordination with counties and other agency road entities to promote utilization of BMPs for road maintenance they conduct within D-E NCA boundaries.

2. Maintain an inventory of existing road and trail systems.

3. BLM Manual 9113, Roads (BLM 1985b) and BLM Handbook 9113-2, *Roads: Inventory and Maintenance* (BLM 1985c) will be used to guide all maintenance and road construction designs and requirements. Include definitions for functional road classification and maintenance levels for BLM roads.

4. All highway rights-of-way and other road authorizations will contain noxious and invasive weed stipulations that include prevention, inventory, treatment, and revegetation or rehabilitation. Road abandonment will include at least three years of post-abandonment monitoring and treatment.

5. Use the Colorado uniform sign standards for trails and roads.

Best Management Practices

1. In order to ensure public access and safety, the D-E NCA shall continue an active road maintenance program employing the use of redesign, blading, brush removal for sight distance as appropriate, scarification, graveling, water barring, low water crossings, spur ditching, seeding and installation/cleaning of culverts.

2. NEPA Requirements – No new NEPA analysis will be required for road maintenance activities within the defined maintenance disturbance/easement footprint, which is defined as previously disturbed or maintained. Disturbance outside of the defined maintenance disturbance/easement footprint or road realignment will be subject to additional NEPA compliance.

References

See Chapter 6 of this document for a comprehensive list of references.

_____. 1985b.*9113 – Roads*. Release 9-247. June 7, 1985. Washington, DC: U.S. Department of the Interior, Bureau of Land Management.

_____. 1985c. *Roads: Inventory and Maintenance.* BLM Manual Handbook H-9113-2. Release 9–250. December 19, 1985. U.S. Department of the Interior, Bureau of Land Management.

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Appendix K. Trail Design Criteria

The following criteria are used to determine suitable locations for new trails and trail reroutes within the D-E NCA. This document utilizes terminology from the *Recommended Standardized Trail Terminology for Use in Colorado* (COTI 2005).

These criteria are to be followed as guidelines. Not all of the criteria can be met on every segment of every trail. Their purpose is to help create sustainable, low maintenance trails that provide quality recreation experiences based on predetermined trail management objectives (TMOs). Specialty trails requiring higher maintenance may be allowed in appropriate locations.

1. **Know and understand trail management objectives**. TMO's provide the framework for what the trail will look like, who will be using the trail, and how the trail will be managed. Different TMO's may allow different applications of the criteria below.

2. **Create loops and avoid dead-end trails**. All trails should begin and end at a trailhead or another trail. A well-planned stacked loop trail system offers recreationists a variety of trail options. Easier, shorter loops are arranged close to the trailhead, with longer, more challenging loops extending further beyond the trailhead. Occasionally, destination trails to a point of interest will require an out-and-back trail, but only if they cannot be reasonably incorporated into a loop.

3. **Identify control points and use them to guide trail design and layout.** Control points are specific places or features that influence where the trail goes. Basic control points include the beginning and end of the trail, property boundaries, intersections, drainage crossings, locations for turns, and other trails.

   a. Positive control points are places where you want users to visit, including scenic overlooks, historic sites, waterfalls, rock outcroppings, lakes, rivers and other natural features or points of interest. If the trail does not incorporate these features, users will likely create unsustainable social trails to get to them.

   b. Negative control points are places you want users to avoid, such as low-lying wet areas, flat ground, extremely steep cross slopes or cliffs, unstable soils, environmentally sensitive areas, sensitive archaeological sites, safety hazards, and private property.

   c. Knowing these control points provides a design framework. Try to connect the positive control points while avoiding the negative control points.

4. **Use cross slope and avoid flat ground whenever possible.** The trail tread should generally run perpendicular to the cross slope and should utilize frequent grade reversals. This is the best way to keep water off the trail. Use curvilinear design principles to create a trail that follows the natural contours of the topography, sheds water, blends with the surrounding terrain, and provides fun recreation opportunities.

   The following grade guidelines will help determine appropriate tread locations.

   - The Half Rule: "A trail's grade shouldn't exceed half the grade of the hillside or side slope (cross slope) that the trail traverses. If the grade does exceed half the side slope, it's considered a fall-line trail. Water will flow down a fall-line trail rather than run across it. For example, if you're building across a hillside with a (cross slope) of 20 percent, the

trail-tread grade should not exceed 10 percent" (IMBA 2004). Steeper cross slopes allow more flexibility for sustainable tread grades while flat or low angle cross slopes can be problematic. There is an upper limit to this rule. Sustaining a 24 percent tread grade, even on a 50 percent cross slope is unlikely. Additionally, trail segments may break this rule on durable tread surfaces such as solid rock.

- The Ten Percent Average Guideline: The average trail grade over the length of the trail should be 10 percent or less for greatest sustainability. Short sections of the trail may exceed this, but the overall grade should remain at 10 percent or less.

- Maximum Sustainable Grade: This is the upper grade limit for those short trail segments that push the limits of the previous two guidelines. It is determined by a site-specific analysis based on TMO's, environmental conditions, and observations of existing trails – what's working, and what's not?

- Grade Reversals: Frequent changes in the direction of tread grade (gentle up and down undulations) will ensure that water is forced off the trail at frequent intervals.

5. **Locate trails in stable soils.** Avoid clays, deep loam and soils that do not drain rapidly. Consider season of use and type of use. A trail on a south aspect will have greater usability and sustainability for winter use. The capabilities of motorized vehicles to function in wet/muddy conditions make it imperative to avoid unstable or poorly drained soils. Trails that are less likely to be used when wet may be located in less-desirable soils if necessary. In western Colorado's arid environment, the best soil conditions for trails are those with high rock content. Utilize slick rock for trail tread when possible. Sand is acceptable in dry washes, but otherwise avoid sand.

6. **Drainage crossings are key control points and should be selected carefully.** Consider both the trail's impact on the drainage (erosion and sedimentation), and the drainage's impact on the trail (changing tread surface, water channeling onto trail). The trail should descend into and climb out of the drainage to prevent water from flowing down the trail. Avoid long or steep entries into drainages. Design grade reversals into the trail on each side of the approach to minimize water and sediment entering from the trail. Look for drainage crossings on rock.

7. **Dry washes can be excellent travel ways.** They are well defined, contain noise, and are periodically resurfaced by flowing water. As long as the wash does not support riparian vegetation and has no major safety problems, like water falls, they are well suited to be part of a recreational trail system.

8. **Avoid switchbacks.** Switchbacks are difficult, time-consuming, and expensive to construct, and require regular maintenance. Users often cut them, causing avoidable impacts. Utilizing curvilinear design principles eliminates the need for most switchbacks. Climbing turns are easier to construct and maintain and utilize natural terrain features (benches, knolls, rock outcrops) to change the direction of a trail.

9. **Avoid ridge tops.** Ridge tops are often primary transportation corridors for wildlife, and were often used by Native Americans as travel routes. Noise from ridge top trails is broadcast over a wide area. Locate trails on side hills, off ridge tops, using ridges and watersheds as natural sound barriers to isolate noise.

10. **Use vegetation and other natural features to conceal the trail and absorb noise.** This can be difficult in a desert environment. Try to minimize the visual impact of the trail by following natural transitions in vegetation or soil type. A trail near the base of a side slope or on rim rock is usually less visible than a mid-slope trail. Denser vegetation will hide a trail, lessen noise transmission, and can dissipate the energy of falling raindrops on the bare soil of the trail tread.

11. **Carefully design intersections to avoid safety problems**. When locating a bicycle or motorized vehicle trail be aware of sighting distance and sight lines. Collisions can be avoided if riders can see each other. Avoid four way intersections. Offsetting the cross traffic helps reduce speeds and reduces the risk of collisions.

References

See Chapter 6 of this Proposed RMP for a comprehensive list of references.

McCoy, M. & Stoner, M. 2010. *Mountain Bike Trails: Techniques for Design, Construction and Maintenance.* January 25, 2010. Bikecentennial.

Hamilton, N. 1991. *Off-Highway Vehicle Trail Maintenance: Tractor Techniques for Trailbed Preservation*. USDA Forest Service, Mendocino National Forest. Available online: http://nohvcclibrary.forestry.uga.edu/SCANNED%20FILES/T-0001.pdf

Lockwood, C. 1994. *Trails 2000: A Trail Construction and Maintenance Update*. August 1, 1994. USDA Forest Service, Angeles National Forest.

Hesselbarth, W. & Vachowski, B. 2004. *Trail Construction and Maintenance Notebook: 2004 Edition*. 4E42A25-Trail Notebook. April 2004. Missoula, MT: USDA Forest Service.

IMBA (International Mountain Bicycling Association). 2004. *Trail Solutions: IMBA's Guide to Building Sweet Singletrack*. Boulder, CO: International Mountain Bicycling Association.

USFS. 2008. *Trails Management Handbook*. FSH 2309.18. October 16, 2008. USDA Forest Service. Available online: http://www.fs.usda.gov/Internet/FSE_DOCUMENTS/

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Appendix L. Special Recreation Management Area Recreation Setting Descriptions

This appendix outlines the desired setting characteristics for special recreation management areas (SRMA) identified in Chapter 2 of this Proposed RMP. Table L.1 shows a matrix used to identify setting characteristics for the D-E NCA.

Table L.1. D-E NCA Recreation Setting Characteristics Matrix

	Primitive	Back Country	Middle Country	Front Country	Rural	Urban
Physical – Qualities of the Landscape						
Remoteness (Approx. Distance from Routes)	More than ½ mile from any kind of a man-made trail	More than ½ mile from any kind of a man-made ATV or full-sized vehicle route	More than ½ mile from improved gravel roads	More than ½ mile from paved roads and railroad tracks.	More than ½ mile from municipal streets or roads within towns or cities.	Municipal street and roads within towns or cities.
Naturalness (Modifications to the Landscape)	Undisturbed natural landscape.	Natural landscape with any modifications in harmony with surroundings and not visually obvious or evident (e.g., stock ponds, trails).	Character of the natural landscape retained. A few modifications contrast with character of the landscape (e.g., fences, primitive roads).	Character of the natural landscape partially modified but none overpower natural landscape (e.g., roads, structures, utilities).	Character of the natural landscape considerably modified (agriculture, residential or industrial).	Urbanized developments dominate landscape.
Visitor Facilities	No structures. Foot/horse trails only.	Developed trails made mostly of native materials such as log bridges. Structures are rare and isolated.	Maintained and marked trails, simple trailhead developments and basic toilets.	Rustic facilities such as campsites, restrooms, trailheads, and interpretive displays.	Modern facilities such as campgrounds, group shelters, boat launches, and occasional exhibits.	Elaborate full-service facilities such as laundry, restaurants, and groceries.
Social – Qualities Associated with Use						
Contacts (Avg. with Any Other Group)	Fewer than 3 encounters/day at camp sites and fewer than 6 encounters/day on travel routes.	3-6 encounters/day off travel routes (e.g., campsites) and 7-15 encounters/day on travel routes.	7-14 encounters/day off travel routes (e.g., staging areas) and 15-29 encounters/day en route	15-29 encounters/ day off travel routes (e.g., campgrounds) and 30 or more encounters/day in route.	People seem to be generally everywhere.	Busy place with other people constantly in view.
Group Size (Average - Other Than Your Own)	Fewer than or equal to 3 people per group.	4-6 people per group.	7-12 people per group	13-25 people per group.	26-50 people per group.	Greater than 50 people per group.

	Primitive	Back Country	Middle Country	Front Country	Rural	Urban
Evidence of Use	No alteration of the natural terrain. Footprints only observed. Sounds of people rare.	Areas of alteration uncommon. Little surface vegetation wear observed. Sounds of people infrequent.	Small areas of alteration. Surface vegetation showing wear with some bare soils. Sounds of people occasionally heard.	Small areas of alteration prevalent. Surface vegetation gone with compacted soils observed. Sounds of people regularly heard.	A few large areas of alteration. Surface vegetation absent with hardened soils. Sounds of people frequently heard.	Large areas of alteration prevalent. Some erosion. Constantly hear people.
Operational – Conditions Created by Management and Controls Over Recreational Use						
Access (Types of Travel Allowed)	All travel is restricted to foot and horse travel.	Mountain bikes and perhaps other mechanized use, but all is non-motorized.	Four-wheel-drive vehicles, ATVs, dirt bikes, or snowmobiles in addition to non-motorized, mechanized use.	Two-wheel drive vehicles predominantly, but also four-wheel drives and non-motorized, mechanized use.	Ordinary highway auto and truck traffic is characteristic.	Wide variety of street vehicles and highway traffic is ever-present.
Visitor Services (and Information)	None is available. Staff rarely present.	Basic maps, staff infrequently present (e.g., seasonally, high use periods) to provide on-site assistance	Area brochures and maps, staff occasionally (e.g., most weekends) present to provide on-site assistance.	Information materials describe recreation areas and activities, staff periodically present (e.g., weekdays and weekends).	Information described to the left, plus experience and benefit descriptions, staff regularly present (e.g., almost daily).	Information described to the left, plus regularly scheduled on-site outdoor demonstrations and clinics.
Management Controls	No visitor regulations or ethics signing on-site. No use restrictions.	Basic user regulations at key access points. Minimum use restrictions	Some regulatory and ethics signing. Moderate use restrictions. (e.g., camping, human waste).	Rules, regulations and ethics clearly posted. Use restrictions, limitations and/or closures.	Regulations strict and ethics prominent. Use may be limited by permit, reservation, etc.	Enforcement in addition to rules to reduce conflicts, hazards, and resource damage.

Source: CMU 2011

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Appendix M. Evaluation of Proposed and Existing Areas of Critical Environmental Concern

M.1. Executive Summary

The Bureau of Land Management is preparing a resource management plan for the Dominguez-Escalante National Conservation Area. As part of this planning process, an interdisciplinary team (IDT) reviewed proposals for designation of areas within the D-E NCA as ACECs. Five nominations were submitted for consideration from external sources (including other agencies and the public), six were submitted internally (by BLM specialists), and two are existing ACECs. Therefore, a total of 13 proposed ACECs were considered by the IDT. The team analyzed the 13 areas to determine whether they 1) are within the planning area, 2) contain values that meet the relevance and importance criteria for consideration as potential ACECs, and 3) require special management for the protection of their relevant and important values.

This report presents the methods used in the BLM's evaluation of all existing and proposed ACECs. Seven areas were found to meet the relevance and importance criteria and were found to require some form of special management for their protection. Areas found to meet these criteria were identified as potential ACECs and were considered for designation and management in at least one alternative in Chapter 2 of the Proposed RMP.

The BLM dropped from further ACEC consideration areas that were found not to meet the relevance and importance criteria, did not require special management, or were already included in other proposed areas. Several proposed ACECs overlapped. Therefore, some proposed ACECs were incorporated into other, larger ACECs under consideration.

M.2. Introduction

To be eligible for designation as an ACEC, an area must meet the relevance and importance criteria described in 43 CFR 1610.7-2 and BLM Manual 1613 (BLM 1988) and must need special management.

The Federal Land Policy and Management Act and BLM Manual 1613 (BLM 1988) require the BLM to give priority to the designation and protection of ACECs during the land-use planning process. The BLM released this report concurrent with, and as an appendix to, the Draft RMP/EIS for the D-E NCA. When completed, this RMP will provide a single, comprehensive land-use plan that will guide management of public land within the D-E NCA planning area, which is jointly administered by the BLM's Grand Junction and Uncompahgre field offices. Only the public lands managed by the BLM within the planning area are considered within this document.

The planning area is in southwestern Colorado (Map 1–1) and encompasses approximately 210,012 acres of BLM-managed land in Mesa, Delta and Montrose Counties in western Colorado (note that the number of acres may vary by up to 30 because of variability in the best available current survey information). Within the D-E NCA, 66,280 acres make up the Dominguez Canyon Wilderness Area (the Wilderness), which was previously part of the Dominguez Canyon

Wilderness Study Area. The D-E NCA and the Wilderness were designated in the Omnibus Public Land Management Act of 2009 (Omnibus Act).

Known for its scenic value, the D-E NCA is popular with those wanting to see the spectacular canyon country of the Uncompahgre Plateau. Red-rock canyons and sandstone bluffs contain geological and paleontological (paleo) resources spanning 600 million years, as well as many cultural and historic sites. The Ute Tribes today consider these pinyon- and juniper-covered lands an important connection to their ancestral past. The Escalante, Cottonwood, Little Dominguez and Big Dominguez Creeks cascade through sandstone canyon walls that drain the eastern Uncompahgre Plateau. Nearly 30 miles of the Gunnison River flow through the D-E NCA. The Old Spanish National Historic Trail, a 19th-century land trade route, lies within the D-E NCA. Various species of wildlife call the area home, including desert bighorn sheep, mule deer, golden eagle, turkey, elk, mountain lion, black bear, and collared lizard.

The analysis and findings for ACEC relevance and importance criteria were completed in accordance with FLPMA Section 202 (43 U.S.C. 1712[c][3]), 43 CFR 1610.7-2, and BLM Manual 1613 (BLM 1988).

M.2.1. Area of Critical Environmental Concern

An area of critical environmental concern is an area of BLM-administered land where special management attention is needed to protect its relevant and important values (as detailed in section M.3.2) from irreparable damage. ACECs are an administrative designation made by the BLM through a land-use plan. It is unique to the BLM in that no other Federal agency uses this form of designation.

M.2.2. Special Management Attention

Special management attention refers to management prescriptions specifically developed during RMP preparation to protect the important and relevant values of an area from the potential effects of actions permitted by the RMP, including proposed actions deemed to be in conformance with the terms, conditions, and decisions of the RMP (BLM 1988). These are management measures that would not be necessary or prescribed if the critical and important features were not present.

A management prescription is considered to be special if it is unique to the area involved and includes terms and conditions specifically designed to protect the values within the area. BLM Manual 1613 (BLM 1988) includes the following guidance on incorporating management prescriptions for potential ACECs into appropriate alternatives:

> During the formulation of alternatives, management prescriptions for potential ACECs are fully developed. Management prescriptions will generally vary across the plan alternatives. If there is no controversy or issues raised regarding the management of a potential ACEC, it may not be necessary to develop a range of management alternatives. In other words, management prescriptions may not vary significantly across alternatives. A potential ACEC (or portion thereof) must be shown as recommended for designation in any or all alternatives in the RMP in which special management attention is prescribed to protect the resource or to minimize hazard to human life and safety. Because special management attention must be prescribed in at least one plan alternative, each potential ACEC will appear

as a recommended ACEC in at least one plan alternative. Designation is based on whether or not a potential ACEC requires special management attention in the selected plan alternative (i.e., the Proposed Plan Alternative in this document).

Within the context of the D-E NCA, special management is slightly different than it is for other BLM lands. Because the designation of the D-E NCA provided a level of protection for many relevant and important values within the D-E NCA, special management was considered anything beyond the protections already afforded by designation in the Omnibus Act. For example, the Omnibus Act withdrew the D-E NCA from mineral and oil and gas development. Therefore, special management would be additional protective management for protection of relevant and important values.

M.3. Steps in the ACEC Process

The BLM assembled an interdisciplinary team of resource specialists to identify and evaluate proposed and existing ACECs. This section summarizes the major steps in this process.

M.3.1. Nomination

BLM staff, other agencies, or members of the public may nominate ACECs at any time, but they are only designated during the BLM land-use planning process. In addition, existing ACECs are reconsidered. The BLM may adjust the management or shape of these existing ACECs during this process.

The notice of intent that kicked off the scoping period for the D-E NCA RMP included a request for ACEC proposals from the public. In addition to ACEC proposals received during this scoping period, the BLM considered proposals received during scoping for the RMP revisions also underway for the Grand Junction and Uncompahgre Field Offices when such proposals fell within the boundaries of the D-E NCA.

IDT members also proposed ACECs during team meetings held during the development of the D-E NCA Draft RMP.

M.3.2. Relevance, Importance, and Special Management Criteria

Nominations for ACECs must meet *relevance* and *importance* criteria as defined in 43 CFR1610.7-2 and BLM Manual 1613 (BLM 1988). This report considers only these criteria and does not discuss management prescriptions. Relevance and importance are specifically defined in BLM Manual 1613 (BLM 1988) as follows:

Relevance

Areas meeting the relevance criterion possess “significant historic, cultural, or scenic value; a fish or wildlife resource or other natural system or process; or natural hazard.”

An area meets the relevance criterion if it contains *one or more* of the following:

1. A significant historic, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).

2. A fish and wildlife resource (including but not limited to habitat for endangered, sensitive, or threatened species or habitat essential for maintaining species diversity).

3. A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities that are terrestrial, aquatic, or riparian; or rare geological features).

4. Natural hazards (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process.

For the purpose of further defining criteria 2 and 3 described above, the IDT established relevant plants and wildlife to be those on the BLM Colorado special status species list. This list includes federally threatened and endangered species, candidate species, as well as BLM sensitive species. BLM sensitive species are those species determined by the BLM State Director to require focused management by the BLM.

Vegetation communities were determined to be relevant under criteria 3 if they fell into CNHP's G1/S1 or G2/S2 categories, which are described in Table M.1 below.

Table M.1. Colorado Natural Heritage Program Element Imperilment Rankings

CNHP Global Rarity Ranking (Based on the Range-Wide Status of a Species)	
G1	Critically imperiled globally because of extreme rarity (5 or fewer occurrences, or very few remaining individuals), or because of some factor of its biology making it especially vulnerable to extinction. (Critically endangered throughout its range).
G2	Imperiled globally because of rarity (6 to 20 occurrences), or because of other factors demonstrably making it very vulnerable to extinction throughout its range. (Endangered throughout its range).
CNHP State Rarity Ranking (Based on Status of Species [Relative Abundance of Individuals] in Each State)	
S1	Critically imperiled in State because of extreme rarity (5 or fewer occurrences, or very few remaining individuals), or because of some factor of its biology making it especially vulnerable to extirpation from the State. (Critically endangered in State).
S2	Imperiled in State because of rarity (6 to 20 occurrences), or because of other factors demonstrably making it very vulnerable to extirpation from the State. (Endangered or threatened in State).

Importance

To meet the importance criterion, the value, resource, system, process or hazard resource must "have substantial significance and value" (BLM 1988). This generally requires qualities of more than local significance and special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource, or qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. A natural hazard can be important if it is a significant threat to human life or property.

An area meets the importance criterion if *one or more* of the following characteristics are present (BLM 1988):

1. Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.

2. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.

3. Has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA.

4. Has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare.

5. Poses a significant threat to human life and safety or to property.

Special Management

For values within proposed ACECs that were determined to meet one or more of the relevance and importance criteria outlined above, the BLM determined whether these values required special management within the D-E NCA. Values that were already protected by the components of the D-E NCA's founding legislation (Omnibus Act) were dropped from further consideration. The protective components already in place because of the Omnibus Act are as follows:

- The Secretary shall allow only such uses of the Conservation Area as the Secretary determines would further the purposes for which the Conservation Area is established.

- Use of motorized vehicles shall be allowed after the effective date of the management plan, only on roads and trails designated in the management plan for the use of motor vehicles.

- Withdrawal from all forms of entry appropriation, or disposal under the public land laws.

- Withdrawal from location, entry, and patent under the mining laws.

- Withdrawal from operation of the mineral leasing, mineral materials, and geothermal leasing laws.

Special management was also not required where an ACEC and its relevant and important values would be protected by another, overlapping proposed ACEC.

M.3.3. Consideration of Potential ACECs

When a proposed ACEC meets the criteria identified above, it becomes a potential ACEC. Each potential ACEC must be considered during the development of RMP alternatives (see Chapter 2 of this Proposed RMP) and must be proposed for designation in at least one alternative (BLM 1988). As RMP alternatives are developed, management prescriptions are fully developed. Management prescriptions *may* (not must) vary across the alternatives, as may the size of the potential ACEC (BLM 1988). ACECs recommended for designation in the Preferred Alternative (Alternative E in Chapter 2 of the Draft RMP) are carried forward for designation in the Proposed RMP/Final EIS and Record of Decision.

When determining which ACECs would be recommended for designation in the Preferred Alternative of the Draft RMP, the BLM used the following criteria: would the relevant and important values be sufficiently protected under this alternative by other administrative actions (e.g., restrictions on allowable uses, travel management decisions, recreation decisions, wilderness decisions, wild and scenic river suitability)? If the answer to this question was no, then the IDT included the ACEC in the Draft Preferred Alternative.

M.3.4. Comments on Proposed ACECs

The public has the opportunity to comment on the designation recommendations included in this report, and the public may comment on any aspect of the ACEC analysis. An opportunity for comment was provided concurrently with the public comment period associated with the release of the Draft RMP, which included an earlier version of this report.

M.3.5. Designation

Designation of ACECs occurs when the record of decision for the EIS is signed and the RMP is approved.

M.4. Evaluation of Proposed ACECs

This section describes each existing and proposed area and provides an evaluation of whether or not it meets the criteria for a potential ACEC. In the columns titled Relevance Criteria and Importance Criteria (see Table M.2) the numbers correspond to the criteria found under in the section entitled *Relevance, Importance and Special Management Criteria*. For example, 3 in the Relevance Criteria column corresponds to relevance criteria number 3, a natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities that are terrestrial, aquatic, or riparian; or rare geological features).

Table M.2. Existing and Proposed ACECs in the Planning Area

Proposed ACEC Name	Proposed by Whom?	Carried Forward as Potential ACEC?	Value or Resource	Relevance Criteria	Importance Criteria	Acres
Gunnison Gravels ACEC	Existing, from 1987 GJFO RMP	Yes	Geological	3	1 and 2	Existing = 5 acres Proposed adjustment by the BLM = 15 acres
Escalante Canyon ACEC	Existing, from 1989 UFO RMP	Yes	Rare plants	3	1 and 2	Existing = 1,895 acres Proposed adjustment by the BLM = 2,281 acres
			Wildlife	2	2	
			Fish	2	1 and 2	
			Cultural	1	1	
			Geological	3	1	

Proposed ACEC Name	Proposed by Whom?	Carried Forward as Potential ACEC?	Value or Resource	Relevance Criteria	Importance Criteria	Acres
			Nat. Hazard	4	4	
Expanded Escalante Canyon ACEC and Watchable Wildlife Area	BLM proposed	Yes	Rare plants Wildlife Cultural Fish Nat. Hazard Geological	3 2 1 2 4 3	1 and 2 2 1 and 2 1 and 2 4 1	11,202 acres
Cactus Park Track Site, Renamed Gibbler Mountain ACEC	External and BLM proposal	Yes	Paleo Rare Plants	3 3	1 and 2 1, 2 and 3	1,310 acres
Gunnison River ACEC	BLM proposal	Yes	Rare plants Cultural Fish Paleo Wildlife	3 1 2 3 2	1, 2 and 3 1 and 2 2 and 3 1 and 2 2 and 3	17,136 acres
River Rims ACEC	BLM proposal	Yes	Rare plants Paleo	3 3	1, 2 and 3 1 and 2	4,916–5,405 acres
Big Dominguez Canyon ACEC	BLM proposal	Yes	Rare plants Vegetation Wildlife Cultural	3 3 2 1	1, 2 and 3 2 2 1 and 2	5,626 acres
Bangs and Dominguez North	External proposal	No, did not meet importance criteria	Cultural	1	None	1,620 acres
Dominguez North–Bangs Canyon ONA	External proposal	No, did not meet importance criteria.	Cultural Fish Wildlife Vegetation Plants	1 2 2 3 3	None None None None None	54,475 acres
Gunnison River Potential ACEC	External proposal	No, did not meet importance criteria.	Fish Wildlife Vegetation Plants	2 2 None 3	None None N/A None	22,369 acres

Proposed ACEC Name	Proposed by Whom?	Carried Forward as Potential ACEC?	Value or Resource	Relevance Criteria	Importance Criteria	Acres
Young Egg ACEC	External proposal	No, incorporated into Gunnison River and River Rims Potential ACECs.	Paleo	3	1 and 2	120 acres
Cactus Park/ Triangle Mesa ACEC	BLM proposal	No, relevant and important values were incorporated into Gibbler Mountain ACEC.	Plants	3	1 and 2	3,387 acres
Cottonwood Canyon ACEC	BLM proposal	No did not meet importance criteria	Fish Vegetation	2 None	None	4,733 acres

M.4.1. Description of Proposed ACECs Not Carried Forward as Potential ACECs

This section describes the seven proposed ACECs that were not carried forward as potential ACECs for further consideration in the Draft RMP. The justification for these areas not being carried forward is also described in this section. The map in Figure M.1 shows all proposed ACECs that were not subsequently carried forward for further consideration as potential ACECs.

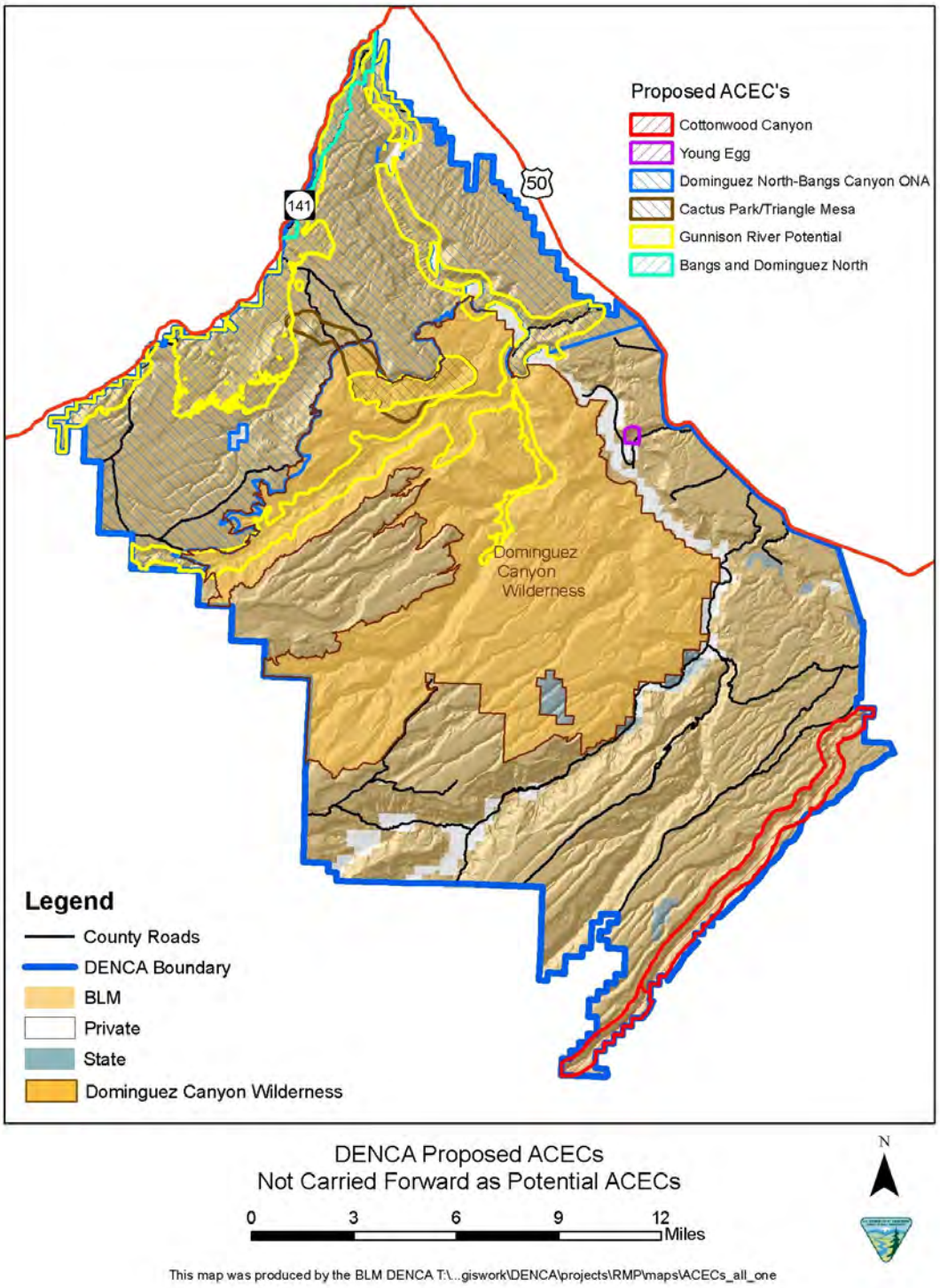

Figure M.1. Proposed ACECs Not Carried Forward as Potential ACECs

Bangs and Dominguez North ACEC

Status: Externally proposed during scoping for the Grand Junction RMP Revision.

General Location: This proposed ACEC, as originally proposed, included lands within both the GJFO and the D-E NCA. The portions within the D-E NCA are located in Unaweep Canyon and Ninemile Hill in Mesa County, near the community of Whitewater.

Acreage: As originally proposed, the ACEC was 2,134 acres. Of the original proposal, 1,620 acres are within the D-E NCA.

Significance: The Proposed ACEC contains significant cultural resources.

Values Assessed: Cultural Resources

Relevance Criteria Considered: 1

Importance Criteria Considered: 1

Relevance Criterion		Yes/No	Rationale for Determination
#	Description		
1	A significant historic, **cultural,** or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	Yes	The Proposed ACEC does include several significant cultural sites.

Importance Criterion		Yes/No	Rationale for Determination
#	Description		
1	Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	No	The entire D-E NCA is recognized for its cultural resources. The IDT determined that the cultural resources within the Proposed ACEC do not contain more than locally significant qualities.

Summary of Finding: This proposed ACEC did not meet the Importance Criteria for ACECs described above. Therefore, it was dropped from consideration.

Dominguez North-Bangs Canyon Outstanding Natural Area (ONA)

Status: Externally proposed during scoping for the Grand Junction RMP Revision.

General Location: This proposed ACEC, as originally proposed, included lands within both the GJFO and the D-E NCA. Within the D-E NCA, the Proposed ACEC is located throughout the Mesa County portion of the D-E NCA.

Acreage: As originally proposed, the ACEC was 109,975 acres. Of the original proposal, 54,475 acres are within the D-E NCA.

Significance: The proposed ACEC contains significant scenic values, a number of special status fish and wildlife species and species habitats, as well as rare vegetative communities.

Values Assessed: Scenic Values, Fish, Wildlife, Rare Plant Communities, and Rare Plants.

Relevance Criteria Considered: 1, 2 and 3

Importance Criteria Considered: 1 and 2

Relevance Criterion		Yes/No	Rationale for Determination
#	Description		
1	A significant historic, cultural, or **scenic** value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	Yes	The area within the Proposed ACEC does contain significant scenic values.
2	A **fish** and wildlife resource (including but not limited to habitat for endangered, sensitive, or threatened species or habitat essential for maintaining species diversity).	Yes	The Proposed ACEC includes designated critical habitat for the federally endangered Colorado pikeminnow (*Ptychocheilus lucius*) and razorback sucker (*Xyrachen texanus*). Roundtail chub (*Gila robusta*), a BLM sensitive species, and humpback chub (*Gila cypha*), a federally endangered species, have been recorded in this section of the Gunnison River.
2	A fish and **wildlife** resource (including but not limited to habitat for endangered, sensitive, or threatened species or habitat essential for maintaining species diversity).	Yes	The area of the Proposed ACEC contains habitat for a number of BLM sensitive wildlife species, including the gray vireo, sage sparrow, and longnose leopard lizard.
3	A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or **plant communities that are terrestrial, aquatic, or riparian**; or rare geological features).	Yes	The Proposed ACEC does include some occurrences of the critically imperiled (G2 in the CNHP rarity rankings) Utah juniper/needle and thread plant community.
3	A natural process or system (including but not limited to **endangered, sensitive, or threatened plant species; rare, endemic, or relic plants** or plant communities that are terrestrial, aquatic, or riparian; or rare geological features).	Yes	The Proposed ACEC does contain the threatened Colorado hookless cactus (*Sclerocactus glaucus*) and the BLM sensitive Grand Junction milkvetch (*Astagalus linifolius*) that qualify as relevant under the criteria established for this ACEC process.

Importance Criterion		Yes/No	Rationale for Determination
#	Description		
1 and 2	Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	No	**Scenic Values:** The entire D-E NCA and larger region of western Colorado contain significant scenic values. The scenic values within the Proposed ACEC are not more than locally significant, nor does it contain specific qualities or circumstances that qualify this value under criteria 2.
1 and 2	Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	No	**Fish:** Although the designated critical habitat for the federally endangered Colorado pikeminnow and razorback sucker qualifies as locally significant, the fish habitat within the Proposed ACEC as a whole is not more than locally significant, nor does it contain specific qualities or circumstances that qualify this value under criteria 2.

Importance Criterion		Yes/No	Rationale for Determination
#	Description		
1 and 2	Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	No	**Wildlife**: Although the wildlife species within the Proposed ACEC are BLM sensitive species, the wildlife habitat within the Proposed ACEC as a whole is not more than locally significant, nor does it contain specific qualities or circumstances that qualify this value under criteria 2.
1 and 2	Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	No	**Vegetation Communities:** Although one of the plant communities within the Proposed ACEC does qualify as relevant, the vegetative communities of the ACEC as a whole are not more than locally significant, nor do they contain specific qualities or circumstances that qualify this value under criteria 2.
1 and 2	Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	No	**Rare Plants**: Although the rare plant species within the proposed ACEC are BLM sensitive or federally threatened species, the plants within the proposed ACEC as a whole are not more than locally significant, nor do they contain specific qualities or circumstances that qualify this value under criteria 2

Summary of Finding: This proposed ACEC encompasses a wide range of relevant values. However, because of the variability within the proposed ACEC, it did not meet the Importance Criteria for ACECs described above. Therefore, it was dropped from further consideration.

Gunnison River Potential ACEC

Status: Externally proposed during scoping for the Grand Junction RMP Revision.

General Location: This ACEC as originally proposed included lands within the GJFO and D-E NCA. Within the D-E NCA, this proposed ACEC includes areas within Mesa County along the Gunnison River, Unaweep Canyon, Triangle Mesa, Deer Creek, and Big and Little Dominguez Canyons. A small portion of the proposed ACEC within Little Dominguez Canyon extends into Delta County.

Acreage: As originally proposed, the ACEC is 42,066 acres. Within the D-E NCA, the proposed ACEC is 22,369 acres.

Significance: The proposed ACEC encompasses several Potential Conservation Areas (PCA) identified by CNHP, including the Unaweep Canyon PCA, Little Dominguez Creek PCA, Gunnison River PCA, Cactus Park at Triangle Mesa PCA, Big Dominguez Creek PCA, and Deer Creek PCAs within the D-E NCA planning area. These PCAs include a wide range of rare plants (including known occurrences of the Colorado hookless cactus, a federally threatened species),

riparian vegetation communities, the Mesic Western Slope Pinyon-Juniper Woodlands natural community, habitat for several endangered fish, as well as habitat for peregrine falcon (*Falco peregrines anatum*), canyon tree frog (*Hyla arenicolor*), bald eagles (*Haliaeetus leucocephalus*), and river otters (*Lontra canadensis*).

Values Assessed: Fish, Wildlife, Rare Plants and Plant Communities.

Relevance Criteria Considered: 2 and 3

Importance Criteria Considered: 1 and 2

Relevance Criterion		Yes/No	Rationale for Determination
#	Description		
2	A **fish** and wildlife resource (including but not limited to habitat for endangered, sensitive, or threatened species or habitat essential for maintaining species diversity).	Yes	The proposed ACEC includes designated critical habitat for the federally endangered Colorado pikeminnow (*Ptychocheilus lucius*) and razorback sucker (*Xyrachen texanus*). Roundtail chub (*Gila robusta*), a BLM sensitive species, and humpback chub (*Gila cypha*), a federally endangered species, have been recorded in this section of the Gunnison River.
2	A fish and **wildlife** resource (including but not limited to habitat for endangered,sensitive, or threatened species or habitat essential for maintaining species diversity).	Yes	BLM sensitive wildlife species within the proposed ACEC include peregrine falcons and canyon tree frogs.
3	A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or *plant communities that are terrestrial, aquatic, or riparian*; or rare geological features).	No	The plant communities within the proposed ACEC do not qualify as relevant under the criteria established for this ACEC process (ranked as rarity levels of G1, G2, S1, or S2 by CNHP).
3	A natural process or system (including but not limited to *endangered, sensitive, or threatened plant species; rare, endemic, or relic plants* or plant communities that are terrestrial, aquatic, or riparian; or rare geological features).	Yes	The proposed ACEC does contain threatened plant species (Colorado hookless cactus) and BLM sensitive plant species (Grand Junction milkvetch) that qualify as relevant under the criteria established for this ACEC process.

Importance Criterion		Yes/No	Rationale for Determination
#	Description		
1 and 2	Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	No	**Fish:** Although the designated critical habitat for the federally endangered Colorado pikeminnow and razorback sucker qualifies as locally significant, the fish habitat within the proposed ACEC as a whole is not more than locally significant, nor does it contain specific qualities or circumstances that qualify this value under criteria 2.
2	Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	No	**Wildlife**: Although the wildlife species within the proposed ACEC are BLM sensitive species, the wildlife habitat within the proposed ACEC as a whole is not more than locally significant, nor does it contain specific qualities or

Importance Criterion		Yes/No	Rationale for Determination
#	Description		
			circumstances that qualify this value under criteria 2.
2	Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	No	**Rare Plants**: Although the rare plant species within the proposed ACEC are BLM sensitive or federally threatened species, the plants within the proposed ACEC as a whole are not more than locally significant, nor do they contain specific qualities or circumstances that qualify this value under criteria 2

Summary of Finding: This proposed ACEC encompasses a wide range of relevant values. However, because of the variability within the proposed ACEC, it did not meet the Importance Criteria for ACECs described above. Therefore, it was dropped from further consideration.

Young Egg ACEC

Status: Externally proposed during scoping for the Uncompahgre RMP Revision.

General Location: This proposed ACEC is located in Delta County, off the Dominguez Canyon Road.

Acreage: As originally proposed, the ACEC is 120 acres.

Significance: The proposed ACEC consists of a section of the upper Jurassic Morrison Formation containing thousands of black eggshell fragments. The site represents a nesting site used repeatedly by dinosaurs.

Values Assessed: Rare Geological Feature (Paleo)

Relevance Criteria Considered: 3

Importance Criteria Considered: 1 and 2

Relevance Criterion		Yes/No	Rationale for Determination
#	Description		
3	A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities that are terrestrial, aquatic, or riparian; or *rare geological features*).	Yes	The paleontological site within this proposed ACEC is a rare geological features.

Importance Criterion		Yes/No	Rationale for Determination
#	Description		
1 and 2	Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	**Paleo**: The Young Egg paleontological site is of special worth and is a cause for concern because of unsanctioned collection and vandalism. The Young Egg paleontological site is fragile, rare, irreplaceable, unique, and vulnerable to adverse change.

Summary of Finding: The IDT determined that this proposed ACEC met the relevance and importance criteria described above. However, the team concluded that ACEC status for this specific site could lead to increases in vandalism and theft, which are currently the main threats to the relevant and important values. Instead, the IDT determined that the relevant and important values would be better protected as part of a larger ACEC. As a result, the paleontological resources of this proposed ACEC were incorporated into the River Rims and Gunnison River Potential ACECs, and the IDT determined that special management of this smaller proposed ACEC was no longer necessary.

Cactus Park/Triangle Mesa

Status: Internally proposed during RMP development by BLM.

General Location: This ACEC includes lands within, and outside of, the Dominguez Canyon Wilderness. Site names in the area of the proposed ACEC include Triangle Mesa, Cactus Park, and Gibbler Mountain.

Acreage: 3,387 acres

Significance: The proposed ACEC encompasses occurrences of one federally threatened plant species, Colorado hookless cactus, and one BLM sensitive plant species, Grand Junction milkvetch.

Values Assessed: Rare Plants

Relevance Criteria Considered: 3

Importance Criteria Considered: 1 and 2

Relevance Criterion		Yes/No	Rationale for Determination
#	Description		
3	A natural process or system (including but not limited to **endangered, sensitive, or threatened plant species; rare, endemic, or relic plants** or plant communities that are terrestrial, aquatic, or riparian; or rare geological features).	Yes	The proposed ACEC does contain threatened plant species (Colorado hookless cactus) and BLM sensitive plant species (Grand Junction milkvetch) that qualify as relevant under the criteria established for this ACEC process.

Importance Criterion		Yes/No	Rationale for Determination
#	Description		
1 and 2	Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	**Rare Plants**: the occurrence of Grand Junction milkvetch in this proposed ACEC is more than locally significant (ranked as Excellent by CNHP). This occurrence is also sensitive, fragile, exemplary, and vulnerable owing to its location outside the Wilderness. The occurrence of Colorado hookless cactus is ranked as good by CNHP, thus it does not qualify under criteria one. This occurrence is also within the Wilderness; therefore it is not vulnerable, because there are restrictions on uses already in place in the immediate vicinity.

Summary of Finding: The IDT determined that the occurrences of Grand Junction milkvetch in the ACEC were both relevant and important. However, the IDT concluded that this relevant and

important value could be combined with the Cactus Park Track Site proposed ACEC to become the larger Gibbler Mountain ACEC, which was carried forward for further consideration. Therefore, the IDT determined that special management was no longer necessary for this proposed ACEC.

Cottonwood Canyon ACEC

Status: Internally proposed during RMP development by BLM.

General Location: This ACEC encompasses Cottonwood Canyon on the southeastern edge of the D-E NCA.

Acreage: 4,733 acres

Significance: The proposed ACEC encompasses high quality riparian vegetative communities and habitat for BLM sensitive fish species.

Values Assessed: Fish, and Plant Communities.

Relevance Criteria Considered: 2 and 3

Importance Criteria Considered: 1 and 2

Relevance Criterion		Yes/No	Rationale for Determination
#	Description		
2	A **fish** and wildlife resource (including but not limited to habitat for endangered, sensitive, or threatened species or habitat essential for maintaining species diversity).	Yes	The proposed ACEC is used as spawning grounds by BLM sensitive and federally listed fish species.
3	A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or *plant communities that are terrestrial, aquatic, or riparian*; or rare geological features).	No	The plant community within the proposed ACEC does not meet the relevance criteria established for this ACEC process.

Importance Criterion		Yes/No	Rationale for Determination
#	Description		
1 and 2	Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	No	The U.S. Fish and Wildlife Service, CPW and BLM have not identified the proposed ACEC as more than locally significant fish habitat. It has also not been identified as fragile, sensitive, rare, or irreplaceable fish habitat.

Summary of Finding: This proposed ACEC did not meet the Importance Criteria for ACECs described above. Therefore, it was dropped from consideration.

M.4.2. Description of Potential ACECs

This section describes Potential ACECs, which are proposed ACECs that were carried forward for incorporation into the alternatives for the Draft RMP. The map in Figure M.2 below shows these seven ACECs.

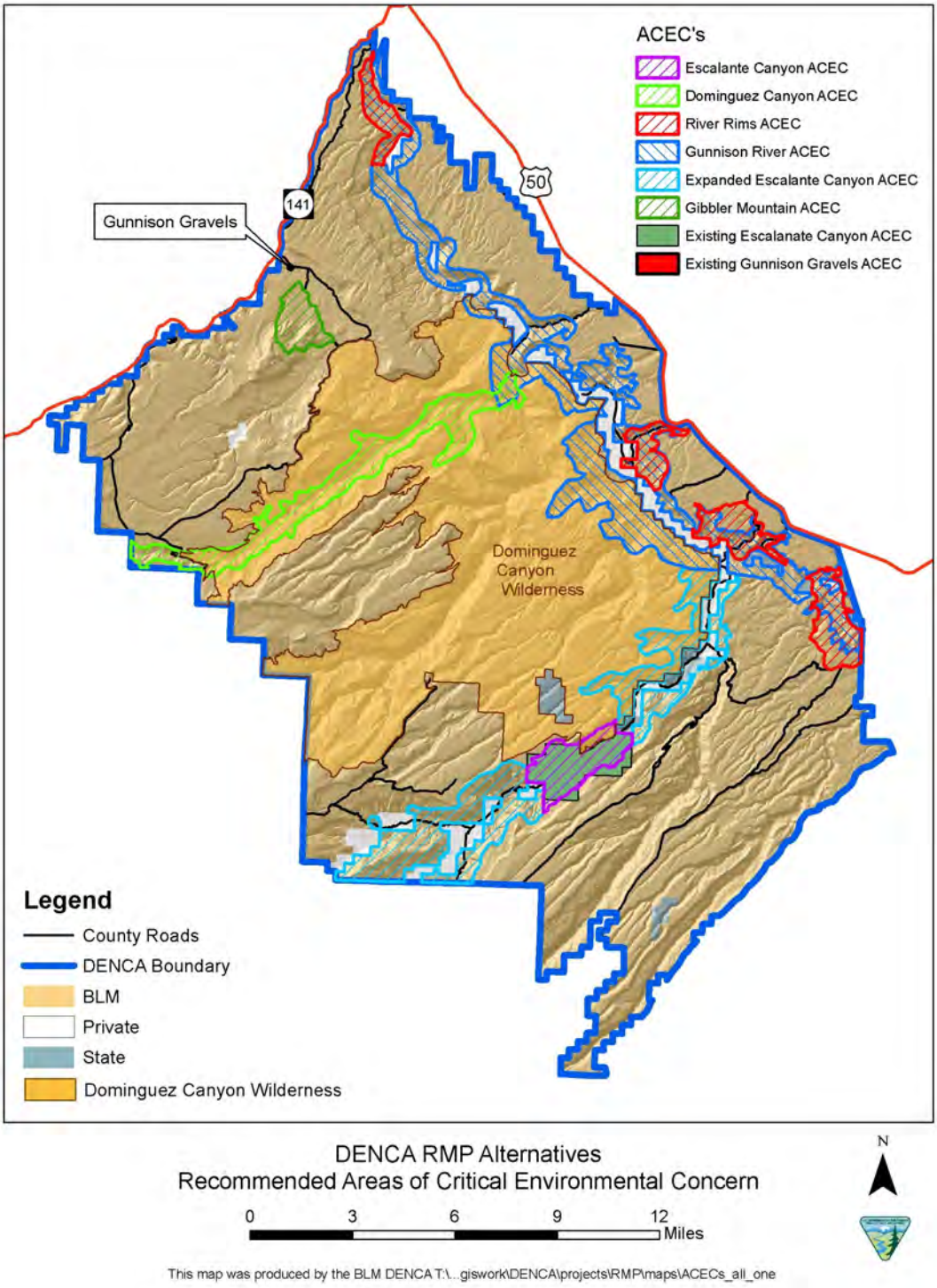

Figure M.2. ACECs Carried Forward for D-E NCA

M.4.2.1. Gunnison Gravels ACEC

Status: Existing

General Location: Mesa County, 13 miles south of Grand Junction, 9 miles southwest of Whitewater and less than a mile off State Highway 141, turning onto Cactus Park Road. Access is south, via a footpath from the Cactus Park Staging Area parking lot (see Figure M.3).

Acreage: Existing acreage is nine acres. The BLM proposes reshaping the polygon to better match the relevant and important characteristics on the ground (surficial gravel deposits). This proposed acreage would expand the ACEC to 15 acres.

Significance: Unique gravel deposit indicates that the Gunnison River, and possibly the Colorado River, flowed through Cactus Park 1-5 million years ago. The ancient river system is believed to have changed to present day alignments owing to uplift of the Uncompahgre Plateau with its very hard, erosion-resistant rock diverting the river flows into the softer, more easily eroded rocks of the Mancos Shale (Lohman 1965). This deposit is the only one now known to exist on the Uncompahgre Plateau, on the course of the ancient river system.

General Description: Designated in the 1987 GJFO RMP. The area is managed to protect the scientific qualities of the site. Triassic Kayenta Formation sandstone is overlain by Quaternary Alluvium composed of approximately 12,000 cubic yards of sand and gravel.

Values Assessed: Rare Geological Feature

Relevance Criteria Considered: 3

Importance Criteria Considered: 1 and 2

Relevance Criterion		Yes/No	Rationale for Determination
#	Description		
3	A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities that are terrestrial, aquatic, or riparian; or *rare geological features*).	Yes	Rare, geological feature

Importance Criterion		Yes/No	Rationale for Determination
#	Description		
1	Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	Yes	Unique gravel deposit proves that the Gunnison River, and possibly the Colorado River, flowed through Cactus Park 1-5 million years ago. The river gravel deposit is one of only a few such deposits on the Uncompahgre Plateau along the course of the ancient river system.
2	Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	The river gravel deposit is one of only a few such deposits on the Uncompahgre Plateau along the course of the ancient river system. OHV use and gravel removal have threatened the scientific integrity of the site.

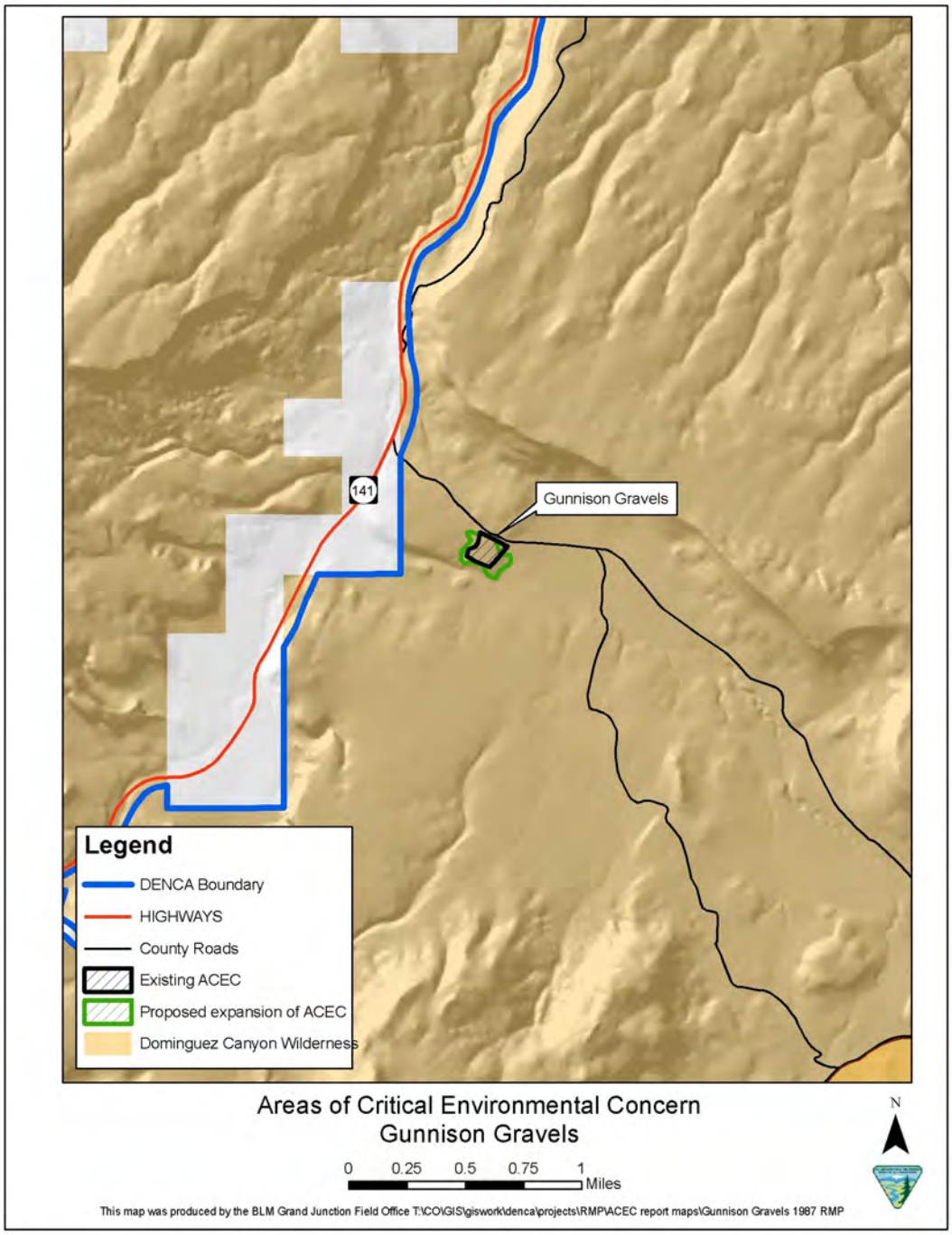

Figure M.3. Existing and Proposed Expansion of Gunnison Gravels ACEC

M.4.2.2. Escalante Canyon ACEC

Status: Existing, UFO RMP 1989

General Location: Delta County, above and below the Potholes site, on the canyon floor (Figure M.4).

Acreage: Existing acreage is 1,895 acres. The BLM proposed modifying the boundary of the ACEC to better conform to the topography of the canyon. This proposed change would expand the ACEC to 2,281 acres.

Significance: When originally created, this ACEC noted: "This designation would enhance management and protection of the listed plant species and unique plant associations, and would improve the public's awareness of the recreational hazards of the Escalante Potholes" (BLM 1989a).

The original focus was on two specific plant species and four plant communities:

- Colorado hookless cactus
- Eastwood's monkey-flower
- Cold desert shrublands
- Western Slope pinyon-juniper woodlands
- Western Slope grasslands
- Salt meadows

In recent years, the focus has expanded to the hanging garden community (*Aquilegia micrantha-Mimulus eastwoodiae*).

Recreational opportunities are associated with heritage/scenic touring in Escalante Canyon, big game hunting, OHV riding, picnicking, swimming, and kayaking. The primary recreation activity in the lower part of the canyon is scenic touring. The Potholes of Escalante Canyon attract day-use visitors for picnicking and swimming. During the spring runoff, kayakers are attracted to the Potholes to run the Class IV rapids. The hazards associated with recreation at the Potholes site were determined to require special management in the 1989 Uncompahgre Basin RMP (BLM 1989a).

General Description: The Escalante Canyon ACEC was designated in the 1989 Uncompahgre Basin RMP (BLM 1989a) for its unique recreational opportunities and for the existence of rare plants and plant associations. In its reassessment of this ACEC, the BLM proposed adding relevant and important values. This ACEC encompasses 1,895 acres in Delta and Montrose Counties and borders the Wilderness.

The Potholes area of Escalante Creek is located within this ACEC, which provides unique recreational opportunities in the form of extreme kayaking, swimming and camping. Restricting camping to designated locations and providing recreationists with restroom facilities appear to have resulted in a cleaner site. ACEC restrictions direct camping and motorized recreation away from these unique and rare plants and plant associations.

Values Assessed: Rare plants, Wildlife, Fish, Cultural/Paleo, Geological, Scenic, and Natural Hazard.

Relevance Criteria Considered: 3, 2, 2, 1, 3, 1, 4

Importance Criteria Considered: 1 and 2, 2, 1 and 2, 1, 1, 1, 4

Relevance Criterion		Yes/No	Rationale for Determination
#	Description		
3	A natural process or system (including but not limited to endangered, sensitive, or threatened **plant species**; rare, endemic, or relic plants or **plant communities** that are terrestrial, aquatic, or riparian; or rare geological features).	Yes	The ACEC contains an excellent (A-ranked) occurrence of the federally endangered Colorado hookless cactus, as well as populations of the BLM-sensitive Grand Junction milkvetch and Eastwood's monkey-flower. The canyon also contains an excellent (A-ranked) occurrence of the hanging garden community, which is ranked as globally imperiled by CNHP.
2	A fish and **wildlife** resource (including but not limited to habitat for endangered, sensitive, or threatened species or habitat essential for maintaining species diversity).	Yes	The desert bighorn sheep, a BLM sensitive species, is attracted by forage found in the irrigated fields along Escalante Creek. The sheep use adjacent public land for water along Escalante Creek and for shelter from humans and predators in surrounding cliffs. Peregrine falcons, another BLM sensitive species, forage and nest in the canyon.
2	A **fish** and wildlife resource (including but not limited to habitat for endangered, sensitive, or threatened species or habitat essential for maintaining species diversity).	Yes	Escalante Creek provides habitat for the following BLM-sensitive fish species: bluehead suckers, roundtail chubs and flannelmouth suckers.
1	A significant **historic**, cultural, or scenic value (including but not limited to rare or sensitive archeological resources and religious or cultural resources important to Native Americans).	Yes	Ranching and pioneer history within Escalante Canyon is significant and serves as a major attraction for local communities and tourists.
3	A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities that are terrestrial, aquatic, or riparian; or rare **geological** features).	Yes	The Escalante Canyon Potholes are a regionally rare geologic and hydrologic streambed feature within the ACEC. There are no other areas in the region where Precambrian gneiss is exposed and shaped by a stream powerful enough to create the feature, yet not so powerful as to completely erode the stream channel smooth.
4	**Natural hazards** (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process.	Yes	Natural hazards in Potholes area include steep cliffs from which people have jumped into pools of varying width and depth.
Importance Criterion		**Yes/No**	**Rationale for Determination**
#	Description		
1 and 2	Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	**Rare plants and plant communities:** A-ranked occurrences of the hanging garden community and the Colorado hookless cactus make this value regionally significant. In addition, all of the relevant rare plants and plant communities in the canyon meet criteria 2.

2	Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	**Wildlife:** The relevant wildlife in Escalante Canyon (desert bighorn sheep and peregrine falcons) are BLM sensitive species, which qualifies them under importance criteria 2.
1 and 2	Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	**Fish** in Escalante Creek include three native and BLM sensitive species: roundtail chub, bluehead sucker, and flannelmouth sucker. All three of these species are fragile, sensitive and rare. Escalante Creek is believed to be regionally important habitat for all three species.
1	Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	Yes	**Historical Resources:** The post-settlement history of Escalante Canyon is a regionally significant part of the history of Delta County.
1	Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	Yes	**Geology:** The Escalante Canyon Potholes are a regionally rare geologic and hydrologic streambed feature within the ACEC. There are no other areas in the region where Precambrian gneiss is exposed and shaped by a stream powerful enough to create the feature, yet not so powerful as to completely erode the stream channel smooth.
4	Has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare.	Yes	**Natural Hazards:** Cliff jumping has resulted in broken bones, concussions and drownings. The Potholes area attracts extreme kayakers during spring runoff. Special signage and barriers may be needed to protect people at the site. May require closure and removal of attractions

			(i.e., facilities, parking lots, and designated campsites).

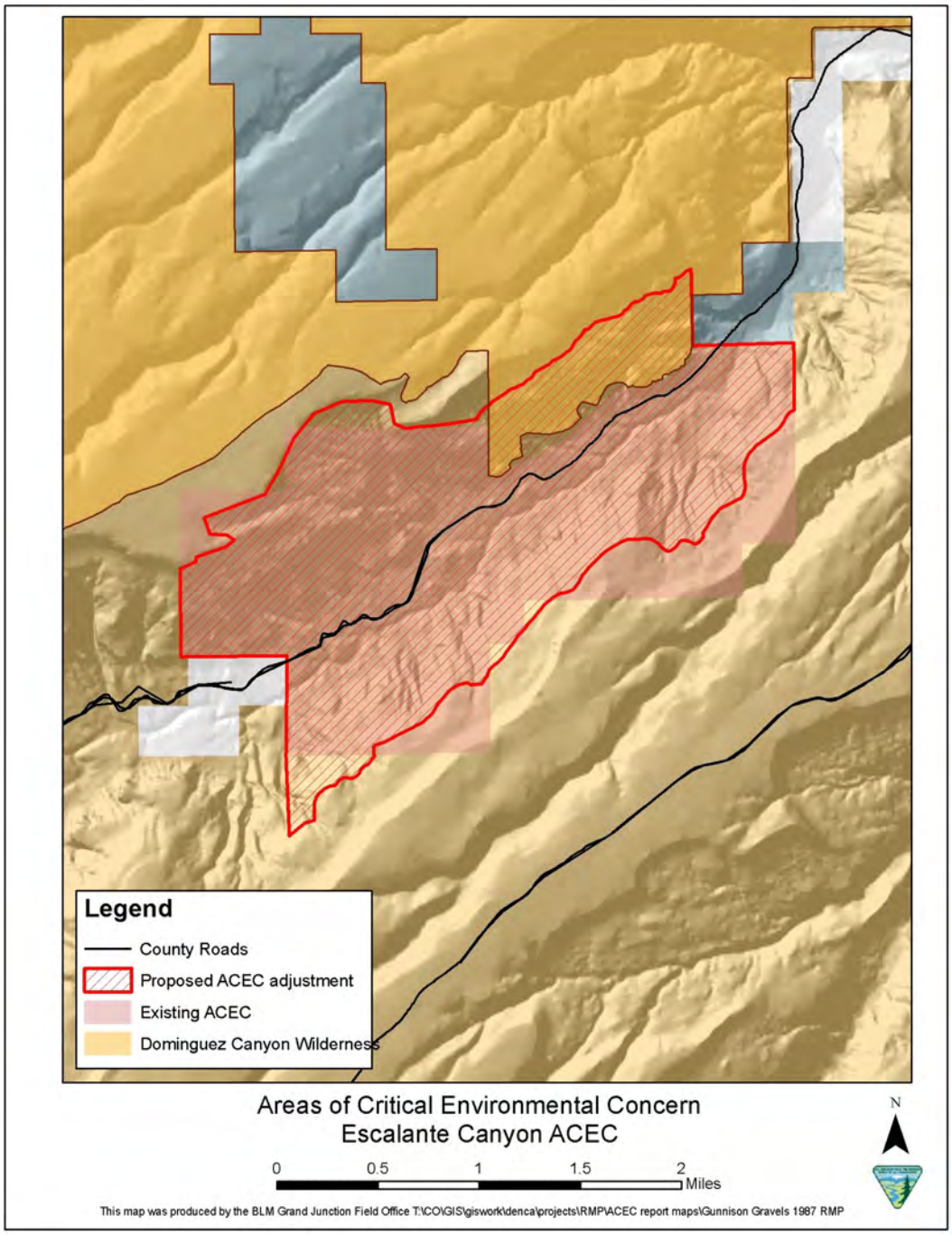

Figure M.4. Existing and Adjusted Escalante Canyon ACEC

M.4.2.3. Expanded Escalante Canyon ACEC and Watchable Wildlife Area

Status: BLM proposed

General Location: Delta County, along Escalante Canyon Road, a dirt road that follows Escalante Creek for 16 miles (see Figure M.5).

Acreage: 11,202 acres

Significance: Larger than the existing Escalante Canyon ACEC, this proposed ACEC would expand the existing ACEC to create a wildlife and fish corridor from the borders of the national forest to the confluence of Escalante Creek and the Gunnison River.

Biodiversity significance: BS or Very High

Global Rarity Ranking: G2, G3

The most biologically significant occurrences include an excellent (A-ranked) occurrence of the globally imperiled (G2G3/S2S3) hanging garden community, a good (B-ranked) occurrence of globally critically imperiled (G1Q/S1?) Utah juniper/needle and thread grass (*Juniperus osteosperma/Hesperostipa comata*) community, a good (B-ranked) occurrence of the globally imperiled (G2/S2) good-neighbor bladderpod (*Lesquerella vicina*) and an excellent (A-ranked) occurrence of the globally imperiled (G2G3/S2S3) Colorado hookless cactus. There are also populations of Grand Junction milkvetch, Eastwood's milkvetch (*Astragalus eastwoodiae*), long-flower cat's-eye (*Oreocarya longiflora*) and several communities that are vulnerable (G3) throughout their range. This ACEC would also be a Watchable Wildlife Area.

Recreation opportunities include heritage/scenic touring in Escalante Canyon, big game hunting, OHV riding, picnicking, swimming, and kayaking. Much of Escalante Canyon is privately owned. As a result, there is little public access off the main county-maintained road. The primary recreational activity in the lower part of the canyon is scenic touring. Above the confluence of Escalante Creek and the Dry Fork of Escalante Creek, there are two historic structures on CPW lands. Both structures provide visitors with opportunities for heritage experiences. The BLM has partnered with CPW at one site to build a picnic area to accommodate visitors. The Potholes of Escalante Canyon attract day-use visitors for picnicking and swimming. During the spring runoff, kayakers are attracted to the Potholes to run the Class IV rapids.

General Description: The Escalante Creek drains approximately 21 percent of the land area of the D-E NCA. Its tributaries include the perennial Dry Fork, Kelso Creek and North Fork. The canyon boasts a rich riparian area, with great diversity due to its wide elevation range, which ranges from 7,800 to 5,000 feet. At its highest elevations, the creek is lined with river birch, mountain willow and various forbs. As the creek enters the canyon, Douglas-fir and narrowleaf cottonwood trees stand above a thick understory of red-osier dogwood, thinleaf alder and mixed willow species in the riparian area. Near the lower end of the creek are Rio Grande cottonwood, narrowleaf cottonwood, skunkbush, coyote willow, seepwillow, spearleaf rabbitbrush, tamarisk, silverberry, sagebrush, and common reed. Seeps at the base of the Wingate sandstone cliffs support hanging gardens.

A number of BLM special status plant species and rare plant associations exist in the seeps that line the canyon's walls and on the benches above Escalante Creek. ACEC restrictions direct camping and motorized recreation away from these unique and rare plants and plant associations.

Values Assessed: Rare plants, Wildlife, Cultural/Paleo, Fish, Natural Hazards, Geological and Scenic.

Relevance Criteria Considered: 3, 2, 1, 2, 4, 3, 1

Importance Criteria Considered: 1 and 2, 2, 1 and 2, 1 and 2, 4, 1, 1

Relevance Criterion		Yes/No	Rationale for Determination
#	Description		
3	A natural process or system (including but not limited to endangered, sensitive, or threatened **plant species**; rare, endemic, or relic plants or **plant communities** that are terrestrial, aquatic, or riparian; or rare geological features).	Yes	The ACEC contains an excellent (A-ranked) occurrence of the federally endangered Colorado hookless cactus, as well as populations of the BLM-sensitive Grand Junction milkvetch and Eastwood's monkey-flower. The canyon also contains an excellent (A-ranked) occurrence of the hanging garden community, which is ranked as globally imperiled by CNHP.
2	A fish and **wildlife** resource (including but not limited to habitat for endangered, sensitive, or threatened species or habitat essential for maintaining species diversity).	Yes	The desert bighorn sheep, a BLM sensitive species, is attracted by forage found in the irrigated fields along Escalante Creek. The sheep use adjacent public land for water along Escalante Creek and for shelter from humans and predators in surrounding cliffs. Peregrine falcons, another BLM sensitive species, forage and nest in the canyon.
1	A significant **historic**, cultural, or scenic value (including but not limited to rare or sensitive **archeological** resources and religious or cultural resources important to Native Americans).	Yes	Escalante Canyon has significant prehistoric rock art associated with Native Americans, as well as sites that exemplify the pioneer and ranching heritage of the area. The prehistoric resources are of religious and cultural importance to the Native Americans.
2	A **fish** and wildlife resource (including but not limited to habitat for endangered, *sensitive*, or threatened species or habitat essential for maintaining species diversity).	Yes	The lower sections of Escalante Creek provide habitat for the following BLM-sensitive fish species: bluehead suckers, roundtail chubs and flannelmouth suckers. The upper stretches of Escalante Creek are a cold-water fishery that provides habitat for native species of trout.
4	**Natural hazards** (including but not limited to areas of avalanche, dangerous flooding, landslides, unstable soils, seismic activity, or dangerous cliffs). A hazard caused by human action may meet the relevance criteria if it is determined through the resource management planning process that it has become part of a natural process.	Yes	The Potholes area has been an attractive nuisance where visitors have been hurt or killed by jumping from surrounding cliffs into small pools.
3	A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities that are terrestrial, aquatic, or riparian; or **rare geological features**).	Yes	Natural hazards in Potholes area include steep cliffs from which people have jumped into pools of varying width and depth.
Importance Criterion		**Yes/No**	**Rationale for Determination**
#	Description		

1&2	Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	**Rare plants and plant communities:** A-ranked occurrences of the hanging garden community and the Colorado hookless cactus make this value regionally significant. In addition, all of the relevant rare plants and plant communities in the canyon meet criteria 2.
2	Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	**Wildlife:** The relevant wildlife in Escalante Canyon (desert bighorn sheep and peregrine falcons) are BLM sensitive species, which qualifies them under importance criteria 2. The canyon affords watchable wildlife opportunities for visitors.
1&2	Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	**Cultural Resources**: Rock art panels from Native American and prehistoric peoples found on canyon walls, as well as other archeological sites such as camping sites, lithic work sites and more. These resources are locally significant and are fragile, sensitive and irreplaceable. The historical resources in the canyon are regionally significant for Delta County.
1&2	Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	**Fish** in Escalante Creek include three native and BLM sensitive species: roundtail chub, bluehead sucker, and flannelmouth sucker. All three of these species are fragile, sensitive and rare. Escalante Creek is believed to be regionally important habitat for all three species.
4	Has qualities that warrant highlighting to satisfy public or management concerns about safety and public welfare.	Yes	**Natural Hazards:** Cliff jumping has resulted in broken bones, concussions and drownings. The Potholes area attracts extreme kayakers during spring runoff. Special signage and barriers may be needed to protect people at the site. May require closure and removal of attractions (i.e., facilities, parking lots, and designated campsites).
1	Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource.	Yes	**Geology**: The Escalante Canyon Potholes are a regionally rare geologic and hydrologic streambed feature within the ACEC. There are no other areas in the region where Precambrian gneiss is exposed and shaped by a stream powerful enough to create the feature, yet not so powerful as to completely erode the stream channel smooth.

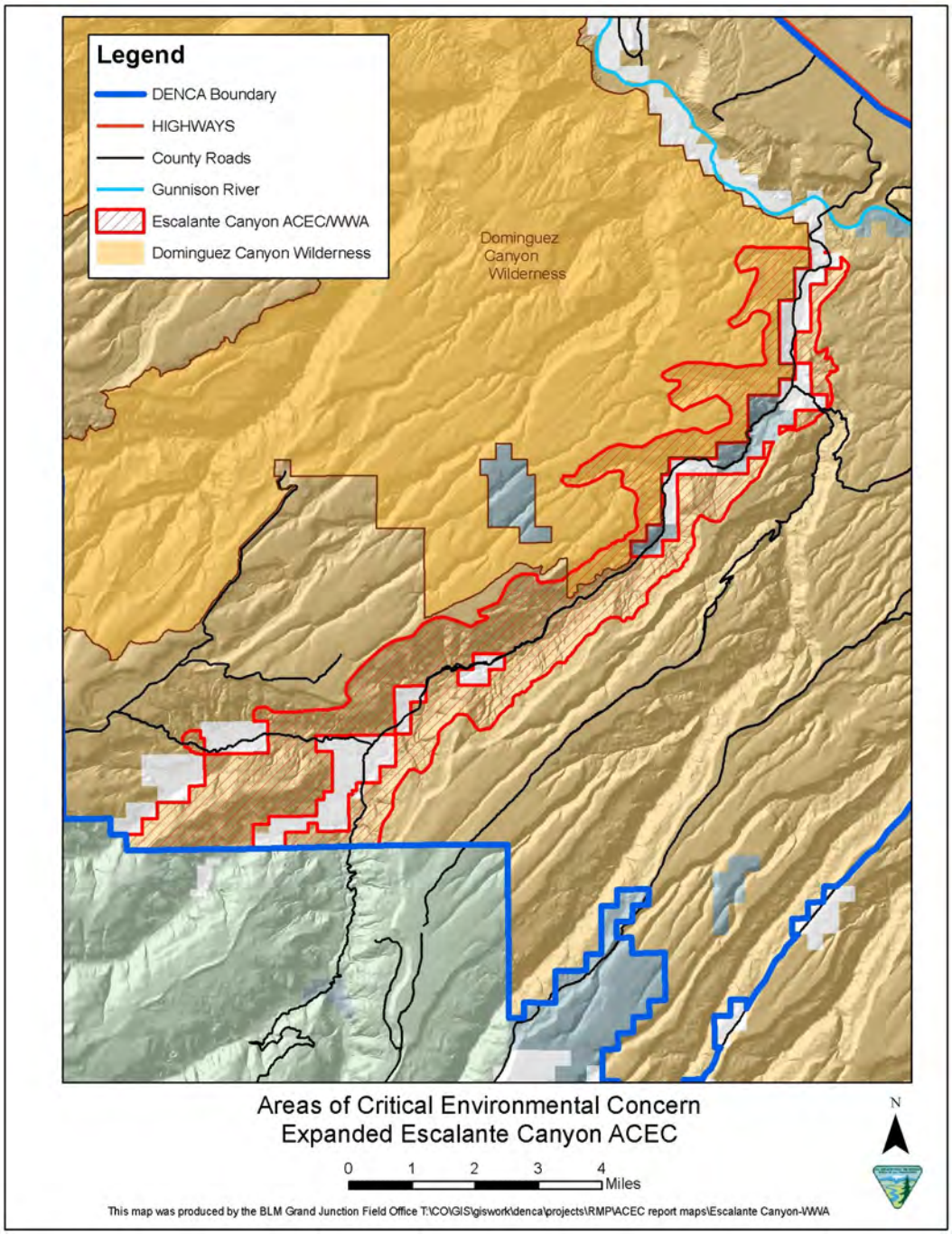

Figure M.5. Expanded Escalante ACEC and Watchable Wildlife Area

M.4.2.4. Gibbler Mountain ACEC

Status: Externally proposed (Robert Billerbeck of Colorado Natural Areas Program) as Cactus Park Track Site ACEC. BLM proposed expansion of externally proposed ACEC to include additional relevant and important values. The BLM also renamed the proposed ACEC to Gibbler Mountain ACEC.

General Location: Mesa County, off the Cactus Park Road (Figure M.6).

Acreage: 1,310 acres

Significance: The Morrison and Chinle formations of this area have produced many scientifically significant fossils, specifically dinosaur tracks (PFYC Class 4-5 or High and Very High likelihood of containing fossils).

This site also supports one of the best known occurrences (A-ranked) of Grand Junction milkvetch (*Astragalus linifolius*), a globally vulnerable plant (G3/S3) and a BLM sensitive plant species.

Biodiversity Significance: B2 or Very High

General Description: This site contains several small drainages of an unnamed tributary of the Gunnison River, north of Dominguez Canyon. Elevations range from 5,200 to 6,700 feet. Soils are clay and sand, derived from the Morrison, Entrada and Wingate formations. Pinyon and juniper trees, with mountain mahogany, serviceberry, black sagebrush, rabbitbrush, and a variety of other shrubs, forbs and grasses, cover the rocky hillsides. Lower washes have been invaded by tamarisk, but higher elevation drainages are in good condition. The Grand Junction milkvetch is found on the sides of upper dry washes. The Colorado hookless cactus, while a small population, is a good example of the species, having straight central spines and showing no intergradation with the more common species, *Sclerocactus parviflora*.

Values Assessed: Paleontological

Rare Plants (Grand Junction milkvetch, BLM sensitive species

Relevance Criteria Considered: 3, 3

Importance Criteria Considered: 1 and 2, 2 and 3

Relevance Criterion		Yes/No	Rationale for Determination
#	Description		
3	A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities that are terrestrial, aquatic, or riparian; or **rare geological features**).	Yes	The Gibbler Mountain area is rich in fossils, including dinosaur tracks that have been the focus of scientific research.
3	A natural process or system (including but not limited to endangered, **sensitive, or threatened plant species**; rare, endemic, or relic plants or plant communities that are terrestrial, aquatic, or riparian; or rare geological features).	Yes	The Grand Junction Milkvetch is a BLM sensitive species, which is found within the ACEC boundaries.
Importance Criterion		**Yes/No**	**Rationale for Determination**
#	Description		

1&2	Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	Dinosaur tracks have been found in the area. These track sites are regionally significant and area easily damaged. Some sites have been vandalized in the past.
1,2 &3	Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable,	Yes	The ACEC includes one of the best known occurrences of Grand Junction milkvetch (*Astragalus linifolius*), a globally imperiled and BLM sensitive plant.

	exemplary, unique, endangered, threatened, or vulnerable to adverse change.		

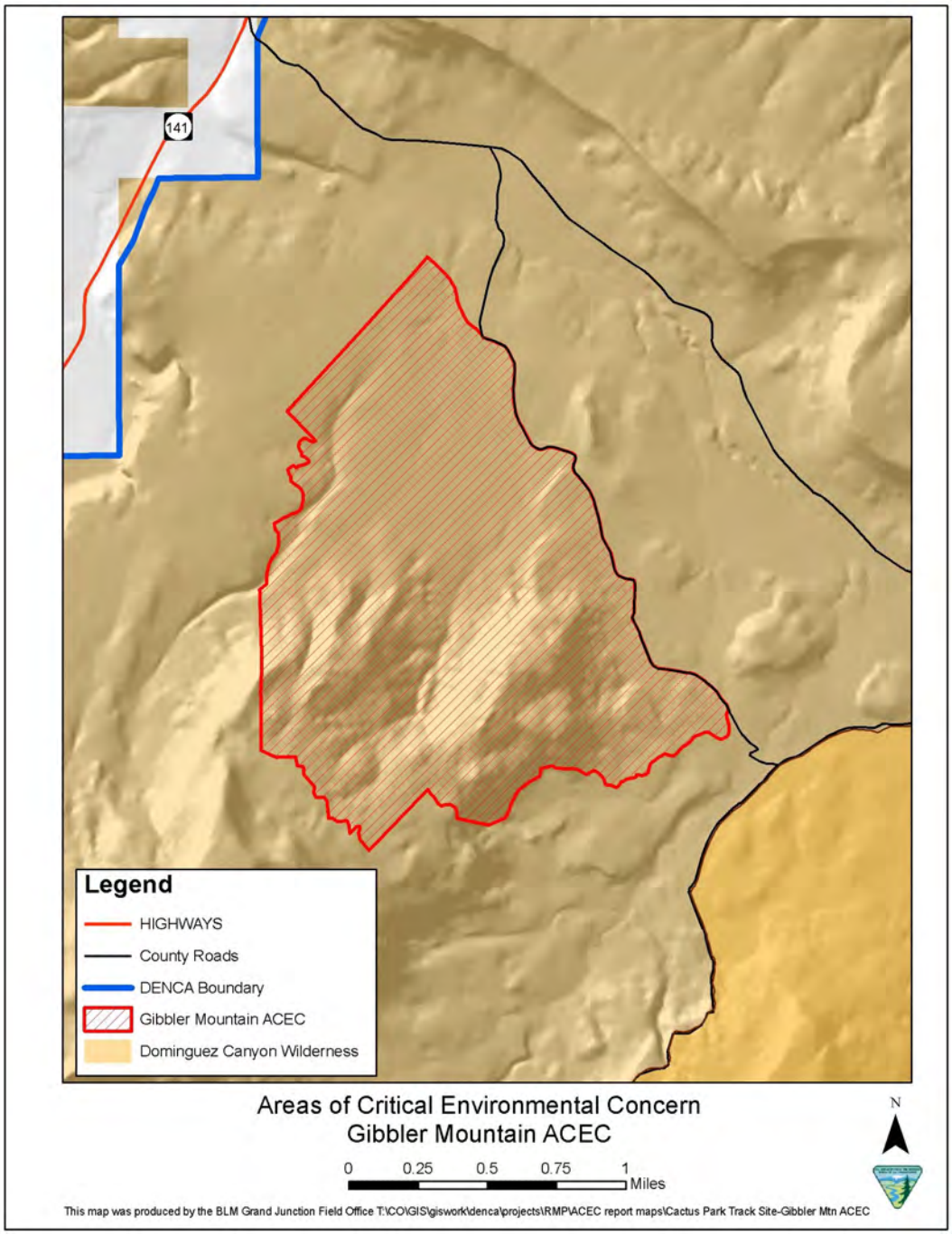

Figure M.6. Gibbler Mountain ACEC

M.4.2.5. Gunnison River ACEC

Status: BLM proposed

General Location: Runs through the northern tier of the D-E NCA for approximately 33 miles. Access points are by river or by county-maintained roads that connect to U.S. Highway 50 (Figure M.7).

Acreage: 17,136 acres

Significance: The ACEC would protect the relevant and important values within the Gunnison River corridor and the surrounding bluffs. Management would focus on the protection of the hookless cactus, sensitive fish species, paleontology sites, and wildlife in the corridor. The section of the river through the D-E NCA has been designated as critical habitat for the endangered Colorado pikeminnow and razorback sucker.

Biodiversity Significance: B2 or Very High

This site supports a good (B-ranked) occurrence of the globally vulnerable (G3/S3)

Fremont's cottonwood riparian forest (*Populus deltoides ssp. wislizeni/Rhus trilobata*) and numerous populations of the Colorado hookless cactus, which is listed as threatened by the USFWS.

General Description: The Gunnison River drains all of Delta County, as well as a large part of Gunnison, Mesa and Montrose Counties. Because of upstream diversions and dams, much of the floodplain that once periodically flooded is no longer inundated during the spring runoff. Despite its altered flow regime, the river provides critical wildlife and fish habitat in the D-E NCA. Within the arid climate of the western slope, the importance of water sources such as the Gunnison River for fish and wildlife cannot be overstated.

The bluffs above the river also provide important habitat for the Colorado hookless cactus, a federally endangered species. Paleontological can be found within the ACEC and cultural resources are abundant throughout the ACEC.

Values Assessed: Rare plants, Cultural, Fish, Paleontology, and Wildlife.

Relevance Criteria Considered: 3, 1, 2, 3, 2

Importance Criteria Considered: 1, 2 and 3, 1 and 2, 2 and 3, 1 and 2, 2 and 3

Relevance Criterion		Yes/No	Rationale for Determination
#	Description		
3	A natural process or system (including but not limited to endangered, sensitive, or threatened **plant species**; rare, endemic, or relic plants or plant communities that are terrestrial, aquatic, or riparian; or rare geological features).	Yes	The ACEC includes numerous populations of the Colorado hookless cactus, a federally endangered species.
1	A significant **historic**, cultural, or scenic value (including but not limited to rare or sensitive **archeological** resources and religious or cultural resources important to Native Americans).	Yes	Native American and ancient peoples frequented the banks of rivers and streams, leaving behind campgrounds and lithic work sites. The ACEC also has significant historical resources associated with the settlement of the west, particularly the narrow gauge Denver and Rio Grande railroad that connected Denver and Salt Lake City and ran along the Gunnison River.

2	A **fish** and wildlife resource (including but not limited to habitat for endangered, sensitive, or threatened species or habitat essential for maintaining species diversity).	Yes	The Gunnison River is designated critical habitat for both the endangered Colorado pikeminnow and razorback sucker. The river also supports populations of three BLM sensitive species: flannelmouth sucker, bluehead sucker and roundtail chub.
3	A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities that are terrestrial, aquatic, or riparian; or **rare geological** features).	Yes	Chinle and Morrison geologic formations are present in the Gunnison River canyon. They are rich in fossils. Known paleontological sites within the ACEC include the Young Egg Locality, a Jurassic dinosaur nesting site.
2	A fish and **wildlife** resource (including but not limited to habitat for endangered, sensitive, or threatened species or habitat essential for maintaining species diversity).	Yes	The Gunnison River provides habitat that is essential for maintaining species diversity in the area. BLM sensitive wildlife species that use the area include desert bighorn sheep, bald eagle and peregrine falcon.
Importance criterion		**Yes/No**	**Rationale for Determination**
#	Description		
1,2,3	Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. Has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA.	Yes	**Rare Plants:** The ACEC supports excellent (A-ranked) occurrences of the Colorado hookless cactus at Wells Gulch and McCarty Bench, as well as good occurrences (B-ranked) at South side of the Gunnison River at Escalante, Leonard's Basin, Kelso Gulch, Huff, and West of the Gunnison River. The ACEC also includes a significant population of Colorado hookless cactus around the Krueger parcel in the northern end of the D-E NCA.
1,2	Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	**Cultural Resources:** The Gunnison River corridor has played a major role in prehistoric and historic cultures in western Colorado. Cultural sites include rock art panels, camp sites and lithic work sites, as well as historical resources associated with the Denver and Rio Grande railroad. All of the cultural resources in the ACEC are fragile, sensitive and irreplaceable.
2,3	Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. Has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA.	Yes	**Fish:** The Gunnison River is designated critical habitat for both the endangered Colorado pikeminnow and razorback sucker. The river also supports populations of three BLM sensitive species: flannelmouth sucker, bluehead sucker and roundtail chub.

1,2	Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	**Geology:** Known fossil sites along the Gunnison River are regionally significant, sensitive, and irreplaceable.
2,3	Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. Has been recognized as warranting protection to satisfy national priority	Yes	**Wildlife:** Critical wildlife habitat along the Gunnison River is essential for proper ecosystem function within the region.

	concerns or to carry out the mandates of FLPMA.		

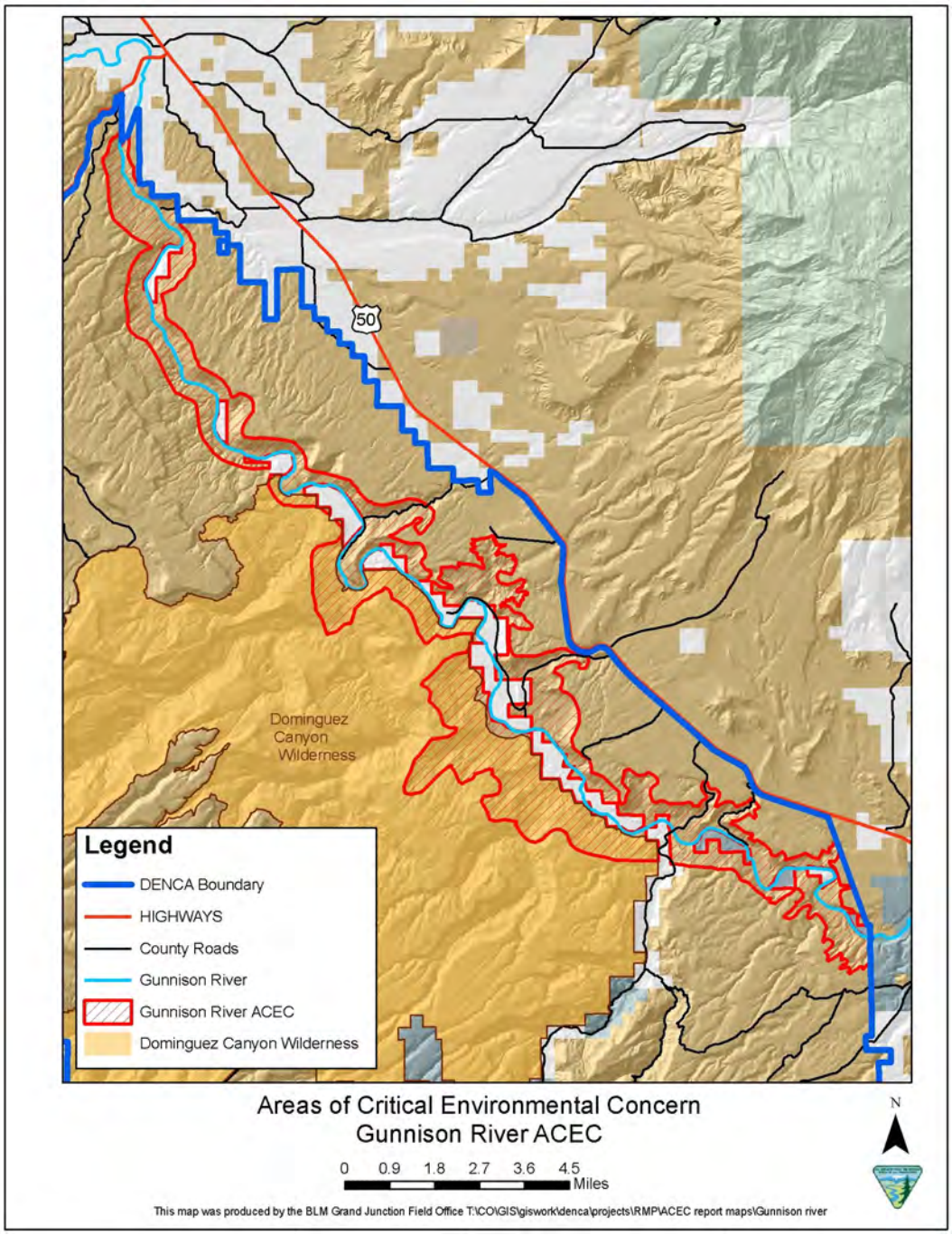

Figure M.7. Gunnison River ACEC

M.4.2.6. River Rims ACEC

Status: BLM proposed

General Location: Four scattered plots on bluffs above the Gunnison River. Two sites are north of the river, and two are south of the river (Figure M.8).

Acreage: 4,916–5,405 acres

Significance: This proposed ACEC includes four separate sites that would protect the D-E NCA's largest known populations of the globally imperiled and federally endangered (G2G3/S2/S3) Colorado hookless cactus. These sites also contain formations with high paleontological values.

Hookless cactus populations have up to 2,000 individuals, in contrast to much smaller clusters along the river, averaging less than 50 plants. Pollination studies have shown that the major pollinator, a small green bee, is capable of crossing the river, so the occurrences on either side may be genetically connected.

Biodiversity Significance: B2 or Very High

General Description: Vegetation types are desert shrubland/saltbush, mixed with pinion-juniper. Sites are above the river and associated riparian areas. The typical substrate for the cactus is clay soil derived from Mancos Shale, with rounded cobbles of basalt scattered over the surface. Plants are often concentrated on the lips of benches, under shrubs or in the open. They are rarely on steep hills or in the greasewood flats along the river.

Values Assessed: Rare plants and paleontology

Relevance Criteria Considered: 3, 3

Importance Criteria Considered: 1, 2 and 3, 1 and 2

Relevance Criterion		Yes/No	Rationale for Determination
#	Description		
3	A natural process or system (including but not limited to endangered, sensitive, or threatened **plant species**; rare, endemic, or relic plants or plant communities that are terrestrial, aquatic, or riparian; or rare geological features).	Yes	The ACEC includes large populations of the Colorado hookless cactus, a federally endangered species.
3	A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or plant communities that are terrestrial, aquatic, or riparian; or **rare geological features**).	Yes	Known paleontological sites within the ACEC include the Young Egg Locality, a Jurassic dinosaur nesting site.
Importance Criterion		**Yes/No**	**Rationale for Determination**
#	Description		

1, 2 and 3	Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. Has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA.	Yes	**Rare Plants:** The ACEC supports excellent (A-ranked) occurrences of the Colorado hookless at Wells Gulch and good occurrences (B-ranked) on the South side of the Gunnison River at Escalante, Kelso Gulch and Huff. The ACEC also includes a significant population of Colorado hookless cactus around the Krueger parcel in the northern end of the D-E NCA.
1 and 2	Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	**Geology:** Known fossil sites along the Gunnison River are regionally significant, sensitive, and irreplaceable.

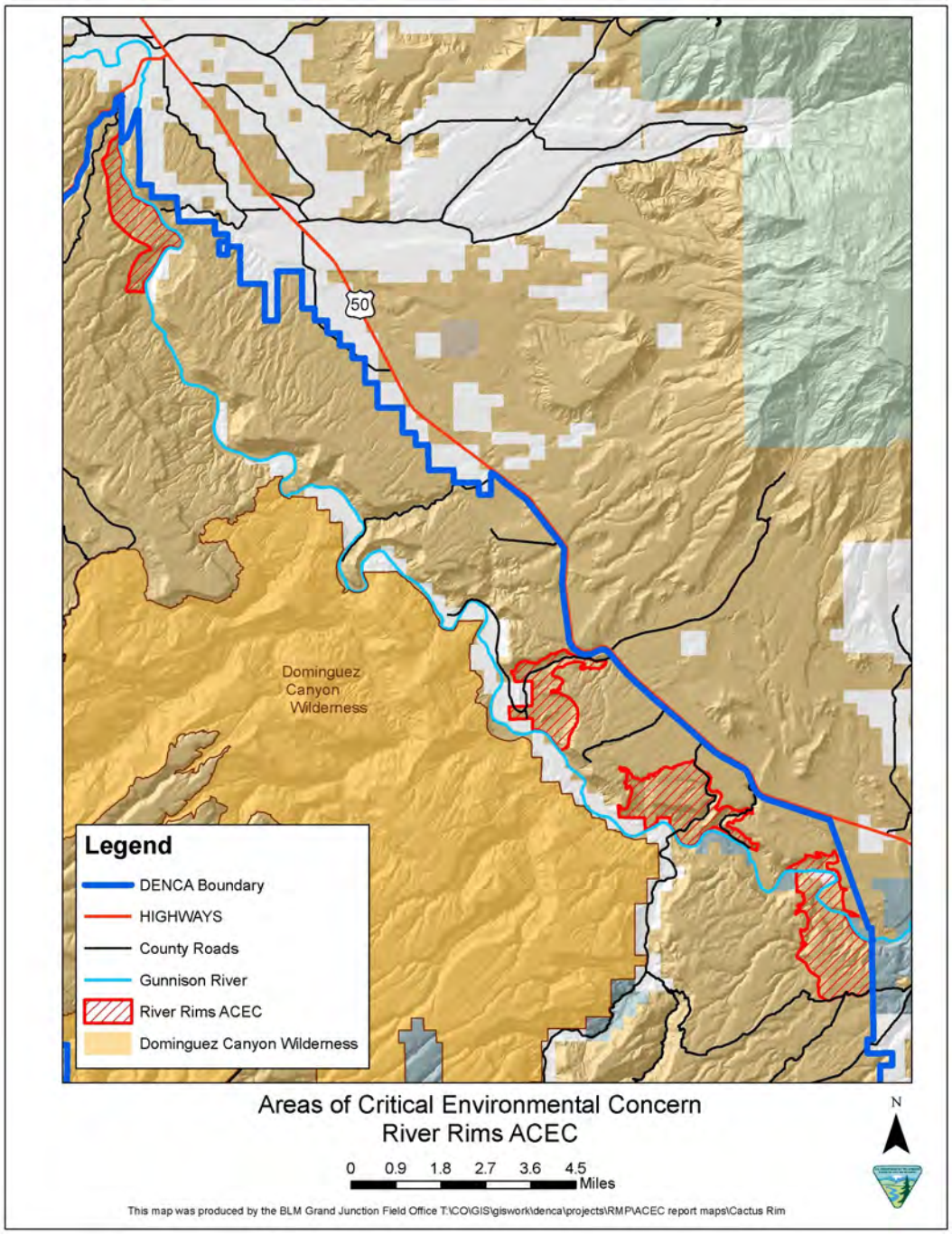

Figure M.8. River Rims ACEC

M.4.2.7. Big Dominguez Canyon ACEC

Status: BLM proposed

General Location: Big Dominguez Creek is located on the eastern slope of the Uncompahgre Plateau and is the first major drainage southeast of Unaweep Canyon (Figure M.9).

Acreage: 5,626 acres

Significance: This site supports a good (B-ranked) occurrence of Colorado hookless cactus, a plant that is globally imperiled (G2G3/S2S3), and an excellent (A-ranked) example of Grand Junction milkvetch, a globally vulnerable (G3Q/S3) plant. The Grand Junction milkvetch is confined to the eastern base of the Uncompahgre Plateau in Mesa, Montrose, and Delta Counties.

The State imperiled (G5/S2) and BLM sensitive canyon tree frog is also found here. The canyon tree frog inhabits rocky canyons along intermittent or permanent streams. This desert frog reaches its northern limits in Southern Colorado. Although primarily terrestrial, it breeds in canyon bottom pools surrounded by rock. It is usually found near permanent pools or cottonwoods in the pinyon-juniper zone. Desert bighorn sheep and peregrine falcon, both BLM sensitive species, frequent the canyon as well.

Biodiversity Significance: B2 or Very High

General Description: Dominguez Creek supports excellent riparian vegetation with a diversity of plant species, vigorous growth of vegetation, low abundance of non-native aggressive species, and diversity of vegetation structure. In a stretch of about 16 air miles from Carson Hole on the Uncompahgre Plateau to the Gunnison River, this beautiful stream descends from 9,000 to 4,800 ft., transitioning from coniferous forests to desert shrubs and cactus.

Near the headwaters, mountain willow (*Salix monticola*) is common along the stream banks. Downstream, in the area of Big Dominguez Campground, the rushing stream forms small waterfalls and trout-filled plunge pools in the Precambrian rock. Riparian vegetation along this middle reach is very lush and diverse. Woolly sedge (*Carex pellita*), cloaked bulrush (*Scirpus pallidus*), Baltic rush (*Juncus balticus*), redtop (*Agrostis gigantea*), fowl mannagrass (*Glyceria striata*), horsetail (*Equisetum arvense*), scouring rush (*Hippochaete laevigata*), wild licorice (*Glycyrrhiza lepidota*), false-Solomon's seal (*Maianthemum stellata*), and canyon bog orchid (*Limnorchis ensifolia*) line the banks, while blue spruce (*Picea pungens*) and narrowleaf cottonwood (*Populus angustifolia*) tower above thickets of river birch (*Betula occidentalis*), thinleaf alder (*Alnus incana*), coyote willow (*Salix exigua*), and red-osier dogwood (*Cornus sericea*).

Approximately one to two miles downstream of the campground, beaver ponds have formed an extensive wetland complex consisting of open still water, scrub-shrub, and emergent wetlands. Above the creek, on the canyonsides, the bright green of pinyon-juniper contrast with red sandstone cliffs. Farther downstream, Plains cottonwood replaces the narrowleaf, as the canyon bottom winds below sheer Wingate sandstone cliffs. Two rare plants are found above the creek: Grand Junction milkvetch grows on rocky slopes and in ephemeral drainages in the pinyon-juniper zone, while Colorado hookless cactus is found in the lower reaches of the canyon in desert shrub communities.

Soils along Big Dominguez Creek are alluvium and generally not mapped on the County soil survey. The Glenberg series, coarse-loamy, mixed (calcareous), mesic, Ustic Torrifluvents, is shown to occur on floodplain terraces within the site (Soil Conservation Service 1978).

Values Assessed: Rare plants, Vegetation, Special Status Wildlife, and Cultural.

Relevance Criteria Considered: 3, 3, 2, 1

Importance Criteria Considered: 1,2 and 3, 2, 2, 1 and 2

Relevance Criterion		Yes/No	Rationale for Determination
#	Description		
3	A natural process or system (including but not limited to endangered, **sensitive, or threatened plant species**; rare, endemic, or relic plants or plant communities that are terrestrial, aquatic, or riparian; or rare geological features).	Yes	The ACEC includes occurrences of the Colorado hookless cactus and Grand Junction milkvetch.
3	A natural process or system (including but not limited to endangered, sensitive, or threatened plant species; rare, endemic, or relic plants or **plant communities that are terrestrial, aquatic, or riparian**; or rare geological features).	Yes	The excellent condition of riparian vegetation within the canyon is rare within the State of Colorado.
2	A fish and **wildlife** resource (including but not limited to habitat for endangered, *sensitive*, or threatened species or habitat essential for maintaining species diversity).	Yes	Special status wildlife known to use the ACEC include: Desert bighorn sheep Bald eagle Peregrine falcon Canyon tree frog
1	A significant historic, cultural, or scenic value (including but not limited to rare or sensitive **archeological** resources and religious or cultural resources important to Native Americans).	Yes	The canyon bottoms of the Dominguez Canyon area have evidence of human activity dating back thousands of years. There are numerous well-preserved rock art sites that constitute one of the highest concentrations in the planning area. The known rock art sites cover a long period, with some that date from over 2,000 years ago to Ute rock art panels from approximately 100 years ago.
Importance Criterion		**Yes/No**	**Rationale for Determination**
No.	Description		
1, 2 and 3	Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change. Has been recognized as warranting protection to satisfy national priority concerns or to carry out the mandates of FLPMA.	Yes	**Rare Plants:** This site supports a good (B-ranked) occurrence of Colorado hookless cactus, a plant that is globally imperiled (G2G3/S2S3), and an excellent (A-ranked) example of Grand Junction milkvetch, a globally vulnerable (G3Q/S3) plant. The Grand Junction milkvetch is confined to the eastern base of the Uncompahgre Plateau in Mesa, Montrose, and Delta Counties.
2	Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	**Vegetative Community:** There is an excellent (A-ranked) occurrence of the State rare (G4/S3) narrowleaf cottonwood/red-osier dogwood riparian forest.

2	Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	**Wildlife:** Special status wildlife known to use the ACEC include: Desert bighorn sheep Bald eagle Peregrine falcon Canyon tree frog The canyon tree frog in particular has been identified as a species of greatest conservation concern by the State of Colorado.
1 and 2	Has more than locally significant qualities that give it special worth, consequence, meaning, distinctiveness, or cause for concern, especially compared to any similar resource. Has qualities or circumstances that make it fragile, sensitive, rare, irreplaceable, exemplary, unique, endangered, threatened, or vulnerable to adverse change.	Yes	**Cultural Resources:** The canyon bottoms of the Dominguez Canyon area have evidence of human activity dating back thousands of years. There are numerous well-preserved rock art sites that constitute one of the highest concentrations in the planning area. The known rock art sites cover a long period, with some that date from over 2,000 years ago to Ute rock art panels from approximately 100 years ago. All of these cultural resources are sensitive, irreplaceable and exemplary.

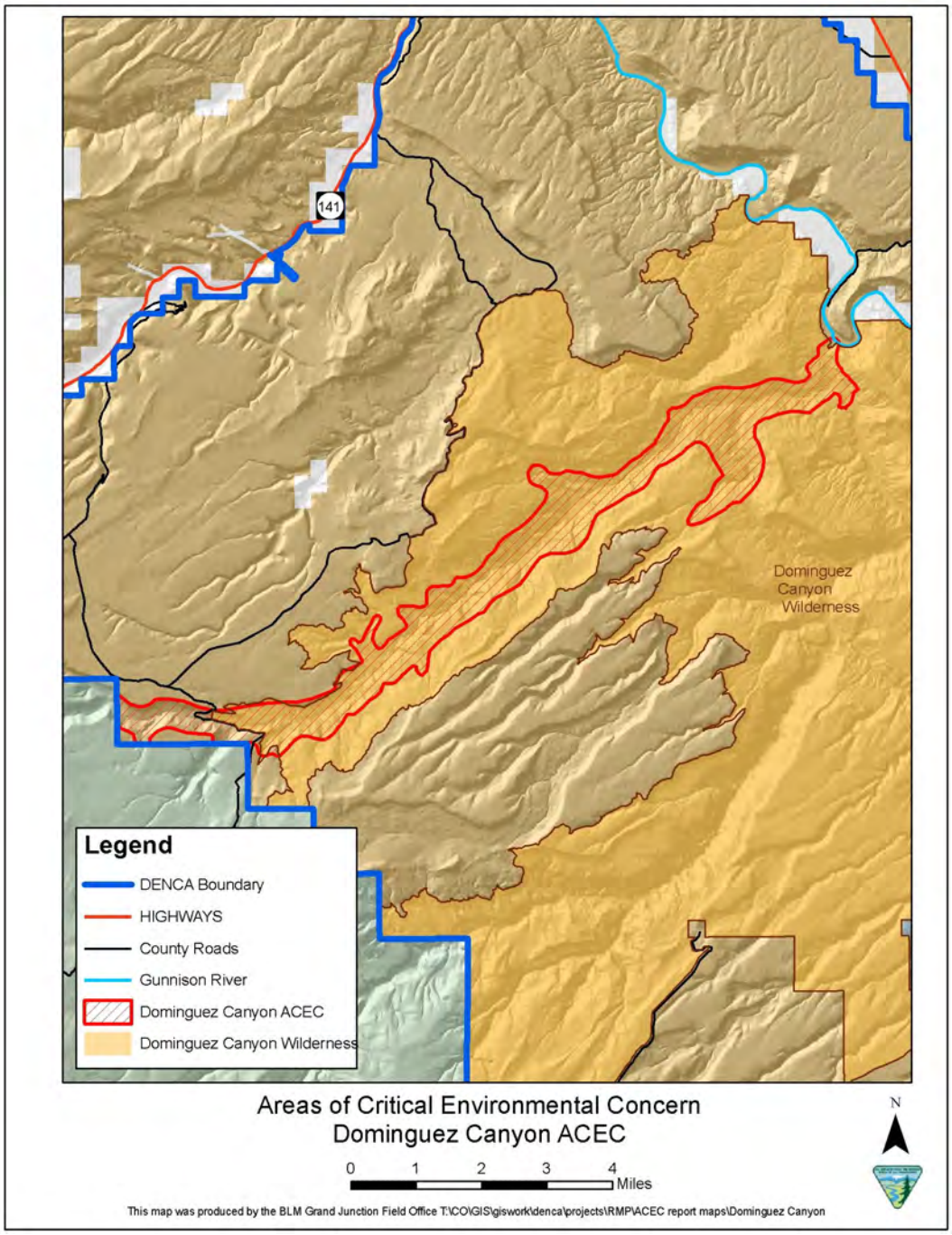

Figure M.9. Big Dominguez Canyon ACEC

M.5. Interdisciplinary Team Members

The following BLM Uncompahgre and Grand Junction Field Office staff members participated in analyzing the proposed ACECs:

Name	Title
Amanda Clements	Ecologist
Lynae Rogers	Rangeland Management Specialist

Name	Title
Melissa Siders	Wildlife Biologist
Anna Lincoln	Ecologist, Threatened and Endangered Species
Jim Dollerschell	Rangeland Management Specialist
Heidi Plank	Wildlife Biologist
Nathan Dieterich	Hydrologist (former)
Andy Windsor	Recreation Planner
Ben Blom	Planning Team Lead (former)
Alissa Leavitt-Reynolds	Archeologist
Scott Gerwe	Geologist
Doug Diekman	GIS Specialist
Brodie Farquhar	Writer-Editor (former)

M.6. References

See Chapter 6 of this Proposed RMP for a list of references.

Appendix N. Comprehensive Travel and Transportation Management Plan

N.1. Introduction

Travel management is the process of planning for and managing access and travel systems on public lands. This includes route planning, inventory and evaluation, innovative partnerships, user education, mapping, monitoring, signing, field presence, and law enforcement (I CO-2007-020). Comprehensive travel management planning should address all resource use aspects, such as recreational, traditional, casual, agricultural, commercial, and educational, and all modes and conditions of travel on public lands, not just motorized or off-highway vehicle (OHV) activities—see Manual 1626 (BLM 2011c).

Travel management planning for the D-E NCA is concurrent with the development of a resource management plan for the D-E NCA. This is required by the D-E NCA's guiding legislation from Congress. The Omnibus Public Land Management Act of 2009 (Omnibus Act), which created the D-E NCA, specified that "use of motorized vehicles in the Conservation Area shall be allowed…after the effective date of the management plan, only on roads and trails designated in the management plan for the use of motor vehicles." To fulfill both Manual 1626 and the Omnibus Act, this planning effort considered all modes of travel, motorized and non-motorized.

This appendix is written with both the Omnibus Act and the D-E NCA Proposed Resource Management Plan in mind. The Proposed Plan Alternative creates a mix of recreational opportunities that attempt to meet a wide variety of recreational demands while reducing conflict due to different uses. The Proposed Plan Alternative also provides for livestock grazing, the continued operation of public land rights-of-way, traditional uses, and access to private property. Each of these uses, including recreation, requires a supporting travel management system within the D-E NCA. In addition, the Proposed Plan Alternative provides for a variety of protections for the purposes of the D-E NCA. According to the Omnibus Act, these are the area's unique and important geological, cultural, archaeological, paleontological, natural, scientific, recreational, wilderness, wildlife, riparian, historical, educational, and scenic resources.

The ultimate goal of this travel management process is to propose a management framework that supports both current and future use needs, while ensuring conservation, protection, and enhancement of the purposes of the D-E NCA's designation.

Travel management decisions are considered sequentially at two levels of analysis:

- Land-use planning—D-E NCA Proposed RMP, travel-area decisions (i.e., decisions about which areas should be open, closed, or limited for all modes of travel).
- Activity- or implementation-level planning—this appendix, route-by-route decisions (i.e., decisions about which routes will be open or closed for different modes of travel in limited areas).

Note: Land-use planning-level decisions differ from activity- or implementation-level decisions. To change a travel-area decision, the RMP must be amended. Route-by-route decisions do not require an RMP amendment, because they are implementation-level decisions, which are designed to be more adaptable. On the basis of monitoring results, the designated route system

can be changed to meet resource and resource-use objectives. Additionally, area designations may be protested, and route-by-route designations may be appealed.

N.2. Background

N.2.1. Description of Route System

Within the BLM, travel management has historically focused specifically on motor vehicle use. However, the BLM now considers travel management to include all forms of transportation, including travel by foot, horseback, and mechanized vehicles such as bicycles, as well as the numerous forms of motorized vehicles, from two-wheeled (motorcycles) and four-wheeled ATVs (ATVs) to full-sized vehicles (cars and trucks).

The vast majority of existing routes within the D-E NCA were not constructed by the BLM for recreational use. Instead, they are two-track routes that were created to provide access for timber cutting, mineral and paleontological exploration, range and vegetation management projects, and various rights-of-way. Of these routes, many were not necessarily intended to be left behind or open for recreational use but have become popular routes for visitors engaged in both non-motorized and motorized recreational activities.

Over time, the D-E NCA's route system has been expanded by users themselves, particularly in areas that were previously designated as open for cross-country motorized vehicle travel. These routes are not typically maintained by the BLM; rather, it is the repeated passage of vehicles that maintains these routes. Not designed but created, these routes are often rutted and eroded. In some areas, particularly high route densities confuse visitors and lead to fragmentation of wildlife habitat.

N.2.2. Description of Process

Travel management planning for the D-E NCA is based on extensive public participation and internal, structured, interdisciplinary team (IDT) analysis.

Inventory and Public Comment

BLM staff in the Grand Junction and Uncompahgre Field Offices inventoried and digitized spatial information regarding the existing route system in the D-E NCA from 1998 through 2010. Over time, the inventory expanded to become a comprehensive inventory of the entire D-E NCA. The majority of this information was collected in the field, but some was digitized remotely using satellite imagery and later verified in the field.

In August 2010, the BLM initiated the public scoping process for the D-E NCA RMP. During this two-month period, the BLM received 39 letters (comment forms, letters, and emails) from the public that specifically addressed travel management in the D-E NCA.

In November 2010, the BLM released its travel management route inventory to the public. Route information was provided online at http://www.blm.gov/co/st/en/nca/denca/denca_rmp/DENCA_RMP_Travel_Management.html and was available in both .pdf and .kmz formats. This inventory included all roads and trails identified through the BLM's inventory process. The release of this inventory initiated a public comment period that lasted from November 9,

2010 until June 15, 2011. During this comment period, the BLM sought feedback from the public on the following questions:

- Is the BLM's route inventory accurate and complete?
- Which routes do you value for what uses, and why?

The BLM held two open houses at the start of the public comment period:

- November 9, 2010, Bill Heddles Recreation Center, Delta, CO; nine members of the public attending.
- November 10, 2010, Mesa County Courthouse Annex, Grand Junction, CO; 27 members of the public attending.

During the comment period for the route inventory, the BLM received 73 letters (comment forms, letters, and emails) from the public that consisted of route-specific and area-specific comments on travel management in the D-E NCA. As comments were received, BLM staff field-verified routes that the public identified as missing or inaccurate in the BLM inventory. Once field verification was done, the BLM finalized its route inventory for the D-E NCA. A total of 652 miles of routes were identified as part of the final inventory. This number excludes county-maintained roads, which were not designated during the travel management planning process.

In May 2013, the BLM released the D-E NCA Draft Travel Management Plan (TMP) simultaneously with the D-E NCA Draft RMP. The BLM also held two open houses at the start of this public comment period. The open houses were held on the following dates:

- June 17, 2013, Colorado Mesa University, Grand Junction, CO
- June 19, 2013, Bill Heddles Recreation Center, Delta, CO

During the comment period for the Draft RMP, the BLM received 75 letters (comment forms, letters, and emails) from the public that consisted of route-specific and area-specific comments on travel management in the D-E NCA. These letters consisted of 6 general comments, 10 route inventory comments, 13 route-use comments, 2 comments on the BLM's priorities, and 193 unique route-specific comments. The BLM incorporated and responded to all substantive travel-related comments, and these comments were considered during the Proposed TMP designation process. The BLM made the following changes as a result of public comments:

- The BLM assumed all routes to have recreational value, defined as "providing the opportunity to travel on and across public lands." Consequently, the BLM considered different use designations for all routes, including those routes the BLM had initially identified in the Draft RMP as redundant routes, dead-end routes, or routes having no identified value.
- To help understand the wildlife impacts of seasonal closures, the BLM used route density calculations resulting from combinations of open routes in big game winter range. Chapter 4 includes a discussion of the results of this analysis.
- To determine the extent to which objectives for priority habitats were achieved, the BLM used core area and route density tools in GIS. Chapter 4 includes a discussion of the results of this analysis.

- The BLM reconsidered routes that were designated closed to public use until mitigated. In the Preferred Alternative, 29.9 miles were designated as closed to public use until mitigated. In the Proposed Plan Alternative, 15.2 miles were designated as closed to public use until mitigated.

Interdisciplinary Meetings for the Proposed Travel Management System

After coding public comments, the BLM incorporated route-by-route comments into a specially designed route designation database, which allowed the BLM to use these comments to develop route-by-route implementation-level decisions (described in this appendix) for the Proposed TMP. The BLM invited cooperating agencies to participate in this phase of the process, which took place over 12 days in April and May of 2014. The purpose of these meetings was to do the following:

- Ensure route designations are consistent with the goals, objectives, and allocations in the Proposed Plan Alternative.
- Given the revised assumption that all routes had value (see discussion above), revisit closed routes from the Draft Preferred Alternative to evaluate whether significant resource concerns warranted closure or designation to another type of use in the Proposed TMP.
- For each route, evaluate public comments that substantively support or oppose a particular route designation in the Draft Preferred Alternative.
- Given refined criteria and associated spatial information regarding use needs and resource concerns (identified below), confirm that the justifications for route designations in the Draft Preferred Alternative are as consistent as possible.
- Record the identified conflicts and minimization criteria that warrant specific route designations, the specific mitigation proposed by each resource specialist, and record the purpose and need for the routes in question. Where conflicts with resources existed, the IDT and attending cooperating agency representatives discussed the conflicts, and the IDT proposed a designation for each route.

Public comments, resource information, and pertinent management objectives and actions described in this document drove the decision-making process that resulted in the Proposed TMP, which was reviewed by the D-E NCA Advisory Council and cooperating agencies.

N.2.3. Laws, Regulations, Policies, and Program Guidance

Currently, 43 CFR 8340 establishes the criteria for designating public lands for OHV use and for establishing controls governing OHV use and operation. This planning effort also addressed non-motorized and non-mechanized uses, and resulting decisions for these forms of travel will be incorporated into supplemental rules for enforcement purposes. Various laws and regulations apply to this process (note that this list is not exhaustive):

- National Environmental Policy Act
- Endangered Species Act
- Wilderness Act
- National Historic Preservation Act

- Antiquities Act of 1906
- Wild and Scenic Rivers Act
- Clean Air Act
- Clean Water Act
- Taylor Grazing Act
- Mining Act of 1872 (and subsequent mining acts)
- Federal Land Policy and Management Act for the BLM
- Code of Federal Regulations
- BLM Manuals 6100 (*National Landscape Conservation System Management*); 6220 (*National Monuments, National Conservation Areas, and Similar Designations*), 6330 (*Management of BLM Wilderness Study Areas*); 6340 (*Management of Designated Wilderness Areas*); 6280 (*Management of National Scenic and Historic Trails and Trails Under Study or Recommended as Suitable for Congressional Designation*); and 1626 (*Travel and Transportation Manual*).
- BLM Manual 9011 and Handbook H-9011-1
- BLM Manual 9014
- BLM Manual 9015
- Carlson-Foley Act of 1968
- Departmental Manual 517
- Executive Order 13112 of February 3, 1999
- Noxious Weed Control Act of 2004
- Federal Noxious Weed Act of 1974 (7 U.S.C. 2801 et seq.), Section 15
- Plant Protection Act of 2000 (PL 106-224)

Federal Regulations 43 CFR 8340 and Executive Order 12608 require the BLM to designate all public lands as open, limited, or closed for OHV use within the following parameters:

> The authorized officer shall designate all public lands as open, limited, or closed to OHVs. All designations shall be based on the protection of the resources of the public lands, the promotion of the safety of all the users of the public lands, and the minimization of conflicts among various uses of the public lands; and in accordance with the following criteria:
>
> 1. Areas and trails shall be located to minimize damage to soil, watershed, vegetation, air, or other resources of the public lands, and to prevent impairment of wilderness suitability.

2. Areas and trails shall be located to minimize harassment of wildlife or significant disruption of wildlife habitats. Special attention will be given to protect endangered or threatened species and their habitats.

3. Areas and trails shall be located to minimize conflicts between OHV use and other existing or proposed recreational uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors.

4. Areas and trails shall not be located in officially designated wilderness areas or primitive areas. Areas and trails shall be located in natural areas only if the authorized officer determines that OHV use in such locations will not adversely affect their natural, esthetic, scenic, or other values for which such areas are established.

In addition, the Omnibus Act that created the D-E NCA specified that "use of motorized vehicles in the Conservation Area shall be allowed…after the effective date of the management plan, only on roads and trails designated in the management plan for the use of motor vehicles." This means that the BLM will not designate *areas* as open to motorized vehicles within the D-E NCA. This restriction applies to all motorized use, including travel over snow on snow machines or snowmobiles. Exceptions to this are also provided in the Omnibus Act. This exception prevents the BLM from limiting "the use of motor vehicles in the Conservation Area for administrative purposes or to respond to an emergency."

Travel on any land acquired by the BLM over the life of the resource management plan will be managed under the classification criteria identified in 43 CFR 8342.1, limited to existing roads and trails until a site determination and travel management plan are completed for the acquisition.

N.3. Area-Allocation Travel Decisions

Area-allocation travel management decisions, or land-use-planning travel management decisions, define the areas within the D-E NCA that are designated open, limited, or closed to OHV, mechanized, or cross-country foot and horse travel. "Limited" can mean the following:

- Limited to designated routes
- Limited to existing routes
- Limited to a specific season of use (generally done for wildlife or soil protection)
- Limited to a specific class or type of use

The BLM used an interdisciplinary process to make area-allocation travel decisions in the Draft TMP, and to revisit them in the Proposed TMP, as was done for other land-allocation decisions for other resource uses in the D-E NCA. Area decisions reflect the goals and objectives regarding resources and resource uses stated throughout Chapter 2 of the Proposed RMP. All goals and objectives for all D-E NCA uses and resources (e.g., recreation, lands with wilderness characteristics, livestock grazing and vegetation health, wildlife and soils, and water quality) played a role in influencing the land-allocation travel decision-making process.

N.3.1. Management Common to All Alternatives

Because the Omnibus Act requires all motorized travel to occur on designated roads and trails, the BLM's choices for motorized-use area allocation fell into one of the following categories:

- Limited to designated routes
- Limited to a specific season of use
- Limited to a specific class or type of use
- Closed

Travel management within the Dominguez Canyon Wilderness (the Wilderness) is governed by the Wilderness Act of 1964 and BLM Manual 6340 (BLM 2012d). As a matter of law, there is no recreational motorized or mechanized travel in the Wilderness (66,280 acres). The BLM may authorize administrative use of motorized travel in all areas of the D-E NCA (including the Wilderness). This administrative use would allow for repairs and maintenance, by grazing permittees, of livestock grazing facilities and other livestock grazing operations; for administrative motorized use by the BLM and other cooperating agencies; and for emergencies. All administrative motorized use in the Wilderness will be evaluated using the "Minimum Requirement Decision Guide" (see Appendix H).

The Wilderness Act prohibits motorized and mechanized travel inside the Dominguez Canyon Wilderness. The BLM retains the discretion to decide whether recreational motorized or mechanized travel will be allowed on routes that were documented in the Wilderness Study Area inventory (there are 2,885 acres of Wilderness Study Areas in the D-E NCA).

N.3.2. Description of Area-Allocation Travel Decisions for Each Alternative

Please note that these decisions are also included in the Alternatives Matrix in Chapter 2 of this Proposed RMP. They are summarized again here (Tables N.1, N.2, and N.3). The entire D-E NCA decision area is approximately 210,012 acres.

Table N.1. Area Designations (in Acres) for Motorized Travel Under Each Alternative

	Closed (Wilderness Lands*)	Closed (Non-Wilderness Lands)	Limited to Designated Routes (Year-round)	Limited to Designated Routes with Seasonal Closure (12/1–3/31)	Limited to Designated Routes with Seasonal Closure (12/1–4/30)	Limited to Designated Routes with Seasonal Closure (12/1–5/31)
Alt. A	66,280 (31.6%)	2,983 (1.4%)	126,021 (60.0%)	0	14,716 (7.0%)	0
Alt. B	66,280 (31.6%)	24,729 (11.8%)	74,873 (35.7%)	0	44,436 (21.2%)	0
Alt. C	66,280 (31.6%)	0	80,685 (38.4%)	0	15,003 (7.1%)	48,438 (23.1%)
Alt. D	66,280 (31.6%)	0	80,685 (38.4%)	51,528 (24.5%)	11,913 (5.7%)	0

	Closed (Wilderness Lands*)	Closed (Non-Wilderness Lands)	Limited to Designated Routes (Year-round)	Limited to Designated Routes with Seasonal Closure (12/1–3/31)	Limited to Designated Routes with Seasonal Closure (12/1–4/30)	Limited to Designated Routes with Seasonal Closure (12/1–5/31)
Alt. E (Preferred)	66,280 (31.6%)	0	80,685 (38.4%)	0	63,441 (30.2%)	0
Proposed TMP	66,280 (31.6%)	0	80,685 (38.4%)	0	63,441 (30.2%)	0

Note: Percentages indicate what percentage of the D-E NCA received each area designation.

**Closed under the Omnibus Act of 2009*

Table N.2. Area Designations (in Acres) for Mechanized Travel Under Each Alternative

	Closed (Wilderness Lands*)	Closed (Non-Wilderness Lands)	Open to Cross-Country Travel	Limited to Designated Routes (Year-round)	Limited to Designated Routes with Seasonal Closure (12/1–3/31)	Limited to Designated Routes with Seasonal Closure (12/1–4/30)	Limited to Designated Routes with Seasonal Closure (12/1–5/31)
Alt. A	66,280 (31.6%)	2,983 (1.4%)	140,737 (67.0%)	0	0	0	0
Alt. B	66,280 (31.6%)	24,729 (11.8%)	0	74,873 (35.7%)	0	44,436 (21.2%)	0
Alt. C**	66,280 (31.6%)	0	0	80,685 (38.4%)	0	15,003 (7.1%)	48,438 (23.1%)
Alt. D**	66,280 (31.6%)	0	0	80,685 (38.4%)	51,528 (24.5%)	11,913 (5.7%)	0
Alt. E (Preferred)**	66,280 (31.6%)	0	0	80,685 (38.4%)	0	63,441 (30.2%)	0
Proposed TMP**	66,280 (31.6%)	0	0	80,685 (38.4%)	0	63,441 (30.2%)	0

Note: Percentages indicate what percentage of the D-E NCA received each area designation.

**Closed under the Omnibus Act of 2009*

***Under Alternatives C, D, E, and the Proposed Plan Alternative, areas limited to designated routes include an exception to allow for continued use of mechanized game carts off designated routes, for game retrieval.*

Table N.3. Area Designations (in Acres) for Foot and Horse Travel Under Each Alternative

	Closed	Open to Cross-Country Travel	Limited to Existing Routes (Year-round)	Limited to Designated Routes (Year-round)	Limited to Designated Routes with Seasonal Closure (12/1–3/31)	Limited to Designated Routes with Seasonal Closure (12/1–4/30)	Limited to Designated Routes with Seasonal Closure (12/1–5/31)
Alt. A	0	210,012 (100%)	0	0	0	0	0
Alt. B	0	210,012 (100%)	0	0	0	0	0
Alt. C	0	208,426 (99.3%)	0	1,586 (0.7%)	0	0	0

	Closed	Open to Cross-Country Travel	Limited to Existing Routes (Year-round)	Limited to Designated Routes (Year-round)	Limited to Designated Routes with Seasonal Closure (12/1–3/31)	Limited to Designated Routes with Seasonal Closure (12/1–4/30)	Limited to Designated Routes with Seasonal Closure (12/1–5/31)
Alt. D	0	210,012 (100%)	0	0	0	0	0
Alt. E (Preferred)	0	208,426 (99.3%)	0	1,586 (0.7%)	0	0	0
Proposed TMP	0	Foot: 210,012 (100%) Horse: 208,426 (99.3%)	1,586 (0.7%) (horse only)	0	0	0	0
Note: Percentages indicate what percentage of the D-E NCA received each area designation.							

Proposed Travel Management Plan

The Proposed TMP would have no areas closed to motorized and mechanized travel besides the Wilderness (66,280 acres).

There would be areas within the D-E NCA that are closed seasonally to motorized and mechanized travel. These seasonal closures would be implemented for the protection of big game winter concentration areas during critical periods. During this time, motorized travel within these 63,441 acres would be limited to administrative use only.

All remaining acres of the D-E NCA would be limited to designated routes for motorized and mechanized travel year-round.

In the Proposed Plan Alternative, Wilderness Zone 1, consisting of 1,586 acres, would be limited to existing trails for horse travel (Map 2–13p). The BLM recognizes that the agency inventoried only the major trails within the Wilderness, and many more trails exist on the ground at the time of the publication of the Proposed TMP than are depicted in the published travel maps. Therefore, Chapter 2 (row 280) includes a management action to update the inventory within Wilderness Zone 1 during travel management implementation, after which an updated inventory will be made available to the public in the form of posted maps. The BLM would retain the discretion to close individual existing routes if site-specific resource concerns warrant a closure to horse traffic.

N.4. Implementation-Level Travel Decisions

Implementation-level decisions include the process of assigning route designations to each route in accordance with alternative themes, while balancing access and resource concerns. Route designation is an implementation-level decision intended to support the D-E NCA's goals and objectives.

The BLM's IDT convened for approximately four weeks during April and May of 2014. Cooperating agencies were invited to participate in this process. During this time, the group examined each route within the D-E NCA to determine its designation. Access needs, resource concerns, recreational objectives and public comment all factored into this process, as described

above. The designation criteria used by the IDT are described in detail below, and they reflect the changes the team made from the Draft to the Proposed TMP to further clarify intent, to mirror the objectives and management actions in the Proposed Plan Alternative, and to incorporate the changes recommended by public comment.

Only routes on BLM land within the D-E NCA that were not county-maintained roads were considered during this process. The mileage of county-maintained roads is included in Table N.4 merely to present a complete picture of the travel management system within the D-E NCA.

N.4.1. Designation Criteria for Each Route

As the BLM analyzed each route within the D-E NCA, the criteria listed below were used to determine the use needs and resource concerns associated with each route. For example, if a route helped meet trail-based recreational objectives for a recreation management area (RMA) in the Proposed Plan Alternative, this was noted at that stage of the process.

Some of the criteria for identifying environmental concerns and other factors for consideration were treated with more urgency than others when route-by-route designations were being determined. For example, routes that were in big game calving or production areas were considered a far more pressing concern than routes that fell within a big game summer range. In all cases, use needs and concerns stem from management objectives and actions in the Proposed Plan Alternative. The criteria in the following list include the corresponding row numbers of the Chapter 2 Alternatives Matrix.

Use of the Route

Recreation

1. The route or trail helps meet trail-based objectives for recreation (see Alternatives Matrix for each RMA).

2. The route or trail provides access to recreational opportunities. In response to public comments, the BLM applied this criteria to all routes (Alternatives Matrix, row 445).

3. The route provides access to a dispersed camping site or scenic overlook (Alternatives Matrix, row 327).

Livestock Grazing

1. The route or trail provides access to existing range developments (Alternatives Matrix, row 530).

2. The route or trail facilitates livestock management (Alternatives Matrix, row 530).

Lands and Realty

1. The route or trail provides access to non-Federal lands (Alternatives Matrix, row 530).

2. There is an existing right-of-way associated with the route, or the route provides access to an existing right-of-way (Alternatives Matrix, row 530).

Environmental Concerns

Soil Stability

1. The route is within 25 meters of highly erosive soils (i.e., fragile soils, as defined by the Natural Resources Conservation Service) (Alternatives Matrix, row 212).
2. The route crosses areas with slopes between 25–40% (Alternatives Matrix, row 213).
3. The route crosses slopes of 40% or greater (Alternatives Matrix, row 213).

Wildlife Habitat

1. The route is within elk and mule deer winter concentration areas and severe winter range. In the Proposed TMP, this resource concern is addressed through seasonal closures (Alternatives Matrix, Lines 179; 538).
2. The route is within bighorn production areas (Alternatives Matrix, row 134).
3. The route is within a bighorn summer range (Alternatives Matrix, row 138).
4. The route is within bighorn winter concentration areas (Alternatives Matrix, row 135).
5. The route is within pronghorn winter concentration areas (Alternatives Matrix, row 181).
6. The route contributes to habitat fragmentation (Alternatives Matrix, row 35).
7. The route leads to sagebrush fragmentation (Alternatives Matrix, row 60).

Special Status Species Habitat

1. The route is within 0.5 miles of identified raptor nests (Alternatives Matrix, row 155).
2. The route is within potential raptor habitat (Alternatives Matrix, row 155).
3. The route is within Gunnison sage—grouse winter habitat (Alternatives Matrix, row 169).
4. The route is within 50 meters of active prairie dog colonies (Alternatives Matrix, row 167).
5. The route is within 200 meters of Colorado hookless cactus (Alternatives Matrix, row 145).
6. The route is within 100 meters of known occurrences of BLM sensitive plant species (Alternatives Matrix, row 152).
7. The route is within the following CNHP-classified vegetation communities: exemplary, ancient, critically imperiled, imperiled, or vulnerable (Alternatives Matrix, row 151).

Riparian Areas, Water Quality, and Fisheries

1. The number of times a route crosses a stream (Alternatives Matrix, row 79).
2. The route is within 100 meters of perennial streams (Alternatives Matrix, row 94).
3. The route is within 30 meters of ephemeral streams (Alternatives Matrix, row 217).

Cultural Resources

1. The route is within 100 meters of identified cultural sites/routes (Alternatives Matrix, row 253–4).

Geological/Paleontological Resources

1. The route crosses significant paleontological or geological areas (Alternatives Matrix, row 4).

Special Management Areas

1. The route is within an area determined to contain wilderness characteristics (Alternatives Matrix, row 301).

2. The route passes through Escalante Canyon and/or Gunnison Gravels ACECs (Alternatives Matrix, rows 577, 569).

3. The route passes through Gibbler Mountain ACEC and within 100 meters of known, significant paleontological sites and/or within 100 meters of BLM sensitive plant occurrences (Alternatives Matrix, row 583).

4. The route passes through Gibbler Mountain ACEC and within 200 meters of Colorado hookless cactus (Alternatives Matrix, row 584).

5. The route passes through River Rims ACEC and within 200 meters of Colorado hookless cactus (Alternatives Matrix, row 596).

6. The route is within the national historic trail management corridor. Close and potentially rehabilitate routes to improve the naturalness of the trail management corridor setting (Alternatives Matrix, row 614).

Other Factors for Consideration

1. The route could potentially lead to trespass on private land (Alternatives Matrix, row 542).

2. The route continues on to adjacent Forest Service and/or State lands managed by CPW (Alternatives Matrix, row 536).

Routes of Special Importance to Counties

Mesa, Delta, and Montrose Counties served as cooperating agencies on the planning team, and these counties identified factors and/or individual routes that were important for serving various needs important to local government or to their constituents. These needs included business access (e.g., agriculture) but also included general access and recreation as well. This understanding emerged as an important factor as the planning process continued, with the counties providing input regarding routes important for access and recreation as well as business needs. The BLM planning team worked closely with the counties to review and understand these comments and incorporate them wherever possible given other laws that guide management of public lands.

N.4.2. Route-by-Route Designation

Once the uses, concerns, and other factors for each route had been reconfirmed, the public comments evaluated, and the minimization criteria identified, the IDT gave each route a designation.

Route designations conformed to the management objectives and actions described in Chapter 2 of the Proposed RMP. Resource protection and recreational objectives, in particular, played a significant role in determining which routes were designated as open, limited, or closed. For an alternative in which a particular area did not have recreational objectives, routes were more likely to be closed as a result of environmental concerns than if the area had recreational objectives.

Route designations fell into the following categories (letters within parentheses are symbols used for each category):

- Open to all modes of travel
- Closed
- Closed, and targeted for rehabilitation
- Limited to administrative use only
- Limited to foot and horse travel only
- Limited to bicycle, foot, and horse travel only
- Limited to motorcycle, bicycle, foot, and horse travel only
- Limited to ATV, motorcycle, bicycle, foot, and horse travel only

Administrative routes are routes that would be closed to the public but open for use by individuals (e.g., grazing permittees, BLM employees, and CPW employees) who have authorization to travel on such routes. This does not include special recreation permit holders. These administrative routes could include routes to stock ponds and other range improvements, to guzzlers, and to BLM facilities. Some routes received both an administrative designation and another designation (for example, when a route was designated as a bicycle route, but a grazing permittee still needed administrative motorized access).

The BLM chose to designate routes for horse and foot travel throughout the D-E NCA despite the fact that the D-E NCA would be available for cross-country travel on horse and foot, with the exception of Wilderness Zone 1 in the Proposed TMP (which limits horseback travel only to existing routes. This was done in response to public comment from hiking and equestrian user groups that requested designated trails for horse and foot travel. Designating horse and foot routes means these routes would be added to the facility asset system and the BLM could use appropriated funds to maintain the routes.

Inside the Dominguez Canyon Wilderness, routes were also designated for horse and foot travel to create an identifiable trail system. These routes would also be added to the facility asset system, and the BLM would use appropriated funds for maintenance. Other routes inside the Wilderness did not receive a designation. These routes were labeled “wilderness” routes. These routes would not be maintained and would be allowed to change through natural processes.

Along with a designation, the BLM classified each open route as a road, primitive road, or trail. The definitions of these three route categories are as follows (BLM 2011c):

- Road: A linear route declared a road by the owner, managed for use by low-clearance vehicles having four or more wheels, and maintained for regular and continuous use.
- Primitive road: A linear route managed for use by four-wheel-drive or high-clearance vehicles. These routes do not customarily meet any BLM road design standards. Unless specifically prohibited, primitive roads can also be used for activities such as hiking, biking, and horseback riding.
- Trail: A linear route managed for human-powered, stock, or OHV travel, or for historical or heritage values. Trails are not generally managed for use by four-wheel-drive or high-clearance vehicles.

Route-by-Route Designation in the Proposed TMP

Through the process of route-by-route designation for the Proposed TMP, the IDT established some guidelines that were applied across all routes:

1. Routes that could lead to private-land trespass and do not provide primary access to non-BLM lands were designated as closed. There are approximately 9 miles of such routes in the D-E NCA that would be closed under the Proposed TMP.
2. Routes that could lead to private-land trespass and that provide primary access to non-BLM lands were designated as limited to administrative use only.
3. Routes that are associated with, or provide primary access to, established rights-of-way were either designated as open or as limited to administrative use only.
4. Routes that lead to existing and necessary livestock facilities were designated as open or as limited to administrative use only.
5. Routes were designated to provide consistency with route designations on adjacent National Forest System lands and State lands.

Proposed Travel Management Plan

The Proposed Travel Management Plan route-by-route designations listed in Table N.4 below are based on the process and criteria outlined above.

Table N.4. Miles of Route Designations by Alternative

	BLM Routes Limited to										
	Open County-Maintained Roads on BLM Public Lands	Open County-Maintained Roads off BLM Public Lands	Open to All Modes of Travel	Administrative Use Only	ATV, Motorcycle, Bicycle, Horse and Foot	Motorcycle, Bicycle, Horse and Foot	Bicycle, Horse and Foot	Horse and Foot	Non-Maintained Routes*	Closed Routes	Routes Available for Some Form of Public Use
Alt. A	83	30	472	22	53	18	0	90	0	4	716
Alt. B	83	30	162	74	81 (8)	3 (1)	10 (2)	47	0	282	386
Alt. C	83	30	100 (11)	147	3 (3)	0	23 (6)	35	0	351	244
Alt. D	83	30	163 (1)	59	61 (19)	22 (9)	68 (35)	66	0	220	463
Draft Alt. E (Preferred)	83	30	184 (4)	56	85 (24)	4 (1)	7 (1)	94	0	230	457
Proposed TMP	83	30	211	47	102	11	12	112	20	144	551

Note: Numbers in parentheses indicate routes that would be initially closed due to certain concerns and then reopened at a later date once the concerns had been mitigated or addressed.

**Non-maintained routes are routes within Zones 2 and 3 of the Wilderness that will remain open to horse and foot use, as cross-country travel throughout the Wilderness (and throughout the remainder of the D-E NCA) by foot and horse is permitted. However, the BLM will not maintain these routes as part of its travel management system.*

N.4.3. Cultural Resources

Through the travel management planning process, the BLM satisfied the requirements of Section 106 of the NHPA, 16 U.S.C. § 470f, for the travel and transportation management decisions relating to the D-E NCA RMP pursuant to Addendum 1 of the economic impacts associated with livestock grazing Colorado State Protocol Agreement (Protocol) between the Colorado State Historic Preservation Officer (SHPO) and the BLM. The Protocol supplements the National Programmatic Agreement between the BLM, the Advisory Council on Historic Preservation (ACHP), and the National Conference of State Historic Preservation Officers and adopts an alternate procedure for compliance with Section 106 of the NHPA as allowed under 36 CFR § 800.14(b).

Addendum 1 recognizes that the BLM's designation of routes and areas is an undertaking triggering compliance with Section 106 of the NHPA and that the BLM must complete the Section 106 requirements as part of route designation during the planning process. The Addendum specifically outlines how the BLM will comply with the requirements for Section 106 for Comprehensive Travel and Transportation Management Planning. As described in the Addendum, "selection of specific route networks and imposition of other use limitations, will avoid impacts on cultural resources where possible. In accordance with 43 CFR 8342, existing cultural resource information must be considered when choosing among the range of alternatives for the design of a planning area travel system, including the potential impacts on cultural resources when determining whether each of the routes or areas in a planning area should be designated as open, limited, or closed."

During the designation process, existing cultural resource information is considered when choosing among the range of alternatives for the design of a planning area travel system. A large number of existing routes and areas are designated in these planning efforts (land use plans and resource management plans). According to Addendum 1, "Designation provides a purposefully designed and clearly delineated travel network, reduces the potential for user-caused route proliferation, and facilitates travel management and law enforcement," all of which are helpful in reducing adverse effects to historic properties.

The steps set forth in the Addendum establish a phased process for the identification, evaluation, and resolution of potential adverse effects to historic properties eligible for or listed on the National Register of Historic Places. The area of potential effect (APE) that is subject to inventory will be determined by the cultural resource specialist as defined by 36 CFR 800.16(d). When defining the APE, the BLM will consider potential direct, indirect, and cumulative effects to historic properties.

The Addendum's phased process for identification is broken down into three steps: 1) planning, 2) route development, and 3) route maintenance. During the planning phase, existing cultural resource data along with known areas of higher use or concentration of travel are used to determine priority areas for a Class III cultural resource inventory. The SHPO, interested Native American tribes, and other consulting parties are consulted during planning and invited to participate in the development and implementation of identification, monitoring, and treatment options according to the Colorado State Protocol in association with the National Programmatic Agreement.

During the route development phase, when a Class III inventory is being completed, if the BLM identifies historic properties that are eligible for or listed on the National Register of Historic Places that are affected, the BLM will identify ways to avoid, minimize, or mitigate such adverse

effects, and outline treatment procedures. The types of avoidance, minimization, or mitigation may include fencing, site testing or excavation, signing, route realignment, or route limitation or closure. The third phase focuses on conducting Class III inventories, as necessary, for those areas identified during the planning phase as being the lowest priority inventory areas with designated routes.

For the D-E NCA RMP travel and transportation management planning process, the BLM identified existing routes throughout the field office and examined the routes to determine the appropriate designation based on public need and known natural and cultural resource concerns. The BLM used current cultural resource inventories and assessments to determine potential cultural resource concerns on a route-by-route basis. The designated routes identify cultural resource concerns along with any other issues or rationale for the route designation, which are reflected in Table N.4. The BLM withheld from public disclosure sensitive cultural resources associated with routes, even though the BLM considered such information during the designation process.

During the RMP planning phase, the BLM consulted with the SHPO and interested Native American tribes and incorporated the comments received into our Proposed Plan Alternative. Once the RMP is finalized, the D-E NCA will move into the phased identification process to determine priority areas for a Class III cultural resource inventory. A priority list of designated routes that require a Class III cultural resource inventory will be completed based on the implementation plan and implementation priorities. The remaining phases will follow the steps of the Addendum as described above. For those routes that the BLM determines may have adverse effects on cultural resources eligible for or listed in the National Register of Historic Places, the D-E NCA will consult with the SHPO, interested Native American tribes, and other interested parties to determine the means to avoid, minimize, or mitigate such adverse effects on a case-by-case basis.

N.4.4. Guidance for Implementation of Proposed Travel Management Plan

As noted above, route-by-route decisions in this TMP are implementation-level decisions designed to support resource and resource use objectives found in Chapter 2 of the RMP. As such, the route-by-route decisions can change through the life of the RMP. Changes to these route-by-route decisions will be based on an evaluation of monitoring information to determine whether a route is supporting RMP objectives.

After the Record of Decision is written, the BLM will develop a strategy to implement this TMP. The following will be included in that strategy:

Priorities:

Priority areas for implementation of the travel plan will be areas of higher use and concentration of travel. In the D-E NCA, these are areas with planning objectives focused on trail-based recreation and where use will likely be highest. Listed in priority, these areas are:

1. Cactus Park RMA

2. Ninemile Hill RMA

3. Hunting Ground RMA

4. Sawmill Mesa/Wagon Park RMA

Within areas of higher use and concentration of travel, priorities for the travel system implementation plan will include areas or routes that have the highest adverse effect on wildlife, soil, water, and riparian resources. This would include areas identified for seasonal closures to protect wildlife and individual routes that were left open that need mitigation to protect soil, water, and riparian resources.

Surveys:

Cultural Surveys: In accordance with Addendum 1 to the Colorado State Protocol Agreement discussed above, Class III cultural surveys will be conducted on routes within priority areas with known adverse effects to cultural resources. Class II surveys will also be conducted in priority areas to identify additional routes that need Class III surveys. Class III surveys will be conducted for all new routes or reroutes of designated routes.

Colorado Hookless Cactus Surveys: Surveys for Colorado Hookless Cactus will be conducted on the basis of consultation with the USFWS.

Administrative Route Implementation:

Routes are designated as administrative to facilitate access for livestock grazing permittees, rights-of-way, and agency work. Even if a route is not designated with a primary designation as administrative, the BLM provided for administrative access for existing needs at the time of the development of the Proposed Travel Management Plan. Future administrative access not identified at the time of the Proposed Travel Management Plan may be granted on a case-by-case basis for livestock permittees and applicants for rights-of-way. Administrative routes are not open for motorized and mechanized public use. In the case of grazing and right-of-way access, the intent is for the routes to be used solely for the purpose associated with the authorization; therefore, the following implementation actions and guidelines will be used to authorize use on administrative routes:

***Rights-of-Way*:**

1. The right-of-way holder will be issued a motorized-use authorization that defines the nature of access and any timing limitation that applies.

2. The right-of-way holder will be required to carry a copy of the motorized-use authorization when using authorized administrative routes.

***Livestock Grazing*:**

1. Motorized use of administrative routes for livestock grazing will be limited to permitted allotments, one week before, during, and one week after the authorized grazing dates defined on the grazing permit. Any use of administrative routes outside these time frames will require written authorization from the BLM (e.g., cleaning a pond outside the permitted grazing dates).

2. In the case of sick or injured livestock, cross-country motorized travel will be permitted. The permittee must notify the BLM following any such cross-country travel. Emergency

cross-country use will only be permitted during the authorized grazing dates defined on the grazing permit.

3. Motorized travel will be permitted off administrative routes along fence lines for the purpose of repairing or constructing fences and gates. Motorized travel off administrative routes along fence lines for maintenance will only be authorized one week before and during the authorized grazing dates defined on the grazing permit. Motorized travel off administrative routes along fence lines for construction or reconstruction of fences may be approved outside the authorized grazing dates defined on the grazing permit on a case-by-case basis.

4. All allotment management plans in the D-E NCA will be updated to include an administrative motorized-use authorization. A map will be created showing the administrative routes where use is authorized.

5. The permittee and his/her representatives will be required to carry a copy of the map when using administrative routes.

Implementation Actions:

The implementation plan for the travel system will include signs and information to help the public understand which routes are open to which uses. Route signs will follow the Colorado Interagency Sign Standards (I CO-2011-028). Information kiosks will include stewardship and sustainable trail messages (e.g., Tread Lightly and Stay the Trail).

The implementation plan will include current best management techniques for decommissioning closed routes. This will include techniques that will lead to long-term restoration of closed routes to a natural setting that requires no maintenance.

Any new trails or reroutes of existing trails will be developed following the processes outlined in the "Trail Development Process" section below and constructed in accordance with Appendix K, Trail Design Criteria.

Monitoring:

Monitoring individual routes is necessary to evaluate whether the TMP supports achievement of RMP objectives for the different resources and resource uses. The implementation plan will include a monitoring strategy for individual routes that does the following:

a. Determines baseline conditions: each route designated as open in the TMP will be assessed to determine its condition.

b. Sets a frequency for monitoring the route condition: this may be determined by a variety of factors, including but not limited to 1) the route's adverse effects on biological and cultural resources, 2) the type of recreation use, and 3) the intensity of recreation use.

c. Identifies monitoring indicators: monitoring indicators for individual routes will be linked to RMP objectives for the different resources and resource uses in the RMP (e.g., percentage of naturally occurring seeps and springs that show evidence of trampling and human disturbance).

d. Identifies standards: similarly to indicators, monitoring standards will be linked to RMP objectives for the different resources and resource uses in the RMP (e.g., 6–20% of

naturally occurring seeps and springs have evidence of human disturbance caused by an individual route or routes).

e. Develops a process or system that documents the monitoring protocols and route data.

Evaluation:

Monitoring is critical in determining whether the designated route network is supporting resource management objectives. Analysis and evaluation of monitoring data provide an indication of change in use and the effects of that use on the environment. On the basis of an evaluation of the monitoring data, the BLM will determine whether changes to the route network need to be made. This process of monitoring, analyzing, and evaluating allows the BLM to adaptively manage the route network to achieve the resource management objectives identified in the RMP. When routes are not contributing to the achievement of management objectives, the BLM may respond in a variety of ways, including but not limited to the following:

a. Improving information and education for users

b. Rerouting a road or trail

c. Constructing new roads or trails

d. Changing the maintenance intensity of a road or trail

e. Closing a road or trail

N.5. Maintenance Intensities

Maintenance intensity categories provide consistent objectives and standards for the care and maintenance of BLM routes according to identified management objectives. Maintenance intensities are consistent with land-use-planning management objectives (e.g., biological, cultural, recreational, and visual). They provide operational guidance to field personnel on the appropriate intensity, frequency, and type of maintenance activities that should be undertaken to keep the route in an acceptable condition, and they provide guidance on the minimum standards of care for the annual maintenance of a route. They do not describe route geometry, route type, use type, or other physical or managerial characteristics of the route. Those factors are addressed separately.

Maintenance intensities provide a range of objectives and standards, from identification for removal through frequent and intensive maintenance:

- **Level 0** routes are existing routes that will no longer be maintained and no longer be declared a route. Routes identified as Level 0 are removed from the transportation system entirely.

- **Level 1** routes require minimum (low intensity) maintenance to protect adjacent lands and resource values. These roads may be impassable for extended periods of time.

- **Level 3** routes require more moderate maintenance due to low-volume use (such as seasonal or year-round use for commercial, recreational, or administrative access). Maintenance intensities may not provide year-round access but are intended to provide resources appropriate to maintain a usable route for most of the year.

- **Level 5** routes require high (maximum) maintenance due to year-round needs, high-volume traffic, or significant use. Level 5 designation may also include routes identified through management objectives as requiring high intensities of maintenance or as needing to be kept open on a year-round basis.

A proposed maintenance intensity class is included for each route in the TMP. These classes will provide the basis for updating the BLM Facility Asset Maintenance System (FAMS) database for the project area. Under BLM policy, transportation, maintenance, and repairs may be conducted on Bureau routes on a case-by-case basis depending on need and after NEPA analysis.

N.6. Trail Development Process

Introduction

The purpose of this document is to clearly define the process required to create new trails or modify existing trails across public lands managed by the BLM's D-E NCA. Trails provide a wide range of recreational opportunities throughout the D-E NCA. Trails are also a tool used by the agency to provide those diverse recreational opportunities while minimizing impacts to natural and cultural resources. Following the background information below is a step-by-step summary of the process for planning, designing, constructing, maintaining and monitoring trails that are legal, fun, functional and sustainable.

The Process

For many years, the BLM has actively partnered with organizations and individuals in the Grand Junction area to design and construct many of the trails on public lands in and around the Grand Valley. These trails help support a strong recreation-based infrastructure that makes this area a recreation destination, and an excellent place to live and play. As the popularity of trail-based recreation has grown, so has the need to carefully manage those trails in order to protect recreation opportunities, as well as the many other resources found on local public lands. Effective stewardship of public lands requires collaboration and communication between and among land managers and the many people who use and enjoy those lands. To that end, the BLM recognizes the need to openly communicate the BLM's trail planning and construction process, as well as the BLM's current trail management strategy.

The BLM has worked with trail user groups to implement a trail planning and construction process that creates fun, functional and sustainable trail systems while protecting important natural and cultural resources. Each trail or trail system proposal presents unique opportunities and challenges, but the basic steps for successfully navigating the process are described below.

1. **Formulate a trail proposal or concept.** This is usually the easy part. You've got an idea for a great new trail opportunity, or know of an existing trail that really needs to be fixed. Avoid the temptation to grab a tool and start digging, or to simply start trampling in a new route. Remember these are public lands managed for multiple uses.

2. **Identify the purpose and need for the trail.** Think about why your trail idea is important and what purpose it would serve. Write those ideas down.

3. **Build an appropriate constituency for your proposal.** Find other user groups who may have an interest in the area. Introduce yourself to these other players and begin to develop a relationship of open communication and trust. A few key points to remember about building a constituency are listed below.

   - **Look at the big picture:** Public lands contain many different resources and have many different values to many different people. Those differences require a broad and balanced management perspective.

   - **Communicate effectively:** Ask questions if the process, or another person's perspective, is unclear. Listen carefully to others involved in the process.

   - **Think creatively and collaboratively:** Look for ways to partner with the agency and other user groups to provide the time, talent and funding necessary to move a trail proposal through the process.

4. **Contact the BLM office (or other agency) that manages the land you're interested in.** Call or e-mail to set up an appointment to talk with someone (usually someone from the recreation program staff) about your idea.

5. **Know and understand the process.** Take some time to learn the details of the process summarized in this document. A few key points to remember about the process are as follows:

   - **Be patient!** The trail development process takes time (sometimes years.) The end result will be worth it.

   - **Be flexible.** Changes are often necessary to address issues that arise during the process.

   - **Learn more about trails.** There are many great print and electronic media resources, as well as hands-on training opportunities, to learn more about trail planning, design, layout, construction, maintenance and monitoring. See the reference section at the end of this document.

6. **Determine current management direction.** Work with BLM staff to identify laws, management plans, policies, and special designations that may affect the trail proposal. Some of the management components that will likely be involved with trail proposals include the following:

   - **Endangered Species Act** – the law that guides managers to protect listed threatened and endangered species.

   - **National Environmental Policy Act** – the law that guides any proposed action on Federal lands.

   - **National Historic Preservation Act** – the law that guides land managers to consider and protect cultural resources.

   - **Resource Management Plan** – provides general management guidance for all resources within the D-E NCA. The recreation section of an RMP will define what types of recreation opportunities are targeted for different areas within the D-E NCA

- **Recreation Management Plans** – provide specific recreation management direction for areas. Recreation Management Plans are based on the recreation objectives in the RMP
- **Special area designations**
  - Recreation Management Areas – areas where specific recreation management guidance has been developed in the RMP.
  - Areas of Critical Environmental Concern – areas where specific resource concerns have been identified, and management actions are implemented to protect those resources.
  - Wilderness and Wilderness Study Areas – undeveloped areas that are managed for "primitive and unconfined" recreation and for other wilderness values.

7. **Refine trail proposal and define Trail Management Objectives (TMOs).** Based on management direction findings, adjust proposal to fit within current management objectives and guidelines. If the trail proposal is in a RMA, be sure the TMOs are consistent with objectives for that area in the RMP. **Trail Management Objectives** define what the trail looks like, and how it's managed. TMOs may include some or all of the following specifications:

- Recreation objective from the RMP
- Trail name/number
- Type of use
- Trail type
- Level of use
- Use season
- Level of difficulty
- Tread width
- Corridor width and height
- Surface condition
- Maximum sustainable grade
- Operations and patrol
- Maintenance requirements
- Special features
- Monitoring requirements

8. **Design and lay out a sustainable trail alignment.** This process is further explained in the document entitled "Trail Design Criteria," which is included as Appendix K in this Proposed RMP. Trail design and layout requires special training and experience. Utilize a qualified trail designer to ensure a high quality sustainable trail alignment. Qualified trail designers may be agency employees, trained volunteers, or hired trail contractors.

9. **Initiate NEPA Process.** NEPA (National Environmental Policy Act) provides a framework for analyzing the impacts of a proposed project. It requires input from a wide range of resource specialists from the BLM, and often other agencies as well. NEPA analysis along with the associated field work and paperwork is performed by BLM staff, by a contractor, or by a combination of the two. The NEPA process is a public process and provides opportunities for public input regarding any proposed action on Federal lands. For more information about the NEPA process see the "Citizens Guide to NEPA" referenced at the end of this document.

   In most cases, trail project proposals will require an EA, which analyzes impacts on the following resources (this list is representative only and does not include every resource analyzed in an EA):

   - BLM sensitive species
   - Fisheries/aquatic organisms
   - Native American religious concerns
   - Federally threatened, endangered, and candidate species
   - Soils
   - Water
   - Geology and mineral resources
   - Wildlife
   - Vegetation
   - Invasive, non-native species
   - Cultural resources (historic and prehistoric)
   - Paleontological resources
   - Range management (livestock grazing)
   - Visual resources
   - Transportation and access
   - Economy
   - Recreation
   - Wilderness and wild lands
   - Wild and scenic rivers
   - Special designations

   The EA contains the following information:

- Proposed action – the trail proposal plus any associated actions (i.e., trailheads, fencing, etc.)

- Alternatives – in addition to the proposed action, a no-action alternative is analyzed, and sometimes one or more alternative actions are analyzed. This provides a range of information on which to make a management decision.

- Description of current situation

- Description of purpose and need for the proposed action

- Review of relevant laws, management plans and guidance

- Detailed analysis of impacts to resources from the proposed action

- Description of actions to mitigate resource impacts

- Finding of No Significant Impact (FONSI)—statement that mitigated impacts from the proposed action will not be "significant." If the EA determines there will be significant impacts, an EIS must be prepared.

- Decision Record (DR)—a statement detailing the decision on how to proceed regarding the proposed action. A decision will be made that will approve the proposal, deny the proposal, or approve it with modifications. Once the DR is signed by the National Conservation Area Manager, the actions specified in the DR may be implemented.

Trail EAs often require special field surveys, which can be expensive and time consuming. **Partnerships to fund surveys are often critical to moving a trail proposal forward:**

- Cultural surveys—on-the-ground assessment of historic and prehistoric human activity in the project area. Federal laws (NHPA and others) mandate the documentation and protection of cultural resources found on Federal lands.

- Plant surveys—on-the-ground assessment of rare, sensitive, threatened or endangered plants in the project area. Federal and State laws mandate the documentation and protection of special status plants found on Federal lands.

- Paleontological surveys—on-the-ground assessment of fossils and other evidence of prehistoric life. Federal laws mandate the documentation and protection of vertebrate fossil resources.

- Wildlife surveys – assessment of sensitive wildlife species or wildlife habitats in the project area. Federal and State laws mandate the documentation and protection of special status fish and wildlife species, and their habitat.

10. **Modify the proposal if required by NEPA.** Sometimes trail reroutes will be required to mitigate impacts to other resources.

11. **Begin construction or maintenance of the trail following completion of the NEPA process.** If the project is approved, and once the EA is signed, implementation of the decision can begin.

12. **Monitor the trail to ensure that TMOs are being met.** This should include the following:

- Physical monitoring: Is the trail maintaining the design and construction specifications identified in the TMO?

- Social monitoring: Is the trail providing the recreational opportunities and experiences specified in the TMO?

Modify the trail if it is not meeting objectives. Any modifications to the trail will require BLM approval.

References

See Chapter 6 of this Proposed RMP for a comprehensive reference list.

Citizens Guide to NEPA:

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Trail Design References:

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Trail Management Objective Form

Trail Management Objective

Trail Name _____
_____

Resource Management Plan Objective _____
_____

Type of use:

Hiking/Running ____ Equestrian ____ Mtn. Biking ____ Motorcycle ____ ATV ____ 4x4 ____

Trail type:

Access ____ Destination ____ Point-to-Point ____ Loop ____

Level of use:

Recreational Heavy ____ Moderate ____ Light ____

Competition Yes ____ No ____

Commercial Yes ____ No ____

Use season:

Year-round ____ Spring, Summer, Fall ____ Winter ____ Seasonal closure ____

Level of Difficulty:

Easiest ____ More Difficult/Intermediate ____ Most Difficult/Advanced ____ Experts Only ___

Trail Specifications:

Tread width _____ inches

Corridor Width _____ feet Height _____ feet

Surface smooth ____ moderate ____ rough/technical ____

Maximum sustainable grade _____

Operations and Patrol:

Patrolled by: BLM ____ Volunteer(s) ____ Adopt-a-Trail ____

Frequency of patrols: Weekly ____ Monthly ____ Yearly ____

Type of patrol: Law enforcement ___ Maintenance ___ Monitoring ____ Visitor services (information/education) ____

Maintenance:

Frequency: Six months ____ Annual ____ Three years ____ As needed ____

Work performed by: Agency ____ Contract ____ Volunteers ____

Method: Mechanized ____ Hand work ____

Features:

Retaining walls ____ Hardening ____ Bridges ____ Drainage structures ____ Signing: interpretive and information ____ Switchbacks ____ Drains (culverts, etc.) ____ Other ____

Monitoring:

Photo points: Yes ____ No ____ Frequency _____

Appendix O. Wild and Scenic River Suitability Report

O.1. Executive Summary

In accordance with the Wild and Scenic Rivers Act and BLM Manual 6400 (BLM 2012c), the BLM conducted a wild and scenic river (WSR) study as part of the resource management planning process for the Dominguez-Escalante National Conservation Area (D-E NCA). Evaluation of rivers for possible inclusion in the National Wild and Scenic Rivers System (National System) follows a three-step process: 1) Determination of eligibility, 2) tentative classification, and 3) determination of suitability.

The first two steps in the study process (determination of eligibility and tentative classification) were completed as part of the Grand Junction and Uncompahgre Field Offices' RMP revision processes. The D-E NCA includes lands in both field offices. Therefore, the determination of eligibility and tentative classification of streams in the GJFO portion of the D-E NCA were documented in the WSR Eligibility Report for the GJFO (BLM 2009), and the determination of eligibility and tentative classification of streams in the Uncompahgre Field Office portion were documented in the WSR eligibility report for the Uncompahgre Field Office (BLM 2010d).

Eleven segments on seven streams within the D-E NCA were initially found to be eligible for inclusion in the National System. The findings of these two reports were consolidated in a summary report for the D-E NCA. Since these initial eligibility findings, changes to eligibility have been made and are summarized in this report.

This report finalizes the first two steps and completes the third step in the study process: determination of whether eligible segments are suitable. The suitability step of the study process is designed to answer the following questions:

1. Should the river/stream's free-flowing character, water quality, and outstandingly remarkable values (ORVs) be protected, or are one or more other uses important enough to warrant doing otherwise?

2. Will the river/stream's free-flowing character, water quality, and ORVs be protected through designation? Is it the best method for protecting the river corridor? Are there other methods available to protect the river/stream's WSR values?

3. Is there demonstrated commitment to protect the river/stream by any non-Federal entities who may be partially responsible for implementing protective management?

To answer these questions and make a final determination of suitability, the BLM interdisciplinary team (IDT) of resource specialists evaluated information from a variety of sources, including, but not limited to, stream flow data; water rights records; State, county, and local land-use plans; public comments received during the scoping process; cooperating agency recommendations; the Gunnison River Basin stakeholder process; and recommendations of the D-E NCA Advisory Council.

The results of the IDT evaluation and preliminary determinations of suitability are summarized in Table O.1 below.

Table O.1. Summary of Preliminary Suitability Determinations

River or Creek	Segment	Total Segment in Acres*	BLM Acres*	Preliminary Suitability Determination	Proposed Tentative Classification
Gunnison River	Segment 3	6,064	3,857	Not suitable	N/A
	Segment 1	5,675	4,054	Not suitable	N/A
Big Dominguez Creek	Segment 1	4,574	4,496	Not suitable	N/A
	Segment 2	139	139	Not suitable	N/A
Little Dominguez Creek	Segment 1	3,887	3,843	Not suitable	N/A
	Segment 2	621	621	Not suitable	N/A
Rose Creek	N/A	1,215	1,175	Not suitable	N/A
Escalante Creek	Segment 1	2,540	1,819	Not suitable	N/A
	Segment 2	2,372	877	Not suitable	N/A
Cottonwood Creek	N/A	5,163	4,732	Suitable (3,729 acres)	Wild
**Quarter-mile buffer along eligible rivers/streams*					

O.2. Introduction

This report presents an analysis of and recommendations regarding the suitability of 10 eligible river segments within the BLM D-E NCA for inclusion in the National System.

A WSR study was initiated as part of the development of the Draft RMP/EIS for the D-E NCA. The study was conducted in accordance with the WSR Act and BLM Manual 6400.

WSR studies follow a three-step process: 1) Determination of eligibility, 2) tentative classification, and 3) determination of suitability. The first two steps of the study process were initiated prior to the designation of the D-E NCA in March 2009. Since the D-E NCA includes lands in both the Grand Junction Field Office and the Uncompahgre Field Office, these first two steps in the study process were completed and documented in two separate eligibility reports for the two respective offices.

Planning Area Description

The planning area for this report is the D-E NCA, which is located in western Colorado (see the map in Figure O.1 below). The D-E NCA encompasses 210,012 acres of BLM-administered land in Mesa, Delta, and Montrose Counties in western Colorado. Within the D-E NCA, 66,280 acres make up the Dominguez Canyon Wilderness Area (the Wilderness), which was once part of the Dominguez Canyon Wilderness Study Area (WSA).

The entire D-E NCA falls within the Gunnison River Basin. Nearly 30 miles of the Gunnison River flow through the D-E NCA. Big and Little Dominguez Creeks, Escalante Creek, Cottonwood Creek, and their tributaries cascade through sandstone canyon walls that drain the eastern Uncompahgre Plateau.

The D-E NCA was designated in the Omnibus Public Land Management Act of 2009 (included as Appendix Q in this Proposed RMP). The purpose of this designation was to conserve and protect for the benefit and enjoyment of present and future generations the following unique and important resources and values: geological, cultural, archaeological, paleontological, natural, scientific, recreational, wilderness, wildlife, riparian, historical, educational, scenic and water resources.

Known for their scenic value, these lands are popular with those wanting to see the spectacular canyon country of the Uncompahgre Plateau. Red-rock canyons and sandstone bluffs hold geological and paleontological resources spanning 600 million years, as well as many cultural and historic sites. Ute Tribes today consider these pinyon-juniper-covered lands an important connection to their ancestral past. The Old Spanish National Historic Trail, a 19th-century land trade route, lies within the D-E NCA. A variety of wildlife call the area home, including desert bighorn sheep, mule deer, golden eagle, turkey, elk, mountain lion, black bear, and the collared lizard.

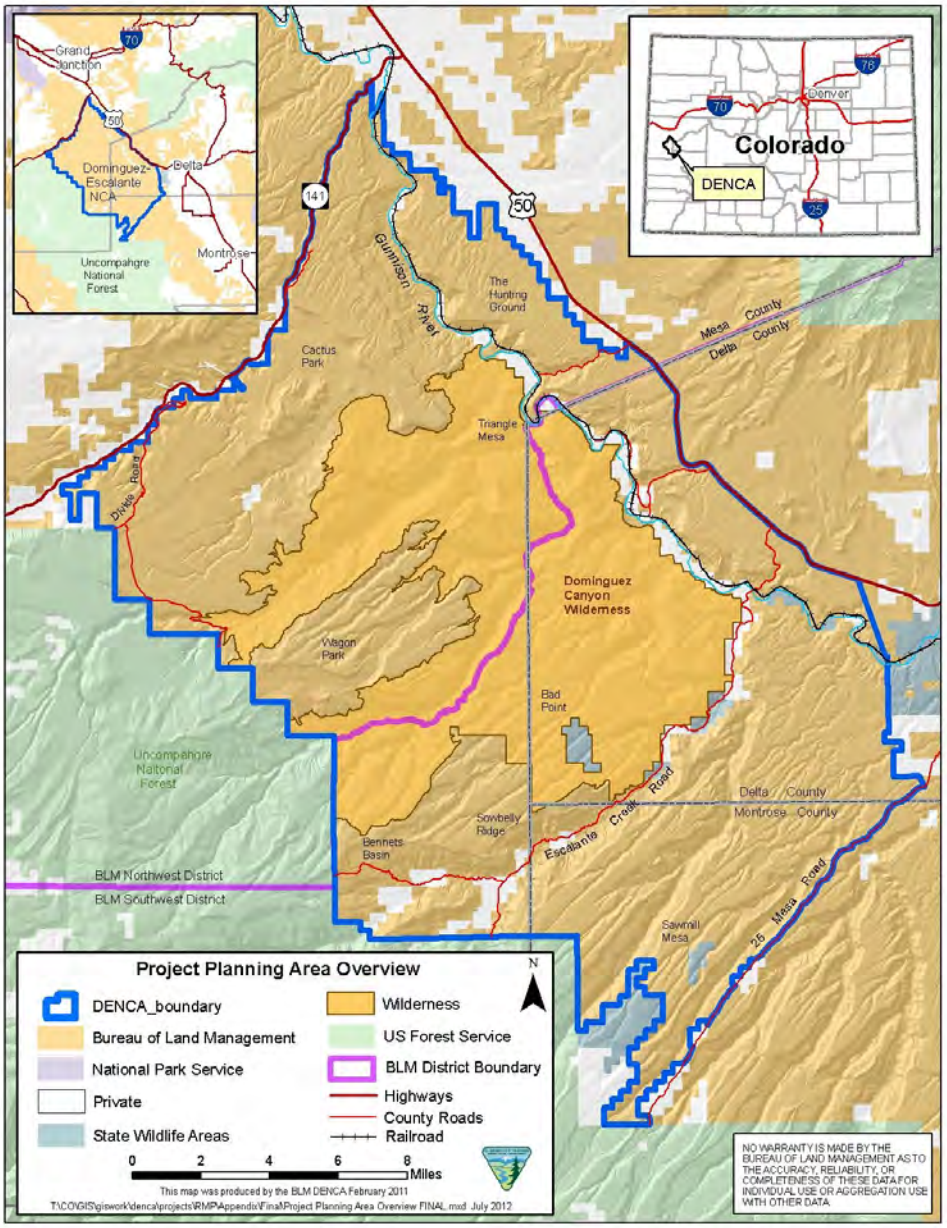


Figure O.1. Planning Area Overview

Overview of the Wild and Scenic River Study Process

Section 5(d)(1) of the 1968 WSR Act requires Federal agencies to evaluate potential wild and scenic rivers when preparing resource management plans: "In all planning for the use and development of water and related land resources, consideration shall be given by all Federal agencies involved to potential national wild, scenic, and recreational river areas."

As shown in the flowchart in Figure O.2 below, the WSR study process consists of evaluating segments for ***eligibility*** and ***suitability***. Both studies are conducted in accordance with the WSR Act, BLM Manual 6400 (BLM 2012c), and *The Wild and Scenic River Study Process Technical Report* (Interagency Wild and Scenic Rivers Coordinating Council 1999).

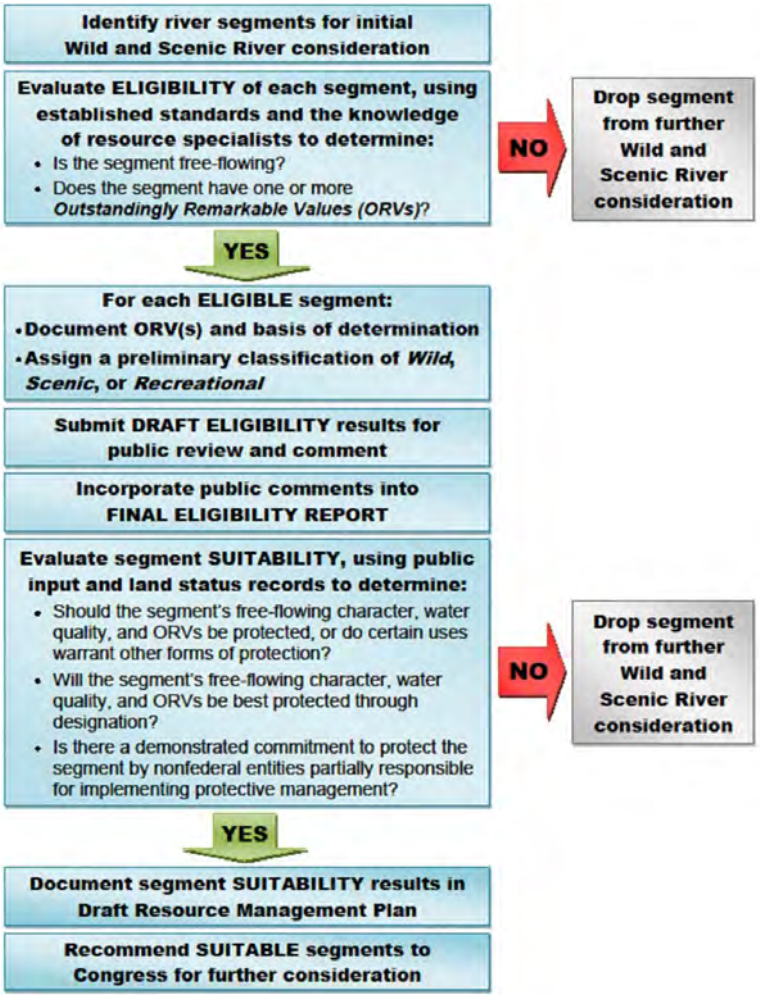


Figure O.2. Overview of the Wild and Scenic River Study Process

O.3. Public Participation

Within the D-E NCA, the WSR study process included extensive opportunities for public participation. BLM received public input on this WSR study through the following processes:

- Public scoping

- Public comments on eligibility reports
- Stakeholder input regarding suitability, including the recommendations of the Gunnison Basin Stakeholder Group
- The D-E NCA Advisory Council
- Cooperating agencies

Public Scoping

During public scoping for the D-E NCA RMP, the BLM received 25 individual comments regarding this WSR study. A summary of these comments can be found in the D-E NCA *Scoping Summary Report* (BLM 2011d) available for download from the D-E NCA RMP website:http://1.usa.gov/1qKkMVi.

The majority of comments (14) opposed WSR designation and came from livestock and water development interests. Meanwhile, eight comments favored greater protection for river segments in the D-E NCA and Wilderness (BLM 2011d).

Public Comments on Eligibility Reports

Following the completion of eligibility reports, the BLM received information from the public and cooperating agencies regarding its eligibility findings. On the basis of the new information, both eligibility reports were updated (see "Eligibility Adjustments" below).

Gunnison Basin Stakeholder Group

The Gunnison Basin Stakeholder Group process was initiated by the Colorado River Water Conservation District. This stakeholder group held 10 public meetings during 2010 and 2011 that were initially attended by a wide range of interested parties, including private landowners, State agencies, county governments, environmental groups, water resource management entities, and recreational user groups. Eventually, this stakeholder group split into two groups. One group, called the Gunnison Basin Stakeholder Group, consisted primarily of private landowners, agriculturalists, recreational user groups, county governments, and water resource management entities. A second group, consisting of environmental organizations, was formed to provide separate recommendations regarding suitability to the BLM.

Input from both stakeholder groups was critical in evaluating the suitability of each segment. The BLM received two sets of recommendations for consideration. Table O.2 summarizes the recommendations from both the larger stakeholder group and the environmental coalition. The full text of each recommendation letter can be found on the D-E NCA planning Web page at http://1.usa.gov/1qKkMVi.

Table O.2. Recommendations Regarding Suitability Provided to the BLM by Stakeholders

Eligible Segment	Initial ORVs	Gunnison Basin Stakeholder Group	Environmental Coalition
Gunnison River Segment 1	Recreational, fish, cultural, historical, vegetation	Not suitable	Not suitable
Gunnison River Segment 3	Recreational, fish, cultural, historical, vegetation	Not suitable	Suitable; do not recommend designation to Congress

Eligible Segment	Initial ORVs	Gunnison Basin Stakeholder Group	Environmental Coalition
Big Dominguez Creek Segment 1	Scenic, recreational, wildlife, geological, cultural	Not suitable	Not suitable
Big Dominguez Creek Segment 2	Scenic, wildlife, geological, cultural	Not suitable	Not suitable
Little Dominguez Creek Segment 1	Scenic, wildlife, geological, cultural	Not suitable	Not suitable
Little Dominguez Creek Segment 2	Scenic, wildlife, geological, cultural	Not suitable	Not suitable
Rose Creek	Scenic	Not suitable	Suitable; recommend designation to Congress
Escalante Creek Segment 1	Scenic, recreational, geological, wildlife, vegetation	Not suitable	Suitable; do not recommend designation to Congress
Escalante Creek Segment 2	Fish, wildlife, vegetation	Not suitable	Not suitable
Dry Fork of Escalante Creek	Vegetation (dropped from eligibility: See "Eligibility Adjustments" below)	Not considered	Suitable (federally owned portion only); recommend designation to Congress
Cottonwood Creek	Vegetation	Not suitable	Suitable; do not recommend designation to Congress

D-E NCA Advisory Council

The 10-member D-E NCA Advisory Council was established by the Secretary of the Interior to provide advice or recommendations to the BLM in developing the RMP for the D-E NCA and the Wilderness. The Advisory Council held 24 public meetings in 2011 and 2012. The Advisory Council made recommendations to the BLM on the four river/stream segments where there was not agreement between the two stakeholder groups described above (Gunnison River Segment 3, Rose Creek, Escalante Creek Segment 1, and Cottonwood Creek). A fifth segment, Dry Fork of Escalante Creek, was dropped from eligibility consideration by the BLM and was not considered by the Advisory Council (see "Eligibility Adjustments" below).

The Council unanimously recommended that the BLM protect the ORVs identified in the eligibility reports. The Council then gave the BLM a majority and minority recommendation regarding suitability. The majority recommendation was to find all four segments on which the two stakeholder groups disagreed to be not suitable and protect the ORVs through other legislative and administrative tools. The minority recommendation was to consider the approach recommended by the environmental coalition of finding segments suitable but not recommending them to Congress for designation. One council member specifically recommended Cottonwood Creek be found as suitable.

Cooperating Agencies

Federal, State, and local agencies were invited to participate as cooperating agencies in the RMP process, providing information and reviewing preliminary findings during and between meetings. The following agencies formally participated as cooperating agencies for the planning process:

- Colorado Department of Natural Resources (represented by CPW and the CWCB)
- City of Montrose
- City of Delta
- City of Grand Junction

- Montrose County
- Delta County
- Mesa County
- U.S. Forest Service

During cooperating agency meetings, representatives of the agencies above discussed a wide range of topics, including WSRs. The group did not provide a formal recommendation to the BLM on suitability.

O.4. Eligibility

Initial Eligibility and Tentative Classification Determinations

The first step of the WSR study process, eligibility, began with the identification of every known river with a perennial or intermittent flow regime, using a variety of BLM and other data sources. Some waterways were further segmented based upon differences in level of development, physiographic character, land status, or the existence of in-channel diversions or dams.

The river segments were then evaluated to determine whether they meet the dual criteria of being free-flowing and possessing one or more ORVs, as defined in the WSR Act. Eligible river segments were preliminarily classified as wild, scenic, or recreational on the basis of water quality and level of human development along the river corridor. ORVs are defined in BLM Manual 6400 (BLM 2012c) as

> Values among those listed in Section 1(b) of the Wild and Scenic Rivers Act: "scenic, recreational, geological, fish and wildlife, historical, cultural, or other similar values." Other values that may be considered include, but are not limited to, ecological, biological or botanical, paleontological, hydrological, traditional cultural uses, water quality, and scientific values. The Wild and Scenic Rivers Act does not further define ORVs. Agency resource professionals develop and interpret criteria in evaluating river values (unique, rare, or exemplary) on the basis of professional judgment on a regional, physiographic, or geographic comparative basis.

For the D-E NCA, this first step was conducted separately by the Grand Junction and Uncompahgre Field Offices that jointly administer the D-E NCA.

The Grand Junction and Uncompahgre reports can be found here: http://1.usa.gov/1qKkMVi.

In January 2011, the BLM completed a summary report for all eligible segments within the D-E NCA (BLM 2010f) and posted this report on the D-E NCA website. This summary drew from both the Grand Junction Field Office and Uncompahgre Field Office eligibility reports. This summary report also amended relevant sections of both eligibility reports in order to correct some inconsistencies between the two field offices. It is available online: http://1.usa.gov/1qKkMVi.

Eligibility Adjustments

Since the release of the Grand Junction Field Office, Uncompahgre Field Office, and D-E NCA summary reports, new information has resulted in changes to ORVs for several segments within the D-E NCA. Public input to the BLM from the Gunnison River Basin Stakeholder Group and fish and results from wildlife monitoring that was completed by the BLM after the release of the eligibility reports led the BLM to reconsider its ORV findings on several segments. In addition, changes in the CNHP ranking for imperiled vegetation communities led to changes in a number of vegetation ORVs.

During its initial study of eligibility in the Uncompahgre Field Office, the BLM used criteria for vegetation ORVs that relied upon a ranking system established by CNHP. Using this system, the BLM determined that a vegetation community would qualify as an ORV if that community was creek/river-related (generally riparian) and ranked as either exemplary (A-ranked), globally imperiled (G2), or critically imperiled globally (G1). Using these criteria, the Uncompahgre Field Office Eligibility Report identified vegetation ORVs on five segments: Gunnison River Segment 3, Escalante Creek Segments 1 and 2, Dry Fork of Escalante Creek, and Cottonwood Creek.

After the release of the BLM's eligibility reports, CNHP revised its global rankings for several vegetation communities. The Fremont cottonwood/skunkbush sumac (*Populus deltoides*/*Rhus trilobata*) forest, identified as an ORV on four segments, was changed from a G2 natural community to a G3 (vulnerable through its range) natural community. As a result, this vegetation type was dropped as an ORV. A similar ranking change occurred for the narrowleaf cottonwood/strapleaf willow/silver buffaloberry (*Populus angustifolia/Salix ligulifolia/Shepherdia argentea*) riparian forest.

Description of Changes to Eligibility

Gunnison River Segment 3

The final Uncompahgre Field Office eligibility report describes a vegetation ORV on this segment as follows:

> This segment contains a large area of Fremont Cottonwood/skunkbush sumac riparian woodland (Populus deltoids/Rhus trilobata), which is classified as globally imperiled (G2).

This vegetation type is no longer classified as G2 by the CNHP. It is now ranked G3. Under the criteria established for vegetation ORVs, this vegetation type no longer qualifies as an ORV. Thus, the vegetation ORV for this segment is dropped.

Gunnison River Segment 1

In the final D-E NCA summary eligibility report, a vegetation ORV is included for this segment that is described as follows:

> This segment contains a large area of Fremont Cottonwood/skunkbush sumac riparian woodland (Populus deltoids/Rhus trilobata), which is classified as globally imperiled (G2).

This vegetation type is no longer classified as globally imperiled (G2) by the CNHP. It is now ranked G3. Under the criteria established for vegetation ORVs, this vegetation type no longer qualifies as an ORV. Thus, the vegetation ORV for this segment is dropped.

Escalante Creek Segment 1

In the final eligibility report there is a vegetation ORV that is described as follows:

> This segment contains several plant communities considered to be rare globally, including occurrences of narrowleaf cottonwood/strapleaf willow-silver buffaloberry riparian forest (*Populus angustifolia/Salix ligulifolia/Shepherdia argentea*), which is critically imperiled globally (G1) and Fremont cottonwood/skunkbush sumac riparian forest (*Populus deltoides ssp.wislizenii/Rhus trilobata*), which is globally imperiled (G2). Giant helleborine orchid (*Epipactis gigantea*), rare in Colorado, occurs along this segment. Hanging gardens arise from seeps on nearby cliffs, and support Mancos columbine/Eastwood's monkeyflower wetland (*Aquilegia micrantha/Mimulus eastwoodiae*), which is categorized as globally imperiled (G2). Just uphill from the stream, these seeps lead into an unusual salt meadow dominated by alkali cordgrass (*Spartina gracilis*), which is ranked as rare in Colorado.
>
> An ecologically important occurrence of Eastwood's monkey-flower, a rare BLM sensitive species, occurs in the vicinity of Escalante Creek. This species is associated with seeps, springs, and tributaries in hanging garden vegetation communities. Several occurrences are within the Escalante Creek corridor.
>
> This segment is included in the CNHP-designated Escalante Creek Potential Conservation Area. The BLM manages the hanging gardens and salt meadow vegetation adjacent to the segment as an ACEC. In addition, the Colorado Natural Areas Program recognizes this as a State Natural Area.

The CNHP has revised its rarity rankings for the narrowleaf cottonwood/strapleaf willow-silver buffaloberry riparian forest and Fremont cottonwood/skunkbush sumac riparian forest. Both communities are now listed as G3, which means that they no longer qualify as ORVs (according to the criteria identified above).

In addition, the hanging gardens that support the G2 Mancos columbine/Eastwood's monkey-flower wetland, as well as the salt meadow described above, are not supported by flows through Escalante Creek. Rather, this vegetation is supported by seep water originating in the mesas above Escalante Canyon. As a result, the Mancos columbine/Eastwood's monkey-flower wetland vegetation community and the Eastwood's monkey-flower itself are not dependent on the creek. Accordingly, the vegetation ORV for this segment is no longer valid.

BLM monitoring indicates that this segment of Escalante Creek contains regionally important fish habitat that was not recognized in the final eligibility report. As a result, this segment should include a fish ORV that is described as follows:

> Escalante Creek is regionally important habitat for resident populations of native roundtail chubs (*Gila robusta*), bluehead suckers (*Catostomus discobolus*), and flannelmouth suckers (*Catostomus latipinnis*), as well as serving as a spawning site for Gunnison River populations of all three of these BLM and Colorado sensitive species.

Escalante Creek Segment 2

In the final Uncompahgre Field Office eligibility report there is a vegetation ORV for this segment described as follows:

> This segment contains an occurrence of Fremont cottonwood/skunkbush sumac riparian forest (*Populus deltoides* ssp. *Wislizenii/Rhus trilobata*), which is classified as globally imperiled (G2). A portion of this segment is included in the CNHP-designated Escalante Creek Potential Conservation Area.

The vegetation type listed in the eligibility report for this segment is no longer classified as G2 by the CNHP. It is now ranked G3, which means that this vegetation type does not classify as an ORV under the criteria identified above for vegetation.

In the final eligibility report there is a fish ORV for this segment that is described as follows:

> Escalante Creek is regionally important habitat for resident populations of native bluehead suckers (*Catostomus discobolus*) and flannelmouth suckers (*Catostomus latipinnis*), as well as serving as a spawning site for Gunnison River populations of both these BLM and Colorado sensitive species.

The BLM has determined through monitoring that Escalante Creek is also regionally important habitat for resident populations of roundtail chubs. As a result, this ORV description should read as:

> Escalante Creek is regionally important habitat for resident populations of native roundtail chubs (*Gila robusta*), bluehead suckers (*Catostomus discobolus*), and flannelmouth suckers (*Catostomus latipinnis*), as well as serving as a spawning site for Gunnison River populations of all three of these BLM and Colorado sensitive species.

In the final eligibility report there is a wildlife ORV description for this segment that includes the following statement:

> River otters (*Lontra canadensis*), a BLM sensitive and Colorado endangered species, also occupy the creek.

The BLM and CPW have determined that river otters no longer occupy this creek. Therefore, this sentence of the wildlife ORV should be dropped.

Dry Fork Escalante Creek

In the final eligibility report, there is a vegetation ORV for this segment that is described as follows:

> This segment contains an occurrence of Fremont cottonwood/skunkbush sumac riparian forest (*Populus deltoides* ssp. *Wislizenii/Rhus trilobata*), which is classified as globally imperiled (G2). A portion of this segment is included in the CNHP-designated Escalante Creek Potential Conservation Area.

The vegetation community listed in the eligibility report for this segment is no longer classified as G2 by the CNHP. It is now ranked G3, which means that this vegetation type does not classify as an ORV under the criteria identified above for vegetation.

Because vegetation is the only ORV listed for this segment in the final Uncompahgre Field Office eligibility report, Dry Fork Escalante Creek is dropped entirely from the eligibility report. Eligible segments must have at least one ORV.

Summary of Final Eligibility Findings

The changes described above are summarized in Table O.3 below, showing each eligible segment and the tentative classification and listing of the initial and final ORVs.

Table O.3. Summary of Eligible Rivers/Streams in the D-E NCA

River/Stream	Segment	Tentative Classification	Initial ORVs	Final ORVs
Gunnison River	Segment 1	Scenic	Recreational, fish, cultural, historical, vegetation	Recreational, fish, cultural, historical
	Segment 3	Recreational	Recreational, fish, cultural, historical, vegetation	Recreational, fish, cultural, historical
Big Dominguez Creek	Segment 1	Wild	Scenic, wildlife, geological, cultural, recreational	Scenic, wildlife, geological, cultural, recreational
	Segment 2	Scenic	Scenic, wildlife, geological, cultural	Scenic, wildlife, geological, cultural
Little Dominguez Creek	Segment 1	Wild	Scenic, wildlife, geological, cultural	Scenic, wildlife, geological, cultural
	Segment 2	Scenic	Scenic, wildlife, geological, cultural	Scenic, wildlife, geological, cultural
Rose Creek	One segment	Wild	Scenic	Scenic
Escalante Creek	Segment 1	Scenic	Scenic, recreational, geological, wildlife, vegetation	Scenic, recreational, geological, wildlife, fish
	Segment 2	Recreational	Fish, wildlife, vegetation	Fish, wildlife
Cottonwood Creek	One segment	Scenic	Vegetation	Vegetation
Dry Fork of Escalante Creek	One segment	Wild	Vegetation	None (dropped from eligibility)

O.5. Suitability

The final step in the WSR study process is to evaluate eligible rivers/streams to determine whether they are suitable for inclusion in the National System. The suitability step of the study process is designed to answer the following questions (Interagency Wild and Scenic Rivers Coordinating Council 1999):

1. Should the river/stream's free-flowing character, water quality, and ORVs be protected, or are one or more other uses important enough to warrant doing otherwise?

2. Will the river/stream's free-flowing character, water quality, and ORVs be protected through designation? Is it the best method for protecting the river corridor? Are there other methods available to protect the river/stream's WSR values?

3. Is there demonstrated commitment to protect the river/stream by any non-Federal entities who may be partially responsible for implementing protective management?

The following factors were considered, and, as appropriate, were documented below as a basis for the suitability determination of each river/stream (BLM 2012c).

1. Characteristics that do, or do not, make the area a worthy addition to the National System. These characteristics (free flow and ORVs) are described in the final eligibility reports for the Uncompahgre Field Office and the Grand Junction Field Office.

2. The current status of land ownership and use in the area.

3. The reasonably foreseeable potential uses of the land and water that would be enhanced, foreclosed, or curtailed if the area were included in the National System.

4. The Federal agency that will administer the area should it be added to the National System.

5. The extent to which the agency proposes that administration of the river, including the costs thereof, is shared by State and local agencies.

6. The estimated cost to the United States of acquiring necessary lands or interests in land within the corridor, as well as the cost of administering the area should it be added to the National System.

7. A determination of the extent that other Federal agencies, the State, or its political subdivisions might participate in the preservation and administration of the river should it be proposed for inclusion in the National System.

8. An evaluation of local zoning and other land use controls in protecting the river's ORVs and preventing incompatible development.

9. The State/local government's capacity to manage and protect the ORVs on non-Federal lands. This factor requires an evaluation of the river protection mechanisms available through the authority of State and local governments. Such mechanisms may include, for example, statewide programs related to population growth management, vegetation management, water quantity or quality, or protection of river-related values such as open space and historic areas.

10. The existing support or opposition of designation. Assessment of this factor will define the political context. The interest in designation or non-designation by Federal agencies; State, local, and tribal governments; national and local publics; and the State's congressional delegation should be considered.

11. The consistency of designation with other agency plans, programs, and policies in meeting regional objectives. Designation may help or impede the goals of tribal governments or other Federal, State, or local agencies. For example, designation of a river may contribute to State or regional protection objectives for fish and wildlife resources. Similarly, adding a river that includes a scarce recreational activity or setting to the National System may help meet statewide recreational goals. Designation might, however, limit irrigation and/or flood control measures in a manner inconsistent with regional socioeconomic goals.

12. The contribution to river system or basin integrity. This factor reflects the benefits of a "systems" approach (e.g., expanding the designated portion of a river in the National System or developing a legislative proposal for an entire river system–headwaters to mouth–or watershed). Numerous benefits may result from managing an entire river or watershed, including the ability to design a holistic protection strategy in partnership with other agencies and the public.

13. The potential for water resources development. Any proposed water resource projects that may be foregone are identified, as designation may limit development of water resources projects as diverse as irrigation and flood control measures, hydropower facilities, dredging, diversion, bridge construction, and channelization.

BLM Interdisciplinary Team

For each eligible segment, an interdisciplinary team of BLM resource specialists (listed below) compiled information from within their particular area(s) of expertise. The specialists met as a group to evaluate the segments in relation to the suitability criteria. Following their preliminary review, the team collected additional data to fill information gaps.

BLM staff used a variety of resources to analyze and make recommendations for each segment, including the following:

- GIS data
- U.S. Geological Survey stream gauge data and mineral maps
- Land status maps
- State and Federal agency agreements and management plans
- Local and county government land use plans and zoning documents
- Colorado Water Conservation Board stream flow data
- Published books and reports
- River guides
- Water rights tabulations

Recommendations to the Secretary of the Interior

Congress (or the Secretary of the Interior upon application by a State governor) has the final authority to designate wild and scenic rivers. Members of Congress craft the legislative language for designated segments and develop water protection strategies and measures in support of the WSR Act. As such, neither this suitability evaluation nor the RMP planning process result in designation of a river/stream segment as part of the National System. In accordance with BLM Manual 6400 (BLM 2012c), this report includes BLM's recommendations to the Secretary of the Interior as to whether Congress should or should not designate suitable river/stream segments.

O.6. Assessment and Recommendations

This section describes the BLM's findings on the suitability of eligible segments within D-E NCA for inclusion in the National System (Figure O.3).

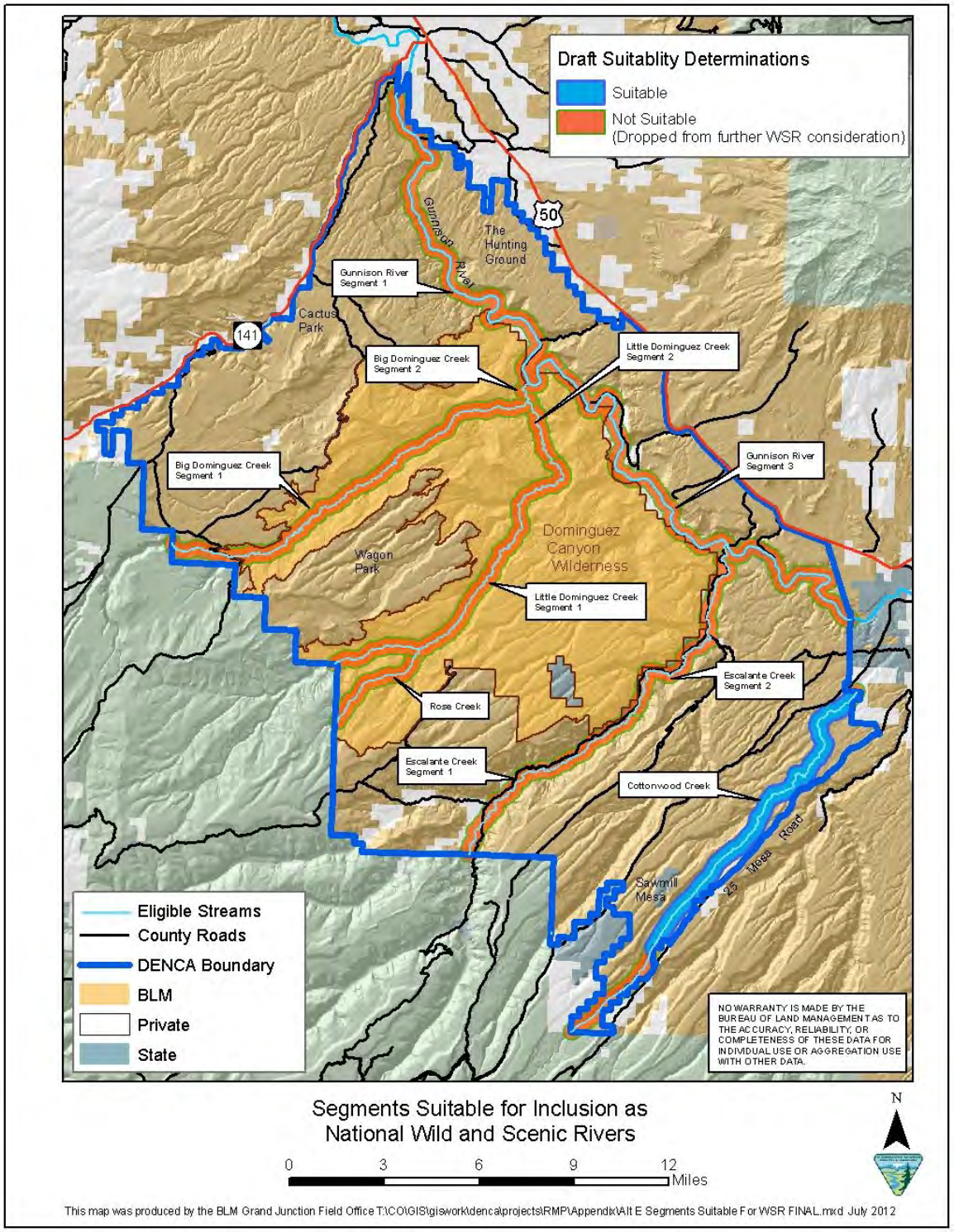


Figure O.3. Suitability Findings for D-E NCA

Gunnison River Segment 3

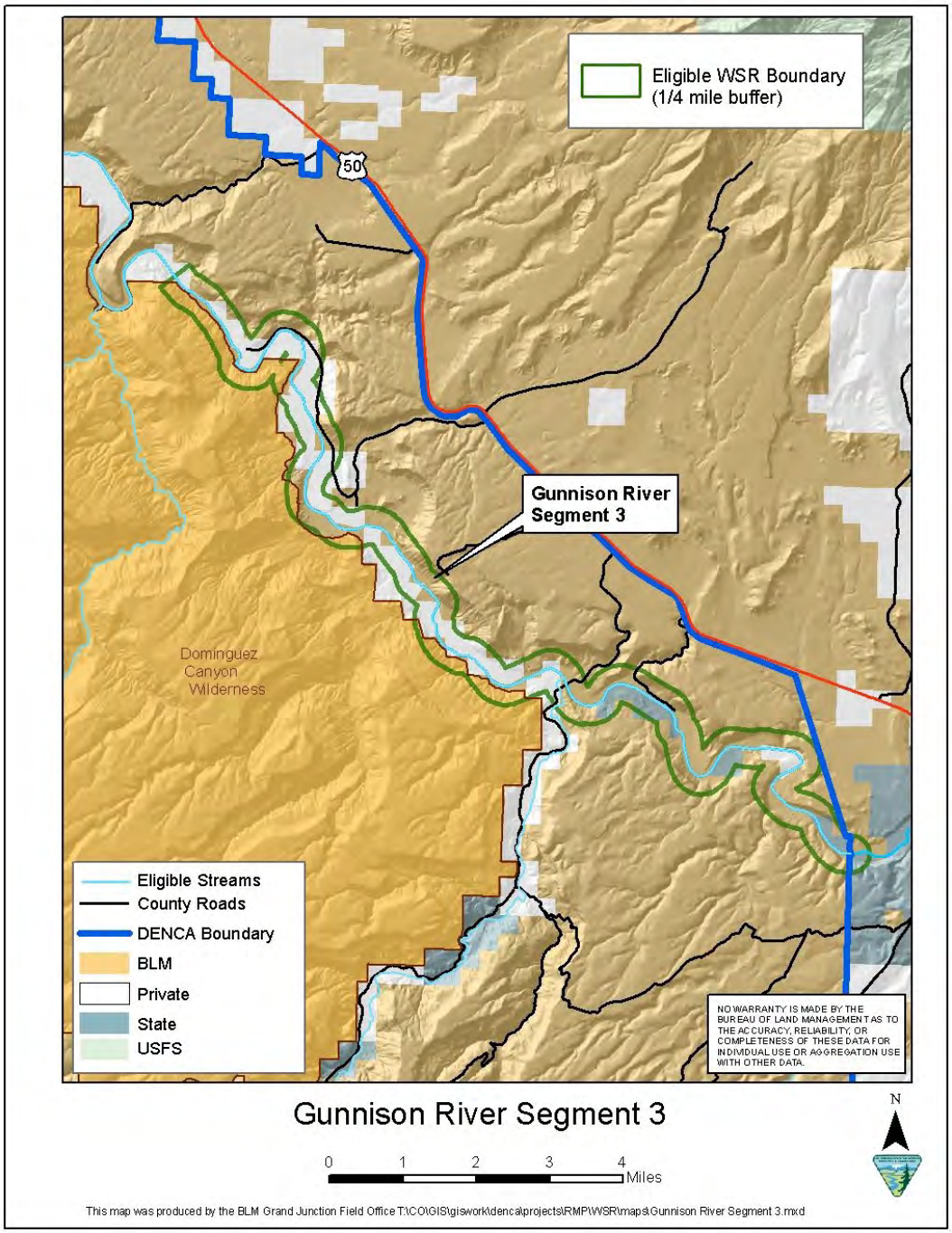


Figure O.4. Gunnison River Segment 3

Total Segment Length: 17.48 miles

Lower Terminus: Latitude, 38.836 N; longitude, 108.361 W

Upper Terminus: Latitude, 38.726 N; longitude, 180.185 W

Eligibility

Description: The Gunnison River is a large, perennially flowing river that is regulated upstream by the Aspinall Unit (Blue Mesa, Morrow Point, and Crystal reservoirs; see Figure O.4). The present flow regime is designed to mimic historic conditions to best meet habitat requirements for native warm water fish. The upper terminus of this segment is the boundary between BLM- and State-managed lands, approximately one-half mile upstream from the D-E NCA. The lower terminus is the boundary between the BLM Uncompahgre and Grand Junction Field Offices (BLM 2010d).

ORVs:

Recreational: This section of the Gunnison River provides outstanding opportunities for relatively easy half-day to multiday float trips through the D-E NCA. The river is generally Class I flat water, with an occasional Class II riffle providing a challenge for novice boaters. Though much of this river segment flows through private lands, several BLM campsites and a boat launch provide good public access. Rafts, kayaks, and canoes are the most common types of watercraft used on this section of river.

Because of its nontechnical nature and public access points, the lower Gunnison is extremely popular with novice, family and casual recreationists from across the State. In addition, the river provides the only public access to the mouth of Leonard's Basin, a broad BLM canyon with important recreational and cultural values. Scenic canyon walls, verdant orchards and historic features add to the recreational value of this section (BLM 2010d).

Fish: This river segment is predominantly comprised of native fish species, and is identified as designated critical habitat for both the endangered Colorado pikeminnow and razorback sucker. Both species are known to reside within this segment. In addition, this segment supports exemplary populations of three BLM and Colorado sensitive species: flannelmouth suckers, bluehead suckers, and roundtail chubs (BLM 2010d).

Cultural: This segment of the Gunnison River flows through canyon country that has been inhabited by Prehistoric and Historic cultures for over 10,000 years. Over 300 Native American sites have been recorded in the vicinity, ranging from Paleo-Indian sites to Archaic hunting and occupational camps to late Historic period Ute villages. Rock art sites in the Escalante Bridge, Palmer Gulch, and Leonard's Basin areas are of extremely high quality and significance. These sites qualify for nomination to the NRHP under the following criteria (BLM 2009):

- Criterion C: Embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.

- Criterion D: Yielded, or may be likely to yield, information important in history or prehistory.

Historical: The section of the Denver and Rio Grande Railroad (now part of Union Pacific) running next to the Gunnison River was the first line connecting Denver to Grand Junction, reaching the Grand Valley in 1882. This line was soon connected to Salt Lake City, forming a narrow gauge transcontinental railroad link. The line was eventually replaced by a standard gauge track and remains in use through today. The importance of the railroad to developing the West makes this site eligible for inclusion in the NRHP (BLM 2009).

Tentative classification: Recreational

There are several road access points along this reach, as well as a county-maintained road bridge crossing. A railroad runs adjacent to the river along the entire segment. There are also several water diversions, but no impoundments. Several parcels adjacent to the river are irrigated agricultural lands. This river segment has very high biodiversity significance (B2) and lies within the Gunnison River Potential Conservation Area, designated by CNHP in order to protect the endangered fish and threatened cactus. This segment is also on Colorado's 303(d) list for impaired water quality due to the presence of selenium, which is suspected of impacting native warm water fish propagation in the Gunnison River (water body ID COGULG02, Colorado Water Quality Control Commission). The State of Colorado is preparing a draft total maximum daily load report with the goal of reducing the selenium concentration in the Gunnison River (BLM 2010d).

Suitability Factor Assessment

Land Ownership and Land Uses

Land ownership within ¼ mile of the ordinary high water mark:

- 63.6% BLM
- 28.0% private
- 8.4% State

Current land uses on the BLM-administered lands include livestock grazing, recreational boating (canoeing, rafting, and kayaking), and recreational prospecting. Current uses on the private lands include agriculture (livestock ranching and fruit orchards) and transportation of materials (coal, freight, etc.) along the Union Pacific Railroad. The State land within the WSR area is used as part of the Escalante State Wildlife Area.

Mineral and Energy Resource Activities

Through the legislation designating the NCA, all Federal minerals were withdrawn from location, entry, and patent under the mining laws; and were withdrawn from operation under the mineral leasing, mineral materials, and geothermal leasing laws. There is one active mining claim within the WSR area (CMC-247911) that may have attached valid and existing rights. The Federal mineral estate does not extend beyond Federal surface ownership, so the minerals below private and State lands would be available for development. Of the WSR area, 93 percent is classified as having medium potential for oil and gas development, and 7 percent is classified as having low potential (Fowler and Gallagher 2004). There is no known potential for development of coal resources (USFS 2006). The potential for locatable mineral (primarily uranium) is classified as low. Gravel deposits exist not only within the historic flood plain of the river, but also in the adjacent geologic formations (primarily the Dakota Sandstone).

Water Resource Development

A dam on the Gunnison River was initially proposed in 1983, and the BOR withdrew mineral rights along the river for the purpose of dam construction. The project was not carried forward as an official BOR project. There are no current Federal Energy Regulatory Commission permits or pending applications for development of hydroelectric power within the river corridor.

Transportation, Facilities, and Other Developments

The Union Pacific Railroad has a track along the entire reach of the segment. Currently, up to five trains travel along the segment, generally hauling coal from surrounding coal mines. There are developments on several of the private parcels, including houses and outbuildings associated with farming (fruit orchards) and ranching. There is one bridge that crosses the river at Escalante Creek and three county-maintained roads within the WSR area (see map above). There are pumping stations adjacent to private lands that lift water out of the river for irrigation of fields and orchards.

Recreational Activities

As mentioned above, the primary recreational activities within the WSR area are multiday river boating (canoeing, rafting, kayaking) and camping. There is limited trail-based recreation on old two-track routes, primarily OHV travel.

Other Resource Activities

The other primary activities within the WSR area are related to agriculture. There is livestock grazing on the Federal, private, and State lands. This includes both cattle and sheep grazing. On the private lands, the ranching operations include the developments mentioned above, which support grazing operations along with hay/alfalfa fields. There are also several fruit orchards on private lands along the reach.

Special Areas

Of the WSR area, 63.6 percent is within the D-E NCA, and 15 percent overlaps the Wilderness and WSA (631 acres of Wilderness and 189 acres of WSA).

Socioeconomic Environment

As mentioned above, the river corridor supports agriculture and recreational businesses. River outfitting businesses provide services to approximately 2,500 visitors annually. There are three orchard operations with approximately 220 acres of fruit trees combined and one livestock ranching operation with approximately 150 acres of irrigated cropland, primarily livestock feed (alfalfa and corn).

Current Administration and Funding Needs if Designated

Within the WSR area, the BLM and the State of Colorado are responsible for the current administration of public lands. As noted above, the State land is managed as a wildlife area and the BLM lands are managed as part of the D-E NCA. If the segment is added to the National System, the BLM would be responsible for its administration. Since State and county budgets are tight, the Federal Government would have sole responsibility for the cost of managing the segment. In addition to administrative costs, purchases of private land or easements would be necessary to ensure protection of the ORVs and the tentative classification.

Reasonably Foreseeable Potential Uses of the Land and Water That Would be Enhanced, Foreclosed, or Curtailed if the Area Were Included in the National System

The reasonably foreseeable potential uses along the segment that would be enhanced, foreclosed, or curtailed include a continuation of current recreational use and development of private lands. Designation of this segment would enhance current recreational uses along the segment by providing long-term protection of flows and the scenic landscapes adjacent to the river. Reasonably foreseeable development of private land includes residential housing and mineral

extraction operations (gravel mining). Designation could curtail of foreclose some or all of these private land development options.

Determination of the Extent That Other Federal Agencies, the State, or its Political Subdivisions Might Participate in the Preservation and Administration of the River Should it be Proposed for Inclusion in the National System

In a biological opinion, the USFWS concluded the re-operation of the Aspinall Unit upstream of the eligible segment would protect habitat for the three listed fish species identified in the fish ORV. The BLM anticipates the cooperative participation between the BOR, USFWS, and the affected water users that developed the reoperation plan will continue.

The private parcels within the WSR area that fall within Delta County. Unless a subdivision is included, no permits are required for single-family residential housing construction. Records show over 20 unique parcels of private land within the WSR area. Permits are required by the county to develop gravel mining and processing operations on private land.

The existing support or opposition of designation

There is strong opposition from water users, private land owners and county government to WSR designation for this segment. As noted above in the public participation section, the Gunnison Basin Stakeholder Group recommended that the BLM find this segment not suitable. Many of the land owners along the segment participated in the stakeholder process and expressed concern that a WSR designation could impact their private property rights. The water resource managers (Tri-County Water Conservancy District, Terror Ditch and Reservoir Company, Colorado River Water Conservation District, and the North Fork Water Conservancy District) were concerned about a Federal reserve water right that could accompany designation. There was general agreement with the stakeholders that the WSR values could best be protected through local management and authorities in the legislation that established the D-E NCA.

There is support from the environmental coalition for a WSR suitable determination. The recommendation noted that the segment, as part of a "major and iconic western river of regional importance" is qualified for the type of protection provided under the WSR Act. That said, the recommendation to the BLM was only for a determination of suitability. The comments specifically stated BLM should not send a recommendation to Congress for designation.

As noted above, the D-E NCA Advisory Council recommended this segment be classified as not suitable and that the WSR values be protected using other administrative and legislative tools.

Suitability Determination

The BLM IDT determined that the WSR values and tentative classification would be protected through the administrative actions described in the Proposed Plan Alternative and through applicable legislation.

The IDT determined that the BOR's decision to not carry the dam project forward and the designation of the D-E NCA and Wilderness would likely preclude development of a dam on the river that would threaten the free-flowing condition of this segment. While a mineral withdrawal still exists along the Gunnison River, the BOR has expressed interest in revoking this withdrawal.

Threats to cultural and historical ORVs for this segment are largely from unauthorized collection and vandalism by visitors to the D-E NCA. Cultural and historical ORVs are protected by a

number of Federal laws, including the Antiquities Act of 1906, the NHPA, the American Indian Religious Freedom Act of 1978, the Archeological Resources Protection Act of 1979, and the Native American Graves Protection and Repatriation Act of 1990. These laws would protect the cultural and historical ORVs along this segment.

Threats to the recreational ORV on this segment would result from water management that lowers river flows below levels that allow recreationists to float this section of river. The recreational ORV is currently protected by senior water rights associated with the Redlands Canal downstream of the eligible segment. Adequate flows for recreational boating would occur through the segment as water is delivered to the canal's point of diversion near Grand Junction, CO.

Threats to the fish ORV for this segment include management actions that would reduce or damage fish habitat and water quality, as well as river flow regimes that prevent recovery of these fish species under the ESA. It is not likely that a junior Federal reserve water right would provide enhanced protection beyond the management of the existing senior water rights through the Aspinall Unit operations. In addition, the fish ORV is protected by existing restrictions under the ESA.

The tentative classification of the segment (recreational) means that the segment would be administratively protected from incompatible development on BLM-administered lands through Visual Resource Management Class I and II objectives as described in the Preferred Alternative as part of the D-E NCA Draft RMP.

Suitability Finding

Not suitable; dropped from further Wild and Scenic study

Gunnison River Segment 1

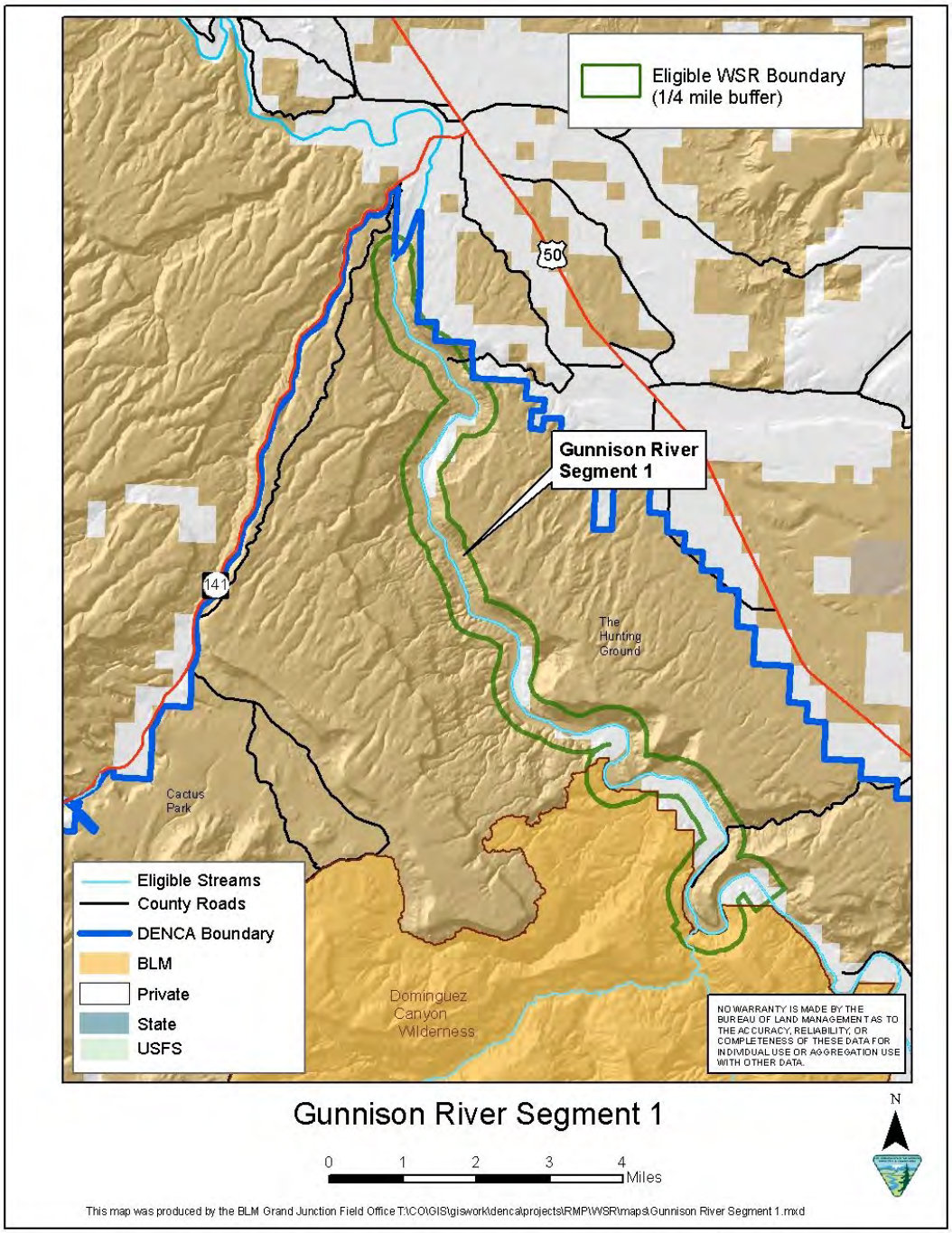


Figure O.5. Gunnison River Segment 1

Total Segment Length: 15.73 miles

Lower Terminus: Latitude, 38.96; longitude, 108.462 W

Upper Terminus: Latitude, 38.836 N; longitude, 108.361 W

Eligibility

Description: Sections of the Gunnison River west of Highway 50 on BLM land from the southern planning area boundary near Bridgeport to Whitewater (BLM 2009; see Figure O.5).

ORVs:

Recreational: This segment of the Gunnison River is popular for float-boating, mostly kayaking and canoeing. This stretch is described as "one of the few places in the Southern Rockies which offers a lengthy, gentle, out-of-the-way canoe trip" (Wheat 1983). Visitors travel from across the State to float through the steep-walled slickrock sandstone canyons (BLM 2009).

Fish: The USFWS designated critical habitat for the federally endangered Colorado pikeminnow (squawfish; *Ptychocheilus lucius*) and the Razorback sucker (*Xyrauchen texanus*) in 1994, which includes this stretch of the Gunnison River (59 FR 13,374 (1994-3-21)) (BLM 2009).Cultural: This segment of the Gunnison River flows through canyon country that has been inhabited by Prehistoric and Historic cultures for over 10,000 years. Over 300 Native American sites have been recorded in the vicinity, ranging from Paleo-Indian sites to Archaic hunting and occupational camps to late Historic period Ute villages. Rock art sites in the Escalante Bridge, Palmer Gulch, and Leonard's Basin areas are of extremely high quality and significance. These sites qualify for nomination to the NRHP under the following criteria:

- Criterion C: Embodies the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.

- Criterion D: Yielded, or may be likely to yield, information important in history or prehistory.

(BLM 2009)

Historical: The section of the Denver and Rio Grande Railroad (now part of Union Pacific) running next to the Gunnison River was the first line connecting Denver to Grand Junction, reaching the Grand Valley in 1882. This line was soon connected to Salt Lake City, forming a narrow gauge transcontinental railroad link. The line was eventually replaced by a standard gauge track and remains in use today. The importance of the railroad to developing the West makes this site eligible for inclusion in the NRHP (BLM 2009).

Tentative classification: Recreational

The tentative classification of this segment is scenic, due to a mainly inconspicuous railroad line that runs parallel to the river through this segment (BLM 2009).

Suitability Factor Assessment

Land Ownership and Land Uses

Land ownership within ¼ mile of the ordinary high water mark:

- 81.3% BLM*

- 18.7% Private

*Acreage change from eligibility report due to BLM acquisition of 400 acres.

Current land uses on the BLM-administered lands include livestock grazing, recreational boating (canoeing, rafting, and kayaking), and recreational prospecting. Current uses on the private lands include agriculture (livestock ranching) and transportation of materials (coal, freight, etc.) along the Union Pacific Railroad.

Mineral and Energy Resource Activities

Through the legislation designating the D-E NCA, all Federal minerals were withdrawn from location, entry, and patent under the mining laws; and were withdrawn from operation under the mineral leasing, mineral materials, and geothermal leasing laws. The Federal mineral rights cover 85 percent of the WSR area, so the minerals below private lands would be available for development. Of the WSR area, 15 percent is classified as having low potential for oil and gas development, and 85 percent is classified as having very low potential. There is no known potential for development of coal resources. The potential for locatable mineral (primarily uranium) development is classified as low. Gravel deposits exist not only within the historic flood plain of the river, but also in the adjacent geologic formations (primarily the Dakota Sandstone).

Water Resource Development

A dam on the Gunnison River was initially proposed in 1983, and the BOR withdrew mineral rights along the river for the purpose of dam construction. The project was not carried forward as an official BOR project. There are no current Federal Energy Regulatory Commission permits or pending applications for development of hydroelectric power within the river corridor.

Transportation, Facilities, and Other Developments

The Union Pacific Railroad has a track along the entire reach of the segment. Currently, up to five trains travel along the segment, generally hauling coal from surrounding coal mines. There are developments on three of the private parcels, including houses and outbuildings associated with ranching. There are pumping stations adjacent to two of the private parcels that lift water out of the river for irrigation of fields. There are two bridges over the river. One accesses private ranch lands, and the other provides public access into the Dominguez Canyon Wilderness.

Recreational Activities

As mentioned above, the primary recreational activity within the WSR area is multi-day river boating (canoeing, rafting, kayaking) and camping). There is limited trail-based recreation on old two-track routes, primarily OHV travel.

Other Resource Activities

The other primary activities within the WSR area are related to agriculture. There is livestock grazing on the Federal lands. On the private lands, the ranching operations include the developments mentioned above, which support grazing and hay/alfalfa fields.

Special Areas

Of the WSR area, 83.1 percent is within the D-E NCA, and 10 percent overlaps the Wilderness and WSA (444 acres of Wilderness and 41 acres of WSA).

Socioeconomic Environment

As mentioned above, the river corridor supports agriculture and recreational businesses. River outfitting businesses provide services to approximately 2,500 visitors annually. There are two livestock ranching operations with approximately 155 acres of irrigated cropland, primarily for livestock feed (alfalfa and corn).

Current Administration and Funding Needs if Designated

Within the WSR area, the BLM is responsible for the current administration of public lands. The BLM lands are managed as part of the D-E NCA. If the segment is added to the National System, the BLM would be responsible for its administration. Since State and county budgets are shrinking, the Federal Government would have sole responsibility for the cost of managing the segment. In addition to administrative costs, purchases of private land or easements would be necessary to ensure protection of the ORVs and the tentative classification of this segment.

Reasonably Foreseeable Potential Uses of the Land and Water That Would be Enhanced, Foreclosed, or Curtailed if the Area Were Included in the National System

The reasonably foreseeable potential uses along the segment that would be enhanced, foreclosed, or curtailed include a continuation of current recreational use and development of private lands. Designation of this segment would enhance current recreational uses along the segment by providing long-term protection of flows and the scenic landscapes adjacent to the river. Reasonably foreseeable development of private land includes residential housing and mineral extraction operations (gravel mining). Designation could curtail some or all of these private land development options.

Determination of the Extent That Other Federal Agencies, the State, or its Political Subdivisions Might Participate in the Preservation and Administration of the River Should it be Proposed for Inclusion in the National System

In a biological opinion, the USFWS concluded that the re-operation of the Aspinall Unit upstream of the eligible segment would protect habitat for the three listed fish species identified in the fish ORV. The BLM anticipates that the successful cooperation between the BOR, USFWS, and the affected water users, who developed the re-operation plan, will continue.

The private parcels within the WSR area fall within Mesa County's zoning requirements for an Agricultural, Forestry, Transitional (AFT) District. The AFT is primarily intended to accommodate agricultural operations and very low-density single-family residential development within the Rural Planning Area. Permits are required by the county to develop gravel mining and processing operations on private land.

Existing Support or Opposition of Designation

There is strong opposition from water users, private land owners and county government to WSR designation for this segment. As noted above in the public participation section, the Gunnison Basin Stakeholder Group recommended that the BLM find this segment not suitable. Many of the landowners along the segment participated in the stakeholder process and expressed concern that a WSR designation could impact their private property rights. The water resource managers (Tri-County Water Conservancy District, Terror Ditch and Reservoir Company, Colorado River Water Conservation District, and the North Fork Water Conservancy District) were concerned about a Federal reserve water right that would accompany designation. There was general

agreement among the stakeholders that the WSR values could best be protected through local management and authorities, under the legislation that established the D-E NCA.

The environmental coalition also recommended a finding of not suitable for this segment.

As noted above, the D-E NCA Advisory Council recommended this segment be classified as not suitable and that the WSR values be protected using other administrative and legislative tools.

Suitability Determination

The BLM IDT ultimately determined that the WSR values and tentative classification would be protected through administrative actions in the Preferred Alternative of the Draft RMP and applicable legislation.

The IDT determined that the BOR's decision to not carry the dam project forward and the designation of the D-E NCA and Wilderness would likely preclude development of a dam on the river that would threaten the free-flowing condition of this segment. Although a mineral withdrawal still exists along the Gunnison River, the BOR has expressed interest in revoking this withdrawal.

Threats to cultural and historical ORVs for this segment are largely from unauthorized collection and vandalism by visitors to the D-E NCA. Cultural and historical ORVs are protected by a number of Federal laws, including the Antiquities Act of 1906, the NHPA, the American Indian Religious Freedom Act of 1978, the Archeological Resources Protection Act of 1979, and the Native American Graves Protection and Repatriation Act of 1990.

Threats to the recreational ORV on this segment are from water management that lowers river flows below what would allow recreationists to float this section of river. The recreational ORV is currently protected by senior water rights associated with the Redlands Canal downstream of the eligible segment. Adequate flows for recreational boating through the segment would continue to occur as water is delivered to the canal's point of diversion near Grand Junction, CO.

Threats to the fish ORV for this segment include management actions that would reduce or damage fish habitat and water quality, as well as river flow regimes that prevent recovery of these fish species under the ESA. It is not likely that a junior Federal reserve water right would provide enhanced protection beyond the management of the existing senior water rights through the Aspinall Unit operations. In addition, the fish ORV is protected by existing restrictions under the ESA.

The tentative classification of the segment (scenic) means that the segment would be administratively protected from incompatible development on BLM-administered lands through Visual Resource Management Class I and II objectives proposed in the Preferred Alternative as part of the D-E NCA Draft RMP.

Suitability Finding

Not suitable; dropped from further Wild and Scenic study

Big Dominguez Creek Segment 1

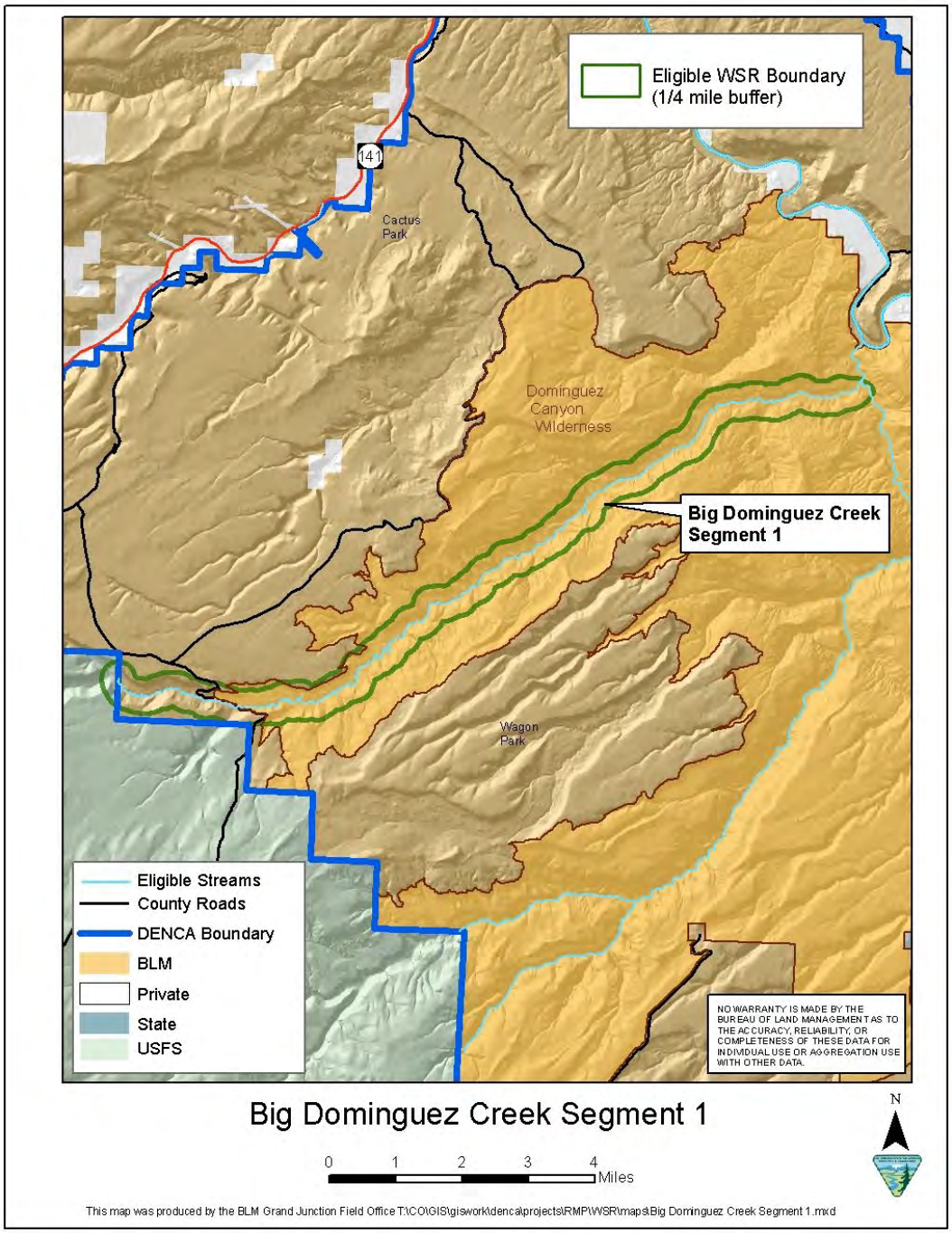


Figure O.6. Big Dominguez Creek Segment 1

Total Segment Length: 15.86 miles

Lower Terminus: Latitude, 38.821; longitude, 108.378 W

Upper Terminus: Latitude, 38.749 N; longitude, 108.588 W

Eligibility

Description: From the Big Dominguez Creek boundary with the Uncompahgre National Forest in the southern portion of the planning area to the confluence with Little Dominguez Creek near Bridgeport (BLM 2009; Figure O.6).

ORVs:

Recreational: Trails along and near the canyon formed by Big Dominguez Creek are used extensively by locals and also have a regional appeal. The scenic quality, geological interest, and cultural sites along the river corridor attract visitors from around the region and nation. Backpackers frequently camp in the overnight areas near the creek, and the waterfall and rock art sites are popular destinations for day trippers, who also enjoy the primitive and scenic environment (BLM 2009).

Wildlife: The area around the confluence of Big Dominguez Creek and Little Dominguez Creek is an important canyon tree frog (*Hyla arenicolor*) breeding area with many breeding pools found in surveys of this area. The canyon tree frog is a BLM sensitive species and was identified as a species of greatest conservation need by the State of Colorado (CDOW 2006; BLM 2009).

Cultural: The canyon bottoms of the Dominguez Canyon area have evidence of human activity dating back thousands of years. There are numerous high quality rock art sites that constitute one of the highest concentrations in the planning area. The known rock art sites cover a long period, with some that date from over 2,000 years ago to Ute rock art panels from approximately 100 years ago (BLM 2009).

Scenic: Big Dominguez Creek runs through a large mesa dissected by deep red slick rock canyons. This has led to a magnificent contrast between the green vegetation of the immediate areas next to the creek and the steep-walled canyon. This contrast is most spectacular in the segments of the creek running through exposed sections of the incised, dark-colored Precambrian bedrock of the Uncompahgre Plateau that give way to softer benches covered with desert vegetation, before the sheer red sandstone cliffs are encountered. While hiking through the canyon, visitors also encounter many side canyons, alcoves, pinnacles, amphitheaters, and other unique sandstone formations. This unique and spectacular combination of features in conjunction with the WSA, now the Wilderness, allows visitors to encounter an outstanding desert stream in a primitive, wild environment. The stream itself has a wealth of different features, including meandering stretches steeper drops, unique rock features, and waterfalls (BLM 2009).

Geological: Throughout the canyon, the Great Unconformity, a large gap in the geologic strata where the Precambrian basement rock is overlaid by the much more recent Chinle formation, is readily accessible and apparent to visitors. The basement rocks of the Uncompahgre Plateau are extremely old and are rarely exposed elsewhere in the world. The forces of erosion that created this canyon have exposed over 600 million years of geological history in addition to creating sandstone formations that make this area outstandingly remarkable (BLM 2009).

Tentative classification: Wild

The tentative classification for this segment is wild. The segment is largely contained within a WSA, now the Wilderness and has little-to-no evidence of modern human activity within the river corridor (BLM 2009).

Suitability Factor Assessment

Land Ownership and Land Uses

Land ownership within ¼ mile of the ordinary high water mark:

- 98.3% BLM
- 1.7% USFS

Current land uses on the BLM-administered lands include livestock grazing and trailing, hiking, horseback riding, backpacking, camping, picnicking, and OHV riding. Current uses on the USFS-administered lands include livestock grazing, hiking, mountain biking, and backpacking.

Mineral and Energy Resource Activities

Through the legislation designating the D-E NCA, all Federal minerals were withdrawn from location, entry, and patent under the mining laws; and operation under the mineral leasing, mineral materials, and geothermal leasing laws was ceased. Since there are no privately owned minerals and no active claims within the BLM portion of the WSR area, there would be no mineral or energy development. The small portion of the WSR area that is in the national forest is available for coal, oil, and gas leasing. The potential for oil and gas development is classified as having "no currently recognizable potential" (Fowler and Gallagher 2004). The potential for coal development is classified as "none" (USFS 2006).

Water Resource Development

The CWCB holds an instream appropriation for all the annual flows in Big and Little Dominguez Creeks minus a minimal development allowance. There are no proposals to develop impoundments within the WSR area.

Transportation, Facilities, and Other Developments

There is a trail along Big Dominguez Creek from the lower terminus upstream to the Wilderness boundary. The trail is used for foot and horse recreational travel. The trail is also used to trail livestock (cattle) from the Gunnison River to public land grazing allotments on BLM and National Forest Service lands. There is a campground within the WSR area that includes a half a dozen campsites with picnic tables and fire rings. There are two vault toilets at the campground. There are 1.9 miles of a Mesa County–maintained road that cross the WSR area near the campground. (see map above) High-clearance four-wheel-drive vehicles are only required during bad weather and when the road has been damaged by erosion from thunderstorms. There is a small two-track route that extends from the county-maintained road to the forest boundary. This route is used by four-wheel-drive vehicles and ATVs on BLM lands. Beyond the BLM lands travel is restrict to foot, horse and bicycles on the forest lands.

Recreational Activities

As mentioned above, the primary recreational activities within the WSR area include hiking, horseback riding and backpacking within the Wilderness and camping and OHV riding outside the Wilderness.

Other Resource Activities

The other primary activity within the WSR area is livestock grazing. As mentioned above, cattle are trailed through the canyon between public land grazing allotments on both BLM and National Forest Service lands and the Gunnison River. Outside the Wilderness, the WSR area is included in both BLM and National Forest grazing allotments.

Special Areas

Of the WSR area, 82.4 percent overlaps the D-E NCA and the Wilderness (3,774 acres).

Socioeconomic Environment

Big Dominguez Canyon is highly valued as a recreational resource. It attracts both local visitors and visitors from outside the area throughout the year. As mentioned above, the WSR area is part of a livestock grazing operation. The WSR area is primarily used for active movement of cattle.

Current Administration and Funding Needs if Designated

Within the WSR area, the BLM and the USFS are responsible for the current administration of public lands. The BLM lands are managed as part of the D-E NCA, and the Forest Service lands are managed as part of the Uncompahgre National Forest. If the segment is added to the National System, the BLM would likely be responsible for its administration.

Existing Support or Opposition of Designation

Both the environmental coalition and the Gunnison Basin Stakeholder Group recommended that the BLM find this segment not suitable. Both recommendations felt the 1964 Wilderness Act combined with the instream flow allocation would protect the segment. As noted above, the D-E NCA Advisory Council recommended this segment be classified as not suitable and that the WSR values be protected using other administrative and legislative tools.

Determination of the Extent That Other Federal Agencies, the State, or its Political Subdivisions Might Participate in the Preservation and Administration of the River Should it be Proposed for Inclusion in the National System

The Forest Service evaluated Big Dominguez Creek for WSR eligibility and found the stream to be not eligible. Current Forest Service management direction for the WSR area will include "Wildlife habitat management in hardwood and shrub dominated draws and other areas of woody vegetation on rangelands. Semi-primitive non-motorized, semi-primitive motorized and roaded natural recreation opportunities will be provided. Livestock grazing will be compatible with wildlife habitat management. Vegetation treatment will enhance plant and animal diversity" (USFS 1983).

Suitability Determination

The IDT determined that threats to the free-flowing condition and flow-dependent ORVs of this segment would be minimal due to the instream flow appropriation held by the CWCB for Big and Little Dominguez Creeks that protects all the annually available flow minus a minimal development allowance. Additionally, the free-flowing condition would be protected by the 1964 Wilderness Act. The Wilderness Act directs Federal land management agencies to manage wilderness in such a way that its undeveloped character is preserved. The IDT concluded that the combination of the instream flow appropriation and wilderness management would preclude the development of a dam on this segment.

Threats to cultural and historical ORVs for this segment are largely from unauthorized collection and vandalism by visitors to the D-E NCA. Cultural and historical ORVs are protected by a number of Federal laws, including the Antiquities Act of 1906, the NHPA, the American Indian Religious Freedom Act of 1978, the Archeological Resources Protection Act of 1979, and the

Native American Graves Protection and Repatriation Act of 1990. These laws would protect the cultural and historical ORVs along this segment.

The Wilderness Act also directs Federal land management agencies to protect outstanding opportunities for solitude or primitive and unconfined recreation, so the recreational ORV would be protected.

The wildlife ORV, which consists of breeding areas for the canyon tree frog, would be protected by the instream flow appropriation and the Wilderness Act, which directs Federal land management agencies to protect biological resources in wilderness.

Along with the protection provided by the Wilderness Act, the tentative classification of the segment (wild) and the scenic ORV would be administratively protected from incompatible development through the Visual Resource Management Class I classification proposed in the Preferred Alternative as part of the D-E NCA Draft RMP.

Suitability Finding: Not suitable; dropped from further Wild and Scenic study

Big Dominguez Creek Segment 2

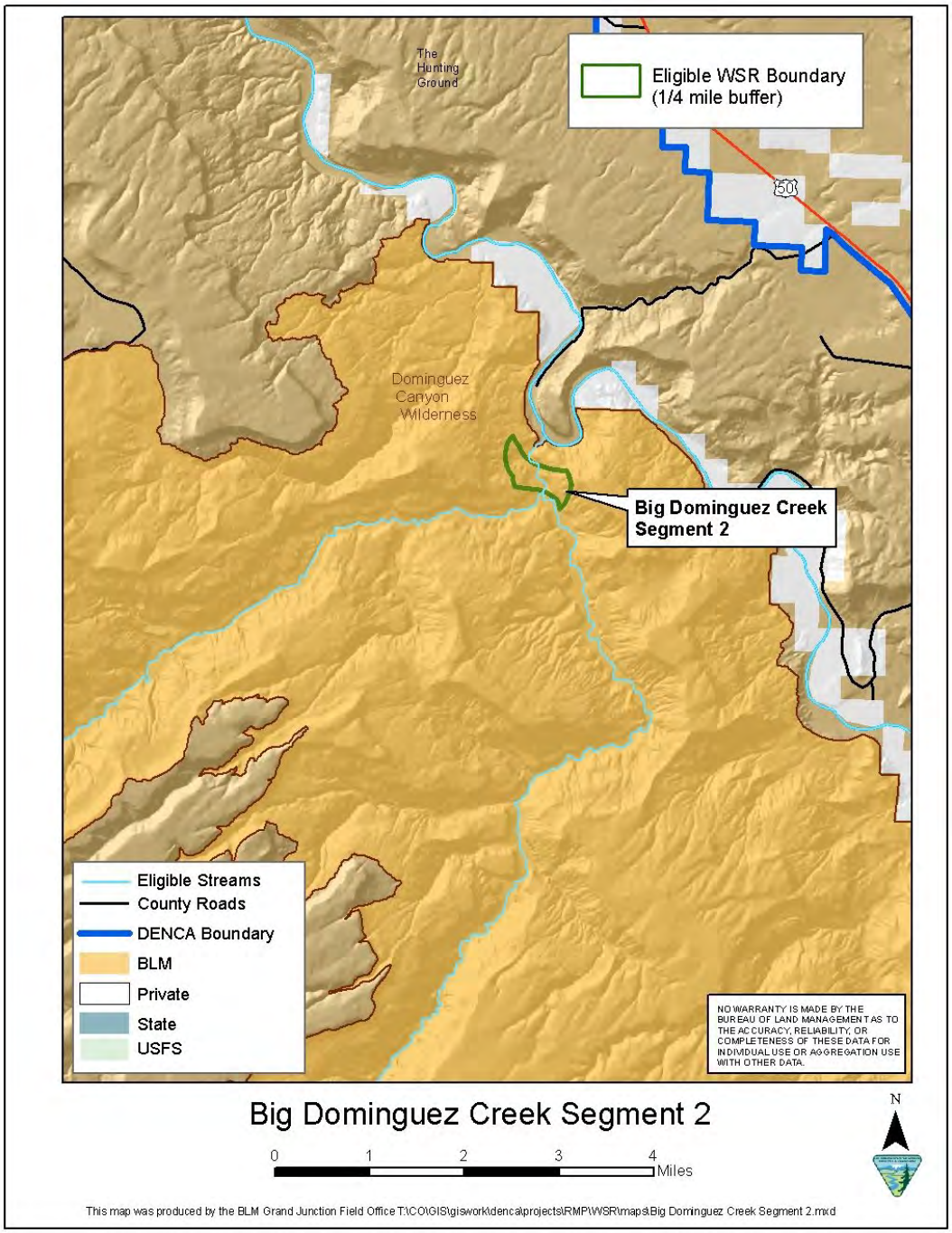


Figure O.7. Big Dominguez Creek Segment 2

Total Segment Length: 0.78 miles

Lower Terminus: Latitude, 38.825; longitude: 108.38 W

Upper Terminus - Latitude, 38.821 N; longitude, 108.378 W

Eligibility

Description: This segment begins at the confluence with Little Dominguez Creek and continues until the confluence with the Gunnison River near Bridgeport (BLM 2009; Figure O.7).

ORVs:

Wildlife: The area around the confluence of Big Dominguez Creek and Little Dominguez Creek is an important canyon tree frog breeding area with many breeding pools found in surveys of this area. The canyon tree frog is a BLM sensitive species and was identified as a species of greatest conservation need by the State of Colorado (CDOW 2006; BLM 2009).

Cultural: The canyon bottoms of the Dominguez Canyon area have evidence of human activity dating back thousands of years. There are numerous high quality rock art sites that constitute one of the highest concentrations in the planning area. The known rock art sites cover a long period with some that date from over 2,000 years ago to Ute rock art panels from approximately 100 years ago (BLM 2009).

Scenic: Big Dominguez Creek runs through a large mesa dissected by deep red slickrock canyons. This has led to a magnificent contrast between the green vegetation characterizing the immediate areas next to the creek and the steep-walled canyon. This contrast is most spectacular in the segments of the creek running through exposed sections of incised, dark-colored Precambrian bedrock of the Uncompahgre Plateau that give way to softer benches covered with desert vegetation, before the sheer red sandstone cliffs. While hiking through the canyon, visitors are also exposed to many side canyons, alcoves, pinnacles, amphitheaters, and other unique sandstone formations. This unique and spectacular combination of features in conjunction with the WSA, now the Wilderness, allows visitors to experience an outstanding desert stream in a primitive, wild environment. The stream itself is characterized by a wealth of different features including meandering stretches, and steeper drops through unique rock features and waterfalls (BLM 2009).

Geological: Throughout the canyon the Great Unconformity, a large gap in rock ages where the Precambrian basement rock is overlaid by the much more recent Chinle formation, is readily accessible and apparent to visitors. The basement rocks of the Uncompahgre Plateau are extremely old and are rarely exposed elsewhere in the world. The forces of erosion that created this canyon have exposed over 600 million years of geologic history in addition to creating sandstone formations that make this area outstandingly remarkable (BLM 2009).

Tentative classification: Scenic

The tentative classification of this segment is scenic. There is evidence of grazing and an administrative route along this segment (BLM 2009).

Suitability Factor Assessment

Land Ownership and Land Uses

Land ownership within ¼ mile of the ordinary high water mark:

- 100% BLM

Current land uses on the BLM-administered lands include livestock grazing and active movement, hiking, and horseback riding.

Mineral and Energy Resource Activities

Through the legislation designating the D-E NCA, all Federal minerals were withdrawn from location, entry, and patent under the mining laws; and operation under the mineral leasing, mineral materials, and geothermal leasing laws was ceased. Since there are no privately owned minerals and no active claims within the BLM portion of the WSR area, there would be no mineral or energy development activities.

Water Resource Development

The CWCB holds an instream appropriation for all the annual flows in Big and Little Dominguez Creeks minus a minimal development allowance. There are no proposals to develop impoundments within the WSR area.

Transportation, Facilities, and Other Developments

There is a water diversion on the segment near the confluence with the Gunnison River. There is also a trail/administrative two-track along Big Dominguez Creek. The trail is used for foot and horse recreational travel. The route is also used to trail livestock (cattle) from the Gunnison River to public land grazing allotments on BLM and National Forest lands. The trail/administrative two-track is also used by the holder of a life lease in the Little Dominguez Creek Segment 2 (see Little Dominguez Creek Segment 2 below). In addition to the trail/administrative two-track, there is a historic corral within the WSR area.

Recreational Activities

As mentioned above, the primary recreational activities within the WSR area include hiking and horseback riding.

Other Resource Activities

The other primary activity within the WSR area is livestock grazing. As mentioned above, cattle are trailed through the canyon.

Special Areas

Of the WSR area, 100 percent overlaps the D-E NCA and the Wilderness (139 acres).

Socioeconomic Environment

Big Dominguez Canyon is highly valued as a recreational resource. It attracts both local visitors and visitors from outside the area throughout the year. As mentioned above, the WSR area is part of a livestock grazing operation. The WSR area is primarily used for active movement of cattle.

Current Administration and Funding Needs if Designated

Within the WSR area, the BLM is responsible for the current administration of public lands. The BLM lands are managed as part of the D-E NCA and the Wilderness. If the segment is added to the National System, the BLM would likely be responsible for its administration.

Existing Support or Opposition of Designation

Both the environmental coalition and the Gunnison Basin Stakeholder Group recommended that the BLM find this segment not suitable. Both recommendations resulted from the assumption that the Wilderness Act combined with the instream flow allocation would protect the segment. As

noted above, the D-E NCA Advisory Council recommended this segment be classified as not suitable and that the WSR values be protected using other administrative and legislative tools.

Suitability Determination:

The IDT determined that threats to the free-flowing condition and flow-dependent ORVs of this segment would be minimal due to the instream flow appropriation held by the CWCB for Big and Little Dominguez Creeks that protects all the annually available flow minus a minimal development allowance. Additionally, the free-flowing condition would be protected by the 1964 Wilderness Act. The Wilderness Act directs Federal land management agencies to manage wilderness in such a way that the undeveloped character is preserved. The IDT concluded that the combination of the instream flow appropriation and wilderness management would preclude the development of a dam on this segment.

Threats to cultural and historical ORVs for this segment are largely from unauthorized collection and vandalism by visitors to the D-E NCA. Cultural and historical ORVs are protected by a number of Federal laws, including the Antiquities Act of 1906, the NHPA, the American Indian Religious Freedom Act of 1978, the Archeological Resources Protection Act of 1979, and the Native American Graves Protection and Repatriation Act of 1990. These laws would protect the cultural and historical ORVs along this segment.

The wildlife ORV, which consists of breeding areas for the canyon tree frog, would be protected by the instream flow appropriation and the Wilderness Act, which directs Federal land management agencies to protect biological resources in wilderness.

Along with the protection provided by the Wilderness Act, the tentative classification of the segment (wild) and the scenic ORV would be administratively protected from incompatible development through the Visual Resource Management Class I classification proposed in the D-E NCA Draft Preferred Alternative.

Suitability Finding: Not suitable; dropped from further Wild and Scenic study

Little Dominguez Creek Segment 1

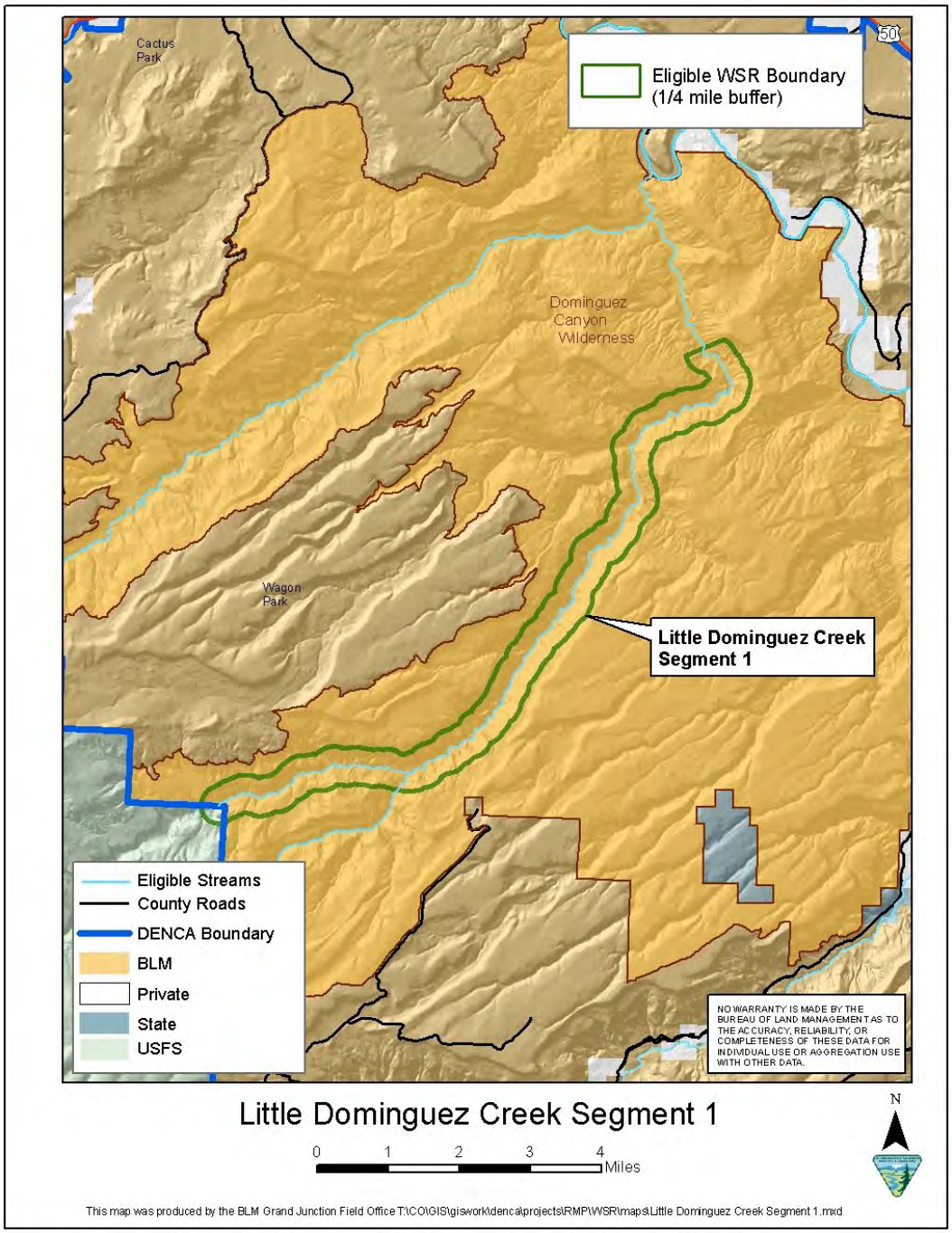


Figure O.8. Little Dominguez Creek Segment 1

Total Segment Length: 13.14 miles

Lower Terminus: Latitude, 38.795 N; longitude, 108.363 W

Upper Terminus: Latitude, 38.696 N; longitude, 108.49 W

Eligibility

Description: Little Dominguez Creek boundary with the Uncompahgre National Forest in the southern portion of the planning area to approximately two miles from the confluence with Big Dominguez Creek (Figure O.8).

ORVs:

Wildlife: The area around the confluence of Big Dominguez Creek and Little Dominguez Creek is an important canyon tree frog breeding area with many breeding pools found in surveys of this area. The canyon tree frog is a BLM sensitive species and was identified as a species of greatest conservation need by the State of Colorado (CDOW 2006).

Cultural: The canyon bottoms of the Dominguez Canyon area have evidence of human activity dating back thousands of years. There are numerous high quality rock art sites that constitute one of the highest concentrations in the planning area. The known rock art sites cover a long period with some that date from over 2,000 years ago to Ute rock art panels from approximately 100 years ago (BLM 2009).

Scenic: Big Dominguez Creek runs through a large mesa dissected by deep red slickrock canyons. This has led to a magnificent contrast between the green vegetation of the immediate areas next to the creek and the steep-walled canyon. This contrast is most spectacular in the segments of the creek running through the exposed sections of incised, dark-colored Precambrian bedrock of the Uncompahgre Plateau that give way to softer benches covered with desert vegetation, before the sheer red sandstone cliffs. While hiking through the canyon, visitors also encounter many side canyons, alcoves, pinnacles, amphitheaters, and other unique sandstone formations. This unique and spectacular combination of features in conjunction with the WSA, now the Wilderness, allows visitors to encounter an outstanding desert stream in a primitive, wild environment. The stream itself has a wealth of different features, including meandering stretches, steeper drops, unique rock features, and waterfalls (BLM 2009).

Geological: Throughout the canyon, the Great Unconformity, a large gap in the geologic strata, where the Precambrian basement rock is overlaid by the much more recent Chinle formation, is readily accessible and apparent to visitors. The basement rocks of the Uncompahgre Plateau are extremely old and are rarely exposed elsewhere in the world. The forces of erosion that created this canyon have exposed over 600 million years of geological history in addition to creating sandstone formations that make this area outstandingly remarkable (BLM 2009).

Tentative Classification: Wild

The tentative classification for this segment is wild. The segment is almost entirely contained within a WSA, now Wilderness, and has little to no evidence of modern human activity within the river corridor.

Suitability Factor Assessment

Land Ownership and Land Uses

Land ownership within ¼ mile of the ordinary high water mark:

- 99% BLM
- 1% USFS

Current land uses on the BLM-administered lands include livestock grazing and active movement, hiking, horseback riding, and backpacking. Current uses on the USFS-administered lands include livestock grazing, hiking, mountain biking, and backpacking.

Mineral and Energy Resource Activities

Through the legislation designating the D-E NCA, all Federal minerals were withdrawn from location, entry, and patent under the mining laws; and operation under the mineral leasing, mineral materials, and geothermal leasing laws was ceased. Since there are no privately owned minerals and no active claims within the BLM portion of the WSR area, there would be no mineral or energy development activities. The small portion of the WSR area that is in the National Forest is available for coal, oil, and gas leasing. The potential for oil and gas development is classified as low (Fowler and Gallagher 2004). The potential for coal development is classified as "none" (USFS 2006).

Water Resource Development

The CWCB holds an instream appropriation for all the annual flows in Big and Little Dominguez Creeks minus a minimal development allowance. There are no proposals to develop impoundments within the WSR area.

Transportation, Facilities, and Other Developments

There is a trail along Little Dominguez Creek from the lower terminus upstream to approximately 5.8 miles. The trail is used for foot and horse recreational travel. The route is also used to trail livestock (cattle) from the Gunnison River to public land grazing allotments on BLM and National Forest lands.

Recreational Activities

As mentioned above, the primary recreational activities within the WSR area include hiking, horseback riding, and backpacking within the Wilderness.

Other Resource Activities

The other primary activity within the WSR area is livestock grazing. As mentioned above, cattle are trailed through the canyon between public land grazing allotments on both BLM and forest lands and the Gunnison River.

Special Areas

Of the WSR area, 99 percent overlaps the D-E NCA and the Wilderness (3,774 acres).

Socioeconomic Environment

Little Dominguez Canyon is highly valued as a recreational resource. It attracts both local visitors and visitors from outside the area throughout the year. As mentioned above, the WSR area is part of a livestock grazing operation. The WSR area is primarily used for active movement of cattle.

Current Administration and Funding Needs if Designated

Within the WSR area, the BLM and the USFS are responsible for the current administration of public lands. The BLM lands are managed as part of the D-E NCA and the Forest Service lands

are managed as part of the Uncompahgre National Forest. If the segment is added to the National System, the BLM would likely be responsible for its administration.

Existing Support or Opposition of Designation

Both the environmental coalition and the Gunnison Basin Stakeholder Group recommended that the BLM find this segment not suitable. Both recommendations result from the assumption that the Wilderness Act combined with the instream flow allocation would protect the segment. As noted above, the D-E NCA Advisory Council recommended this segment be classified as not suitable and that the WSR values be protected using other administrative and legislative tools.

Determination of the Extent That Other Federal Agencies, the State, or its Political Subdivisions Might Participate in the Preservation and Administration of the River Should it be Proposed for Inclusion in the National System

The Forest Service evaluated Big Dominguez Creek for WSR eligibility and found the stream to be not eligible. Current Forest Service management direction for the WSR area will include "Big game winter range in non-forest areas. Semi-primitive non-motorized, semi-primitive motorized and roaded natural recreation opportunities will be provided. Motorized recreation on local roads is managed to prevent unacceptable stress on big game animals during primary big game use season. Vegetation treatment will enhance plant and animal diversity. Livestock grazing is compatible, but managed to favor wildlife habitat" (USFS 1983).

Suitability Determination

The IDT determined that threats to the free-flowing condition and flow-dependent ORVs of this segment would be minimal due to the instream flow appropriation held by the CWCB for Big and Little Dominguez Creeks that protects all the annually available flow minus a minimal development allowance. Additionally, the free-flowing condition would be protected by the 1964 Wilderness Act. The Wilderness Act directs Federal land management agencies to manage wilderness in a way such that the undeveloped character is preserved. The IDT concluded that the combination of the instream flow appropriation and wilderness management would preclude the development of a dam on this segment.

Threats to cultural and historical ORVs for this segment are largely from unauthorized collection and vandalism by visitors to the D-E NCA. Cultural and historical ORVs are protected by a number of Federal laws, including the Antiquities Act of 1906, the NHPA, the American Indian Religious Freedom Act of 1978, the Archeological Resources Protection Act of 1979, and the Native American Graves Protection and Repatriation Act of 1990. These laws would protect the cultural and historical ORVs along this segment.

The wildlife ORV, which consists of breeding areas for the canyon tree frog, would be protected by the instream flow appropriation and the Wilderness Act, which directs Federal land management agencies to protect biological resources in wilderness.

Along with the protection provided by the Wilderness Act, the tentative classification of the segment (wild) and the scenic ORV would be administratively protected from incompatible development through the Visual Resource Management Class I classification proposed in the Preferred Alternative as part of the D-E NCA Draft RMP.

Suitability Finding: Not suitable; dropped from further Wild and Scenic study

Little Dominguez Creek Segment 2

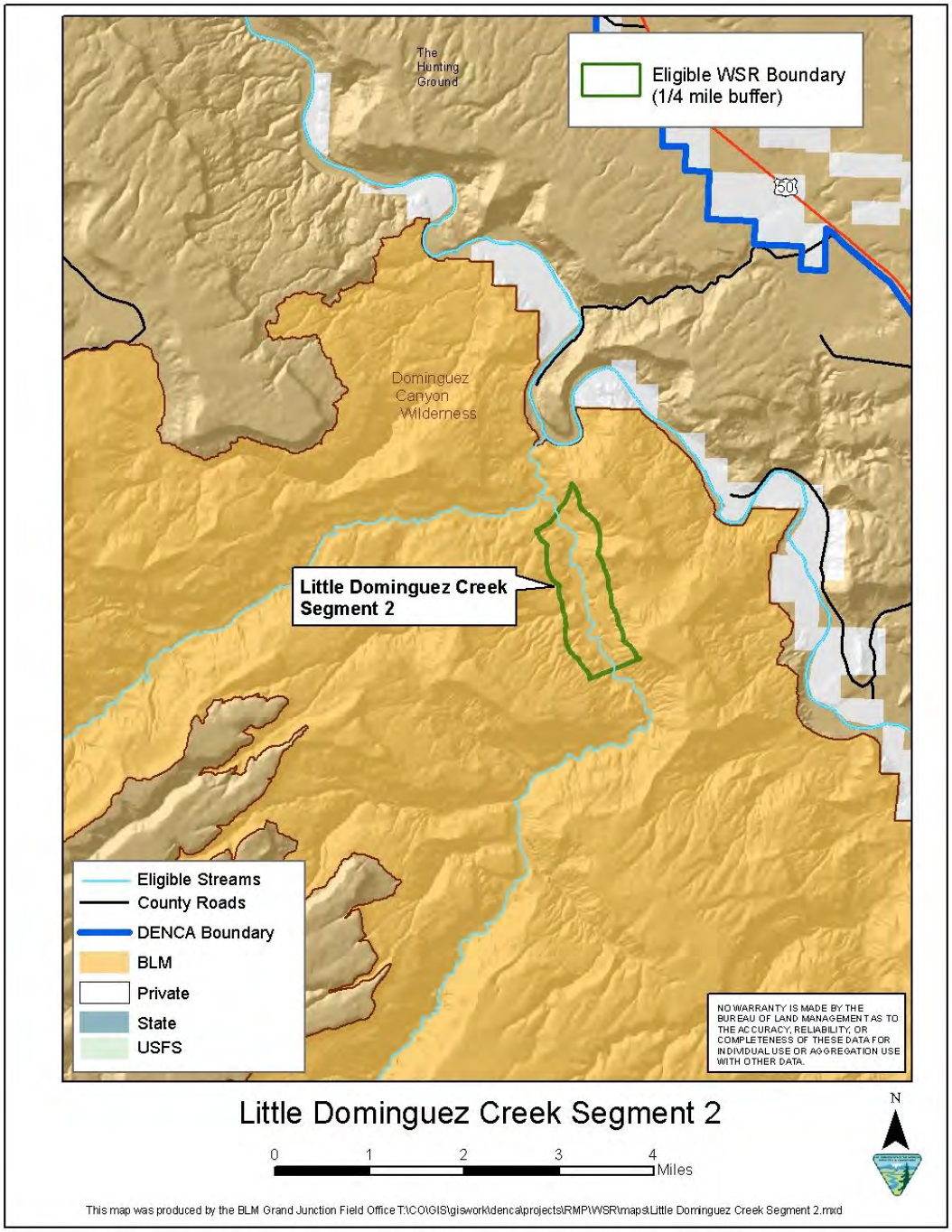


Figure O.9. Little Dominguez Creek Segment 2

Total Segment Length: 2.45 miles

Lower Terminus: Latitude, 38.818; longitude, 108.376 W

Upper Terminus: Latitude, 38.795 N; longitude, 108.363 W

Eligibility

Description: This segment begins approximately two miles above the confluence of Big and Little Dominguez Creeks and ends at the confluence of Big and Little Dominguez Creeks (Figure O.9).

ORVs:

Wildlife: The area around the confluence of Big Dominguez Creek and Little Dominguez Creek is an important canyon tree frog breeding area with many breeding pools found in surveys of this area. The canyon tree frog is a BLM sensitive species and was identified as a species of greatest conservation need by the State of Colorado (CDOW 2006).

Cultural: The canyon bottoms of the Dominguez Canyon area have evidence of human activity dating back thousands of years. There are numerous high quality rock art sites that constitute one of the highest concentrations in the planning area. The known rock art sites cover a long period, with some that date from over 2,000 years ago to Ute rock art panels from approximately 100 years ago (BLM 2009).

Scenic: Big Dominguez Creek runs through a large mesa dissected by deep red slickrock canyons. This has led to a magnificent contrast between the green vegetation of the immediate areas next to the creek and the steep-walled canyon. This contrast is most spectacular in the segments of the creek running through exposed sections of incised, dark-colored Precambrian bedrock of the Uncompahgre Plateau that give way to softer benches covered with desert vegetation, before the sheer red sandstone cliffs are encountered. While hiking through the canyon, visitors also encounter many side canyons, alcoves, pinnacles, amphitheaters, and other unique sandstone formations. This unique and spectacular combination of features in conjunction with the WSA, now the Wilderness, allows visitors to encounter an outstanding desert stream in a primitive, wild environment. The stream itself is characterized by a wealth of different features including meandering stretches and steeper drops through unique rock features and waterfalls (BLM 2009).

Geological: Throughout the canyon, the Great Unconformity, a large gap in the geological strata where the Precambrian basement rock is overlaid by the much more recent Chinle formation, is readily accessible and apparent to visitors. The basement rocks of the Uncompahgre Plateau are extremely old and are rarely exposed elsewhere in the world. The forces of erosion that created this canyon have exposed over 600 million years of geological history in addition to creating sandstone formations that make this area outstandingly remarkable (BLM 2009).

Tentative Classification: Scenic

The tentative classification of this segment is scenic. There is heavy evidence of grazing, a homestead, and an administrative route along this segment.

Suitability Factor Assessment

Land Ownership and Land Uses

Land ownership within ¼ mile of the ordinary high water mark:

- 100% BLM

Current land uses on the BLM-administered lands include livestock grazing and active movement, hiking, and horseback riding.

Mineral and Energy Resource Activities

Through the legislation designating the D-E NCA, all Federal minerals were withdrawn from location, entry, and patent under the mining laws; and operation under the mineral leasing, mineral materials, and geothermal leasing laws was ceased. Since there are no privately owned minerals and no active claims within the BLM portion of the WSR area, there would be no mineral or energy development activities.

Water Resource Development

The CWCB holds an instream appropriation for all the annual flows in Big and Little Dominguez Creeks minus a minimal development allowance. There are no proposals to develop impoundments within the WSR area.

Transportation, Facilities, and Other Developments

There is a trail/administrative two-track along Little Dominguez Creek. The trail is used for foot and horse recreational travel. The trail is also used to trail livestock (cattle) from the Gunnison River to public land grazing allotments on BLM and National Forest Service lands. The trail/administrative two-track is also used by the holder of a life lease. The life lease is associated with a homestead that was deeded to the BLM in the late 1980s. As part of the property transfer, the BLM agreed to allow the landowner to continue living on the property through the remainder of his natural life. The homestead includes a cabin and outbuildings associated with a subsistence lifestyle. There is a small water diversion associated with the old homestead.

Recreational Activities

As mentioned above, the primary recreational activities within the WSR area include hiking and horseback riding.

Other Resource Activities

The other primary activity within the WSR area is livestock grazing. As mentioned above, cattle are trailed through the canyon.

Special Areas

Of the WSR area, 100 percent overlaps the D-E NCA and the Wilderness. (139 acres)

Socioeconomic Environment

Little Dominguez Canyon is highly valued as a recreational resource. It attracts both local visitors and visitors from outside the area throughout the year. As mentioned above, the WSR area is part of a livestock grazing operation. The WSR area is primarily used for active movement of cattle. The homestead in the segment provides a livelihood for the holder of the life lease.

Current Administration and Funding Needs if Designated

Within the WSR area, the BLM is responsible for the current administration of public lands. The BLM lands are managed as part of the D-E NCA and the Wilderness. If the segment is added to the National System, the BLM would likely be responsible for its administration.

Existing Support or Opposition of Designation

Both the environmental coalition and the Gunnison Basin Stakeholder Group recommended that the BLM find this segment not suitable. Both recommendations resulted from the assumption that the Wilderness Act combined with the instream flow allocation would protect the segment. As noted above, the D-E NCA Advisory Council recommended this segment be classified as not suitable and that the WSR values be protected using other administrative and legislative tools.

Suitability Determination

The IDT determined that threats to the free-flowing condition and flow-dependent ORVs of this segment would be minimal due to the instream flow appropriation held by the CWCB for Big and Little Dominguez Creeks that protects all the annually available flow minus a minimal development allowance. Additionally, the free-flowing condition would be protected by the 1964 Wilderness Act. The Wilderness Act directs Federal land management agencies to manage wilderness in a way such that the undeveloped character is preserved. The IDT concluded that the combination of the instream flow appropriation and wilderness management would preclude the development of a dam on this segment.

Threats to cultural and historical ORVs for this segment are largely from unauthorized collection and vandalism by visitors to the D-E NCA. Cultural and historical ORVs are protected by a number of Federal laws, including the Antiquities Act of 1906, the NHPA, the American Indian Religious Freedom Act of 1978, the Archeological Resources Protection Act of 1979, and the Native American Graves Protection and Repatriation Act of 1990. These laws would protect the cultural and historical ORVs along this segment.

The wildlife ORV, which consists of breeding areas for the canyon tree frog, would be protected by the instream flow appropriation and the Wilderness Act, which directs Federal land management agencies to protect biological resources in wilderness.

Along with the protection provided by the Wilderness Act, the tentative classification of the segment (wild) and the scenic ORV would be administratively protected from incompatible development through the Visual Resource Management Class I classification proposed in the Preferred Alternative as part of the D-E NCA Draft RMP.

Suitability Finding: Not suitable; dropped from further Wild and Scenic study

Rose Creek

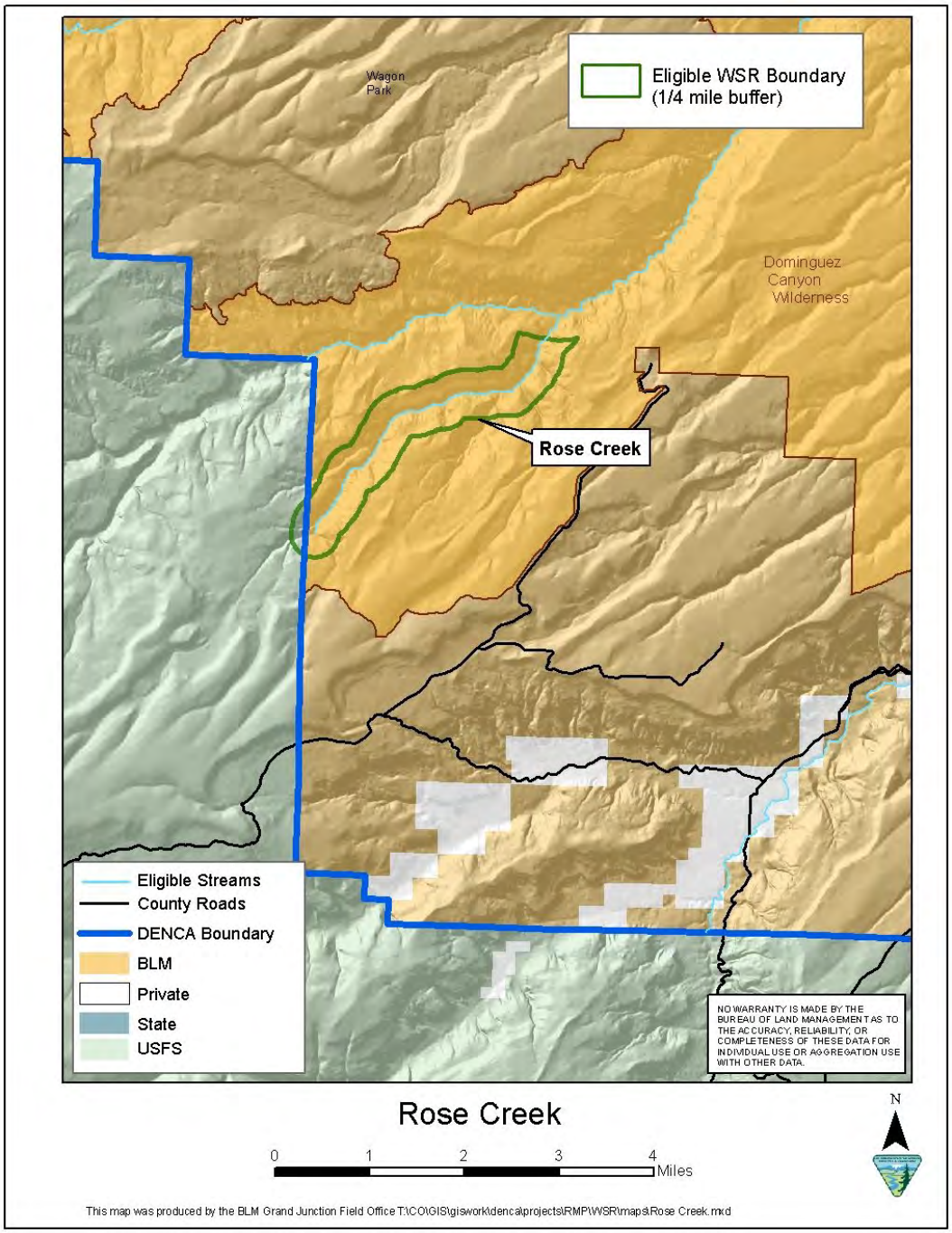


Figure O.10. Rose Creek

Total Segment Length: 4.1 miles

Lower Terminus: Latitude, 38.702; longitude, 108.439 W

Upper Terminus: Latitude, 38.668 N; longitude, 108.485 W

Eligibility

Description: This perennial tributary of Little Dominguez Creek drains from the east side of the Uncompahgre Plateau and is within the Wilderness (Figure O.10). The creek's upper terminus is the confluence of Barkley Cabin Gulch and Corral Gulch, while the lower terminus is the Uncompahgre Field Office boundary. High flows primarily occur during the spring snowmelt and occasional summer rain events. A perennial base flow occurs throughout most of this segment, which originates from multiple groundwater discharge points at the contact between the Entrada and Chinle geological formations.

ORVs:

Scenic: An interdisciplinary BLM field inventory team evaluated the area and assigned a scenic quality classification of A. The following observations were derived from their field notes: Rose Creek possesses very high scenic qualities that are rare in the area of comparison. Prominent vertical and horizontal cliffs, interesting erosional features, major rock outcroppings, narrow chasms, and stepped ridgelines, together with dense and diverse vegetation, especially in the canyon bottoms, make Rose Creek a visually spectacular landscape. Rock formations, small waterfalls, alcoves, hanging gardens, and pools add significantly to the area's visual character. Adjacent landforms provide rich color in contrasting shades of tan, pink, red, orange, brown, and blue. The surrounding vegetation contributes hues of green, gold, yellow, tan, and gray, completing the stunning scene (BLM 2009).

Tentative classification: Wild

There are no water diversions, impoundments, or developments of any kind along this remote segment. The entire shoreline is primitive and not accessible by road or trail.

Suitability Factor Assessment

Land Ownership and Land Uses

Land ownership within ¼ mile of the ordinary high water mark:

- 96% BLM
- 4% USFS

Current land uses on the BLM-administered lands include livestock grazing and active movement, and hiking.

Mineral and Energy Resource Activities

Through the legislation designating the D-E NCA, all Federal minerals were withdrawn from location, entry, and patent under the mining laws; and operation under the mineral leasing, mineral materials, and geothermal leasing laws was ceased. Since there are no privately owned minerals and no active claims within the BLM portion of the WSR area, there would be no mineral or energy development activities. The small portion of the WSR area that is in the National Forest is available for coal, oil, and gas leasing. The potential for oil and gas development is classified as low. (Fowler and Gallagher 2004). The potential for coal development is classified as "none" (USFS 2006).

Water Resource Development

The CWCB holds an instream appropriation for all the annual flows in Big and Little Dominguez Creeks minus a minimal development allowance (Rose Creek is a tributary of Little Dominguez Creek). There are no proposals to develop impoundments within the WSR area.

Transportation, Facilities, and Other Developments

There are no trails or other developments within the WSR area.

Recreational Activities

As mentioned above, the primary recreational activity within the WSR area is hiking.

Other Resource Activities

The other primary activity within the WSR area is livestock grazing. There is limited livestock grazing on the benches above the canyon. There is little to no livestock use in the bottom of the canyon.

Special Areas

Of the WSR area, 96 percent is within the D-E NCA and the Wilderness (1,175 acres).

Socioeconomic Environment

Rose Creek provides wilderness recreational opportunities. Due to its remoteness, there are outstanding opportunities for both primitive recreation and solitude. As noted above, the WSR area has very little livestock use.

Current Administration and Funding Needs if Designated

Within the WSR area, the BLM and the USFS are responsible for the current administration of public lands. The BLM lands are managed as part of the D-E NCA, and the USFS lands are managed as part of the Uncompahgre National Forest. If the segment is added to the National System, the BLM would likely be responsible for its administration.

Existing Support or Opposition of Designation

The Gunnison Basin Stakeholder Group recommended that the BLM find this segment not suitable. They felt the Wilderness Act combined with the instream flow allocation would protect the segment. The environmental coalition recommended that the BLM determine the segment suitable. Their rationale was based on the assumption that the instream flow appropriation for Big and Little Dominguez Creeks did not include Rose Creek. Since Rose Creek is a tributary of Little Dominguez Creek, the instream flow appropriation would also protect flows in Rose Creek. As noted above, the D-E NCA Advisory Council recommendation for this segment included both a majority and minority recommendation. The majority recommendation was to find the segment not suitable and that the WSR values be protected using other administrative and legislative tools. The minority recommendation was to find the segment suitable but not recommend designation into the National System.

Determination of the Extent That Other Federal Agencies, the State, or its Political Subdivisions Might Participate in the Preservation and Administration of the River Should it be Proposed for Inclusion in the National System

The USFS evaluated Big Dominguez Creek for WSR eligibility and found the stream to be not eligible. Current Forest Service management direction for the WSR area will include "Wildlife management for one or more management indicator species. Semi-primitive non-motorized, semi-primitive motorized, and roaded natural recreation opportunities will be provided. Livestock grazing will be compatible with wildlife habitat management. Vegetation treatment will enhance plant and animal diversity" (USFS 1983).

Suitability Determination

The IDT determined that threats to the free-flowing condition and flow-dependent ORVs of this segment would be minimal due to the instream flow appropriation held by the CWCB for Big and Little Dominguez Creeks that protects all the annually available flow minus a minimal development allowance. Additionally, the free-flowing condition would be protected by the 1964 Wilderness Act. The Wilderness Act directs Federal land management agencies to manage wilderness in a way such that the undeveloped character is preserved. The IDT concluded that the combination of the instream flow appropriation and wilderness management would preclude the development of a dam on this segment.

Along with the protection provided by the Wilderness Act, the tentative classification of the segment (wild) and the scenic ORV would be administratively protected from incompatible development through the Visual Resource Management Class I classification proposed in the Preferred Alternative as part of the D-E NCA Draft RMP.

Suitability Finding: Not suitable; dropped from further Wild and Scenic study

Escalante Creek Segment 1

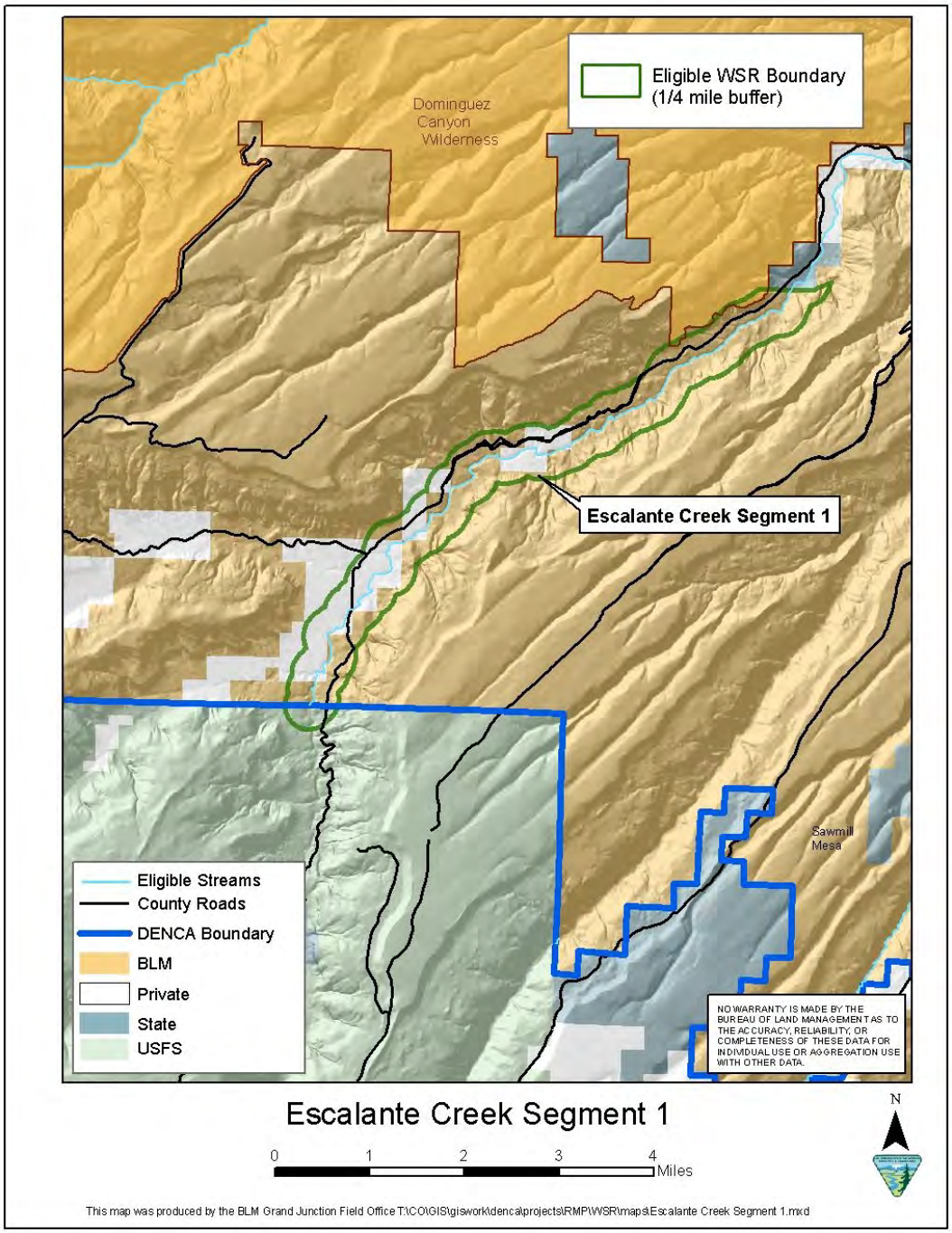


Figure O.11. Escalante Creek Segment 1

Total Segment Length: 8.45 miles

Lower Terminus: Latitude, 38.679; longitude, 108.313 W

Upper Terminus: Latitude, 38.609 N; longitude, 108.406 W

Eligibility

Description: Escalante Creek is a major perennial tributary of the lower Gunnison River that drains from the east side of the Uncompahgre Plateau. This segment of the creek lies within the D-E NCA. The upper terminus is its meeting with the Uncompahgre National Forest boundary, while the lower terminus is the boundary between BLM and State-managed lands (Figure O.11).

This stream supports both a trout fishery and native flannelmouth and bluehead suckers.

ORVs:

Scenic: An interdisciplinary BLM field inventory team evaluated the area and assigned a scenic quality classification of A. The following observations were derived from their field notes: Escalante Creek offers very high scenic qualities. The cascading white-water creek runs swiftly and linearly here, creating dramatic potholes and waterfalls. A large-scale sandstone canyon provides dramatic vistas, prominent vertical and horizontal cliffs, major rock outcroppings, and jagged ridgelines that dominate the landscape. Landform colors abound in shades of tan, pink, red, orange, brown and blue. The surrounding vegetation adds to the beauty, providing shades of green, golden, yellow, and tan, and the vegetation becomes increasingly dense along the creek.

This canyon has a scenic feature that is rare in the region of comparison: a "double canyon" system. The broader outer canyon bounded by colorful cliffs of sedimentary rock holds within it a smaller, narrow canyon of dark gray and black Precambrian metamorphic rock, within which the creek flows. This vivid contrast is only found in a handful of canyons on the Colorado Plateau (BLM 2010d).

Recreational: This segment has outstanding opportunities for recreation, primarily in the Escalante Potholes recreation site. Escalante Creek has smoothed and sculpted the Precambrian metamorphic rock through which it flows, creating a series of chutes, falls, and plunge pools. These features are rare. During the spring snowmelt, high water surges through the Potholes area, attracting extreme kayakers from all over the western United States. The complex hydraulic features challenge even the most experienced kayakers. Later in the season, as the snowmelt tapers off and the creek returns to a more sedate and steady flow, the potholes are used for wading, swimming, and streamside camping by groups and individuals, primarily from Colorado's West Slope. Classic Colorado Plateau canyon scenery and the rare occurrence of black Precambrian schist in a perennially flowing streambed combine to make this section of Escalante Creek able to provide an exceptional recreational experience (BLM 2010d).

Geologic: The Escalante Potholes are a regionally rare geological and hydrological streambed feature in the lower reach of this segment. The potholes are hourglass-shaped erosional features occurring in hard Precambrian gneiss where it intercepts the streambed of Escalante Creek. Stream channel knickpoints have formed in the overlying softer sedimentary rock units, providing high velocity waters with adequate sediment supply and hydrologic energy to produce circulating erosive water currents. The scouring process that occurs primarily during the annual spring snowmelt has taken thousands of years to produce the current state of the potholes.

There are no other areas in the region where Precambrian gneiss is exposed and shaped by a stream powerful enough to create these features, yet not so powerful as to completely erode the stream channel smooth. This rare combination of lithology and erosion demonstrates not only the efficacy of hydrology upon geology, but also the creative sculpturing action that time and water have upon a very resistant medium. With almost any other medium, such as sandstone or even marble, these effects would not have produced such dramatic features as the potholes of Escalante Creek (BLM 2010d).

Wildlife: Escalante Canyon provides exceptionally high quality habitat for peregrine falcons *(Falco peregrinus)* and is considered a regionally important area for this BLM sensitive species. In 1999, the peregrine was delisted from threatened status under the ESA. The BLM monitors the status of peregrine populations to ensure continued recovery of the species. Peregrine falcons are closely associated with steep-walled canyons and often nest near perennial water sources that support prey populations such as waterfowl, songbirds, and shorebirds. Peregrine falcon pairs were observed in Escalante Canyon as recently as 2008 and 2009, and breeding/nesting activity has been confirmed along this segment (BLM 2010d).

Fish: Escalante Creek is regionally important habitat for resident populations of native roundtail chubs, bluehead suckers, and flannelmouth suckers, as well as serving as a spawning site for Gunnison River populations of all three of these BLM and Colorado sensitive species (see "Eligibility Adjustments" in this report).

Tentative classification: Scenic

An unpaved county-maintained road runs parallel to Escalante Creek for much of this reach but is primarily well above the stream along a bench and therefore not visible from the stream channel. The road crosses Escalante Creek near the upper terminus. Extensive recreational activity occurs in the Potholes area along this segment. There are water diversions as well, but no impoundments (BLM 2010d).

Suitability Factor Assessment

Land Ownership and Land Uses

Land ownership within ¼ mile of the ordinary high water mark:

- 71% BLM
- 3% USFS
- 26% private

Current land uses on the BLM-administered lands include livestock grazing, recreational boating (kayaking), swimming, rock climbing, picnicking, camping, and scenic touring. Current uses on the private lands include agriculture (livestock ranching). Current uses on the USFS-administered lands include livestock grazing and hunting.

Mineral and Energy Resource Activities

Through the legislation designating the D-E NCA, all Federal minerals were withdrawn from location, entry, and patent under the mining laws; and operation under the mineral leasing, mineral materials, and geothermal leasing laws was ceased. The Federal mineral holdings cover 75 percent of the WSR area. The minerals below private lands would be available for development. Of the WSR area, 100 percent is classified as having low potential for oil and gas development. The is no known potential for developing coal resources. Potential for locatable mineral (primarily uranium) is classified as low. The small portion of the WSR area that is in the national forest is available for coal, oil, and gas leasing. The potential for oil and gas development is classified as low (Fowler and Gallagher 2004). The potential for coal development is classified as "none" (USFS 2006).

Water Resource Development

The CWCB holds an instream appropriation for 4.0 cubic feet per second (cfs) (3/1 to 3/31); 8.2 cfs (4/1 to 6/14); 4.0 cfs (6/15 to 7/31); 1.5 cfs (8/1 to 2/28). There are no known proposals to develop impoundments within the WSR area.

Transportation, Facilities, and Other Developments

There is a county-maintained gravel road adjacent to the creek (see map above). There is a BLM recreational facility that includes a vault toilet and picnic sites. There are ranch houses and outbuildings on the private lands. There are irrigated fields on the private lands and associated irrigation systems (generally ditches for flood irrigation).

Recreational Activities

As mentioned above, the primary recreational activities within the WSR area are kayaking, swimming, rock climbing, picnicking, camping, and scenic touring.

Other Resource Activities

The other primary activities within the WSR area are associated with ranching (livestock grazing and irrigated hay farming).

Special Areas

Of the WSR area, 71 percent is within the D-E NCA, and 4 percent overlaps the Wilderness and WSA (26 acres of Wilderness and 83 acres of WSA).

Socioeconomic Environment

Escalante Creek is valued for its scenic quality, historical resources, and recreational opportunities by residents of the communities in Delta, Montrose and Mesa Counties. As mentioned above, agricultural businesses (primarily ranching) rely on the stream for livestock water and irrigated crops.

Current Administration and Funding Needs if Designated

Within the WSR area, the BLM and the USFS are responsible for the current administration of public lands. The BLM lands are managed as part of the D-E NCA, and the Forest Service lands are managed as part of the Uncompahgre National Forest. If the segment is added to the National System, the BLM would likely be responsible for its administration.

Reasonably Foreseeable Potential Uses of the Land and Water That Would be Enhanced, Foreclosed, or Curtailed if the Area Were Included in the National System

Designation of this segment would enhance current recreational uses along the segment by providing long-term protection of flows and the scenic landscapes adjacent to the creek. Reasonably foreseeable development of private land includes residential housing and expansion of existing ranch developments. Designation could curtail or foreclose some or all of these private land development options.

Determination of the Extent That Other Federal Agencies, the State, or its Political Subdivisions Might Participate in the Preservation and Administration of the River Should it be Proposed for Inclusion in the National System

The Forest Service evaluated Escalante Creek for WSR eligibility and found the stream to be not eligible. Current Forest Service management direction for the WSR area will include "Wildlife management for one or more management indicator species. Semi-primitive non-motorized, semi-primitive motorized, and roaded natural recreation opportunities will be provided. Livestock grazing will be compatible with wildlife habitat management. Vegetation treatment will enhance plant and animal diversity and big game winter range in non-forest areas. Semi-primitive non-motorized, semi-primitive motorized and roaded natural recreation opportunities will be provided. Motorized recreation on local roads is managed to prevent unacceptable stress on big game animals during primary big game use season. Vegetation treatment will enhance plant and animal diversity. Livestock grazing is compatible, but managed to favor wildlife habitat." (USFS 1983).

The private parcels within the WSR area that fall within Mesa County are zoned as an Agricultural, Forestry, Transitional District. The AFT zoning is primarily intended to accommodate agricultural operations and very low-density single-family residential development within the Rural Planning Area. The private parcels that fall within Montrose County are zoned to allow subdivision of land into parcels equal to or greater than 35 acres.

Existing Support or Opposition of Designation:

There is strong opposition from water users, private land owners and county governments to WSR designation for this segment. As noted above in the public participation section, the Gunnison Basin Stakeholder Group recommended a that the BLM find this segment not suitable. Many of the landowners along the segment participated in the stakeholder process and expressed concern that a WSR designation could impact their private property rights. They were concerned that a Federal reserve water right and potential scenic easements might remove their property from local control. There was general agreement among the stakeholders that the WSR values could best be protected through local management and authorities in the legislation that established the D-E NCA.

There is support from the environmental coalition for a WSR suitable determination. Its recommendation noted that the segment "boasts the highest diversity of ORVs of any in the NCA." That said, the coalition's recommendation to the BLM was only for a determination of suitability. The comments specifically stated that BLM should not send a recommendation to Congress for designation.

As noted above, the D-E NCA Advisory Council recommendation for this segment included both a majority and minority recommendation. The majority recommendation was to find the segment not suitable and that the WSR values be protected using other administrative and legislative tools. The minority recommendation was to find the segment suitable but not recommend designation into the National System.

Suitability Determination

The IDT determined that the D-E NCA legislation would provide protection from threats to the free-flowing condition of the creek. The Omnibus Act of 2009 directs the BLM to manage the area "in a manner that conserves, protects, and enhances" the purposes of the D-E NCA, including "the water resources of the area streams, based on seasonally available flows that are necessary to support aquatic, riparian, and terrestrial species and communities." The IDT concluded that the mandate in the legislation would preclude Federal approval of an impoundment dam along the segment.

The recreational ORV associated with swimming and wading is currently protected by senior water rights associated with irrigation downstream of the eligible segment and instream flow water rights held by CWCB. Adequate flows for the recreational ORV of kayaking are associated with spring snowmelt, and their protection is less certain. Additional storage on private lands above the segment could affect the kayaking ORV.

The senior irrigation water rights below the segment and the instream flow water rights would also provide protection for the wildlife and fish ORVs. Maintaining flows through the irrigation season would support habitat for peregrine falcon prey. The instream flow appropriation is allocated specifically for protection of sensitive fish.

The Escalante ACEC proposed in the Preferred Alternative as part of the D-E NCA Draft RMP would provide additional administrative protection for the segment's fish and wildlife ORVs. The relevant and important values identified for protection in the ACEC are the same as the wild and scenic river ORVs, providing an alternative method of protecting these values.

The tentative classification of the segment (scenic) and the scenic ORV would be administratively protected from incompatible development on BLM-administered lands through the Visual Resource Management Class I and II objectives proposed in the Preferred Alternative as part of the D-E NCA Draft RMP.

Suitability Finding: Not suitable; dropped from further Wild and Scenic study

Escalante Creek Segment 2

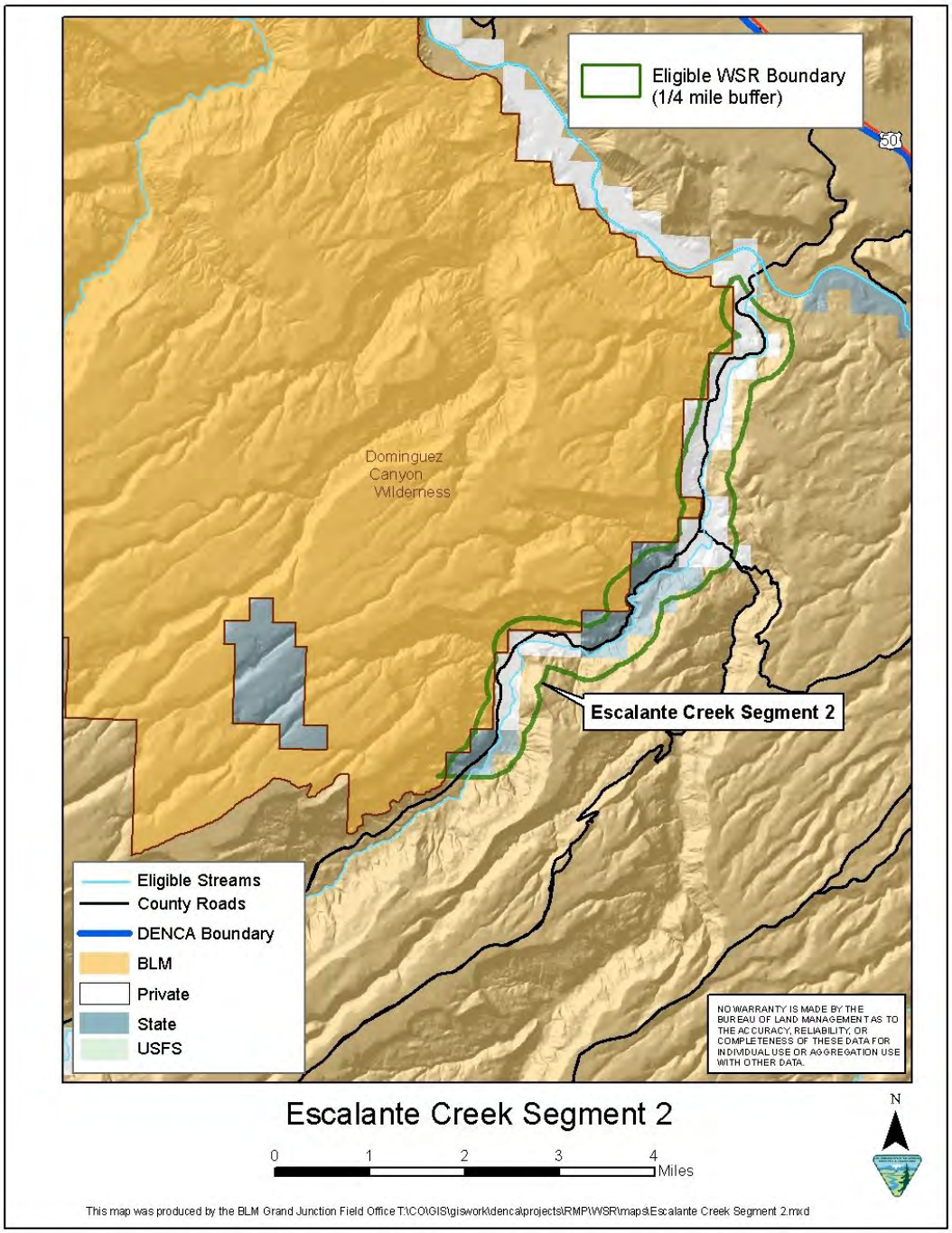


Figure O.12. Escalante Creek Segment 2

Total Segment Length: 8.48 miles

Lower Terminus: Latitude, 38.753; longitude, 108.261 W

Upper Terminus: Latitude, 38.679 N; longitude, 108.313 W

Eligibility

Description: Escalante Creek is a major perennial tributary of the Gunnison River, draining from the east side of the Uncompahgre Plateau. High flows typically occur during spring snowmelt, as well as from runoff generated by occasional summer thunderstorms. This segment is located within the D-E NCA. The upper terminus is the boundary between BLM- and State-managed lands, while the lower terminus is the confluence of Escalante Creek and the Gunnison River Figure O.12).

ORVs:

Fish: Escalante Creek is regionally important habitat for resident populations of native roundtail chubs, bluehead suckers, and flannelmouth suckers, as well as serving as a spawning site for Gunnison River populations of all three of these BLM and Colorado sensitive species (see "Eligibility Adjustments" in this report).

Wildlife: This section of Escalante Creek is regionally important habitat for desert bighorn sheep *(Ovis canadensis)*, primarily due to the presence of a water source.

Escalante Canyon provides exceptionally high quality habitat for peregrine falcons *(Falco peregrinus)*, and is considered a regionally important area for this BLM sensitive species. In 1999, the peregrine was delisted from threatened status under the ESA. The BLM monitors the status of peregrine populations to ensure continued recovery of the species. Peregrine falcons are closely associated with steep-walled canyons and often nest near perennial water sources that support prey populations such as waterfowl, songbirds, and shorebirds. Peregrine falcon pairs were observed in Escalante Canyon as recently as 2008 and 2009, and breeding/nesting activity has been confirmed along this segment (BLM 2010d).

Tentative Classification: Recreational

An unpaved county-maintained road runs along portions of this stream segment and crosses Escalante Creek via a bridge near the mouth. A low water ford across Escalante Creek provides road access to the Dry Fork of Escalante Creek area. There are several water diversions along this reach, primarily for irrigating agricultural lands along the river corridor.

Suitability Factor Assessment

Land Ownership and Land Uses

Land ownership within ¼ mile of the ordinary high water mark:

- 37% BLM
- 24% State of Colorado
- 39% private

Current land uses on the BLM-administered lands include livestock grazing, hiking, rock climbing, and scenic touring. Current uses on the private lands include agriculture (livestock ranching and farming). Current uses on the Colorado State-administered lands include livestock grazing and hunting.

Mineral and Energy Resource Activities

Through the legislation designating the D-E NCA, all Federal minerals were withdrawn from location, entry, and patent under the mining laws; and operation of the mineral leasing, mineral materials, and geothermal leasing laws. The Federal mineral holdings cover 37 percent of the WSR area. As such the minerals below private and State lands would be available for development. Of the WSR area, 55 percent is classified as having low potential, and 45 percent is classified as having medium potential for oil and gas development (Fowler and Gallagher 2004). There is no known potential for developing coal resources. The potential for locatable mineral (primarily uranium) development is classified as low (USFS 2006).

Water Resource Development

There are no known proposals to develop impoundments within the WSR area.

Transportation, Facilities, and Other Developments

There is a county-maintained gravel road adjacent to the creek (see map above). There are ranch houses and outbuildings on the private lands. There are irrigated fields on the private lands, and associated irrigation systems (generally ditches for flood irrigation).

Recreational Activities

As mentioned above, the primary recreational activities within the WSR area are hiking, rock climbing, and scenic touring.

Other Resource Activities

The other primary activities within the WSR area are associated with agriculture (livestock grazing and irrigated farming).

Special Areas

Of the WSR area, 37 percent is within the D-E NCA, and 13 percent overlaps the Wilderness and WSA (261 acres of Wilderness and 46 acres of WSA).

Socioeconomic Environment

Escalante Creek is valued for its scenic quality, historical resources, and recreational opportunities by residents of the communities in Delta, Montrose and Mesa Counties. As mentioned above, agricultural businesses (primarily ranching) rely on the stream for livestock water and irrigated crops.

Current Administration and Funding Needs if Designated

Within the WSR area, the BLM is responsible for the current administration of public lands. The BLM lands are managed as part of the D-E NCA. If the segment is added to the National System, the BLM would likely be responsible for its administration.

Reasonably Foreseeable Potential Uses of the Land and Water That Would be Enhanced, Foreclosed, or Curtailed if the Area Were Included in the National System

Designation of this segment would enhance current recreational uses along the segment by providing long-term protection of flows and the scenic landscapes adjacent to the creek. Reasonably foreseeable development of private land includes residential housing and expansion

of existing agricultural developments. Designation could curtail or foreclose some or all of these private land development options.

Determination of the Extent That Other Federal Agencies, the State, or its Political Subdivisions Might Participate in the Preservation and Administration of the River Should it be Proposed for Inclusion in the National System

The private parcels within the WSR area fall within Delta County. Unless a subdivision is included, no permits are required for single-family residential housing construction. Records show six unique parcels of private land within the WSR area.

Existing Support or Opposition of Designation

There is strong opposition from water users, private land owners, and county government to WSR designation for this segment. As noted above in the public participation section, the Gunnison Basin Stakeholder Group recommended that the BLM find this segment not suitable. Many of the landowners along the segment participated in the stakeholder process and expressed concern that a WSR designation could impact their private property rights. They were concerned that a Federal reserve water right and potential scenic easements might remove their property from local control. There was general agreement among the stakeholders that the WSR values could best be protected through local management and authorities in the legislation that established the D-E NCA.

The environmental coalition also recommended that BLM find this segment not suitable.

As noted above, the D-E NCA Advisory Council recommended this segment be classified as not suitable and that the WSR values be protected using other administrative and legislative tools.

Suitability Determination

The IDT determined that the D-E NCA legislation would provide protection from threats to the free-flowing condition of the creek. The Omnibus Act of 2009 directs the BLM to manage the area "in a manner that conserves, protects, and enhances" the purposes of the D-E NCA including "the water resources of the area streams, based on seasonally available flows that are necessary to support aquatic, riparian, and terrestrial species and communities." The IDT concluded that the mandate in the legislation would preclude Federal approval of an impoundment dam along the segment.

The senior irrigation water rights below the segment would provide some protection for the wildlife ORVs. Maintaining flows through the irrigation season would support habitat for peregrine falcon prey. Instream flow water rights held on Escalante Creek Segment 1 by the CWCB would provide some protection for the fish ORV.

The Escalante ACEC proposed in the Preferred Alternative as part of the D-E NCA Draft RMP would provide additional administrative protection for the segment's fish and wildlife ORVs. The relevant and important values identified for protection in the ACEC are the same as the wild and scenic river ORVs, thus providing alternative protections for these values.

The tentative classification of the segment (recreational) means that the segment would be administratively protected from incompatible development on BLM-administered lands through the Visual Resource Management Class I and II objectives proposed in the Preferred Alternative as part of the D-E NCA Draft RMP.

Suitability Finding: Not suitable; dropped from further Wild and Scenic study

Cottonwood Creek

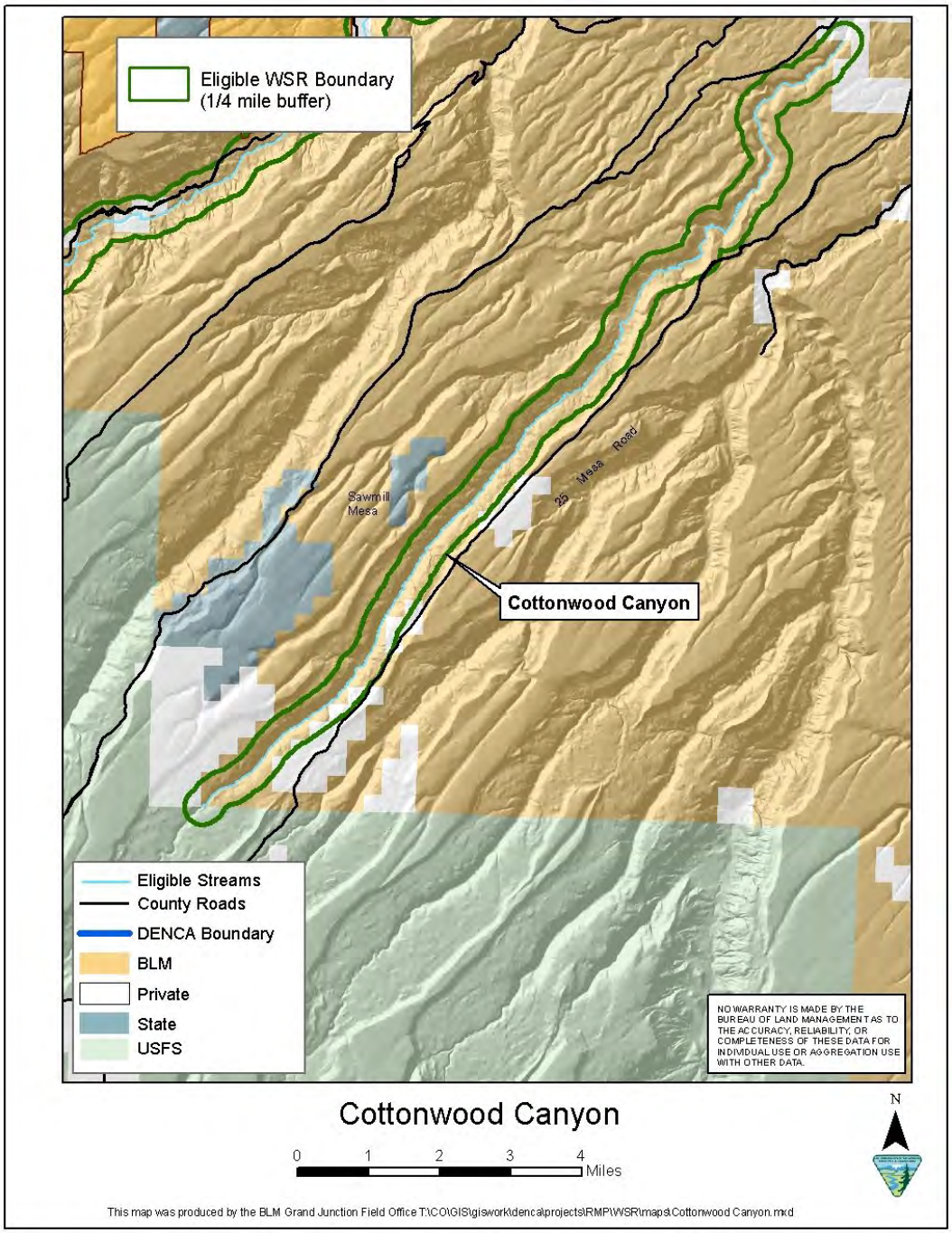


Figure O.13. Cottonwood Creek

Total Segment Length: 18.27 miles

Lower Terminus: Latitude, 38.696; longitude, 108.177 W

Upper Terminus: Latitude, 38.531 N; longitude, 108.343 W

Eligibility

Description: Cottonwood Creek is a tributary of Roubideau Creek that drains from the east side of the Uncompahgre Plateau. This segment is located within the D-E NCA. Its upper terminus is the BLM boundary with the Uncompahgre National Forest, while the lower terminus is at the lower extent of BLM-administered lands, approximately 2.5 miles above the Roubideau Creek confluence (Figure O.13). The flow regime of Cottonwood Creek is typically perennial in average to above-average water years but can become intermittent in lower reaches during dry years. High flows occur during the spring snowmelt and from runoff generated by summer thunderstorms, especially in the lower reaches (BLM 2010d).

ORVs:

Vegetation: The entire length of this segment supports a superior (A-ranked) occurrence of globally vulnerable (G3) narrowleaf cottonwood/skunkbush sumac riparian woodland *(Populus angustifolia/Rhus trilobata)*. The CNHP includes this segment within the Cottonwood Creek Potential Conservation Area (BLM 2010d).

Tentative Classification: Scenic

One unpaved road crosses Cottonwood Creek approximately one-half mile downstream of the upper terminus. There are no absolute water right diversions or impoundments along this stretch and little evidence of human activity. The shoreline is primitive.

Suitability

The IDT determined that a portion of the eligible stream and WSR area are suitable for inclusion in the National System (see map in Figure O.14 below). The following suitability information relates to that portion which the IDT determined is suitable.

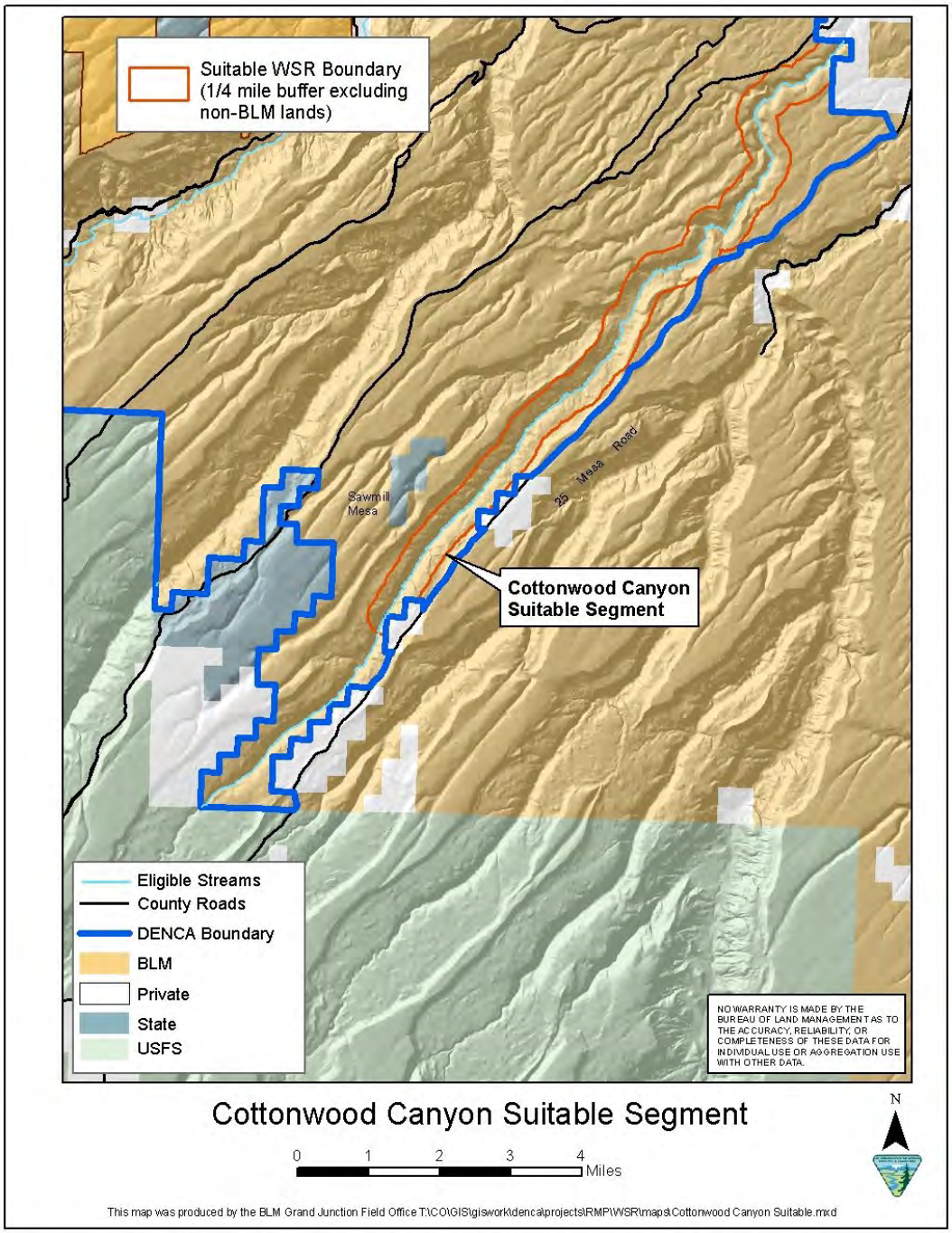


Figure O.14. Cottonwood Creek Suitable Segment

Total Segment Length: 14.41 miles

Lower Terminus: Latitude, 38.693; longitude, 108.18 W

Upper Terminus: Latitude, 38.57 N; longitude, 108.296 W

Land Ownership and Land Uses

Land ownership within ¼ mile of the ordinary high water mark:

- 100% BLM

Current land uses on the BLM-administered lands include livestock grazing and hiking.

Suitability Factor Assessment

Mineral and Energy Resource Activities

Through the legislation designating the D-E NCA, all Federal minerals were withdrawn from location, entry, and patent under the mining laws; and operation under the mineral leasing, mineral materials, and geothermal leasing laws was ceased. Within the WSR area, there are no valid existing mineral rights.

Water Resource Development

The CWCB holds an instream appropriation for 3.6 cfs during April, May, and part of June. The purpose of the water right is to protect fish habitat. There are no known proposals to develop impoundments within the WSR area.

Transportation, Facilities, and Other Developments

There are five primitive routes/trails within the WSR area. Only three of the routes reach the bottom of the canyon near the creek. There are three livestock/hiking trails that descend from the rim to the bottom of the canyon. There are two known livestock fences that cross the creek. No other developments were noted during the eligibility inventory.

Recreational Activities

As mentioned above, the primary recreational activity within the WSR area is hiking.

Other Resource Activities

The other primary activity within the WSR area is livestock grazing.

Special Areas

Of the WSR area, 100 percent is within the D-E NCA.

Socioeconomic Environment

Escalante Creek is valued for its scenic quality and primitive recreational opportunities. Parts of three livestock grazing allotments are within the WSR area.

Current Administration and Funding Needs if Designated

Within the WSR area, the BLM is responsible for the current administration of public lands. The BLM lands are managed as part of the D-E NCA. If the segment is added to the National System, the BLM would likely be responsible for its administration.

Reasonably Foreseeable Potential Uses of the Land and Water That Would be Enhanced, Foreclosed, or Curtailed if the Area Were Included in the National System

Designation of this segment would enhance current recreational uses along the segment by providing long-term protection of flows and the scenic landscapes adjacent to the creek. Livestock grazing would likely continue if the segment were designated. If either recreation or livestock grazing activities resulted in damage to the riparian vegetation, those activities could be curtailed to protect the ORV. Since the WSR area is limited to BLM-administered lands, there would be no need for scenic easements or other property acquisitions.

Determination of the Extent That Other Federal Agencies, the State, or its Political Subdivisions Might Participate in the Preservation and Administration of the River Should it be Proposed for Inclusion in the National System

The vegetation ORV would require protection of adequate instream flows. Within the reach, the CWCB currently holds instream flow appropriations for protection of fish. The CWCB has demonstrated a willingness to secure instream flow appropriations to protect flow-dependent biological resources.

Existing Support or Opposition of Designation

The Gunnison Basin Stakeholder Group recommended that the BLM find this segment not suitable. They concluded that the NCA designation combined with the instream flow allocation would protect the segment. The environmental coalition recommended that the BLM determine the segment suitable. As noted above, the D-E NCA Advisory Council recommendation for this segment included both a majority and a minority recommendation. The majority recommendation was to find the segment not suitable and that the WSR values be protected using other administrative and legislative tools. The minority recommendation was to find the segment suitable but not recommend designation into the National System. There was one member of the Advisory Council that specifically recommended Cottonwood Creek as suitable for inclusion in the National System.

Suitability Determination

The IDT determined that the D-E NCA legislation would provide protection from threats to the free-flowing condition of the creek. The Omnibus Act of 2009 directs the BLM to manage the area "in a manner that conserves, protects, and enhances" the purposes of the D-E NCA including "the water resources of the area streams, based on seasonally available flows that are necessary to support aquatic, riparian, and terrestrial species and communities." The IDT concluded that the mandate in the legislation would preclude Federal approval of an impoundment dam along the segment.

The primary consideration for the determination of suitable was the need for additional protection of the vegetation ORV from actions that would reduce flows along this segment. The IDT determined that a Federal reserve water right would provide protection for the vegetation ORV. The current instream flow appropriation held by CWCB does not create the type of seasonal flow variation necessary to protect the vegetation type identified as the ORV. The narrowleaf cottonwood/skunkbush sumac riparian woodland requires high, flooding spring flows in the spring and minimal flows throughout the remainder of the growing season.

Due to the difference between the eligible boundary and the suitable boundary, the tentative classification for this creek has changed from scenic to wild. The smaller suitable area does not include the road identified in the eligibility report.

Suitability Finding: Suitable; recommended for inclusion in the National System.

O.7. Participation

Table O.4 lists the individuals who contributed to the completion of this appendix.

Table O.4. Members of the BLM's Interdisciplinary Team

IDT Members	Title
Ben Blom	RMP Planning Team Lead
Jim Dollerschell	Rangeland Specialist
Amanda Clements	Ecologist
Anna Lincoln	Ecologist
Lynae Rogers	Rangeland Specialist
Nikki Grant-Hoffman	Ecologist/Science Coordinator
Missy Siders	Wildlife Biologist
Heidi Plank	Wildlife Biologist
Nate Dieterich	Hydrologist
Andy Windsor	Outdoor Recreation Planner
Alissa Leavitt-Reynolds	Archeologist
Glade Hadden	Archeologist
Linda Reed	Realty Specialist
Robin Lacy	Realty Specialist
Jacob Martin	Rangeland Specialist
Tom Fresques	Fishery Biologist

O.8. References

See Chapter 6 of this Proposed RMP for a list of references.

Appendix P. Air Resources

P.1. Introduction

The Air Resources appendix provides detailed information on the emissions inventory calculations and results for each management activity considered under the D-E NCA Proposed RMP. The tables and results form the basis for the Impact Analysis found in Chapter 4 of the Proposed RMP. Each table in the appendix provides the annualized basis for emissions from each emissions generating activity. The tables in Chapter 4 are derived from the emission calculation tables below (Figures P.1 to P.13) on the basis of differences in the management alternatives considered under the Proposed RMP.

P.2. Emission Calculation Tables

Livestock Grazing - Fugitive Dust from Heavy Construction Operations

INPUTS & ASSUMPTIONS			
Description	Value	Source	Notes
TSP Emission Factor	1.2	b	Tons TSP/acre-month
Conversion factor for TSP to PM_{10}	0.35	c	Percentage of TSP
Conversion factor for PM_{10} to $PM_{2.5}$	0.1	d	Percentage of PM_{10}

[a] Fitzpatrick, M. 1990. *User's Guide: Emission Control Technologies and Emission Factors for Unpaved Road Fugitive Emissions*, EPA/625/5-87/022. http://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=20006SFC.

[b] EPA, AP-42, Volume I, Section 13.2.3 Heavy Construction Operations, Jan. 1995 (Errata Feb. 2010)

[c] EPA, AP-42, Volume I, Section 13.2.4 Aggregate Handling and Storage Piles, Nov. 2006.
[d] Midwest Research Institute. 2006. *Background Document for Revisions to Fine Fraction Ratios Used for AP-42 Fugitive Dust Emission Factors*, Report prepared for the Western Governors' Association, Western Regional Air Partnership (WRAP), MRI Project No. 110397, November 1, 2006.

Fugitive Dust Emissions Estimation for Construction Activities - All Project Years

Construction Activity	Total Disturbed Acres/ Year	# of Days to Complete/ Year[1]	Emissions (tons/year)		
			TSP	PM_{10}	$PM_{2.5}$
Springs	0.17	1	0.01	0.00	0.00
Reservoirs/Pits	1.03	1	0.04	0.01	0.00
Wells	0.00	1	0.00	0.00	0.00
Pipelines	0.34	1	0.01	0.00	0.00
Fences	0.34	1	0.01	0.00	0.00
Reservoirs Maintenance	2.05	1	0.08	0.03	0.00
		Total	**0.16**	**0.06**	**0.01**

[a] Information from MCFO. Assumes no emissions controls.
1. assumes total acreage is disturbed once annually, so input one day for calculation purposes

Wind Erosion Associated with Land Disturbance

Emission Factors for Industrial Wind Erosion

E (tons/year) =	$k * \frac{P * M * N}{453.6 * 2000}$
AP-42 Section 13.2.5.3 Equation 2	
Erosion Potential P (g/m2/year) =	$58(U^*-U_t^*)^2 + 25(U^*-U_t^*)$
for $U^* > U_t^*$; P=0 otherwise	AP-42 Sec. 13.2.5.3 Eq. 3
Friction Velocity U^* (m/s) =	$0.053\ U_{10}^*$
AP-42 Section 13.2.5.3 Equation 4	

P = Erosion Potential ($gm/m^2/yr$) M = Disturbed area (m^2)
U^* = Friction velocity (m/s) N = # of disturbances
U_t = threshold velocity (m/s) k = 0.5 for PM_{10}
U10 = fastest wind speed (m/s) k = 0.075 for $PM_{2.5}$

U_{10} =	23.30	52.12	mph, input value (fastest)
U_t- overburden =	1.02	AP-42 Industrial Wind Erosion Table 13.2.5-2, Overburden	

Wind Erosion Emissions - Based on Disturbed Acres

	Fastest Mile (U_{10}) (m/s)	Max. Friction Velocity (U^*) (m/s)	Erosion Potential (P) ($g/m^2/yr$)	Annual Disturbed Acres	Disturbed Area (M) (m^2)	Number of Disturbances (N)	PM_{10} Emissions (tons/year)	$PM_{2.5}$ Emissions (tons/year)
Project Area	23.30	1.23	8.05	3.93	15915.21	1.00	**0.07**	**0.01**

Figure P.1. Livestock Grazing Fugitive Dust Emissions from Heavy Equipment Operations

Livestock Grazing - Exhaust Emission Factors for Diesel-Powered Off-Road Construction Equipment

		Emission Rates (g/hp-hr)								
HP Range	NR Equipment Type	VOC	CO	NOx	PM10	PM2.5	SO2	CO2	CH4	N_2O[1]
100	Tractors/Loaders/Backhoes	0.353	1.661	1.454	0.259	0.252	0.032	145.112	0.005	0.001
600	Off-highway Trucks	0.116	0.898	2.299	0.133	0.129	0.069	316.385	0.002	0.003
0	Other Construction Equipment	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175	Crawler Tractors	0.212	0.897	2.616	0.201	0.195	0.069	316.101	0.003	0.003
0	Scrapers	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	Other Construction Equipment	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
300	Bore/Drill Rigs	0.230	0.867	2.801	0.172	0.167	0.050	227.665	0.003	0.002
100	Tractors/Loaders/Backhoes	0.353	1.661	1.454	0.259	0.252	0.032	145.112	0.005	0.001
600	Off-highway Trucks	0.116	0.898	2.299	0.133	0.129	0.069	316.385	0.002	0.003
0	Other Construction Equipment	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
175	Crawler Tractors	0.212	0.897	2.616	0.201	0.195	0.069	316.101	0.003	0.003
0	Trenchers	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
0	Tractors/Loaders/Backhoes	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
300	Off-highway Trucks	0.164	0.723	2.086	0.145	0.141	0.069	316.242	0.002	0.003
175	Crawler Tractors	0.212	0.897	2.616	0.201	0.195	0.069	316.101	0.003	0.003

[1] N2O factor source: 2009 API O&G GHG Methodologies Compendium, Tables 4-13 and 4-17. 130,500 Btu/gallon, 2545 Btu/hp-hr.

Source: EPA NONROADS 2008a

Figure P.2. Livestock Grazing Exhaust Emissions Factors for Diesel Heavy Equipment

Livestock Grazing - Exhaust Emission for Diesel-Powered Off-Road Construction Equipment

Combustive Emissions Estimation for Construction Activities

Construction Activity	Equipment Type	Capacity (hp)	# of Units	Avg. Load Factor (%)	# of Hours/Day	# of Days/ Project	# of Projects/ Year	Total Hours/ Unit/Year	Emissions (tons/year)								
									VOC	CO	NOx	PM10	PM2.5	SO2	CO2	CH4	N_2O
Springs	Backhoe	89.0	1.0	60.0	6.0	3.0	0.7	12.3	2.55E-04	1.20E-03	1.05E-03	1.88E-04	1.82E-04	2.29E-05	1.05E-01	3.81E-06	8.45E-07
	Dump Truck	375.0	1.0	50.0	2.0	3.0	0.7	4.1	9.84E-05	7.61E-04	1.95E-03	1.13E-04	1.09E-04	5.84E-05	2.62E-01	1.47E-06	2.14E-06
	Other	0.0	0.0	0.0	0.0	3.0	0.7	0.0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Reservoirs/Pits	Bulldozer	145.0	1.0	50.0	8.0	2.0	1.7	27.3	4.63E-04	1.56E-03	5.72E-03	4.39E-04	4.25E-04	1.50E-04	6.91E-01	6.50E-06	5.53E-06
	Scraper	0.0	0.0	0.0	0.0	2.0	1.7	0.0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Other	0.0	0.0	0.0	0.0	2.0	1.7	0.0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Wells	Drill Rig	300.0	1.0	50.0	10.0	7.0	0.0	0.0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Backhoe	89.0	1.0	60.0	6.0	7.0	0.0	0.0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Water Truck	330.0	1.0	40.0	2.0	7.0	0.0	0.0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Other	0.0	0.0	0.0	0.0	7.0	0.0	0.0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Pipelines	Dozer	145.0	1.0	80.0	8.0	7.0	0.3	19.1	5.18E-04	2.20E-03	6.40E-03	4.91E-04	4.77E-04	1.68E-04	7.74E-01	7.73E-06	6.19E-06
	Trencher	0.0	0.0	0.0	0.0	7.0	0.3	0.0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
	Backhoe	0.0	0.0	0.0	0.0	7.0	0.3	0.0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Fences (Miles/yr.)	Auger Truck	250.0	1.0	50.0	8.0	7.0	0.3	19.1	4.33E-04	1.91E-03	5.58E-03	3.83E-04	3.71E-04	1.81E-04	8.34E-01	6.46E-06	6.67E-06
Reservoir Maintenance	Bulldozer	145.0	1.0	50.0	8.0	2.0	3.4	54.7	3.26E-04	3.52E-03	1.14E-02	8.77E-04	8.51E-04	3.01E-04	1.38E+00	1.38E-05	1.11E-05
								Total	2.69E-03	1.19E-02	3.21E-02	2.49E-03	2.42E-03	8.82E-04	4.05E+00	4.02E-05	3.24E-05

* All emissions calculated with year 2008 factors (conservative)

Figure P.3. Livestock Grazing Exhaust Emissions from Diesel Heavy Equipment

Livestock Grazing - Fugitive Dust from Commuting Vehicles on Unpaved Roads

Emission Factors for Publicly Accessible Unpaved Roads*

$E\ (lb/VMT) = \frac{k\,(s/12)^a\,(S/30)^d}{(M/0.5)^c} - C$

$E_{ext} = E\,(1 - PY/365)$

Parameter	PM_{10}	$PM_{2.5}$
k	1.8	0.18
a	1	1
d	0.5	0.5
c	0.2	0.2

Function/Variable Description		Assumed Value	Reference
E = size-specific emission factor (lb/VMT)			
E_{ext} = size-specific emission factor extrapolated for natural mitigation (lb/VMT)			
s = surface material silt content (%)		5.1	EPA AP-42 Section 13.2.2, Table 13.2.2-1
C = emission factor for 1980's vehicle fleet exhaust, brake wear, and tire wear (lb/VMT)	$PM_{2.5}$	0.00036	EPA AP-42 Section 13.2.2, Table 13.2.2-4
	PM_{10}	0.00047	EPA AP-42 Section 13.2.2, Table 13.2.2-4
M = surface material moisture content (%)		2.0	EPA AP-42 Section 13.2.2
P = Number of days precip per year		59	http://www.wrcc.dri.edu, GRAND JUNCTION 6 ESE, COLORADO
CE = emission control percent for unpaved roads		50%	

* Source: EPA, AP-42 Volume I, Section 13.2.2 Unpaved Roads, Table 13.2.2-2, Nov 2006

* Fitzpatrick, M. 1998. User's Guide: Emission Control Technologies and Emission Factors for Unpaved Road Fugitive Emissions, EPA/625/R-97/022. http://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=2000B9.C

Fugitive Dust Emission Estimations for Commuting Vehicle on Unpaved Roads - All Project Years

Construction Activity	Equipment Type	Avg. Vehicle Speed (mph)	Round Trip Distance (miles)	# of Round Trips/Project	Total Vehicle Miles/Project	# of Projects/Year	Total Annual Vehicle Miles Traveled	PM_{10} Controlled Em. Factor (lb/VMT)	PM_{10} Emissions (tons/vehicle type)	PM_{10} Emissions (tons/activity)	$PM_{2.5}$ Controlled Em. Factor (lb/VMT)	$PM_{2.5}$ Emissions (tons/vehicle type)	$PM_{2.5}$ Emissions (tons/activity)
Springs	Dump Truck	30.0	25.0	2.0	50.0	0.7	34.2	0.24	0.00	0.07	0.02	0.00	0.01
	Tractor-Trailer	30.0	25.0	0.0	0.0	0.7	0.0	0.24	0.00		0.02	0.00	
	Pick-up Truck	29.0	14.0	61.0	854.0	0.7	583.9	0.24	0.07		0.02	0.01	
Reservoirs/Pits	Tractor-Trailer	30.0	25.0	10.0	250.0	1.7	427.3	0.24	0.05	0.18	0.02	0.01	0.02
	Pick-up Truck	32.0	17.0	36.0	612.0	1.7	1046.1	0.25	0.13		0.02	0.01	
Wells	Drill Truck	30.0	25.0	1.0	25.0	0.0	0.0	0.24	0.00		0.02	0.00	
	Support Truck	30.0	25.0	2.0	50.0	0.0	0.0	0.24	0.00		0.02	0.00	
	Water Truck	30.0	25.0	4.0	100.0	0.0	0.0	0.24	0.00		0.02	0.00	
	Pick-up Truck	40.0	25.0	5.0	125.0	0.0	0.0	0.28	0.00		0.03	0.00	
Pipelines	Tractor-Trailer	30.0	25.0	1.0	25.0	0.3	8.5	0.24	0.00	0.01	0.02	0.00	0.00
	Pick-up Truck	40.0	25.0	4.0	100.0	0.3	34.2	0.28	0.00		0.03	0.00	
Fences	Support Truck	30.0	25.0	1.0	25.0	0.3	8.5	0.24	0.00	0.00	0.02	0.00	0.00
	Pick-up Truck	30.0	25.0	3.0	75.0	0.3	25.6	0.24	0.00		0.02	0.00	
	ATV	25.0	2.0	1.0	2.0	0.3	0.7	0.22	0.00		0.02	0.00	
Reservoirs Maintenance	Tractor-Trailer	40.0	25.0	1.0	25.0	3.4	85.5	0.24	0.01	0.07	0.02	0.00	0.01
	Pick-up Truck	40.0	25.0	5.0	125.0	3.4	427.3	0.28	0.06		0.03	0.01	
Livestock Management	Tractor-Trailer (spring turnout, fall gather)	40.0	15.0	1.0	15.0	1.0	15.0	0.28	0.00	0.00	0.03	0.00	0.00
	Pick-up Trailer (spring calves)	40.0	15.0	1.0	15.0	1.0	15.0	0.28	0.00	0.00	0.03	0.00	0.00
							Total		0.34			0.03	

For Livestock management: # of Activities/Year for spring turnout/fall gather = # of truck trips = head of cattle x 1,000 lb/head divided by 40,000 lbs/trailer truck assume 100% of cattle in semi-trucked
for spring calves: # cattle - (# of cattle x 5% bulls) - (# of cattle x 15% yearlings) = # of cows = # of calves (assuming each cow gives birth to one calf). Then assume 50% survival, average weight = 450 lbs and 40,000 lbs per truck load

Figure P.4. Livestock Grazing Fugitive Dust Emissions from Commuting Traffic

Livestock Grazing - Exhaust Emissions from Commuting Vehicles

Emission factors for Commuting Vehicles Exhaust

Vehicle	Emission Factors (g/mi)								
Class	VOC	CO	NOx	PM10	PM2.5	SO2	CO2	CH4	N_2O[1]
LDGT2	1.29	17.37	1.59	0.06	0.04	0.02	553.11	0.07	0.05
HDDV	0.65	3.80	17.92	0.77	0.70	0.09	2064.18	0.04	0.00

Source: EPA MOVES 2010

*N2O factor source: TCR GHG, 2012 Climate Registry Default Emission Factors – Released January 6, 2012

Vehicle		Emission Factors (g/mi)								
Type	Class	VOC	CO	NOx	PM10	PM2.5	SO2	CO2	CH4	N_2O[1]
ATV	All Terrain Vehicles	15.77	47.71	0.43	0.47	0.43	0.01	212.99	0.20	0.01

Source: EPA NONROAD2008a

1 N2O factor source: 2009 API O&G GHG Methodologies Compendium, Tables 4-13 and 4-17: 130,500 Btu/gallon, 2545 Btu/hp-hr

Combustive Emission Estimations for Commuting Vehicle on Unpaved and Paved Roads - All Project Years

Construction Activity	Equipment Type	Class	Round Trip Distance (miles)	Round Trips/Project	Total Vehicle Miles/Project	# of Projects/Year	Total Annual Vehicle Miles Traveled	Emissions (ton/year)								
								VOC	CO	NOx	PM10	PM2.5	SO2	CO2	CH4	N_2O
Springs	Dump Truck	HDDV	145.0	2.0	290.0	0.7	190.3	0.00	0.00	0.00	0.00	0.00	0.00	0.44	0.00	0.00
	Tractor-Trailer	HDDV	145.0	0.0	0.0	0.7	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Pick up Truck	LDGT2	75.0	61.0	4575.0	0.7	3128.0	0.00	0.06	0.01	0.00	0.00	0.00	1.91	0.00	0.00
Reservoirs/Pits	Tractor-Trailer	HDDV	145.0	10.0	1450.0	1.7	2478.4	0.00	0.01	0.05	0.00	0.00	0.00	5.48	0.00	0.00
	Pick up Truck	LDGT2	100.0	36.0	3600.0	1.7	6153.3	0.01	0.12	0.01	0.00	0.00	0.00	3.75	0.00	0.00
Wells	Dull Truck	HDDV	145.0	1.0	145.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Support Truck	HDDV	145.0	2.0	290.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Water Truck	HDDV	145.0	4.0	580.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Pick up Truck	LDGT2	145.0	5.0	725.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pipelines	Tractor-Trailer	HDDV	145.0	1.0	145.0	0.3	49.6	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00
	Pick up Truck	LDGT2	145.0	4.0	580.0	0.3	190.3	0.00	0.00	0.00	0.00	0.00	0.00	0.12	0.00	0.00
Fences	Support Truck	HDDV	145.0	1.0	145.0	0.3	49.6	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00
	Pick up Truck	LDGT2	145.0	3.0	435.0	0.3	148.7	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.00	0.00
	ATV	All Terrain Vehicles	2.0	1.0	2.0	0.3	0.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Reservoirs Maintenance	Tractor-Trailer	HDDV	145.0	1.0	145.0	3.4	495.7	0.00	0.00	0.01	0.00	0.00	0.00	1.10	0.00	0.00
	Pick up Truck	LDGT2	145.0	5.0	725.0	3.4	2478.4	0.00	0.05	0.01	0.00	0.00	0.00	1.51	0.00	0.00
Livestock Management	Tractor-Trailer (spring turnout, fall gather)	HDDV	85.0	1.0	85.0	1.0	85.0	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.00
	Pick up-Trailer (spring calves)	HDDV	85.0	1.0	85.0	1.0	85.0	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.00
						ATV SUBTOTAL		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
						LDGT2 SUBTOTAL		0.02	0.23	0.03	0.00	0.00	0.00	7.38	0.00	0.00
						HDDV SUBTOTAL		0.00	0.01	0.06	0.00	0.00	0.00	7.60	0.00	0.00
						TOTAL		2.06E-02	2.46E-01	9.09E-02	3.71E-03	3.17E-03	5.01E-04	1.50E+01	1.13E-03	6.20E-04

Figure P.5. Livestock Grazing Exhaust Emissions from Commuting Traffic

Livestock Grazing - Methane Emissions Factors from Enteric Fermentation and Manure Management

Methane Emission Factors					
Livestock		Enteric Fermentation (Kg/head/yr)	Enteric Fermentation (lb/head/yr)	Manure Management (Kg/head/yr)	Manure Management (lb/head/yr)
Cattle	includes bulls, yearlings, and calves	53	116.84	2	4.41
Horse		18	39.68	2.34	5.16
Buffalo		55	121.25	5	11.02
Sheep		8	17.64	0.28	0.62

Source: 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 4 Agriculture, Foresty, and Other Land Use, Chapter 10 Emissions From Livestock and Manure Management
Emission factors for Developed Countries, North America, Temperate climate, "Other" (non-dairy) cattle

Figure P.6. Livestock Grazing Methane Emissions Factors

Livestock Grazing - Methane Emissions from Livestock - All Project Years

Livestock Category	Permitted head of animals	% of year grazing on Federal Lands	Enteric Fermentation emission factor (lb/head/yr)	Annual Methane Emissions from Enteric Fermentation (tons/yr)	Manure Management emission factor (lb/head/yr)	Annual Methane Emissions from Manure Management (tons/yr)	Total Methane Emissions (tons/yr)
Cattle	11759	100	116.84	686.98	4.41	25.92	712.90
Horse	0	0	39.68	0.00	5.16	0.00	0.00
Buffalo	0	0	121.25	0.00	11.02	0.00	0.00
Sheep	2644	100	17.64	23.32	0.62	0.82	24.13
						Total Methane emissions	737.03

Figure P.7. Livestock Grazing Methane Emissions

Recreation - Exhaust Emissions from Recreational Vehicle Operation

Emission Rates (ATVs and MCs from NONROAD2008a, Light Duty Trucks from MOVES2010a)										
		(g/mi)								
HP Range	NR Equipment Type	VOC	CO	NOx	PM10	PM2.5	SO2	CO2	CH4	N_2O[1]
not applicable	All Terrain Vehicles	15.770	47.711	0.432	0.467	0.430	0.007	212.988	0.277	0.005
not applicable	Motorcycles: Off-Road	39.221	48.797	0.321	1.393	1.282	0.007	211.986	0.396	0.007
not applicable	Light Duty Trucks	1.293	17.372	1.975	0.059	0.038	0.020	553.110	0.073	0.045

1. N2O factor source: 2009 API O&G GHG Methodologies Compendium, Tables 4-13 and 4-17. 130,500 Btu/gallon, 2545 Btu/hp-hr.

Figure P.8. Recreation Exhaust Emissions Factors for OHVs

Recreation - Exhaust Emissions from Recreational Vehicle Operation

Combustive Emission Estimations for Recreation Vehicles on Unpaved and Paved Roads - All Project Years

Activity	Equipment Type[a]	Class	Total Annual Vehicle Miles Traveled/ Activity	Emissions (tons/year)								
				VOC	CO	NO_x	PM_{10}	PM2.5	SO_2	CO_2	CH_4	N_2O[a]
Recreation	ATV	All Terrain Vehicles	612,500	10.65	32.21	0.29	0.32	0.29	0.00	143.00	0.19	0.00
	Off-Road Motorcycles	Off-Road Motorcycles	131,250	5.67	7.06	0.05	0.20	0.19	0.00	30.67	0.06	0.00
	Jeeps	On-road OHVs	78,750	0.11	1.51	0.17	0.01	0.00	0.00	48.01	0.01	0.00
			Total	1.64E+01	4.08E+01	5.10E-01	5.22E-01	4.79E-01	7.50E-03	2.22E+02	2.51E-01	8.56E-03

[a] All recreation vehicles are assumed gasoline-powered. All road maintenance are assumed diesel-powered.
* assumes 2 trips on road surface for road maintenance

Figure P.9. Recreation Exhaust Emissions from OHVs

Recreation - Fugitive Dust from Recreational Vehicle Operation and Wind Erosion

Emission Factors for Publicly Accessible Unpaved Roads[a]

$$E\ (lb/VMT) = \frac{k\,(s/12)^a\,(S/30)^d}{(M/0.5)^c} - C$$

$$E_{ext} = E\,(1 - P/365)$$

Parameter	PM_{10}	$PM_{2.5}$
k	1.8	0.18
a	1	1
d	0.5	0.5
c	0.2	0.2

Function/Variable Description		Assumed Value	Reference
E = size-specific emission factor (lb/VMT)			
E_{ext} = size-specific emission factor extrapolated for natural mitigation (lb/VMT)			
s = surface material silt content (%)		5.1	EPA AP-42 Section 13.2.2, Table 13.2.2-1
S = mean vehicle speed (mph)			
C = emission factor for 1980's vehicle fleet exhaust, brake wear, and tire wear (lb/VMT)	$PM_{2.5}$	0.00036	EPA AP-42 Section 13.2.2, Table 13.2.2-4
	PM_{10}	0.00047	EPA AP-42 Section 13.2.2, Table 13.2.2-4
M = surface material moisture content (%)		2.0	EPA AP-42 Section 13.2.2
P = Number of days precip per year		59	http://www.wrcc.dri.edu, GRAND JUNCTION 6 ESE, COLORADO
CE = control percent for applying dust suppressant to unpaved roads [b]		0%	assumed conservatively

[a] *Source: EPA, AP-42 Volume I, Section 13.2.2 Unpaved Roads, Table 13.2.2-2, Nov. 2006*

[b] Fitzpatrick, M. 1990. *User's Guide: Emission Control Technologies and Emission Factors for Unpaved Road Fugitive Emissions*, EPA/625/5-87/022. http://nepis.epa.gov/ExeZyPURL.cgi?Dockey=20008SFC.

Fugitive Dust Emission Estimations for Recreation Vehicles on Unpaved Roads - All Project Years

Activity	Equipment Type	Avg. Vehicle Speed (mph)	Total Annual Vehicle Miles	PM_{10} Controlled Em. Factor (lb/VMT)	PM_{10} Emissions (tons/vehicle type)	PM_{10} Emissions (tons/year)	$PM_{2.5}$ Controlled Em. Factor (lb/VMT)	$PM_{2.5}$ Emissions (tons/vehicle type)	$PM_{2.5}$ Emissions (tons/year)
Recreation	ATV	15	612,500	0.34	105.13	141.18	0.03	10.43	14.01
	Off-Road Motorcyles	15	131,250	0.34	22.53		0.03	2.24	
	Jeeps	15	78,750	0.34	13.52		0.03	1.34	
				Total	141.18			14.01	

Figure P.10. Recreation Fugitive Dust from OHV Use

Trails & Travel Management - Dust and Exhaust Emissions for Road Maintenance

		Emission Rates (g/hp-hr)								
HP Range	NR Equipment Type	VOC	CO	NOx	PM10	PM2.5	SO2	CO2	CH4	N_2O[1]
100	Graders	0.299	2.323	2.897	0.335	0.325	0.076	350.845	0.004	0.003
75	Tractors/Loaders/Backhoes	0.349	1.617	1.445	0.253	0.246	0.032	145.121	0.005	0.001

1. N2O factor source: 2009 API O&G GHG Methodologies Compendium, Tables 4-13 and 4-17. 130,500 Btu/gallon, 2545 Btu/hp-hr.

Source: EPA NONROADS 2008a

Figure P.11. Trail and Travel Management Exhaust Emissions Factors for Heavy Equipment

Trails & Travel Management - Dust and Exhaust Emissions for Road Maintenance

Estimation of Total and Cumulative Length of Roads by Grader

Cumulative Length of Roads Maintained per Year by Grader (miles)	18.7

Emission Factors for Grader

Pollutant	Emission Factor Equation (lb/VMT)	S[a] (mph)	Emission Factor (lb/VMT)
PM_{10}	$E = (0.6)(0.051)\ S^2$	5	0.765
$PM_{2.5}$	$E = (0.031)(0.04)\ S^{2.5}$	5	0.069

[a] Assumed a mean vehicle speed (S) of 5 mph
Source: EPA AP-42, Section 11.9, Table 11.9-1

Fugitive Dust Emissions Estimation for Maintenance Equipment

Activity	Equipment	Total # of Operating Hours per Year	Mean Vehicle Speed (mph)	Total Miles Maintained	PM_{10}		$PM_{2.5}$	
					Em. Factor (lb/VMT)	(tons/year)	Em. Factor (lb/VMT)	(tons/year)
Road Maintenance	Grader	62	5	19	0.765	7.15E-03	0.069	6.48E-04
Road Maintenance	Backhoe	25	5	19	0.765	7.15E-03	0.069	6.48E-04
				Totals		1.43E-02		1.30E-03

Exhaust Emissions Estimation for Grader or Snowplow

Activity	Vehicle Type	Capacity (hp)	Load Factor (%)	Total # of Operating Hours	Emissions (tons/year)								
					VOC	CO	NO_x	PM_{10}	$PM_{2.5}$	SO_x	CO_2	CH_4	N_2O
Road Maintenance	Grader	100	59	62	1.21E-03	9.42E-03	1.17E-02	1.36E-03	1.32E-03	3.09E-04	1.42E+00	1.81E-05	1.14E-05
	Backhoe	65	21	25	1.31E-04	6.07E-04	5.42E-04	9.50E-05	9.22E-05	1.18E-05	5.44E-02	1.96E-06	4.38E-07
	Snowplow	0		0	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
				Total	1.34E-03	1.00E-02	1.23E-02	1.45E-03	1.41E-03	3.21E-04	1.48E+00	2.00E-05	1.18E-05

Figure P.12. Trail and Travel Management Exhaust Emissions from Heavy Equipment

Trails and Travel Management Dust and Exhaust Emissions for Road Maintenance

Emission Factors for Road Traffic

$$E\ (lb/VMT) = \frac{k\,(s/12)^a\,(S/30)^d}{(M/0.5)^c} - C$$

$$E_{ext} = E\,(1 - P/365)$$

Parameter	PM_{10}	$PM_{2.5}$
k	1.8	0.18
a	1	1
d	0.5	0.5
c	0.2	0.2

Function/Variable Description		Assumed Value	Reference
E = size-specific emission factor (lb/VMT)			
E_{ext} = size-specific emission factor extrapolated for natural mitigation (lb/VMT)			
s = surface material silt content (%)		5.1	EPA AP-42 Section 13.2.2, Table 13.2.2-1
S = mean vehicle speed (mph)		Listed in the table below	
C = emission factor for 1980's vehicle fleet exhaust, brake wear, and tire wear (lb/VMT)	$PM_{2.5}$	0.00036	EPA AP-42 Section 13.2.2, Table 13.2.2-4
	PM_{10}	0.00047	EPA AP-42 Section 13.2.2, Table 13.2.2-4
M = surface material moisture content (%)		2.0	EPA AP-42 Section 13.2.2
P = Number of days precip per year		59	http://www.wrcc.dri.edu, GRAND JUNCTION 6 ESE, COLORADO

[a] *Source: EPA, AP-42 Volume I, Section 13.2.2 Unpaved Roads, Table 13.2.2-2, Nov. 2006*

[b] Fitzpatrick, M. 1990. *User's Guide: Emission Control Technologies and Emission Factors for Unpaved Road Fugitive Emissions*, EPA/625/5-87/022. http://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=20008SFC.

Emissions Estimation for Commuting Maintenance Vehicles Road Traffic

Activity	Vehicle Type	Avg. Vehicle Speed (mph)	Total Miles Traveled	PM_{10} Em. Factor (lb/VMT)	PM_{10} (tons/year)	$PM_{2.5}$ Em. Factor (lb/VMT)	$PM_{2.5}$ (tons/year)
Road Maintenance	Pickup Truck	35	18.70	0.52	4.90E-03	0.05	4.88E-04
Road Maintenance	Semi-Truck	35	18.70	0.52	4.90E-03	0.05	4.88E-04
			Totals		9.81E-03		9.76E-04

Exhaust Emission Factors for Commuting Maintenance Vehicles Road Traffic

Vehicle Class	Emission Factors (g/mi)								
	VOC	CO	NO_x	PM_{10}	$PM_{2.5}$	SOx	CO_2	CH_4	N_2O[a]
Light-Duty Diesel Truck	0.70	3.11	5.17	0.33	0.30	0.02	729.87	0.01	0.00
Heavy Duty-Duty Diesel Truck	0.85	3.80	17.02	0.77	0.70	0.06	2004.18	0.04	0.00

Source: MOVES2010a

[a] N2O factor source: 2009 API O&G GHG Methodologies Compendium, Tables 4-13 and 4-17. 130,500 Btu/gallon, 2545 Btu/hp-hr.

Exhaust Emissions Estimation for Commuting Maintenance Vehicles Road Traffic

Activity	Vehicle		Total Miles Traveled	Emissions (tons/year)								
	Type	Class		VOC	CO	NO_x	PM_{10}	$PM_{2.5}$	SO_x	CO_2	CH_4	N_2O
Road Maintenance	Pickup Truck	LDDT	18.7	1.44E-05	6.42E-05	1.07E-04	6.78E-06	6.15E-06	4.74E-07	1.50E-02	2.80E-07	3.09E-08
Road Maintenance	Pickup Truck	HDDV8	18.7	1.74E-05	7.84E-05	3.51E-04	1.59E-05	1.45E-05	1.30E-06	4.13E-02	8.52E-07	9.89E-08
			Total	3.18E-05	1.43E-04	4.57E-04	2.27E-05	2.06E-05	1.77E-06	5.64E-02	1.13E-06	1.30E-07

Figure P.13. Trail and Travel Management Dust and Exhaust Emissions from Road Maintenance

Appendix Q. Omnibus Public Land Management Act of 2009 (Subtitle E—Dominguez-Escalante National Conservation Area)

This appendix contains the portions of the Omnibus Public Land Management Act of 2009 (Public Law 111–11) that created the Dominguez-Escalante National Conservation Area and Dominguez Canyon Wilderness.

SEC. 2401. DEFINITIONS.

In this subtitle:

(1) Conservation area.—The term "Conservation Area" means the Dominguez-Escalante National Conservation Area established by section 2402(a)(1).

(2) Council.—The term "Council" means the Dominguez-Escalante National Conservation Area Advisory Council established under section 2407.

(3) Management plan.—The term "management plan" means the management plan developed under section 2406.

(4) Map.—The term "Map" means the map entitled "Dominguez-Escalante National Conservation Area" and dated September 15, 2008.

(5) Secretary.—The term "Secretary" means the Secretary of the Interior.

(6) State.—The term "State" means the State of Colorado.

(7) Wilderness.—The term "Wilderness" means the Dominguez Canyon Wilderness Area designated by section 2403(a).

SEC. 2402. DOMINGUEZ-ESCALANTE NATIONAL CONSERVATION AREA.

(a) Establishment.—

(1) In general.—There is established the Dominguez-Escalante National Conservation Area in the State.

(2) Area included.—The Conservation Area shall consist of approximately 209,610 acres of public land, as generally depicted on the Map.

(b) Purposes.—The purposes of the Conservation Area are to conserve and protect for the benefit and enjoyment of present and future generations—

(1) the unique and important resources and values of the land, including the geological, cultural, archaeological, paleontological, natural, scientific, recreational, wilderness, wildlife, riparian, historical, educational, and scenic resources of the public land; and

(2) the water resources of area streams, based on seasonally available flows, that are necessary to support aquatic, riparian, and terrestrial species and communities.

(c) Management.—

(1) In general.—The Secretary shall manage the Conservation Area—

(A) as a component of the National Landscape Conservation System;

(B) in a manner that conserves, protects, and enhances the resources and values of the Conservation Area described in subsection (b); and

(C) in accordance with—

(i) the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.);

(ii) this subtitle; and

(iii) any other applicable laws.

(2) Uses.—

(A) In general.—The Secretary shall allow only such uses of the Conservation Area as the Secretary determines would further the purposes for which the Conservation Area is established.

(B) Use of motorized vehicles.—

(i) In general.—Except as provided in clauses (ii) and (iii), use of motorized vehicles in the Conservation Area shall be allowed—

(I) before the effective date of the management plan, only on roads and trails designated for use of motor vehicles in the management plan that applies on the date of the enactment of this Act to the public land in the Conservation Area; and

(II) after the effective date of the management plan, only on roads and trails designated in the management plan for the use of motor vehicles.

(ii) Administrative and emergency response use.—Clause (i) shall not limit the use of motor vehicles in the Conservation Area for administrative purposes or to respond to an emergency.

(iii) Limitation.—This subparagraph shall not apply to the Wilderness.

SEC. 2403. DOMINGUEZ CANYON WILDERNESS AREA.

(a) In General.—In accordance with the Wilderness Act (16 U.S.C. 1131 et seq.), the approximately 66,280 acres of public land in Mesa, Montrose, and Delta Counties, Colorado, as generally depicted on the Map, is designated as wilderness and as a component of the National Wilderness Preservation System, to be known as the "Dominguez Canyon Wilderness Area."

(b) Administration of Wilderness.—The Wilderness shall be managed by the Secretary in accordance with the Wilderness Act (16 U.S.C. 1131 et seq.) and this subtitle, except that—

(1) any reference in the Wilderness Act to the effective date of that Act shall be considered to be a reference to the date of enactment of this Act; and

(2) any reference in the Wilderness Act to the Secretary of Agriculture shall be considered to be a reference to the Secretary of the Interior.

SEC. 2404. MAPS AND LEGAL DESCRIPTIONS.

(a) In General.—As soon as practicable after the date of enactment of this Act, the Secretary shall file a map and a legal description of the Conservation Area and the Wilderness with—

(1) the Committee on Energy and Natural Resources of the Senate; and

(2) the Committee on Natural Resources of the House of Representatives.

(b) Force and Effect.—The Map and legal descriptions filed under subsection (a) shall have the same force and effect as if included in this subtitle, except that the Secretary may correct clerical and typographical errors in the Map and legal descriptions.

(c) Public Availability.—The Map and legal descriptions filed under subsection (a) shall be available for public inspection in the appropriate offices of the Bureau of Land Management.

SEC. 2405. MANAGEMENT OF CONSERVATION AREA AND WILDERNESS.

(a) Withdrawal.—Subject to valid existing rights, all Federal land within the Conservation Area and the Wilderness and all land and interests in land acquired by the United States within the Conservation Area or the Wilderness is withdrawn from—

(1) all forms of entry, appropriation, or disposal under the public land laws;

(2) location, entry, and patent under the mining laws; and

(3) operation of the mineral leasing, mineral materials, and geothermal leasing laws.

(b) Grazing.—

(1) Grazing in conservation area.—Except as provided in paragraph (2), the Secretary shall issue and administer any grazing leases or permits in the Conservation Area in accordance with the laws (including regulations) applicable to the issuance and administration of such leases and permits on other land under the jurisdiction of the Bureau of Land Management.

(2) Grazing in wilderness.—The grazing of livestock in the Wilderness, if established as of the date of enactment of this Act, shall be permitted to continue—

(A) subject to any reasonable regulations, policies, and practices that the Secretary determines to be necessary; and

(B) in accordance with—

(i) section 4(d)(4) of the Wilderness Act (16 U.S.C. 1133(d)(4)); and

(ii) the guidelines set forth in Appendix A of the report of the Committee on Interior and Insular Affairs of the House of Representatives accompanying H.R. 2570 of the 101st Congress (H. Rept. 101-405).

(c) No Buffer Zones.—

(1) In general.—Nothing in this subtitle creates a protective perimeter or buffer zone around the Conservation Area.

(2) Activities outside conservation area.—The fact that an activity or use on land outside the Conservation Area can be seen or heard within the Conservation Area shall not preclude the activity or use outside the boundary of the Conservation Area.

(d) Acquisition of Land.—

(1) In general.—The Secretary may acquire non-Federal land within the boundaries of the Conservation Area or the Wilderness only through exchange, donation, or purchase from a willing seller.

(2) Management.—Land acquired under paragraph (1) shall—

(A) become part of the Conservation Area and, if applicable, the Wilderness; and

(B) be managed in accordance with this subtitle and any other applicable laws.

(e) Fire, Insects, and Diseases.—Subject to such terms and conditions as the Secretary determines to be desirable and appropriate, the Secretary may undertake such measures as are necessary to control fire, insects, and diseases—

(1) in the Wilderness, in accordance with section 4(d)(1) of the Wilderness Act (16 U.S.C. 1133(d)(1)); and

(2) except as provided in paragraph (1), in the Conservation Area in accordance with this subtitle and any other applicable laws.

(f) Access.—The Secretary shall continue to provide private landowners adequate access to inholdings in the Conservation Area.

(g) Invasive Species and Noxious Weeds.—In accordance with any applicable laws and subject to such terms and conditions as the Secretary determines to be desirable and appropriate, the Secretary may prescribe measures to control non-native invasive plants and noxious weeds within the Conservation Area.

(h) Water Rights.—

(1) Effect.—Nothing in this subtitle—

(A) affects the use or allocation, in existence on the date of enactment of this Act, of any water, water right, or interest in water;

(B) affects any vested absolute or decreed conditional water right in existence on the date of enactment of this Act, including any water right held by the United States;

(C) affects any interstate water compact in existence on the date of enactment of this Act;

(D) authorizes or imposes any new reserved Federal water rights; or

(E) shall be considered to be a relinquishment or reduction of any water rights reserved or appropriated by the United States in the State on or before the date of enactment of this Act.

(2) Wilderness water rights.—

(A) In general.—The Secretary shall ensure that any water rights within the Wilderness required to fulfill the purposes of the Wilderness are secured in accordance with subparagraphs (B) through (G).

(B) State law.—

(i) Procedural requirements.—Any water rights within the Wilderness for which the Secretary pursues adjudication shall be adjudicated, changed, and administered in accordance with the procedural requirements and priority system of State law.

(ii) Establishment of water rights.—

(I) In general.—Except as provided in subclause (II), the purposes and other substantive characteristics of the water rights pursued under this paragraph shall be established in accordance with State law.

(II) Exception.—Notwithstanding subclause (I) and in accordance with this subtitle, the Secretary may appropriate and seek adjudication of water rights to maintain surface water levels and stream flows on and across the Wilderness to fulfill the purposes of the Wilderness.

(C) Deadline.—The Secretary shall promptly, but not earlier than January 2009, appropriate the water rights required to fulfill the purposes of the Wilderness.

(D) Required determination.—The Secretary shall not pursue adjudication for any instream flow water rights unless the Secretary makes a determination pursuant to subparagraph (E)(ii) or (F).

(E) Cooperative enforcement.—

(i) In general.—The Secretary shall not pursue adjudication of any Federal instream flow water rights established under this paragraph if—

(I) the Secretary determines, upon adjudication of the water rights by the Colorado Water Conservation Board, that the Board holds water rights sufficient in priority, amount, and timing to fulfill the purposes of the Wilderness; and

(II) the Secretary has entered into a perpetual agreement with the Colorado Water Conservation Board to ensure the full exercise, protection, and enforcement of the State water rights within the Wilderness to reliably fulfill the purposes of the Wilderness.

(ii) Adjudication.—If the Secretary determines that the provisions of clause (i) have not been met, the Secretary shall adjudicate and exercise any Federal water rights required to fulfill the purposes of the Wilderness in accordance with this paragraph.

(F) Insufficient water rights.—If the Colorado Water Conservation Board modifies the instream flow water rights obtained under subparagraph (E) to such a degree that the Secretary determines that water rights held by the State are insufficient to fulfill the purposes of the Wilderness, the Secretary shall adjudicate and exercise Federal water rights required to fulfill the purposes of the Wilderness in accordance with subparagraph (B).

(G) Failure to comply.—The Secretary shall promptly act to exercise and enforce the water rights described in subparagraph (E) if the Secretary determines that—

(i) the State is not exercising its water rights consistent with subparagraph (E)(i)(I); or

(ii) the agreement described in subparagraph (E)(i)(II) is not fulfilled or complied with sufficiently to fulfill the purposes of the Wilderness.

(3) Water resource facility.—

(A) In general.—Notwithstanding any other provision of law and subject to subparagraph (B), beginning on the date of enactment of this Act, neither the President nor any other officer, employee, or agent of the United States shall fund, assist, authorize, or issue a license or permit for the development of any new irrigation and pumping facility, reservoir, water conservation work, aqueduct, canal, ditch, pipeline, well, hydropower project, transmission, other ancillary facility, or other water, diversion, storage, or carriage structure in the Wilderness.

(B) Exception.—Notwithstanding subparagraph (A), the Secretary may allow construction of new livestock watering facilities within the Wilderness in accordance with—

(i) section 4(d)(4) of the Wilderness Act (16 U.S.C. 1133(d)(4)); and

(ii) the guidelines set forth in Appendix A of the report of the Committee on Interior and Insular Affairs of the House of Representatives accompanying H.R. 2570 of the 101st Congress (H. Rept. 101-405).

(4) Conservation area water rights.—With respect to water within the Conservation Area, nothing in this subtitle—

(A) authorizes any Federal agency to appropriate or otherwise acquire any water right on the mainstem of the Gunnison River; or

(B) prevents the State from appropriating or acquiring, or requires the State to appropriate or acquire, an instream flow water right on the mainstem of the Gunnison River.

(5) Wilderness boundaries along Gunnison river.—

(A) In general.—In areas in which the Gunnison River is used as a reference for defining the boundary of the Wilderness, the boundary shall—

(i) be located at the edge of the river; and

(ii) change according to the river level.

(B) Exclusion from wilderness.—Regardless of the level of the Gunnison River, no portion of the Gunnison River is included in the Wilderness.

(i) Effect.—Nothing in this subtitle—

(1) diminishes the jurisdiction of the State with respect to fish and wildlife in the State; or

(2) imposes any Federal water quality standard upstream of the Conservation Area or within the mainstem of the Gunnison River that is more restrictive than would be applicable had the Conservation Area not been established.

(j) Valid Existing Rights.—The designation of the Conservation Area and Wilderness is subject to valid rights in existence on the date of enactment of this Act.

SEC. 2406. MANAGEMENT PLAN.

(a) In General.—Not later than 3 years after the date of enactment of this Act, the Secretary shall develop a comprehensive management plan for the long-term protection and management of the Conservation Area.

(b) Purposes.—The management plan shall—

(1) describe the appropriate uses and management of the Conservation Area;

(2) be developed with extensive public input;

(3) take into consideration any information developed in studies of the land within the Conservation Area; and

(4) include a comprehensive travel management plan.

SEC. 2407. ADVISORY COUNCIL.

(a) Establishment.—Not later than 180 days after the date of enactment of this Act, the Secretary shall establish an advisory council, to be known as the "Dominguez-Escalante National Conservation Area Advisory Council."

(b) Duties.—The Council shall advise the Secretary with respect to the preparation and implementation of the management plan.

(c) Applicable Law.—The Council shall be subject to—

(1) the Federal Advisory Committee Act (5 U.S.C. App.); and

(2) the Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701 et seq.).

(d) Members.—The Council shall include 10 members to be appointed by the Secretary, of whom, to the extent practicable—

(1) 1 member shall be appointed after considering the recommendations of the Mesa County Commission;

(2) 1 member shall be appointed after considering the recommendations of the Montrose County Commission;

(3) 1 member shall be appointed after considering the recommendations of the Delta County Commission;

(4) 1 member shall be appointed after considering the recommendations of the permittees holding grazing allotments within the Conservation Area or the Wilderness; and

(5) 5 members shall reside in, or within reasonable proximity to, Mesa County, Delta County, or Montrose County, Colorado, with backgrounds that reflect—

(A) the purposes for which the Conservation Area or Wilderness was established; and

(B) the interests of the stakeholders that are affected by the planning and management of the Conservation Area and Wilderness.

(e) Representation.—The Secretary shall ensure that the membership of the Council is fairly balanced in terms of the points of view represented and the functions to be performed by the Council.

(f) Duration.—The Council shall terminate on the date that is 1 year from the date on which the management plan is adopted by the Secretary.

SEC. 2408. AUTHORIZATION OF APPROPRIATIONS.

There are authorized to be appropriated such sums as are necessary to carry out this subtitle.

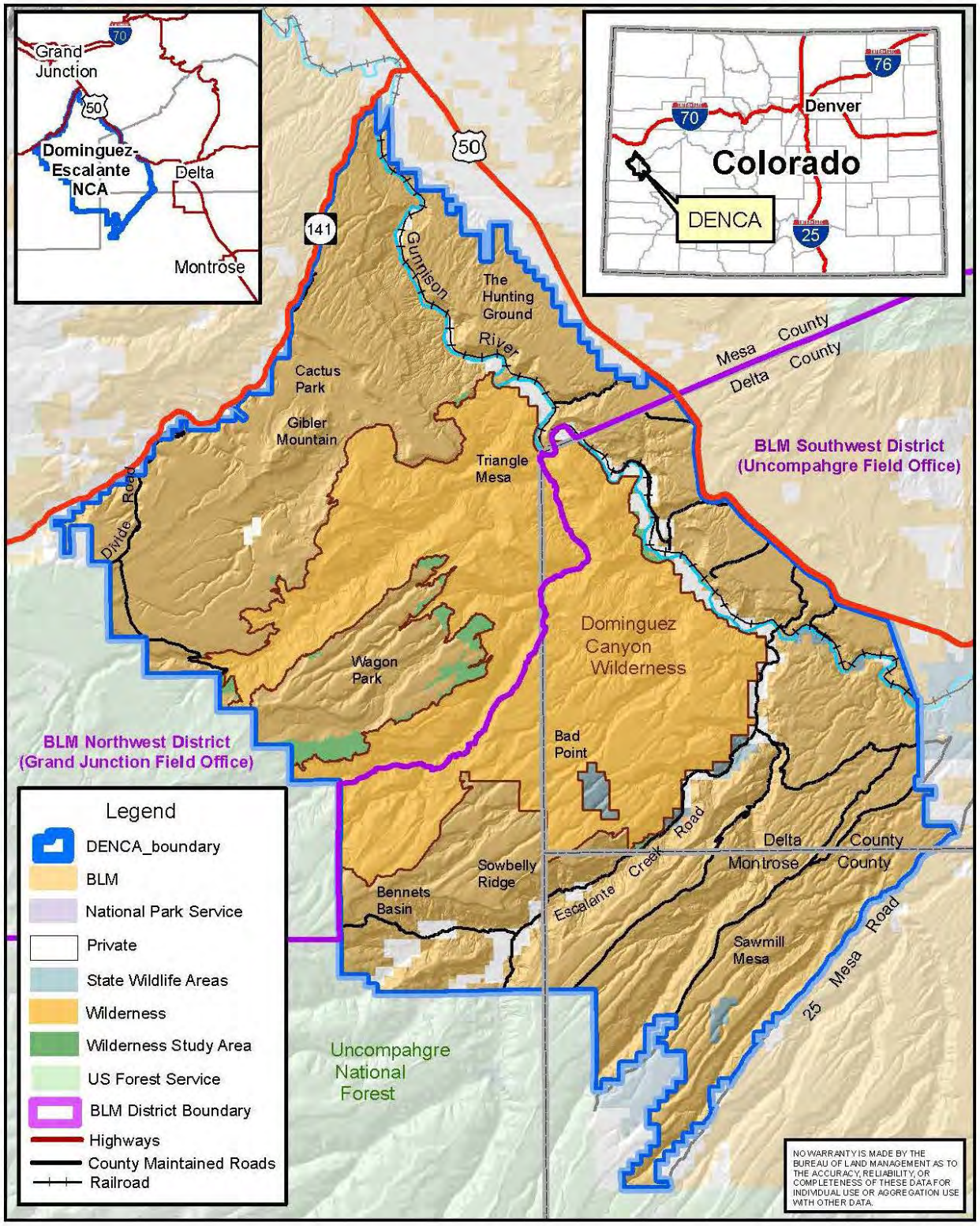
Appendix R. Maps Cited in the Proposed RMP

This Appendix contains the maps cited in this document. In the electronic version of this document, each map can be accessed through a link to its location in this Appendix.

Planning Area
1−1 Project Planning Area Overview
1–2 Planning Area and Land Status
All Alternatives
2–1a Alt A: No Surface Disturbing Activities
2–1b Alt B: No Surface Disturbing Activities
2–1c Alt C: No Surface Disturbing Activities
2–1d Alt D: No Surface Disturbing Activities
2–1p Proposed Plan Alternative: No Surface Disturbing Activities
2–2a Alt A: Application of SSR to Surface Disturbing Activities
2–2b Alt B: Application of SSR to Surface Disturbing Activities
2–2c Alt C: Application of SSR to Surface Disturbing Activities
2–2d Alt D: Application of SSR to Surface Disturbing Activities
2–2p Proposed Plan Alternative: Application of SSR to Surface Disturbing Activities
2–3a Alt A: Timing Limitations for Surface Disturbing Activities
2–3b Alt B: Timing Limitations for Surface Disturbing Activities
2–3c Alt C: Timing Limitations for Surface Disturbing Activities
2–3d Alt D: Timing Limitations for Surface Disturbing Activities
2–3p Proposed Plan Alternative: Timing Limitations for Surface Disturbing Activities
2–4a Alt A: Grazing Allocations
2–4b Alt B: Grazing Allocations
2–4c Alt C: Grazing Allocations
2–4d Alt D: Grazing Allocations
2–4p Proposed Plan Alternative: Grazing Allocations
2–5a Alt A: Areas of Critical Environmental Concern
2–5b Alt B: Areas of Critical Environmental Concern
2–5c Alt C: Areas of Critical Environmental Concern
2–5d Alt D: Areas of Critical Environmental Concern
2–5p Proposed Plan Alternative: Areas of Critical Environmental Concern
2–6a Alt A: Areas Where Wildfires May be Managed to Meet Resource Objectives
2–6b Alt B: Areas Where Wildfires May be Managed to Meet Resource Objectives
2–6c Alt C: Areas Where Wildfires May be Managed to Meet Resource Objectives
2–6d Alt D: Areas Where Wildfires May be Managed to Meet Resource Objectives
2–6p Proposed Plan Alternative: Areas Where Wildfires May be Managed to Meet Resource Objectives
2–7a Alt A: Areas Closed to Recreational Shooting
2–7b Alt B: Areas Closed to Recreational Shooting
2–7c Alt C: Areas Closed to Recreational Shooting
2–7d Alt D: Areas Closed to Recreational Shooting
2–7p Proposed Plan Alternative: Areas Closed to Recreational Shooting
2–8a Alt A: Recreation Management Areas
2–8b Alt B: Recreation Management Areas
2–8c Alt C: Recreation Management Areas
2–8d Alt D: Recreation Management Areas
2–8p Proposed Plan Alternative: Recreation Management Areas
2–9p Proposed Plan Alternative: Heritage Areas
2–10p Proposed Plan Alternative: Wilderness Management Zones
2–11b Alt B: Lands Managed for Wilderness Characteristics

2–11p Proposed Plan Alternative: Lands Managed for Wilderness Characteristics
2–12a Alt A: Visual Resource Management
2–12b Alt B: Visual Resource Management
2–12c Alt C: Visual Resource Management
2–12d Alt D: Visual Resource Management
2–12p Proposed Plan Alternative: Visual Resource Management
2–13a Alt A: Travel Area Designations
2–13b Alt B: Travel Area Designations
2–13c Alt C: Travel Area Designations
2–13d Alt D: Travel Area Designations
2–13p Proposed Plan Alternative: Travel Area Designations
2–14a Alt A: ROW Sensitive and Unsuitable Areas
2–14b Alt B–C: ROW Exclusion and Avoidance Areas
2–14d Alt D: ROW Exclusion and Avoidance Areas
2–14p Proposed Plan Alternative: ROW Exclusion and Avoidance Areas
2–15b Alt B: Segments Suitable For WSR
2–15c Alt C: Segments Suitable For WSR
2–15d Alt D: Segments Suitable For WSR
2–15p Proposed Plan Alternative: Segments Suitable For WSR
2–16d Alt D: Watchable Wildlife Areas
2–16p Proposed Plan Alternative: Watchable Wildlife Areas
2–17 Alt B–D: Old Spanish National Historic Trail Management Corridor
2–17p: Proposed Plan Alternative Old Spanish National Historic Trail Management Corridor
Comprehensive Travel Management
N–1a Alt A: Route Designations
N–1b Alt B: Route Designations
N–1c Alt C: Route Designations
N–1d Alt D: Route Designations
N-1p Proposed Plan: Route Designations
Other Maps
3–1 Surficial Geology
3–2 Potential Fossil Yield Categories
3–3 Vegetation Communities
3–4 Riparian and Wetland Areas
3–6 Land Health Assessment Standard I (Soils) Results
3–7 Land Health Assessment Standard III (Biota) Results
3–8 Riparian Assessment Results
3–9 Seeps and Springs
3–10 Aquatic Habitats
3–11 Bighorn Sheep Range
3–12 Results of Bighorn–Domestic Sheep Probability of Interaction Model
3–13 Special Status Plant Species
3–14 Sage Grouse Habitat, White–Tailed Prairie Dog Range, and Known Raptor Areas
3–15 Pronghorn Range
3–16 Mule Deer Range
3–17 Elk Range
3–18 Weed Infestations
3–19 Weed Treatments
3–20 Fire Occurrence
3–21 Fire Regime Group
3–22 Fire Regime Condition Class
3–23 Fragile and Saline Soils
3–24 Steep Slopes
3–25 Water Quality Stream Segments

3–26 Lands Managed for Wilderness Characteristics
3–27 Visual Resource Inventory Class
3–28 Recreation Management Zones
3–29 Recreation Setting Characteristics Remoteness
3–30 Recreation Setting Characteristics Access
3–31 Current Grazing Allotments
3–32 Livestock Grazing Developments
3–33 Route Inventory
3–34 Existing Rights of Way
3–35 Segments Eligible for WSR
3–36 Wilderness Study Area
3–37 Social and Economic Analysis Area

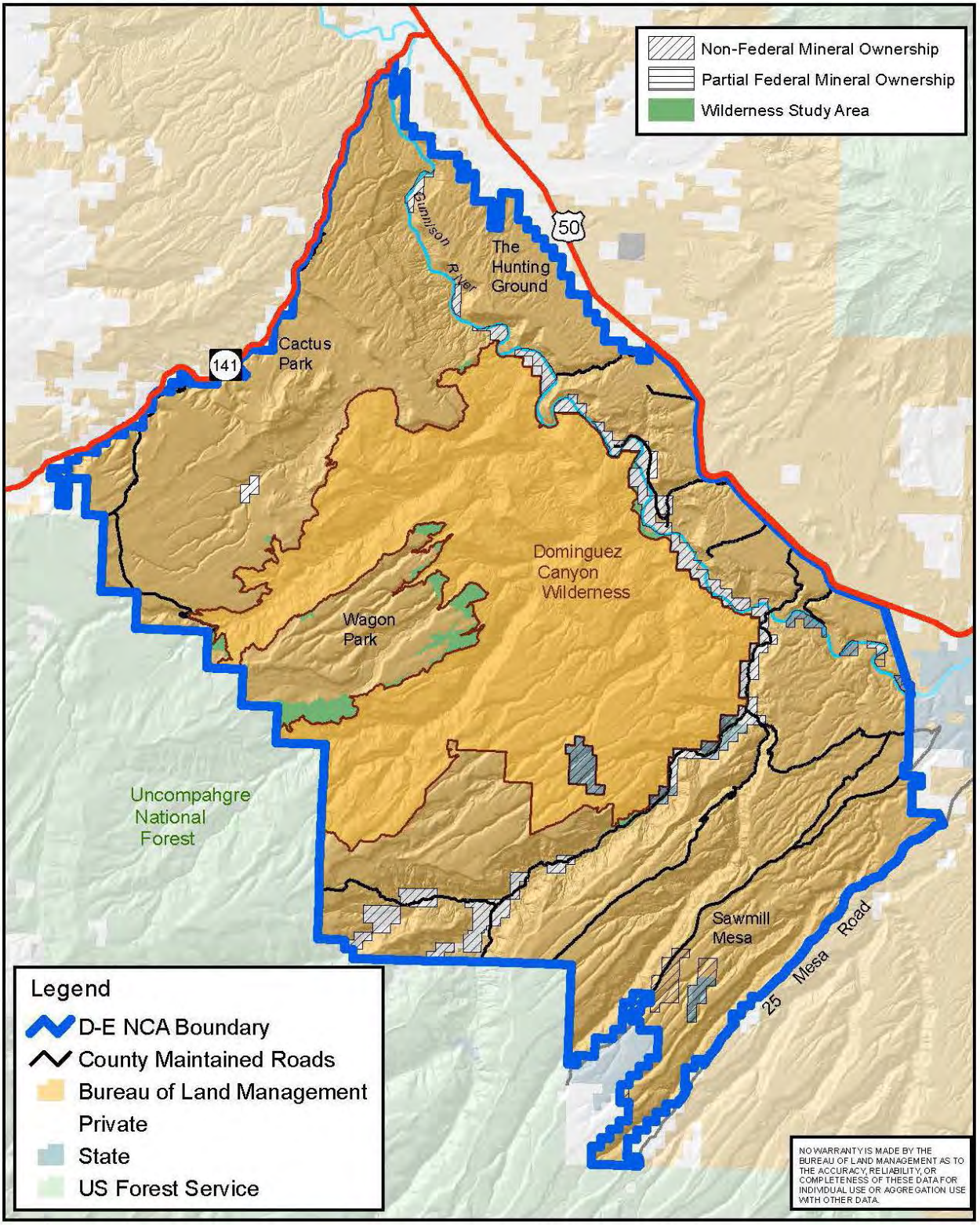


Project Planning Area Overview

0 2.5 5 7.5 10 Miles

N

Map 1-1

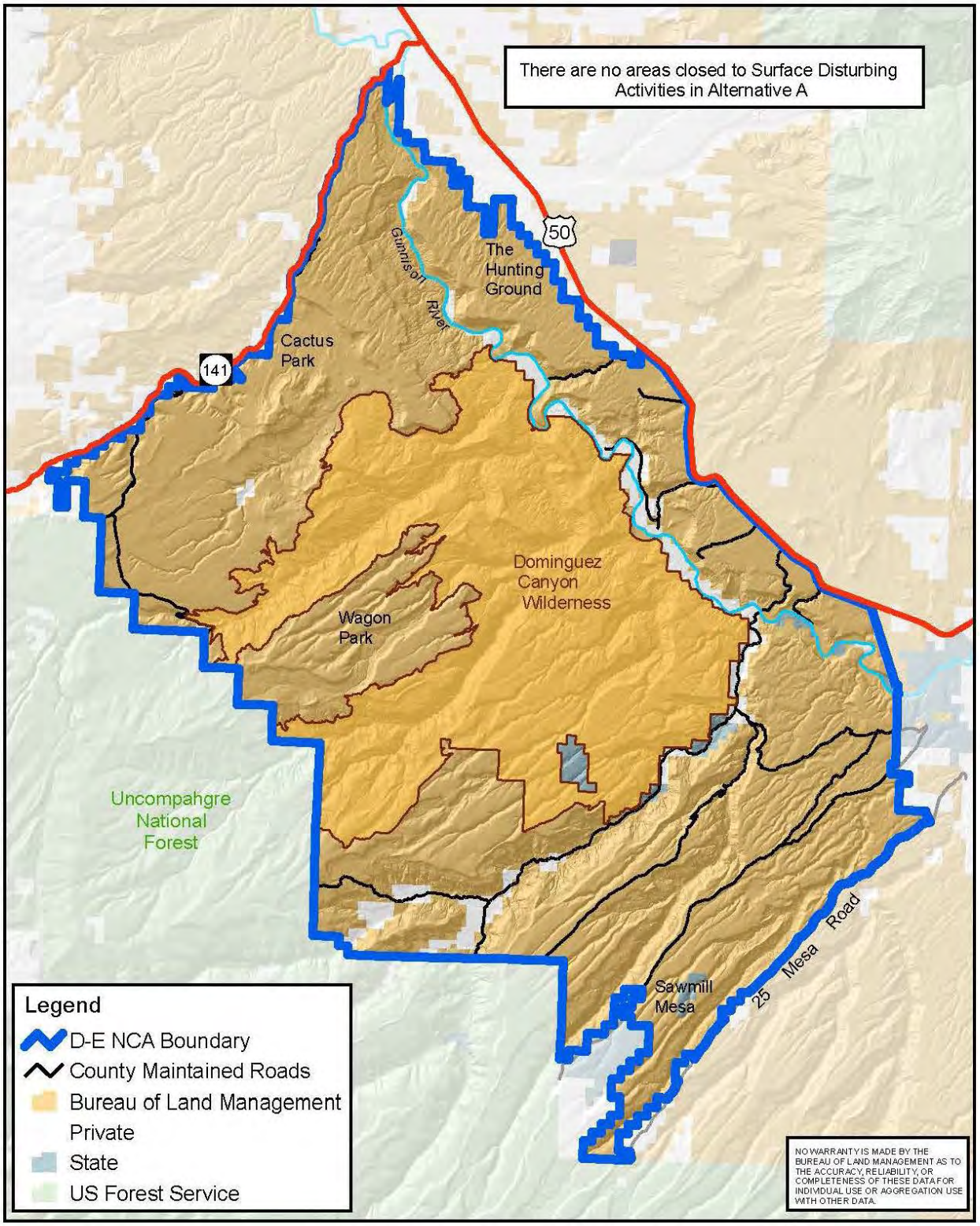


Planning Area and Land Status

0 2.5 5 7.5 10 Miles

N

Map 1-2

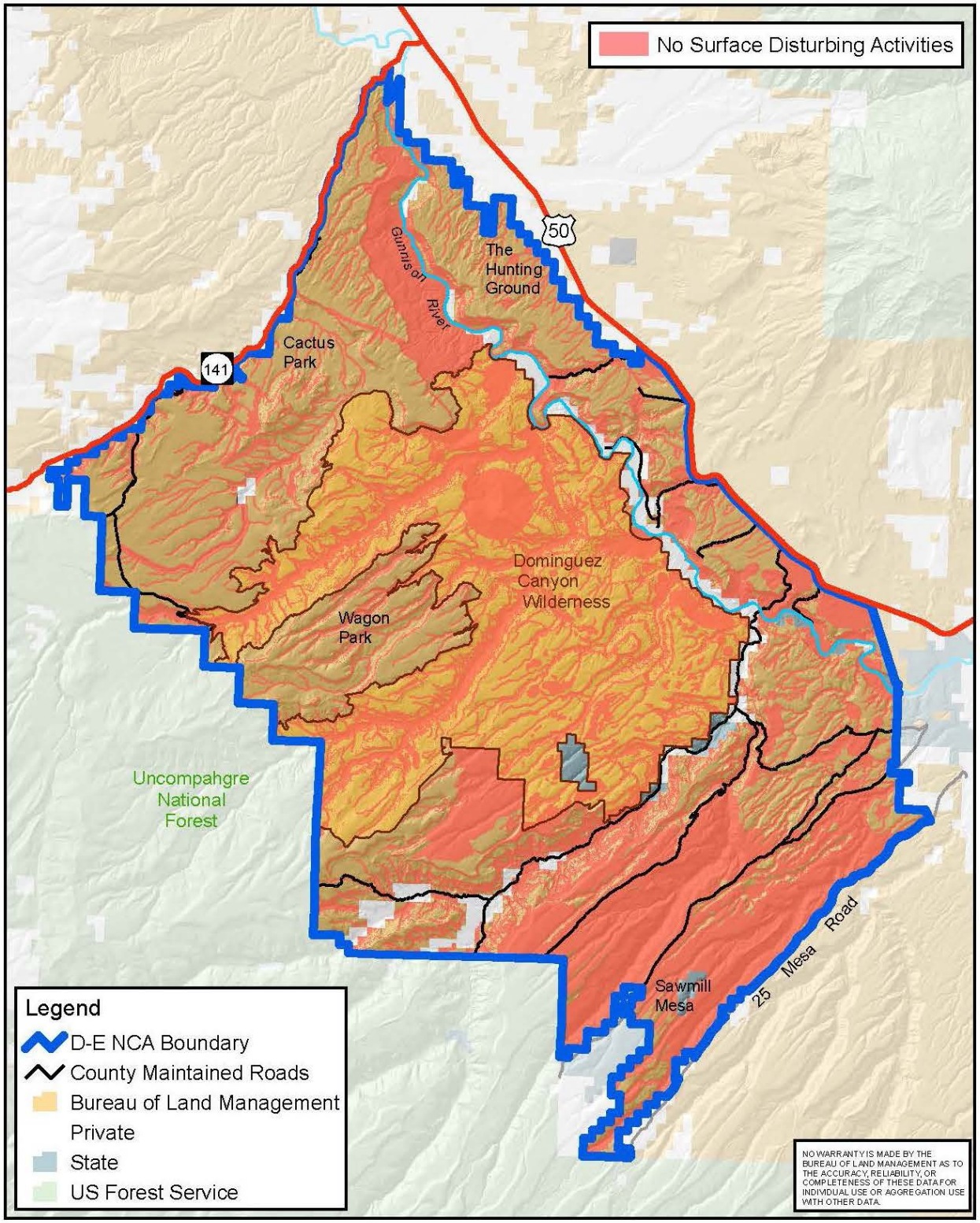


Alternative A: No Surface Disturbing Activities

0 2.5 5 7.5 10 Miles

N

Map 2-1a

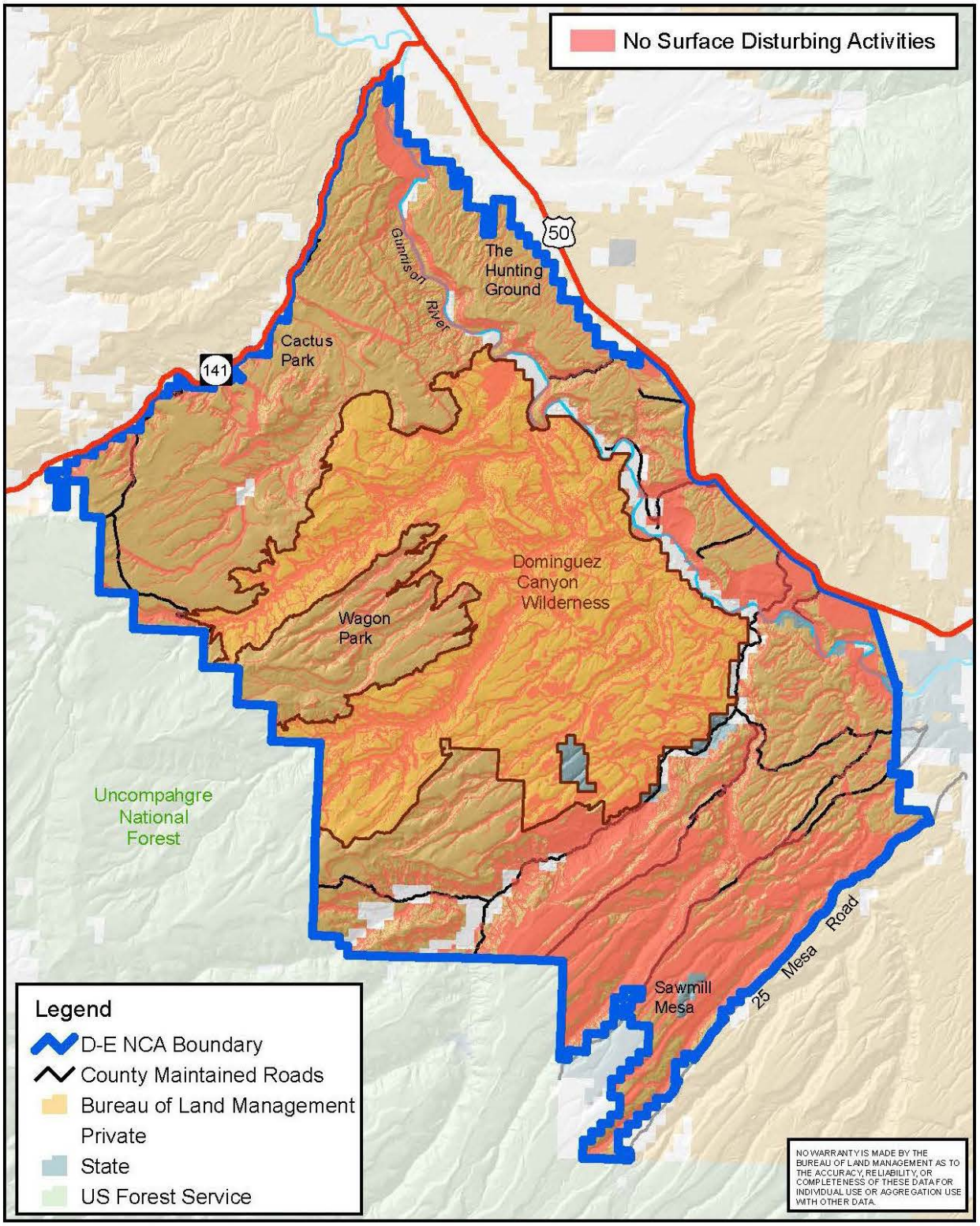


Alternative B: No Surface Disturbing Activities

0 2.5 5 7.5 10 Miles

N

Map 2-1b

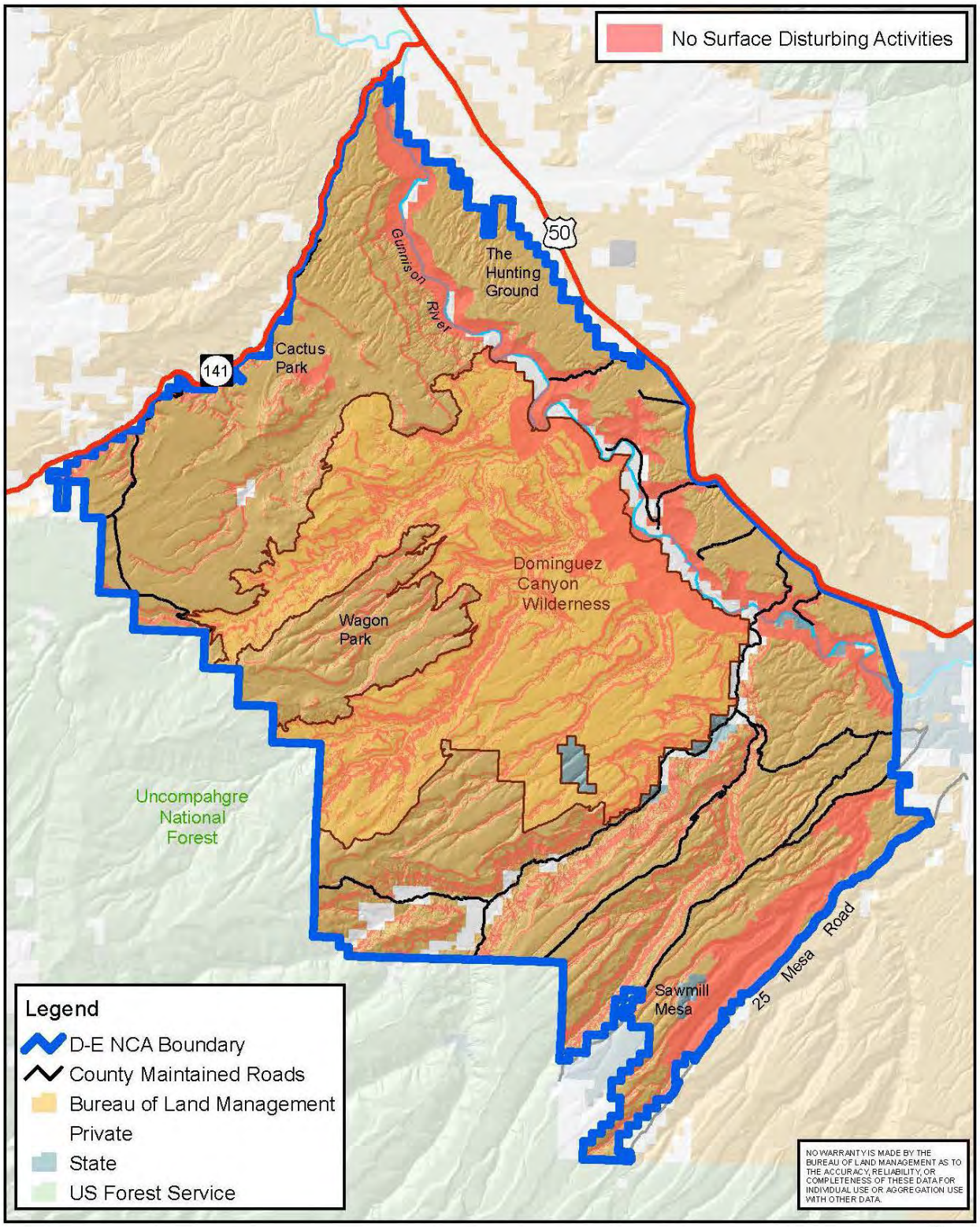


Alternative C: No Surface Disturbing Activities

0 2.5 5 7.5 10 Miles

N

Map 2-1c

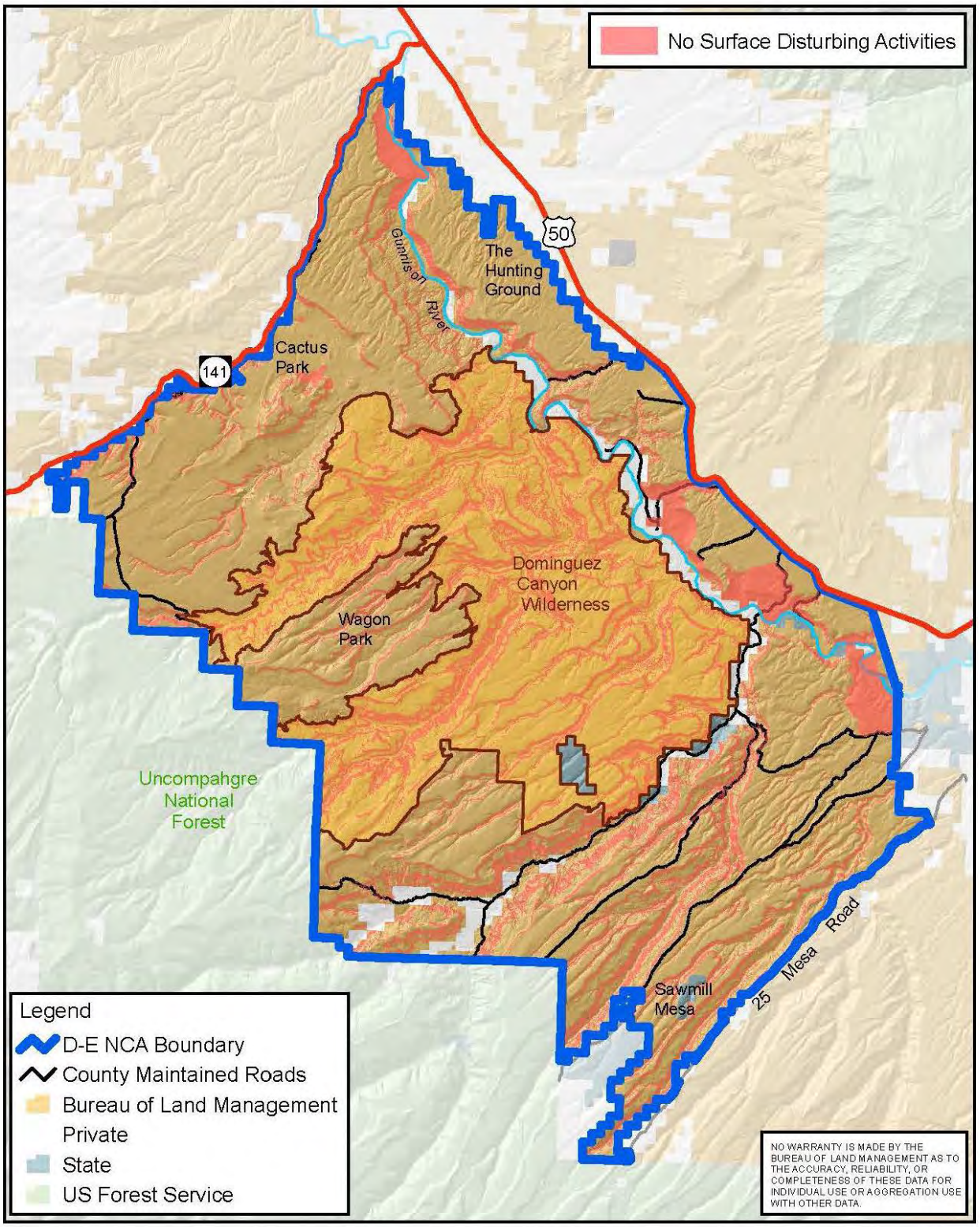


Alternative D: No Surface Disturbing Activities

0 2.5 5 7.5 10 Miles

N

Map 2-1d

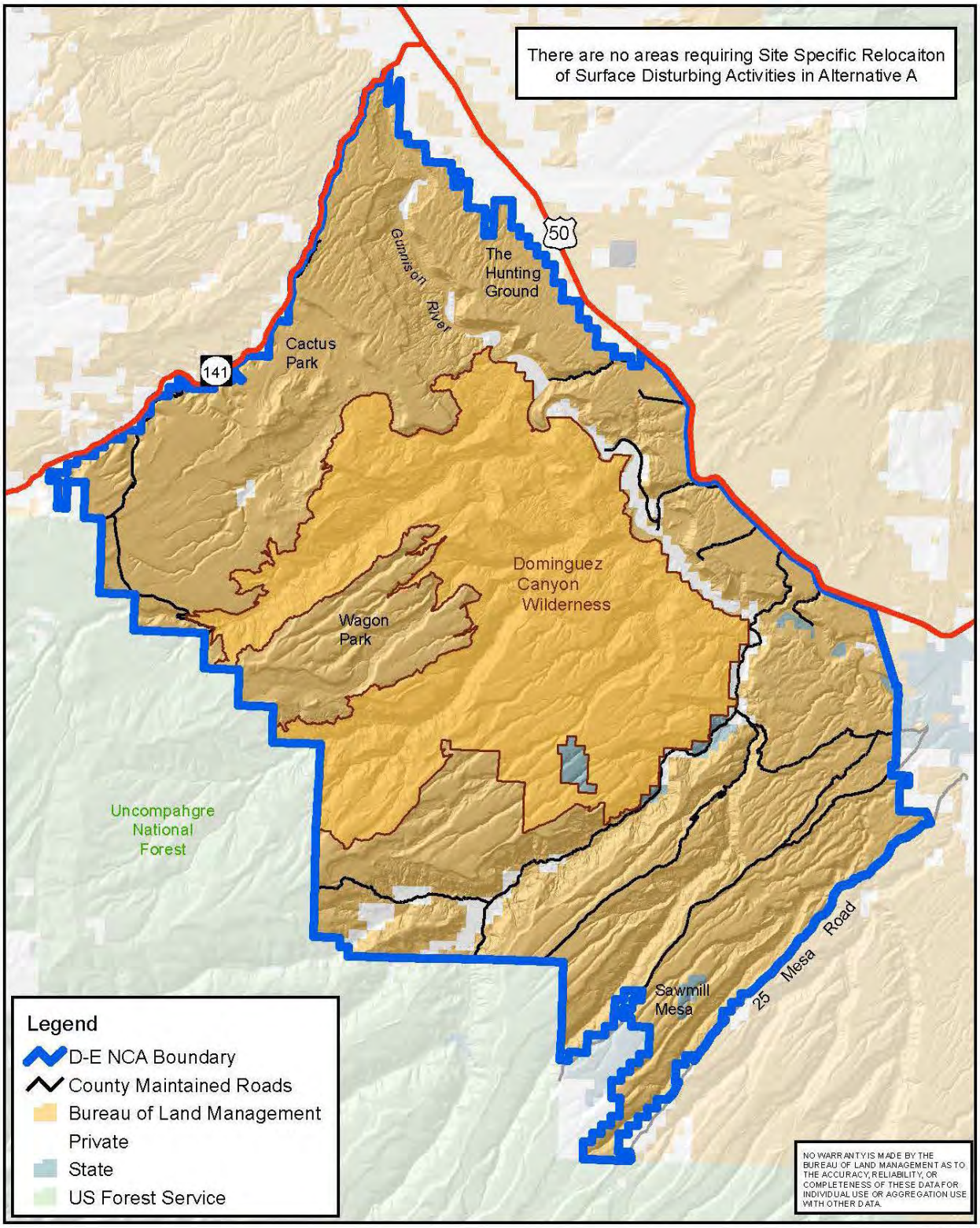


Proposed Plan Alternative: No Surface Disturbing Activities

0 2.5 5 7.5 10 Miles

N

Map 2-1p

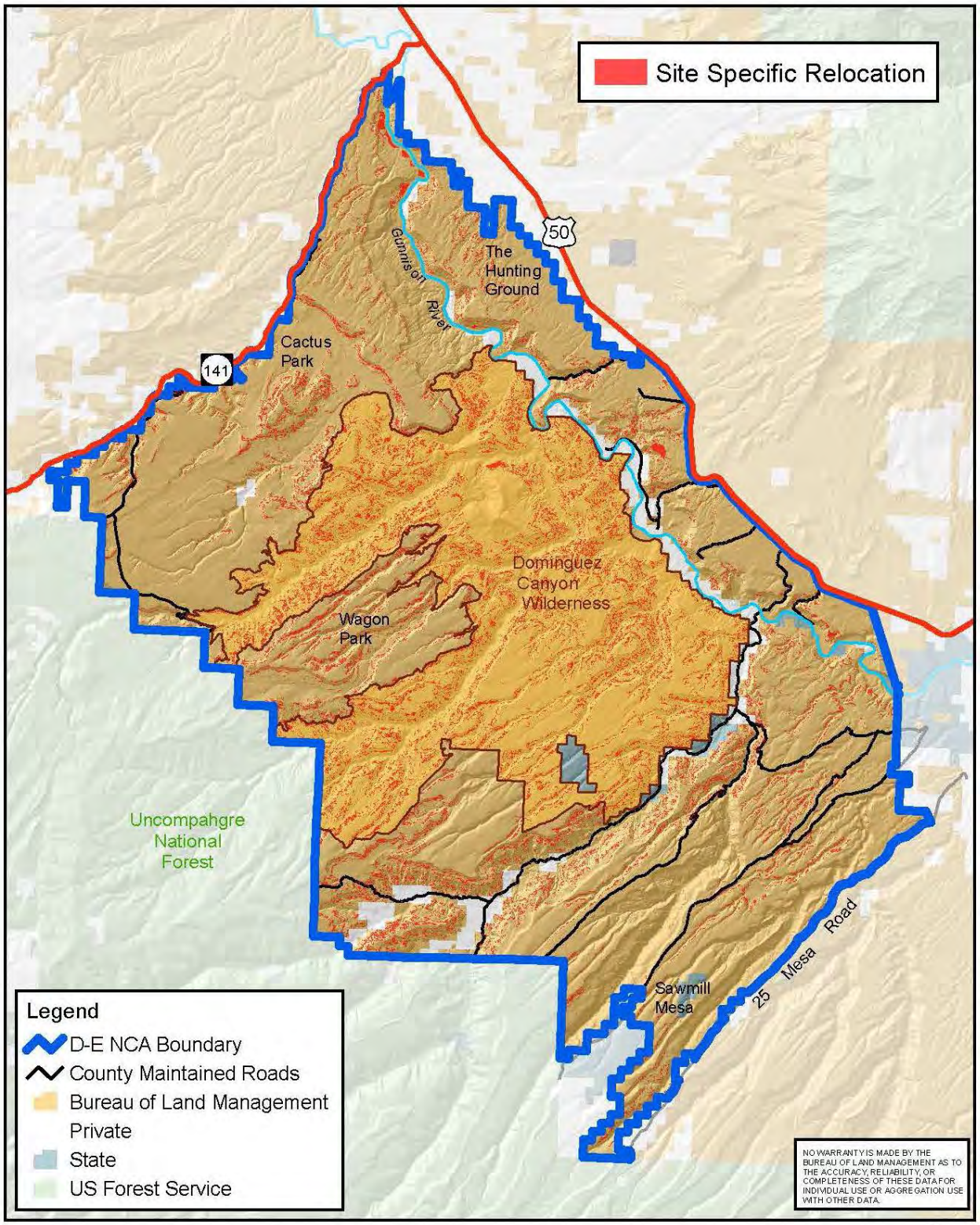


Alternative A: Application of Site Specific Relocation (SSR) to Surface Disturbing Activities

0 2.5 5 7.5 10 Miles

N

Map 2-2a

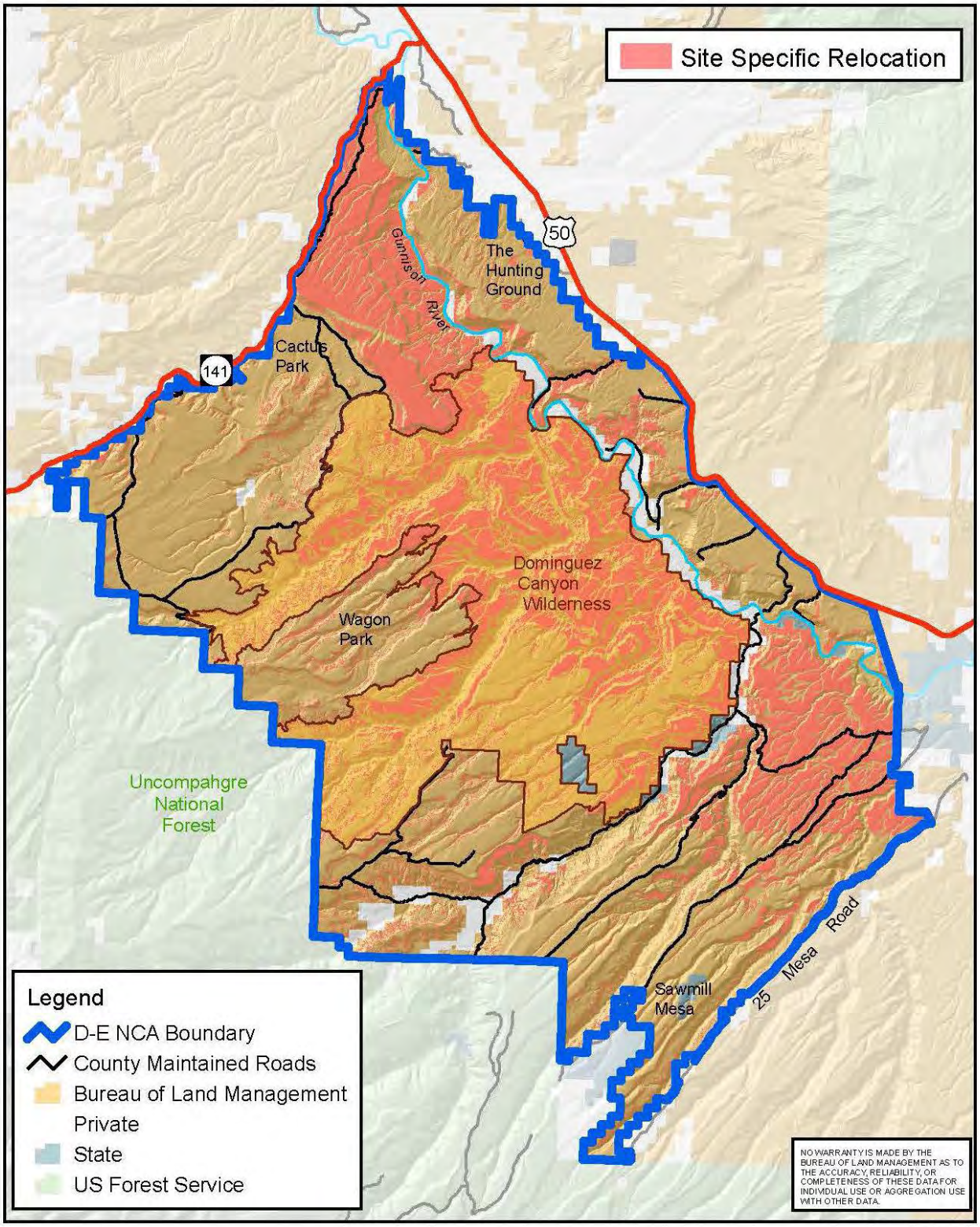


Alternative B: Application of Site Specific Relocation (SSR) to Surface Disturbing Activities

0 2.5 5 7.5 10 Miles

N

Map 2-2b

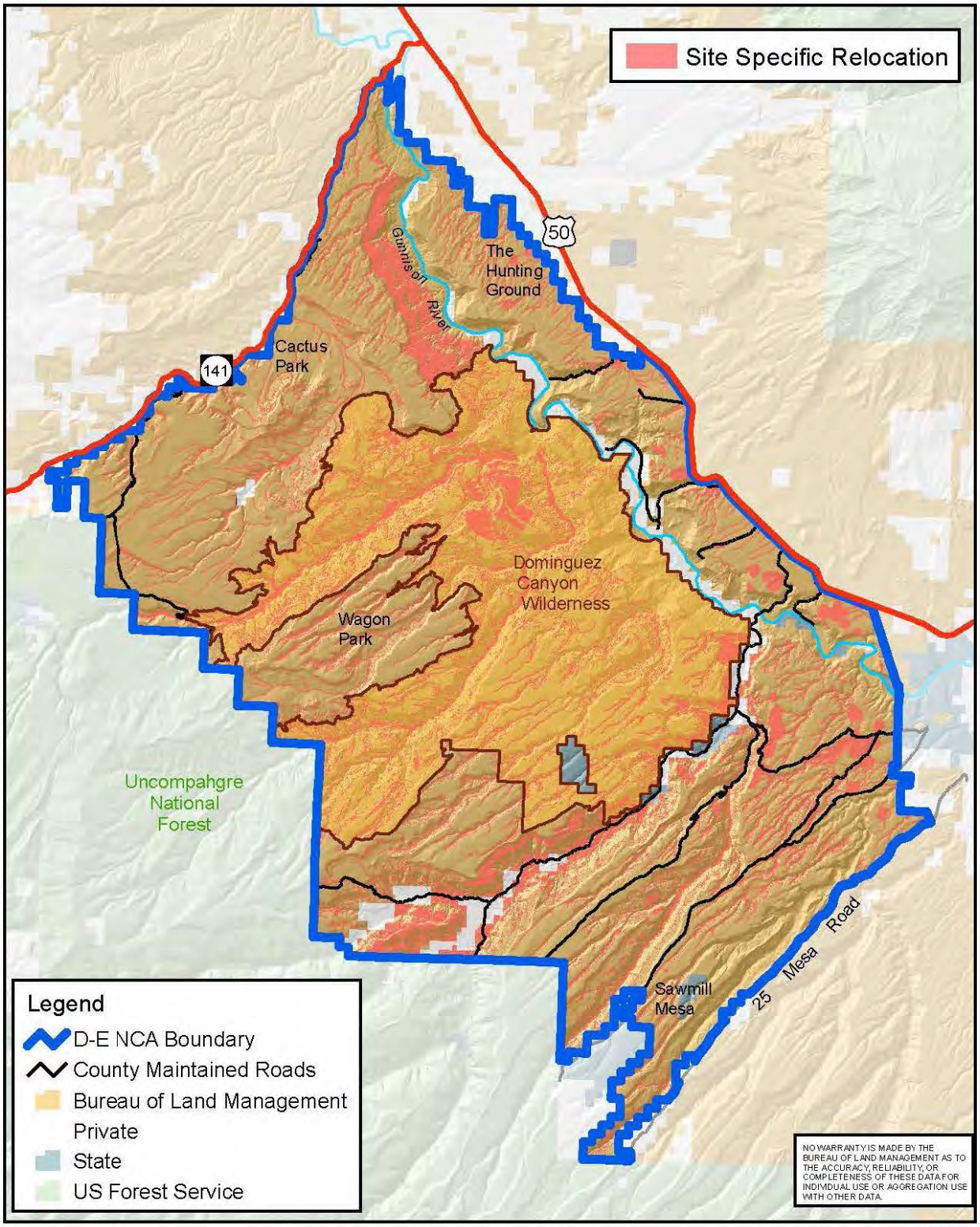


Alternative C: Application of Site Specific Relocation (SSR) to Surface Disturbing Activities

0 2.5 5 7.5 10 Miles

N

Map 2-2c

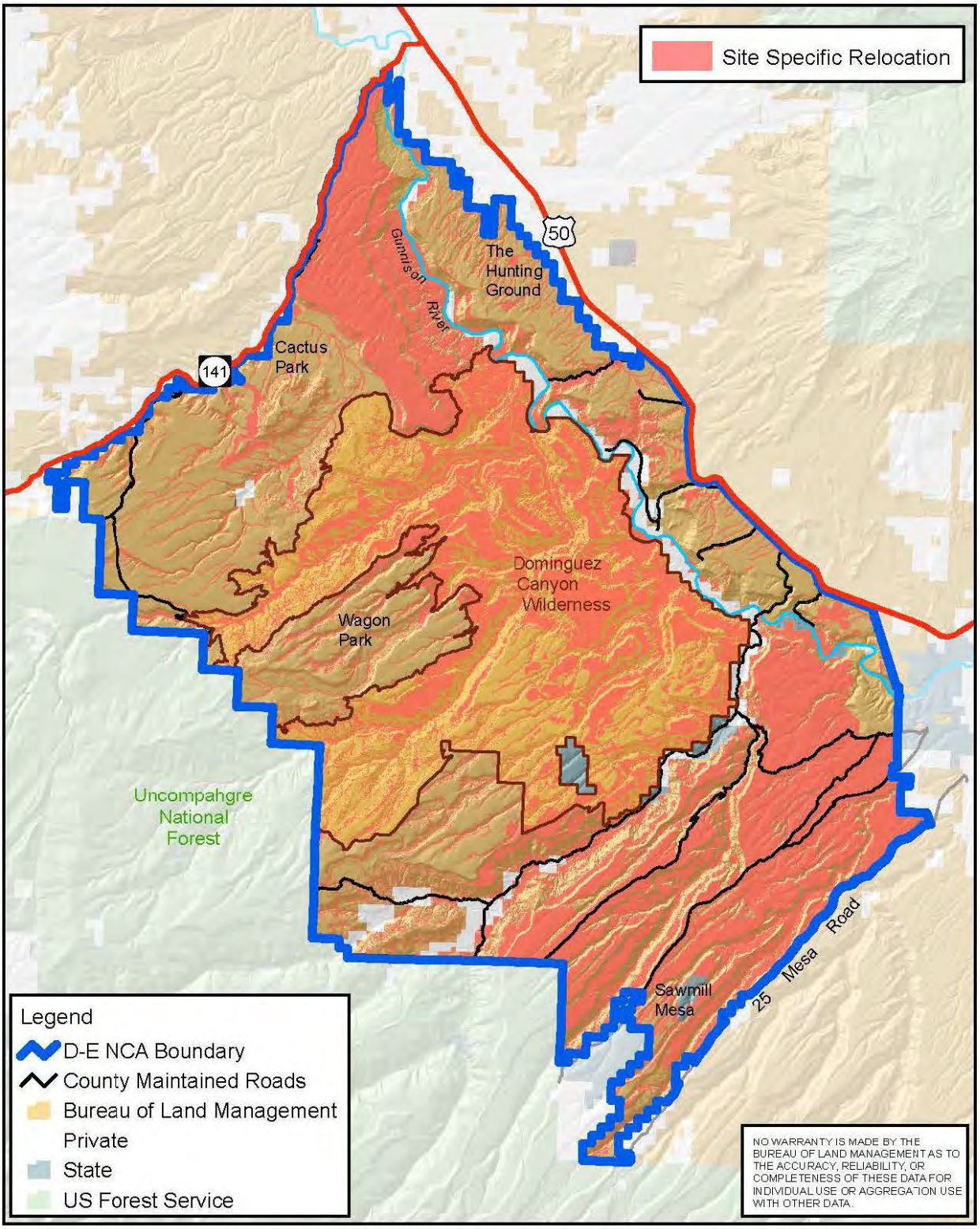


Alternative D: Application of Site Specific Relocation (SSR) to Surface Disturbing Activities

0 2.5 5 7.5 10 Miles

N

Map 2-2d

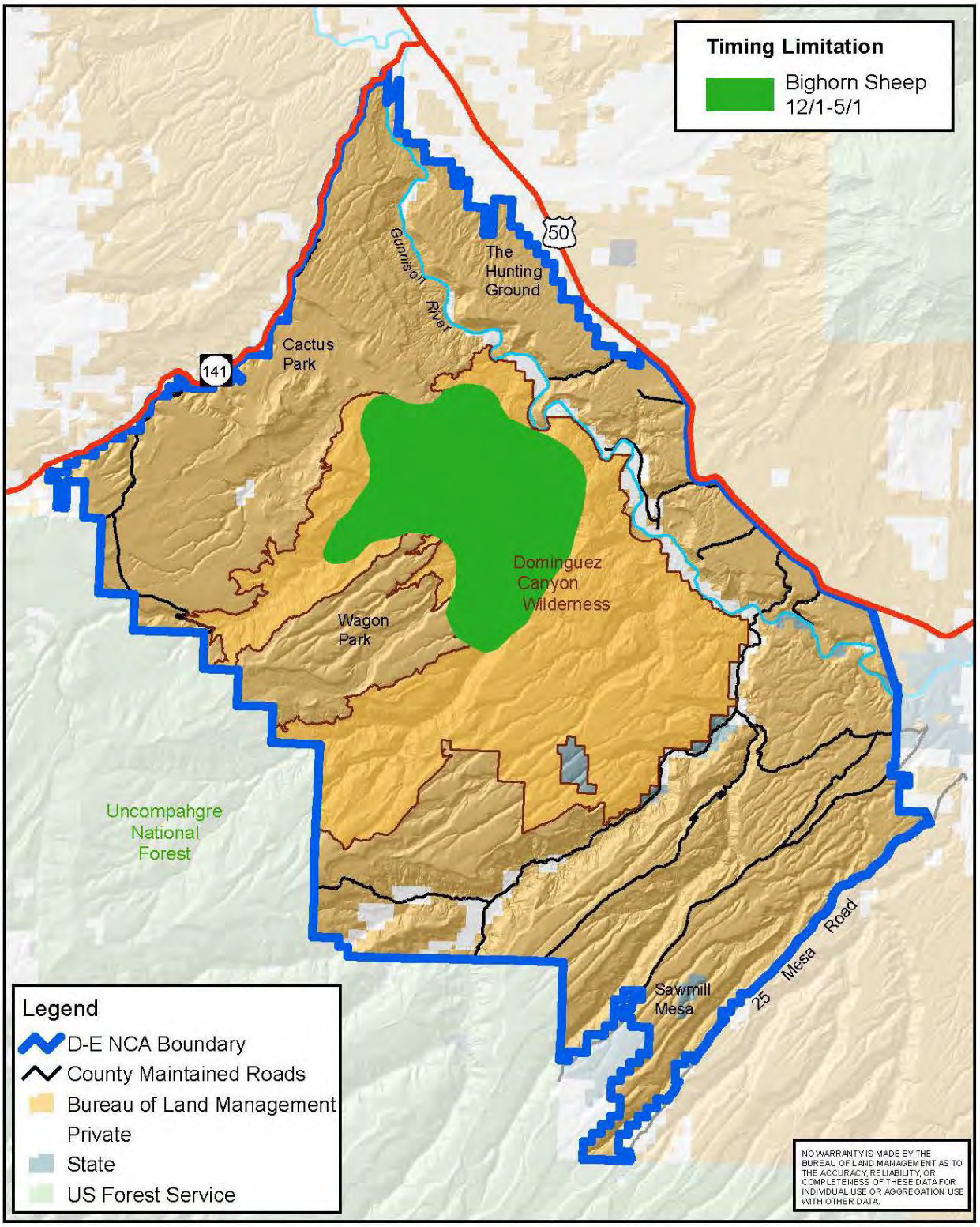


Proposed Plan Alternative: Application of Site Specific Relocation (SSR) to Surface Disturbing Activities

N

0 2.5 5 7.5 10 Miles

Map 2-2p

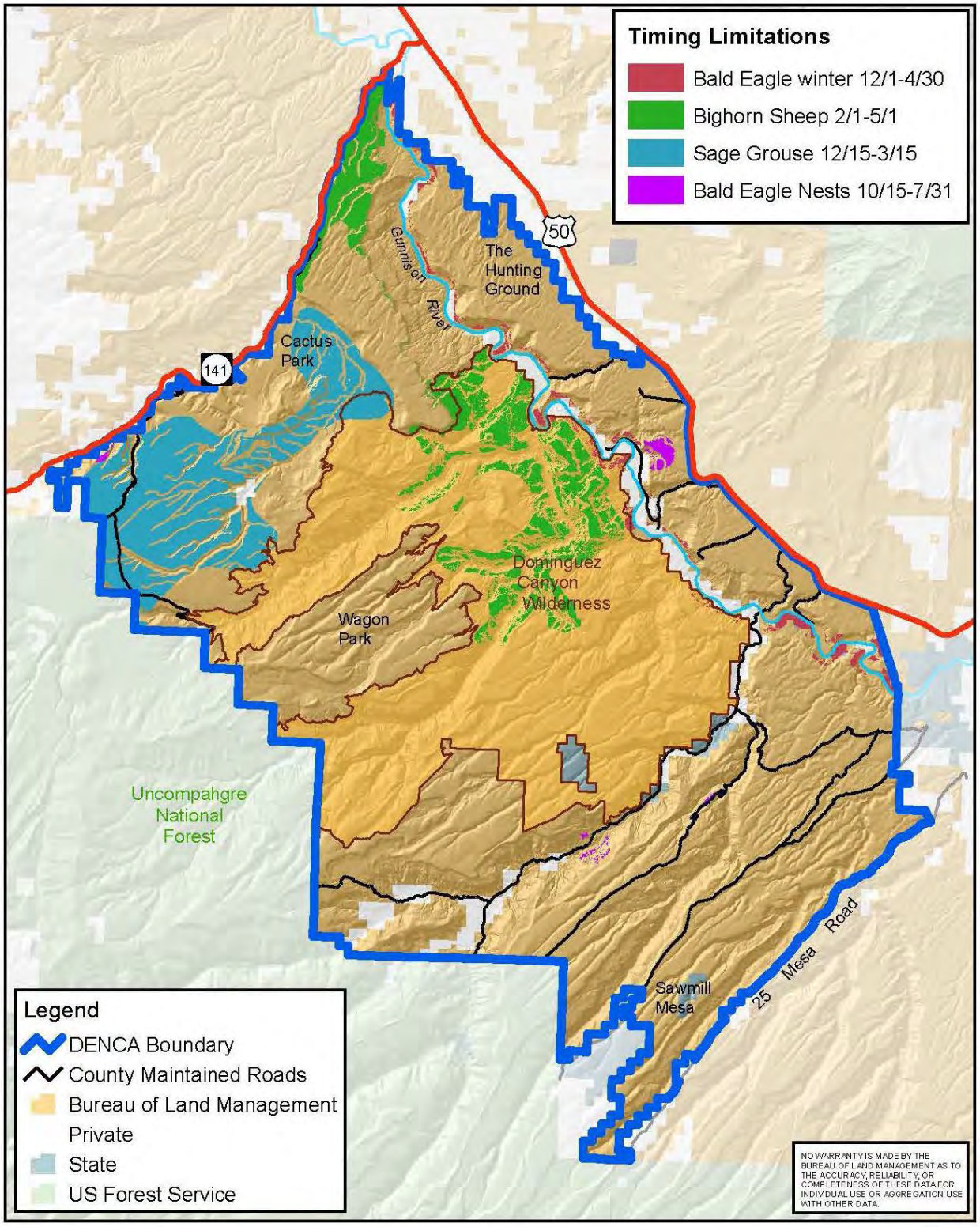


Alternative A: Timing Limitations for Surface Disturbing Activities

0 2.5 5 7.5 10 Miles

N

Map 2-3a

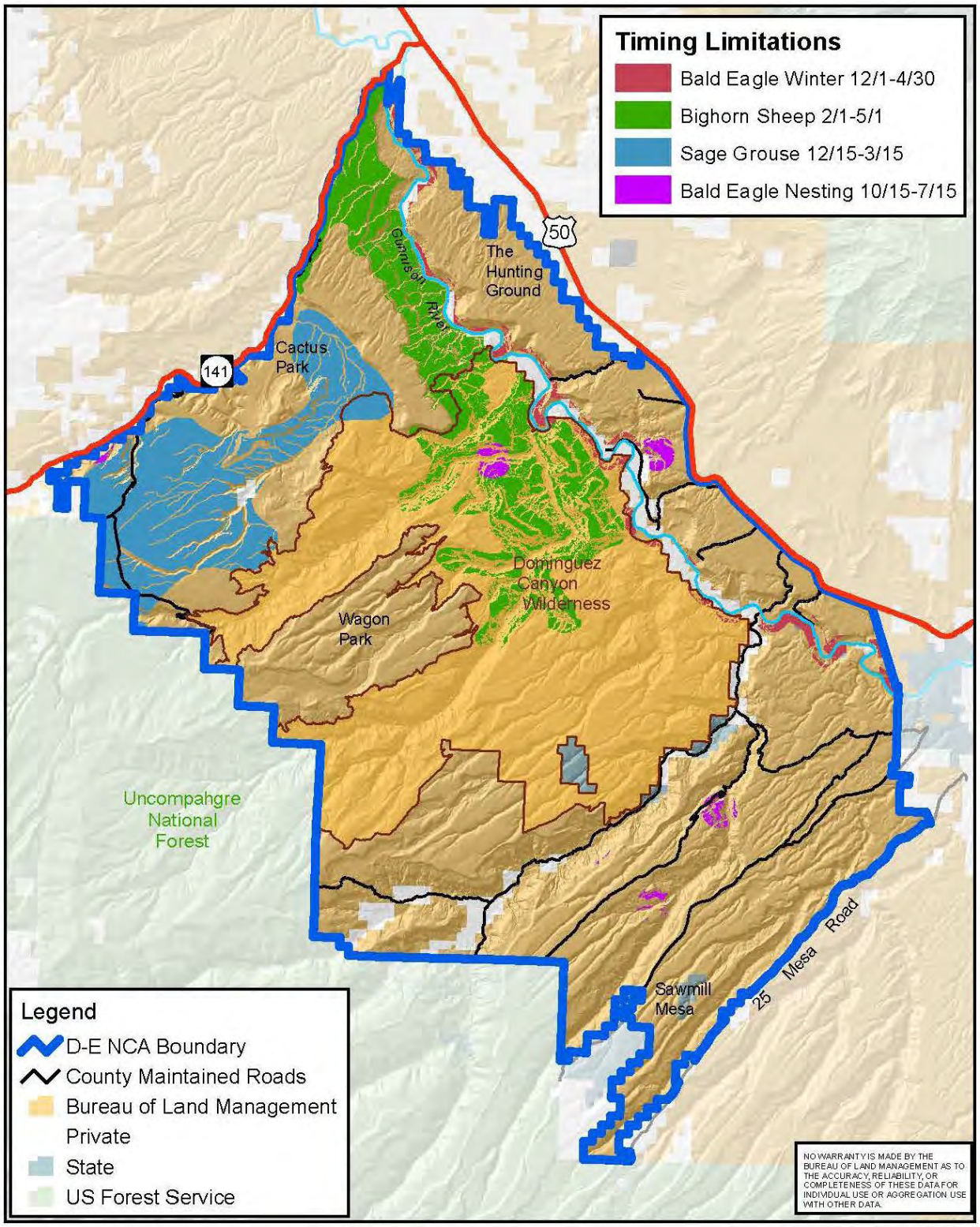


Alternative B: Timing Limitations for Surface Disturbing Activities

N

0 2.5 5 7.5 10 Miles

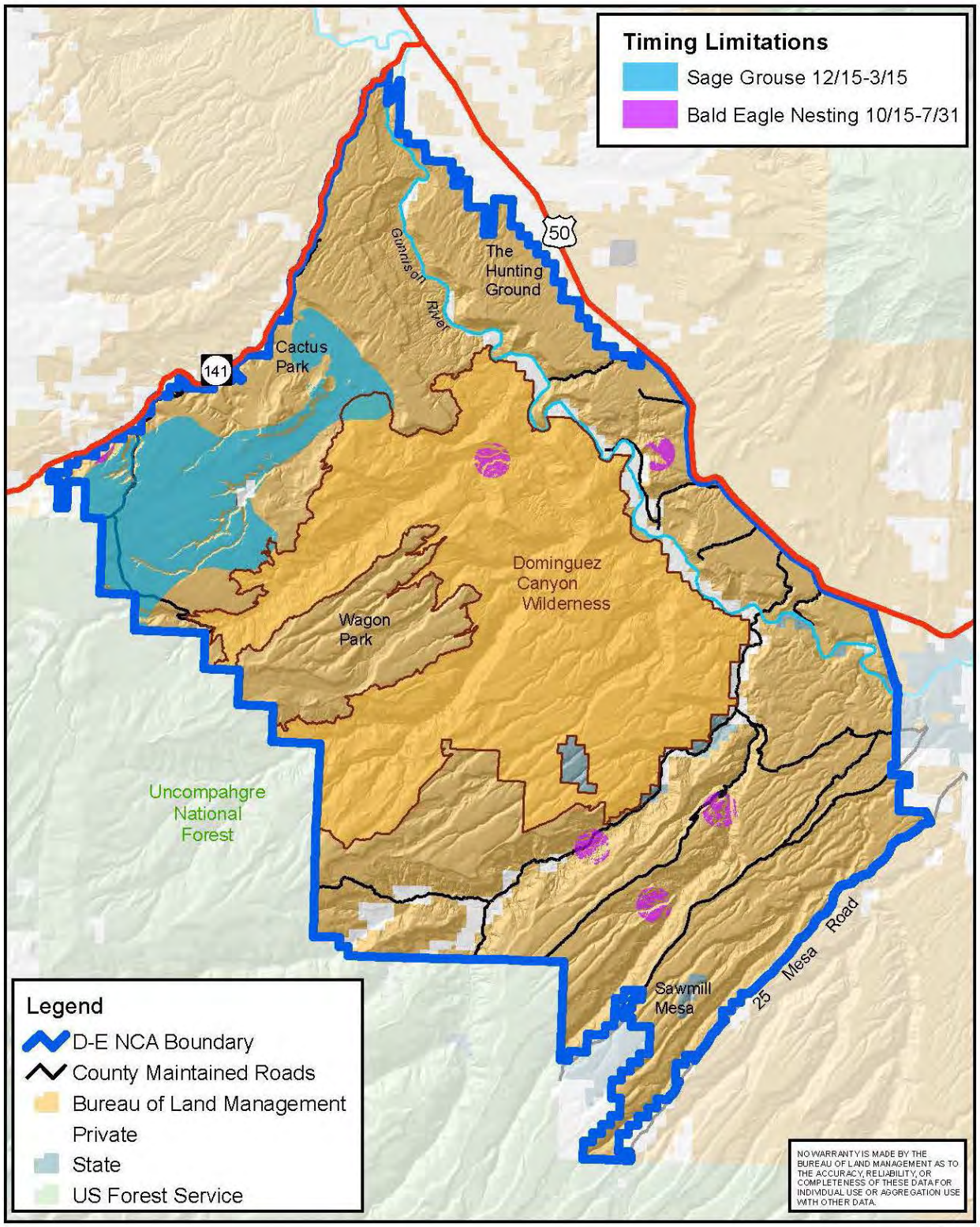
Map 2-3b



Alternative C: Timing Limitations for Surface Disturbing Activities

0 2.5 5 7.5 10 Miles

N

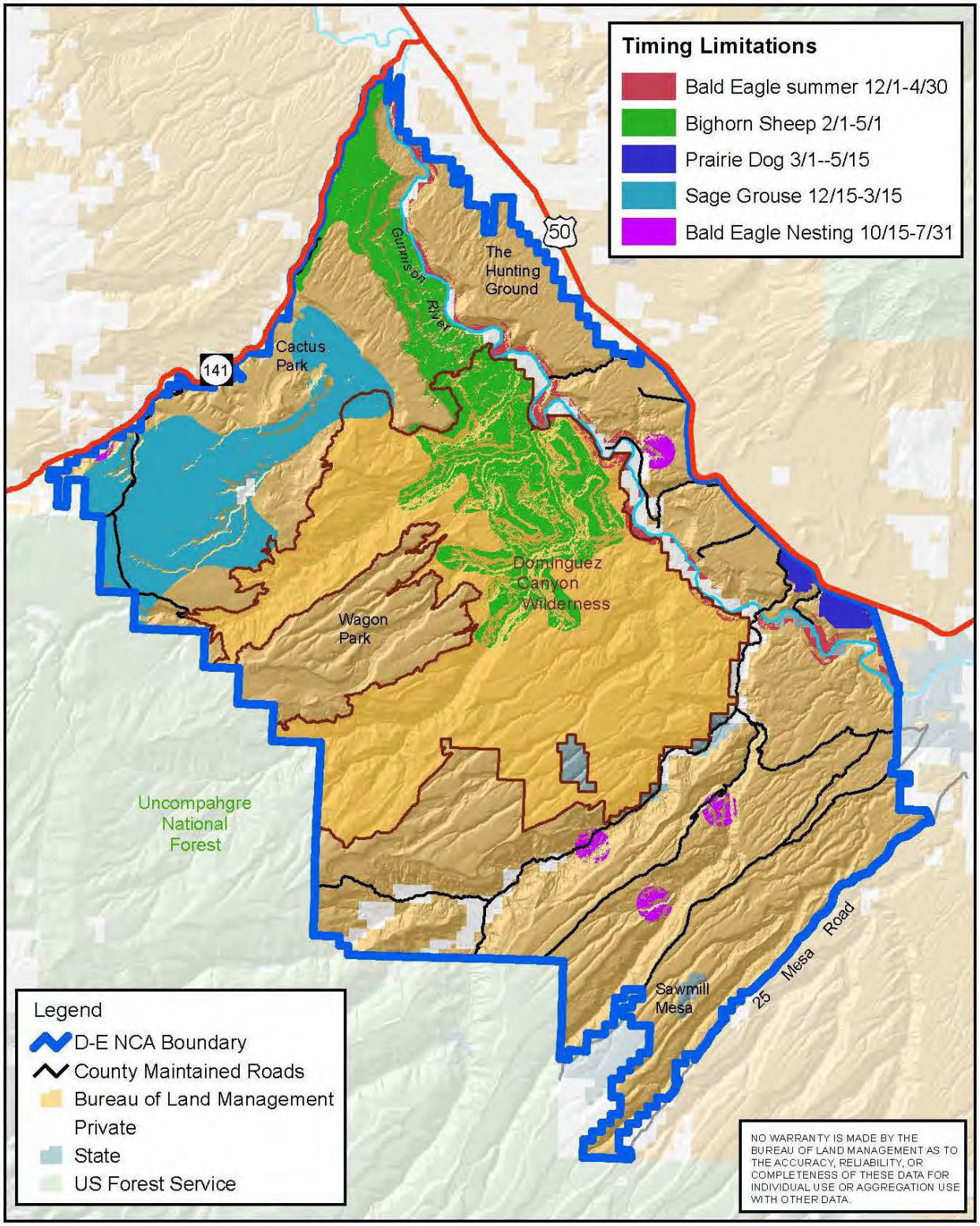


Alternative D: Timing Limitations for Surface Disturbing Activities

0 2.5 5 7.5 10 Miles

N

Map 2-3d

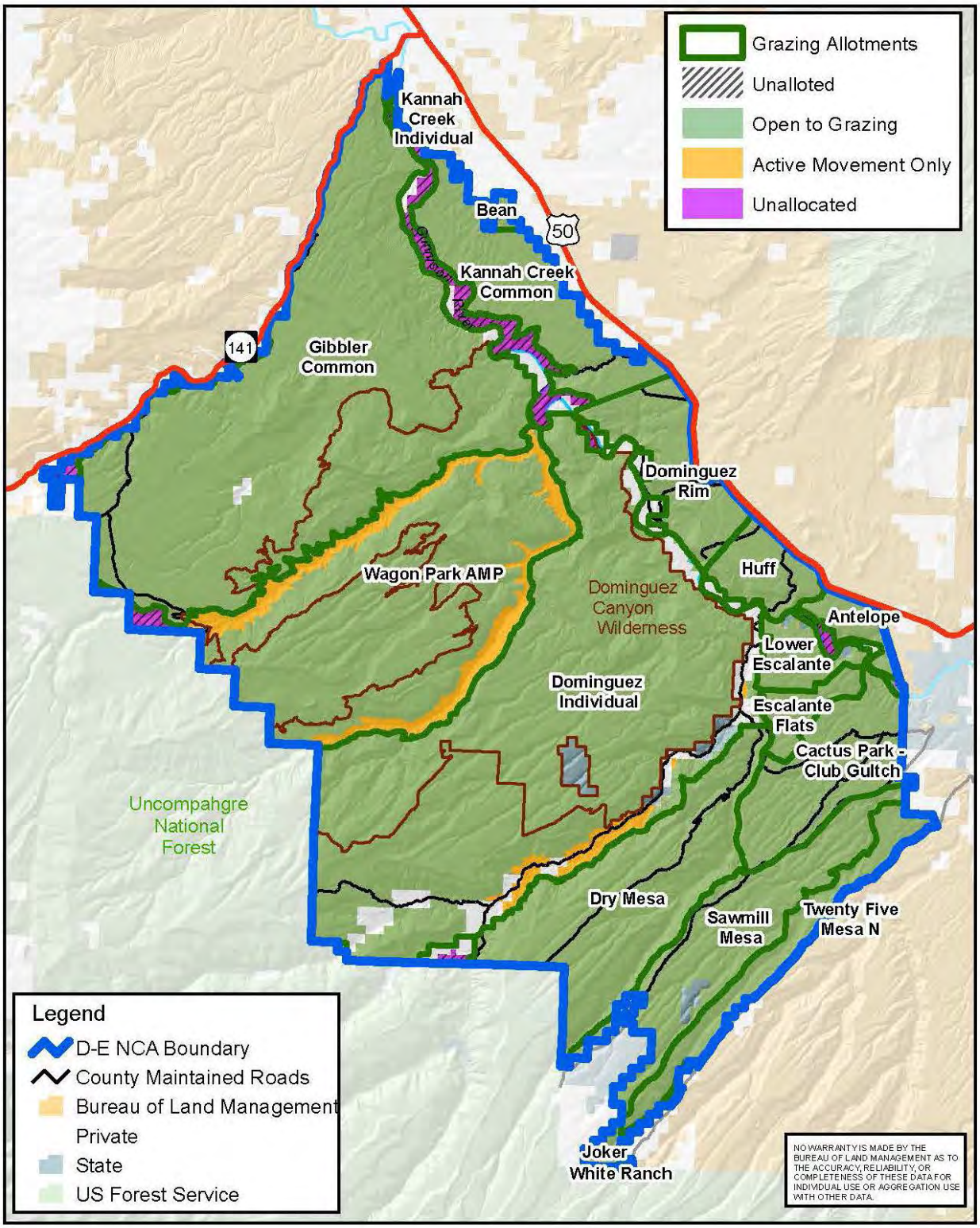


Proposed Plan Alternative: Timing Limitations
for Surface Disturbing Activities

0 2.5 5 7.5 10 Miles

N

Map 2-3p

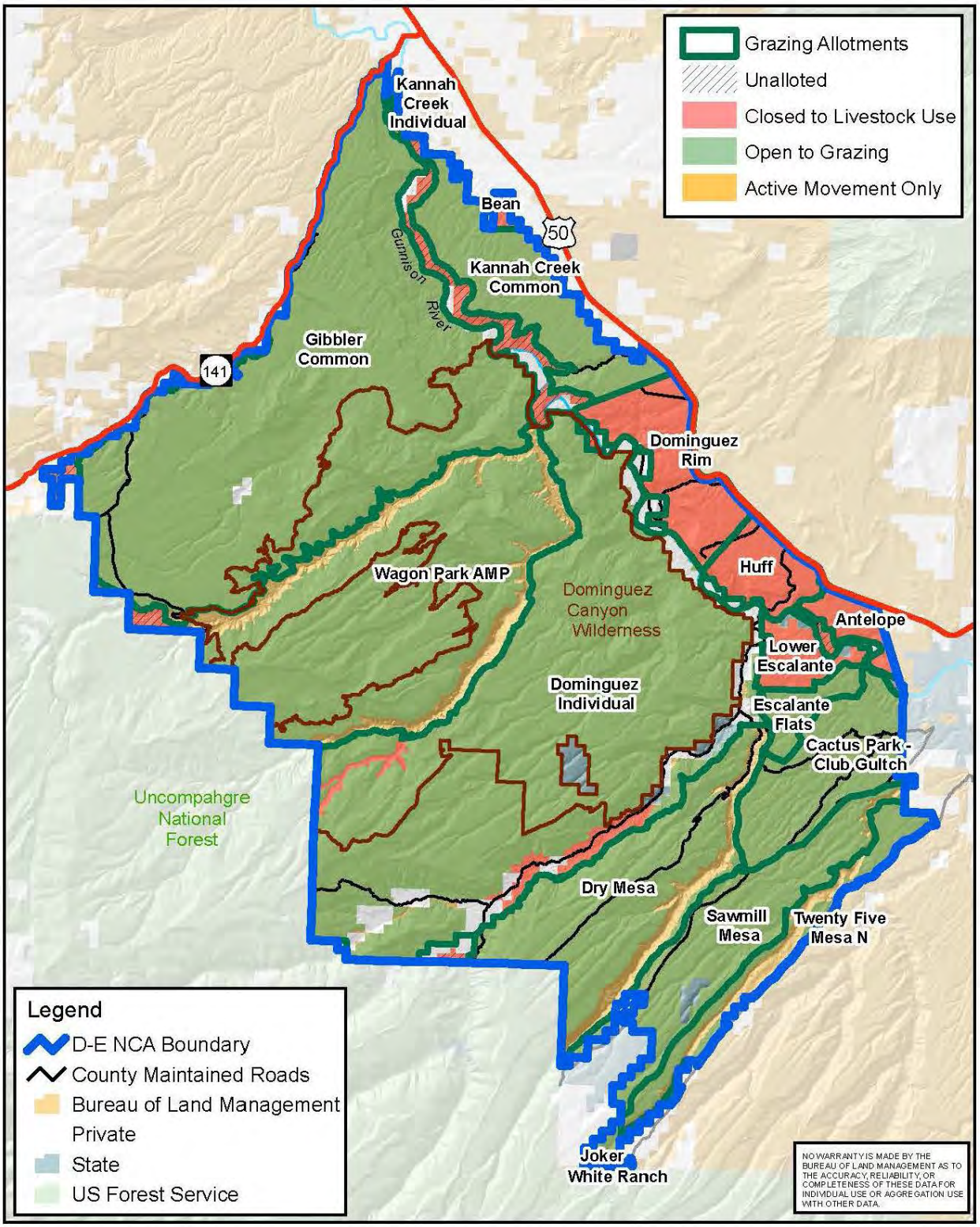


Alternative A: Grazing Allocations

0 2.5 5 7.5 10 Miles

N

Map 2-4a

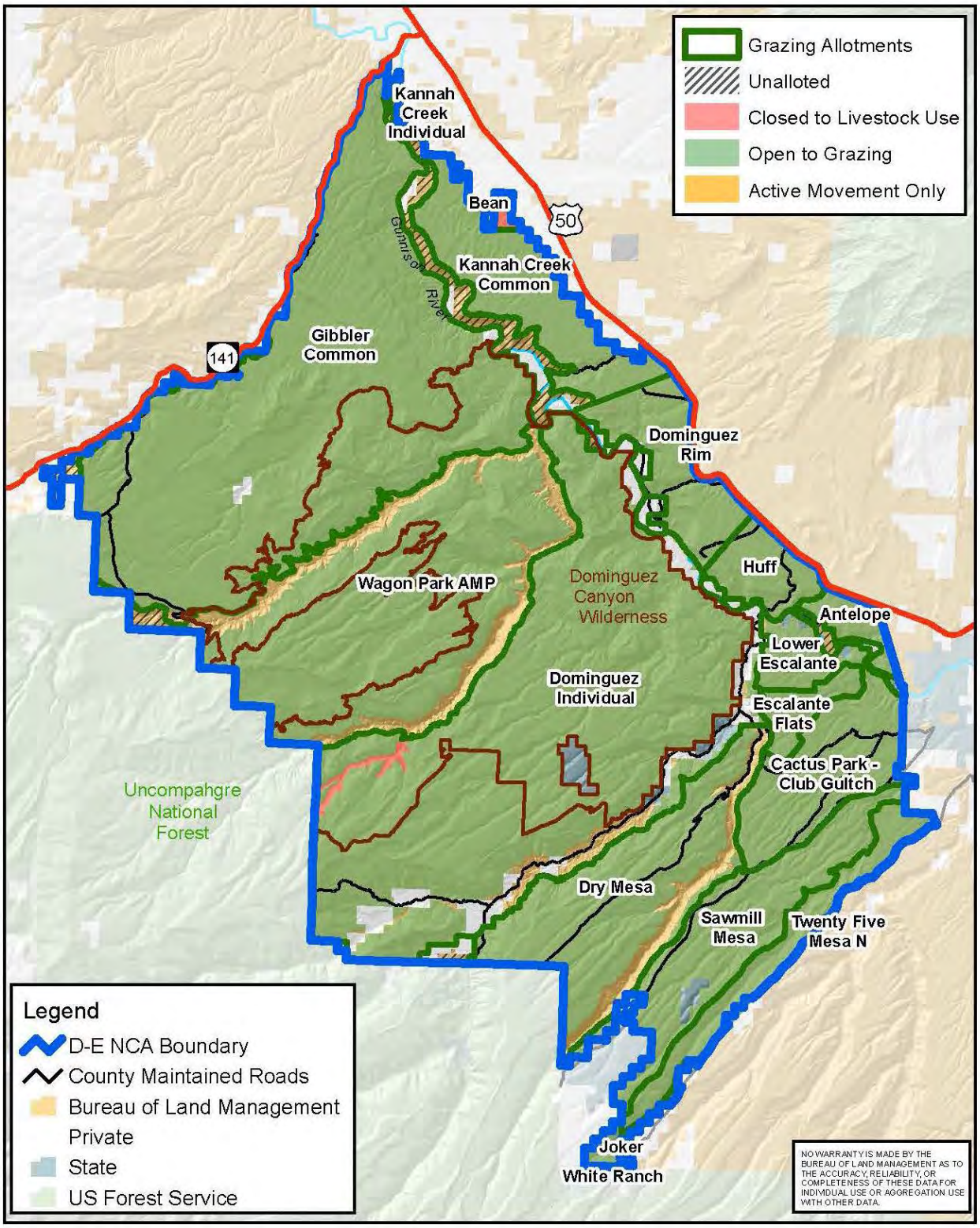


Alternative B: Grazing Allocations

0 2.5 5 7.5 10 Miles

N

Map 2-4b

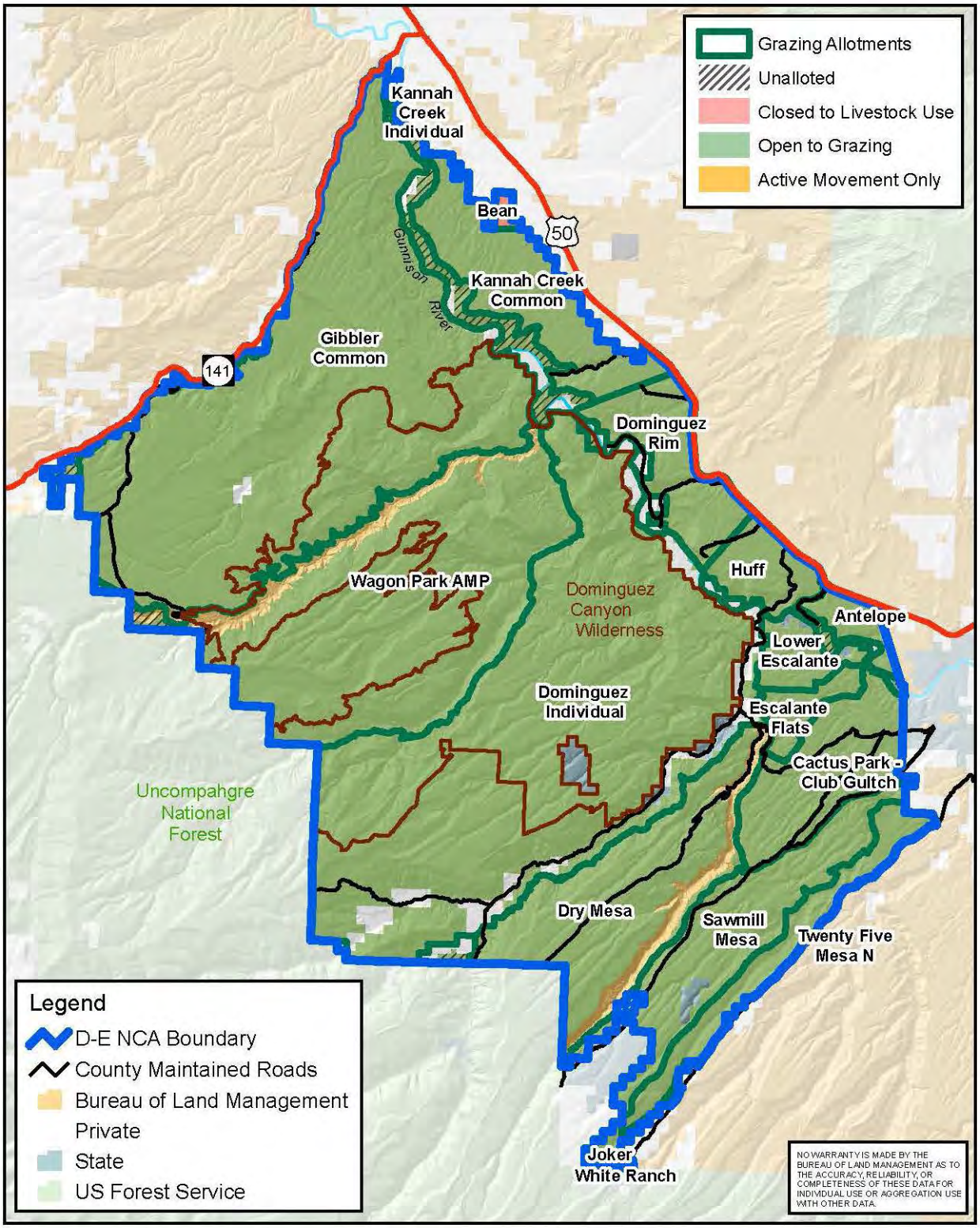


Alternative C: Grazing Allocations

0 2.5 5 7.5 10 Miles

N

Map 2-4c

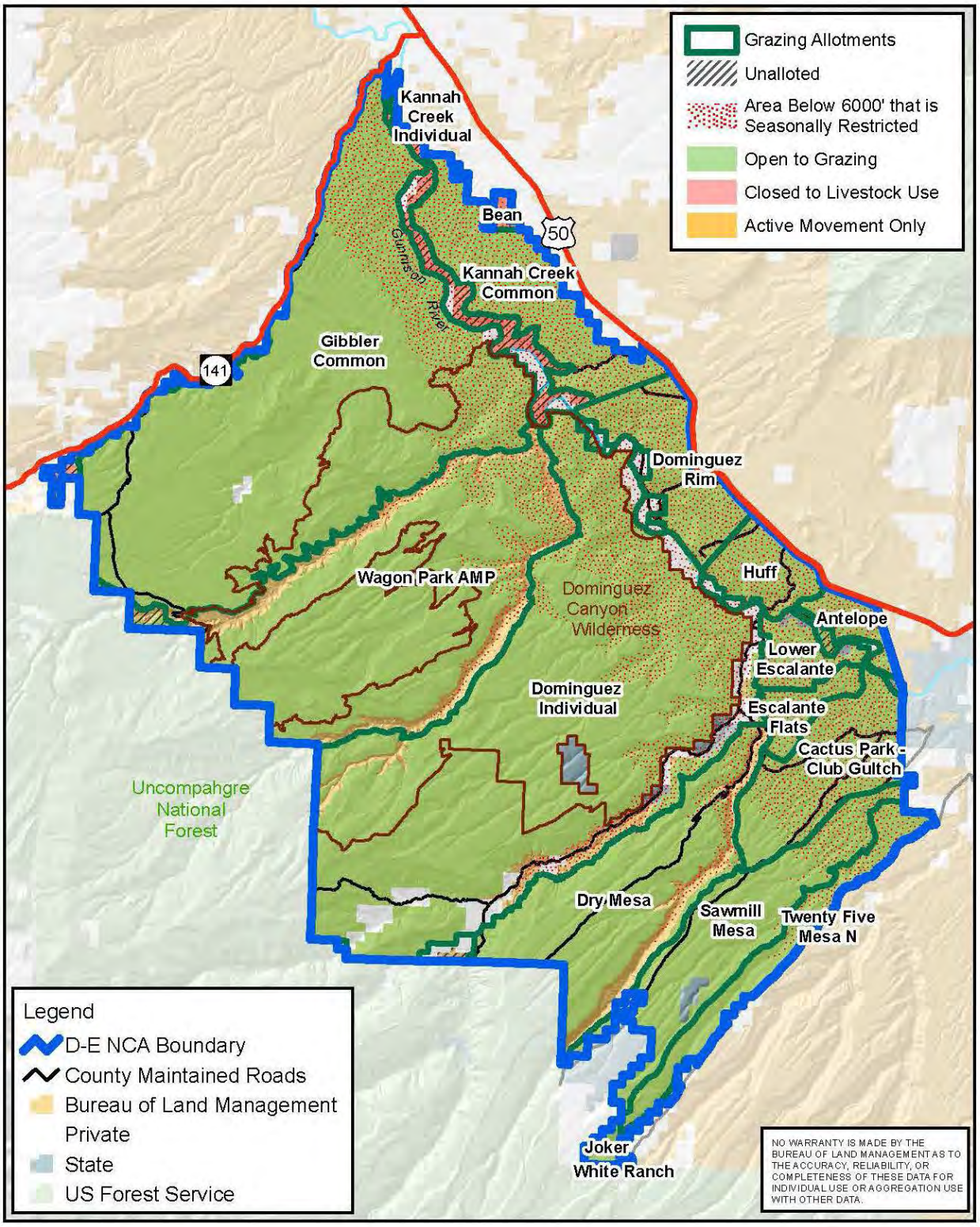


Alternative D: Grazing Allocations

0 2.5 5 7.5 10 Miles

N

Map 2-4d

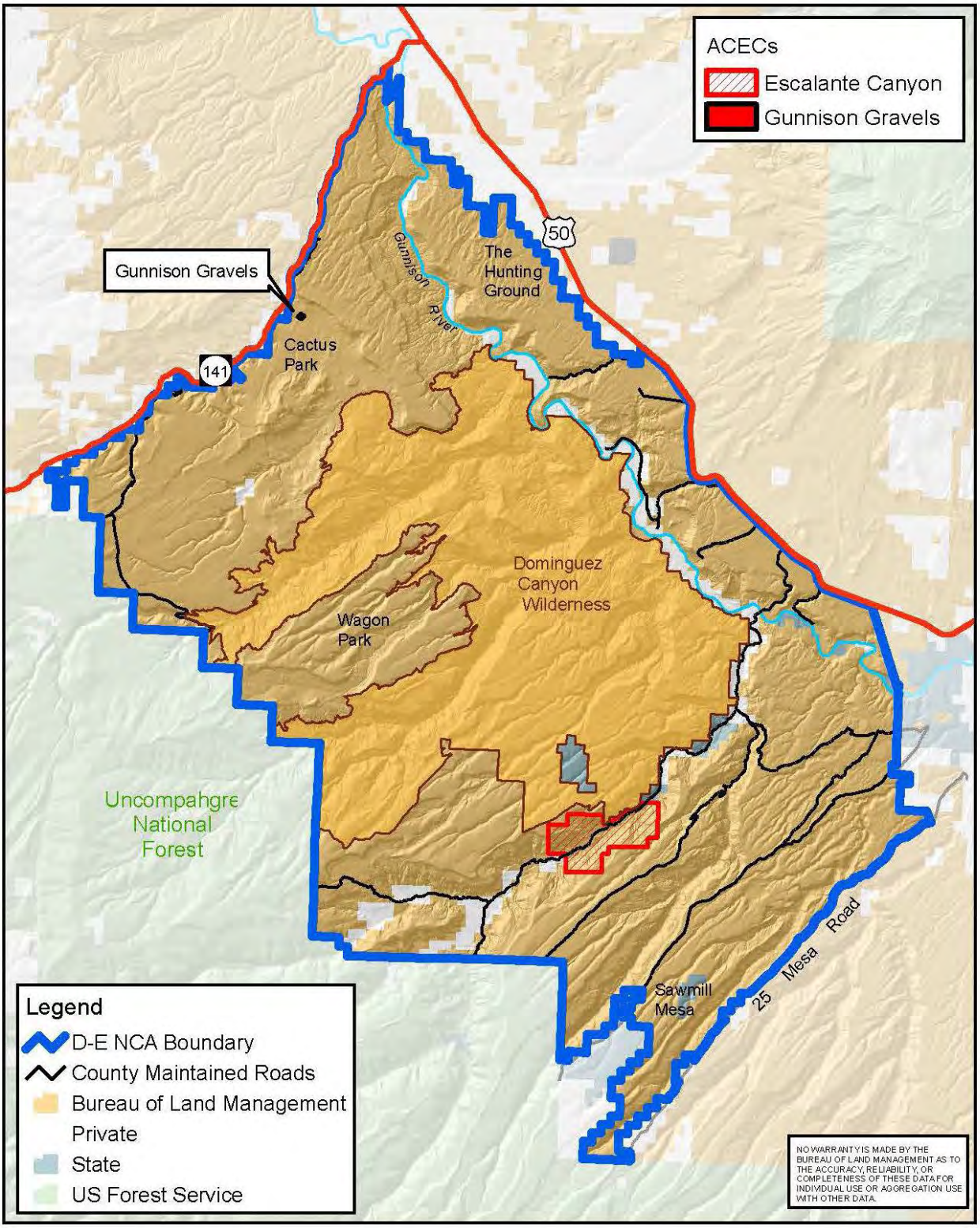


Proposed Plan Alternative: Grazing Allocations

0 2.5 5 7.5 10 Miles

N

Map 2-4p

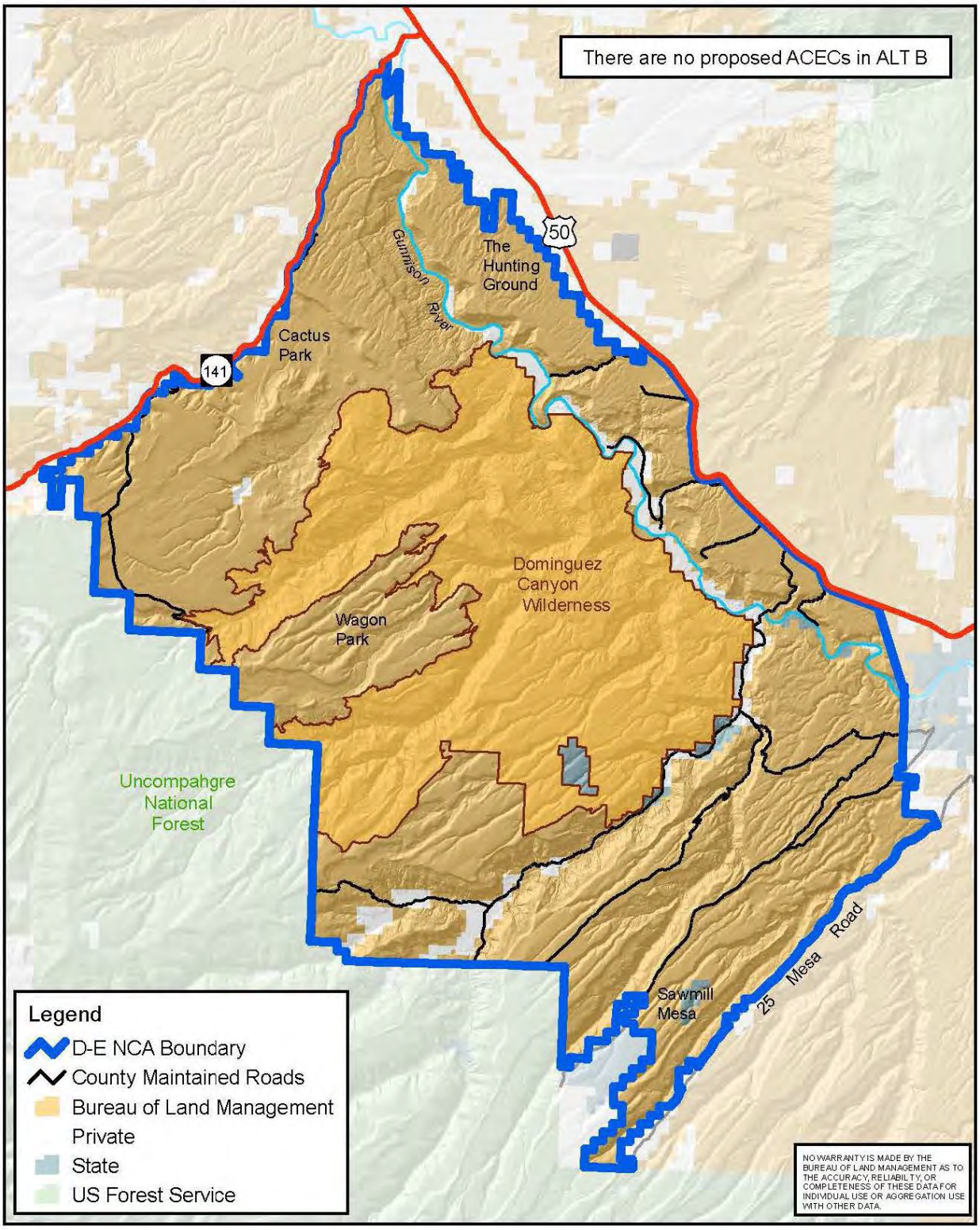


Alternative A: Areas of Critical Environmental Concern

0 2.5 5 7.5 10 Miles

N

Map 2-5a

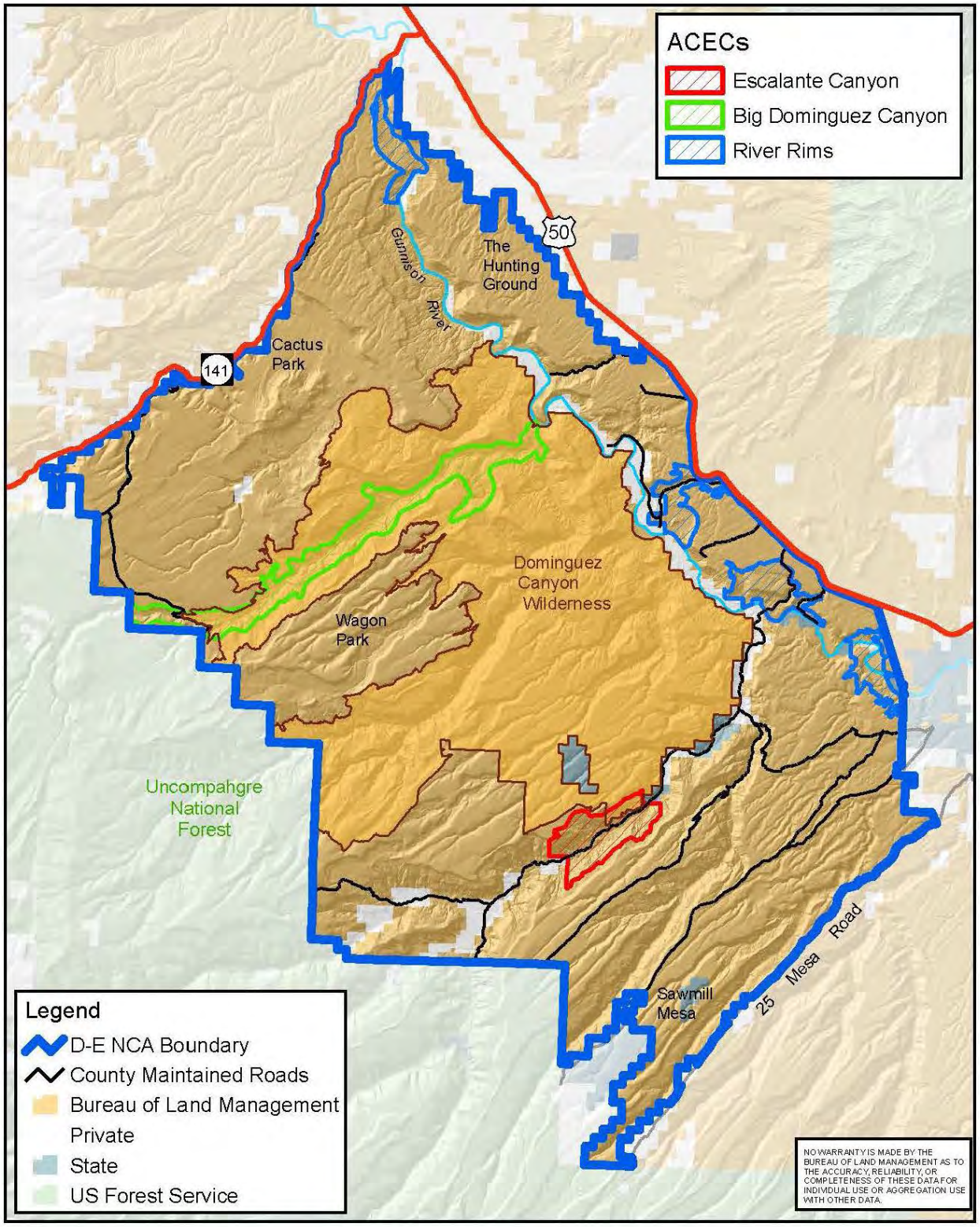


Alternative B: Areas of Critical Environmental Concern

0 2.5 5 7.5 10 Miles

N

Map 2-5b

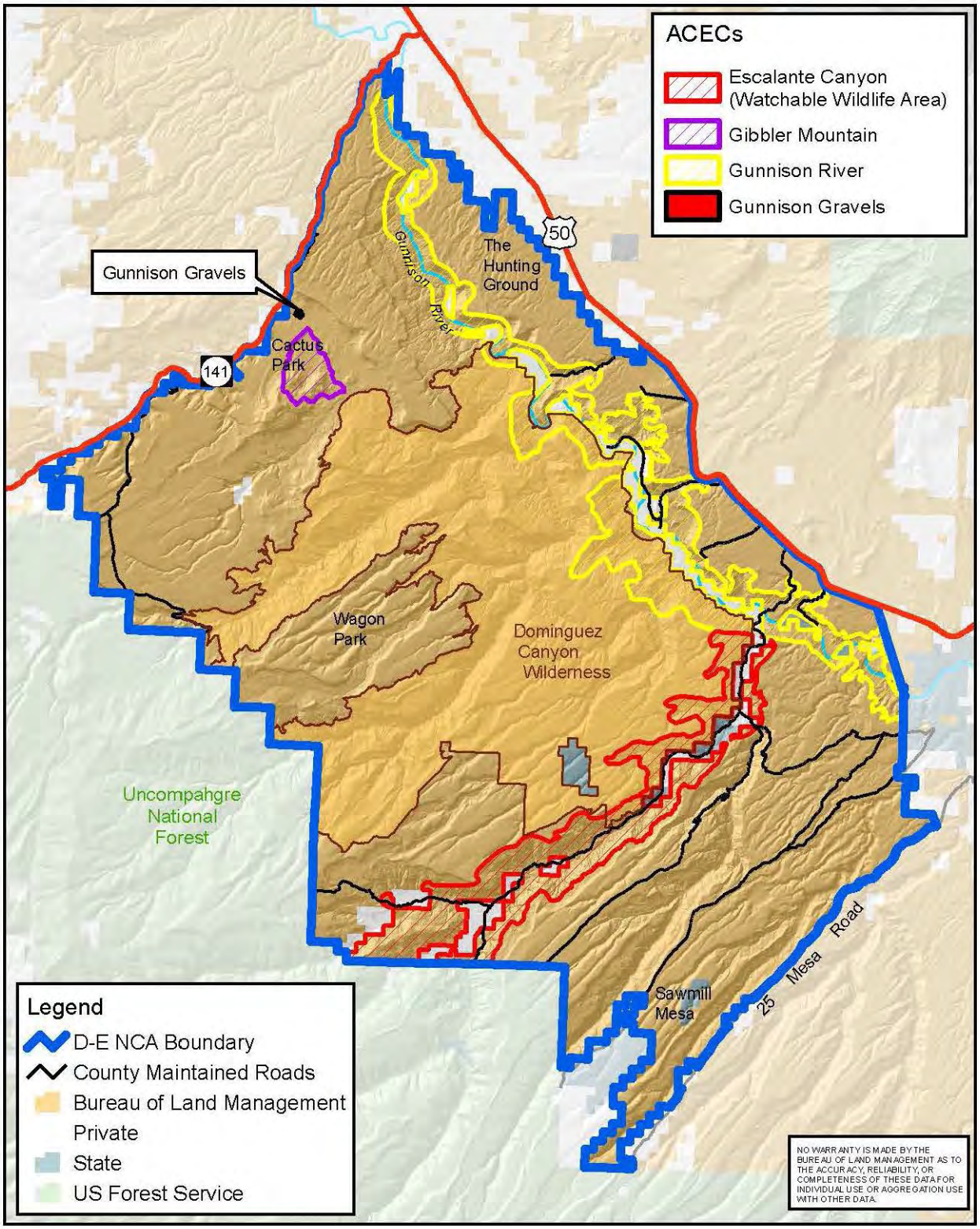


Alternative C: Areas of Critical Environmental Concern

0 2.5 5 7.5 10 Miles

N

Map 2-5c

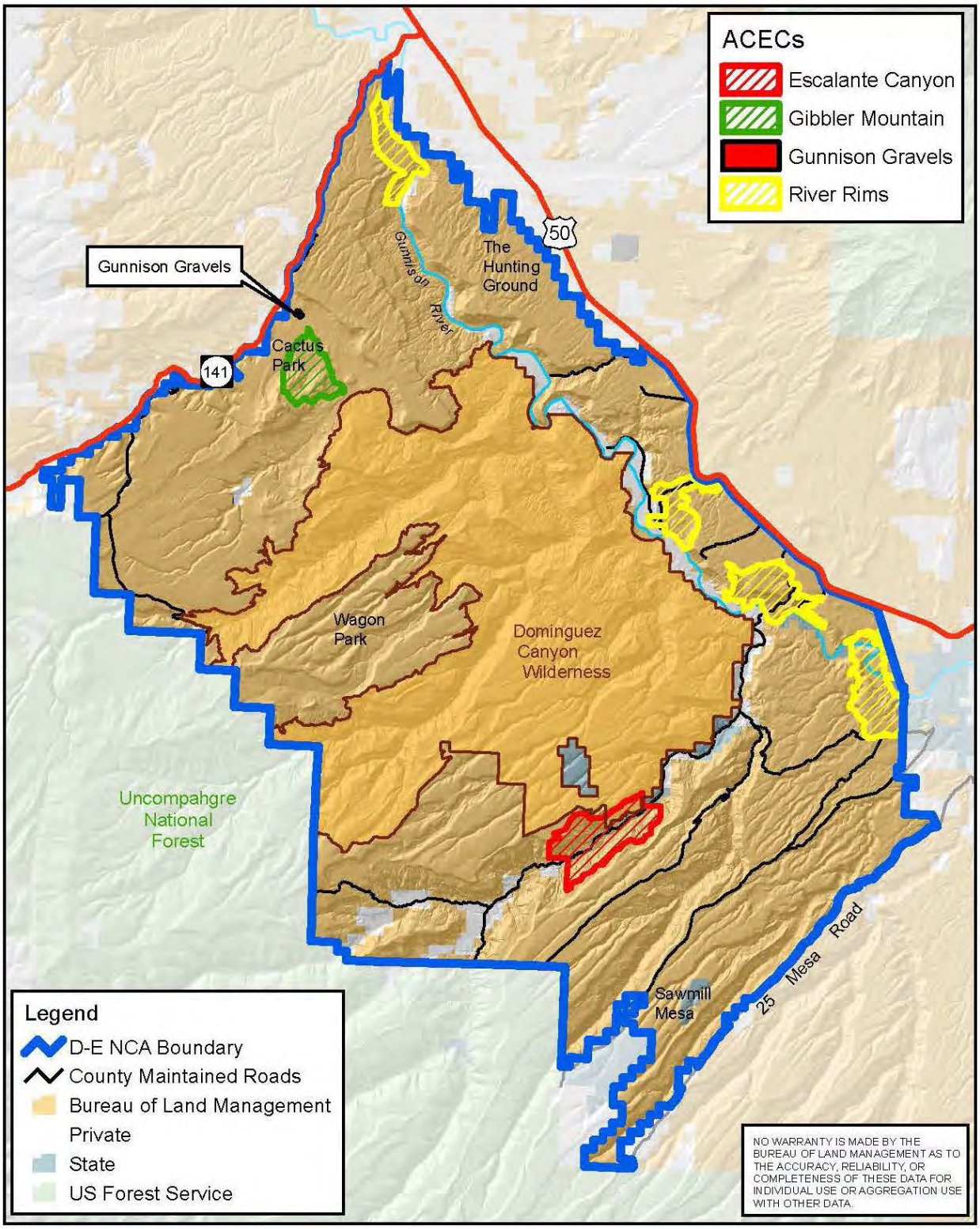


Alternative D: Areas of Critical Environmental Concern

N

0 2.5 5 7.5 10 Miles

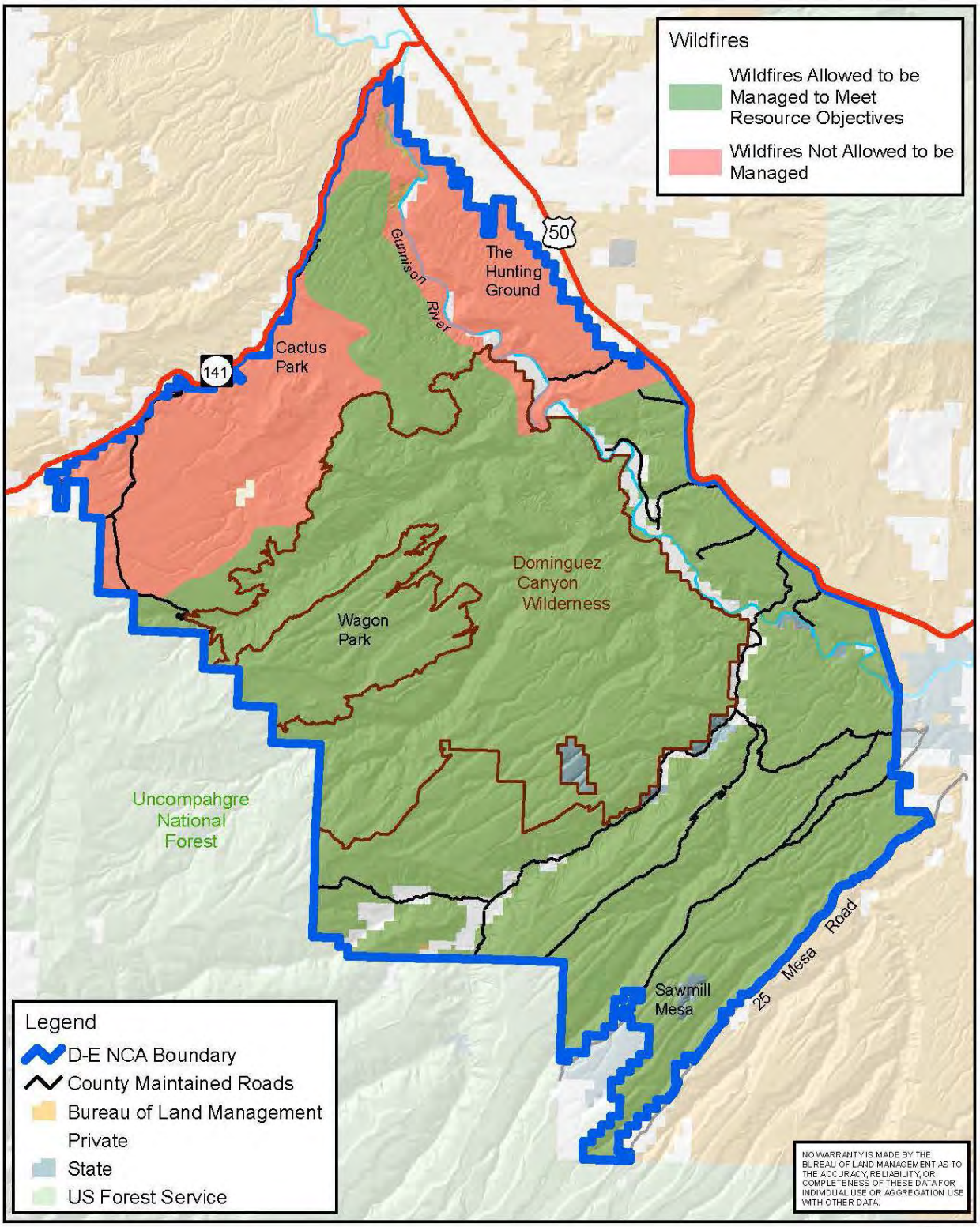
Map 2-5d



Proposed Plan Alternative: Areas of Critical Environmental Concern

N

0 2.5 5 7.5 10 Miles

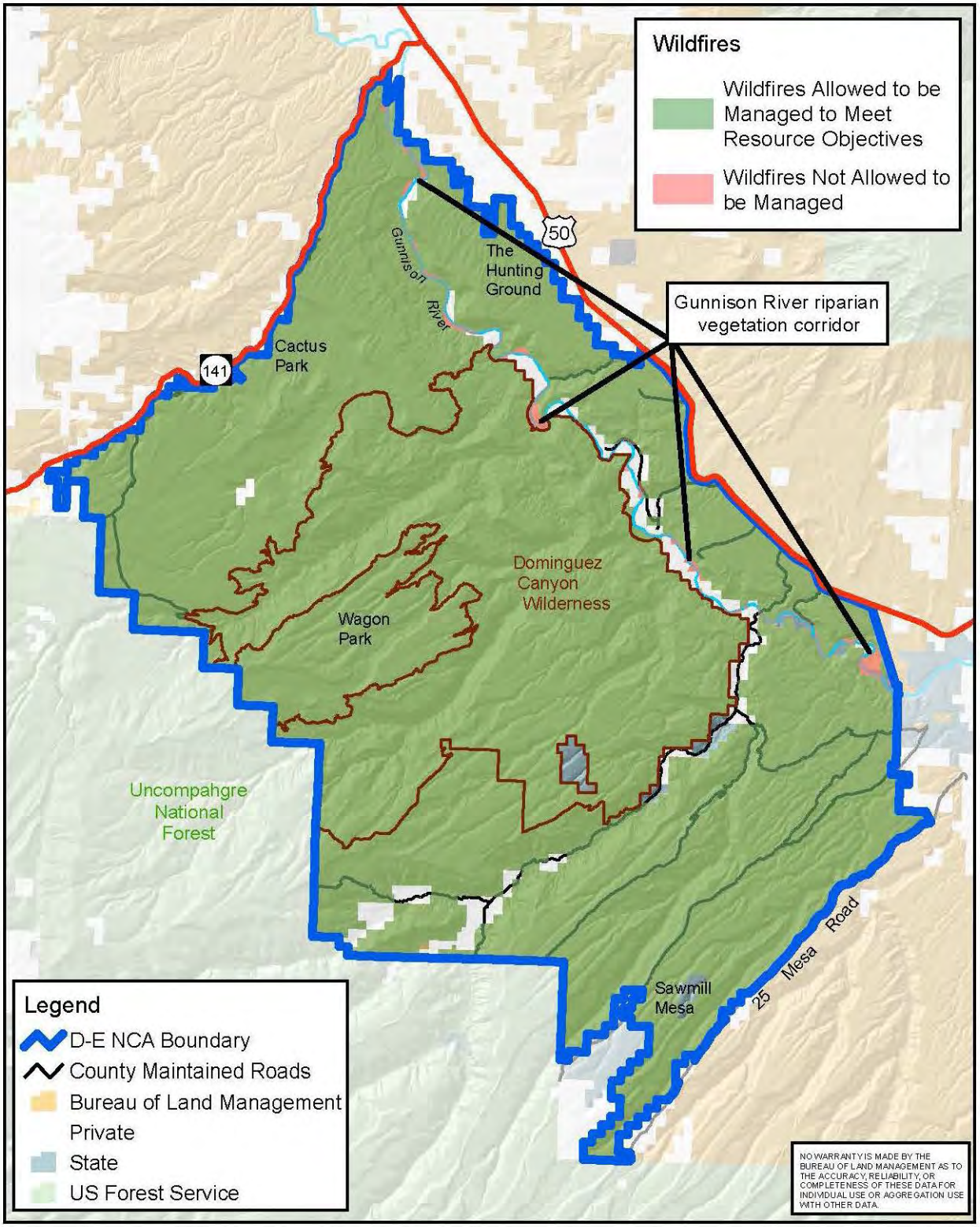


Alternative A: Areas Where Wildfires May be Managed to Meet Resource Objectives

N

0 2.5 5 7.5 10 Miles

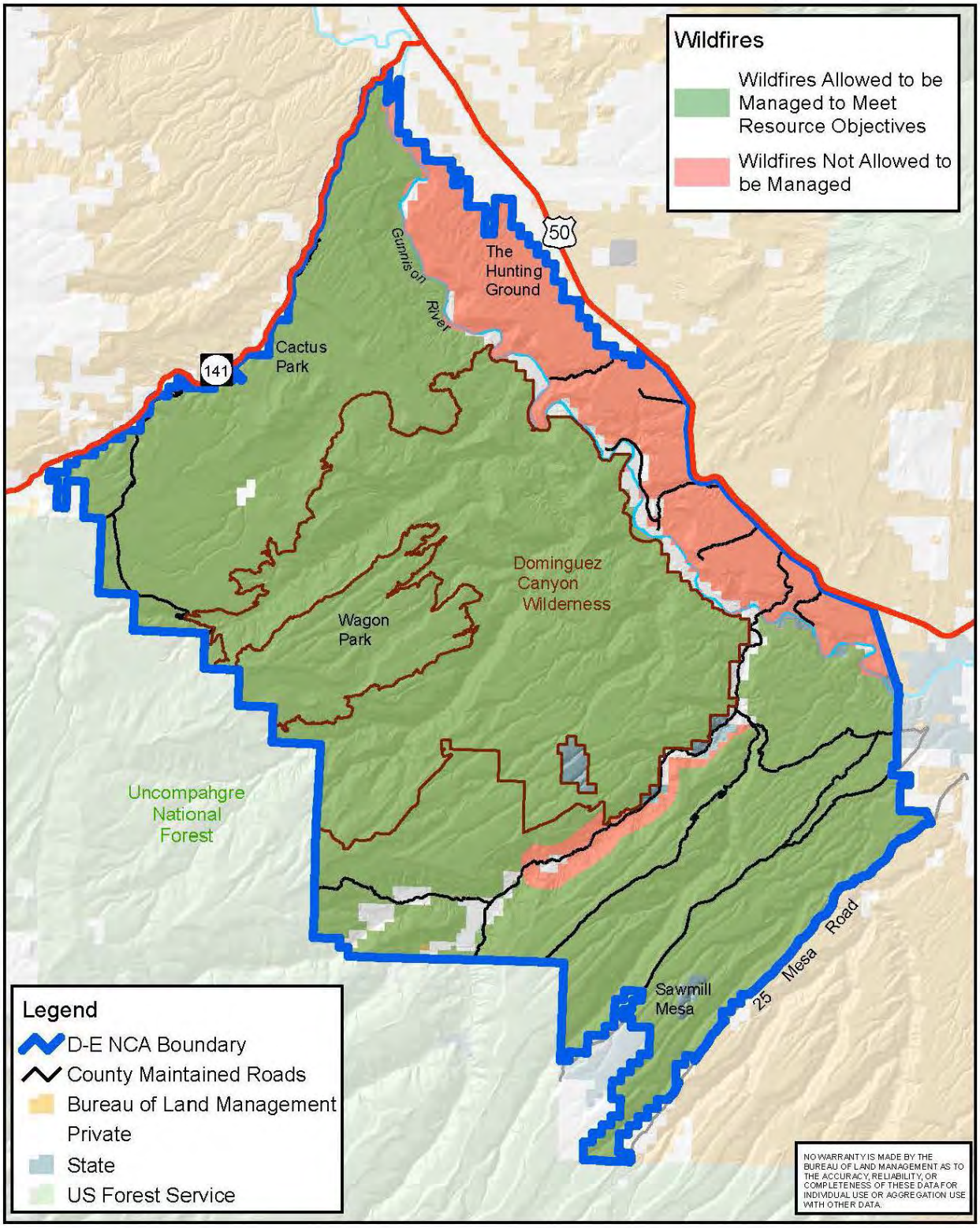
Map 2-6a



Alternative B: Areas Where Wildfires May be Managed to Meet Resource Objectives

N

0 2.5 5 7.5 10 Miles

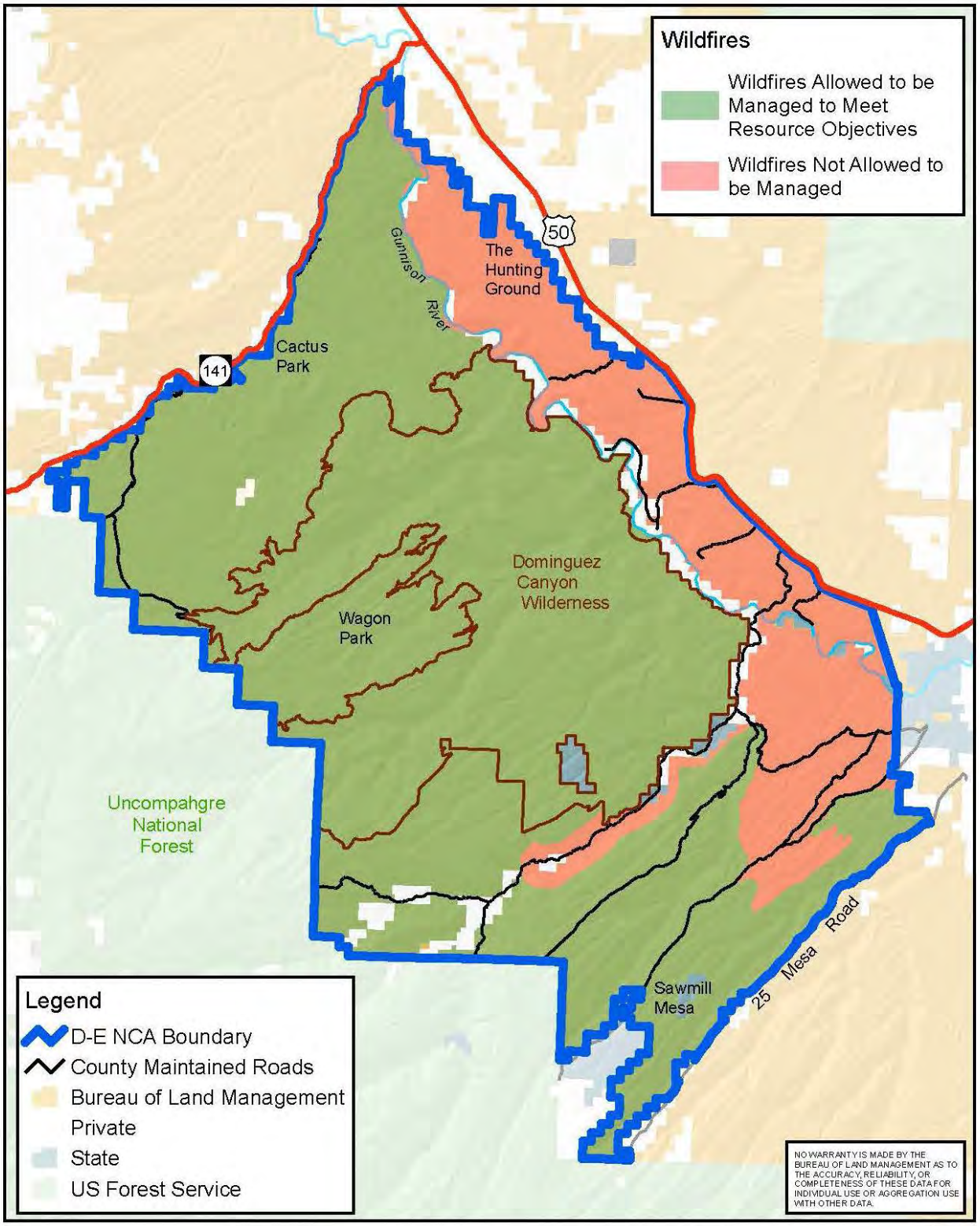


Alternative C: Areas Where Wildfires May be Managed to Meet Resource Objectives

N

0 2.5 5 7.5 10 Miles

Map 2-6c

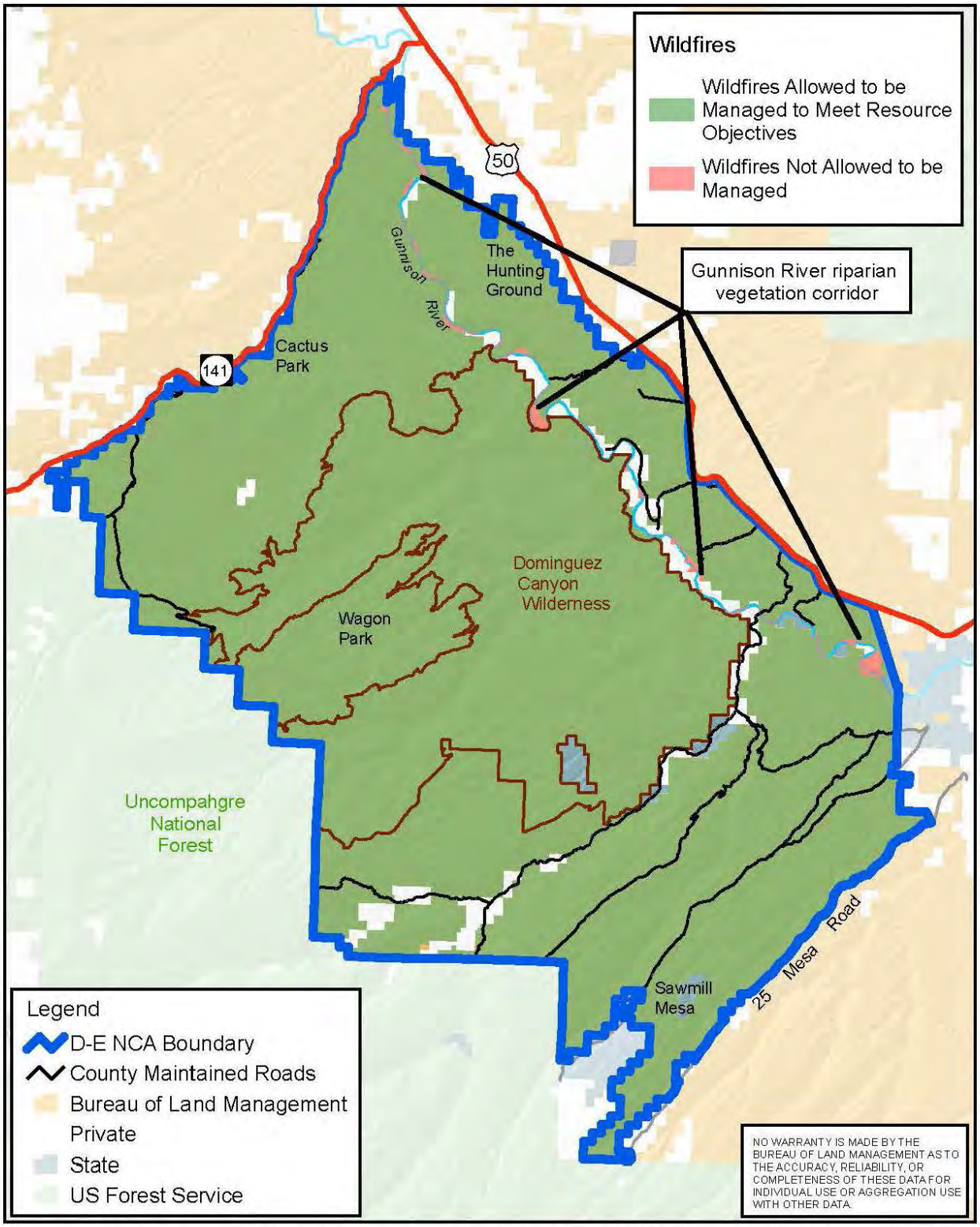


Alternative D: Areas Where Wildfires May be Managed to Meet Resource Objectives

N

0 2.5 5 7.5 10 Miles

Map 2-6d

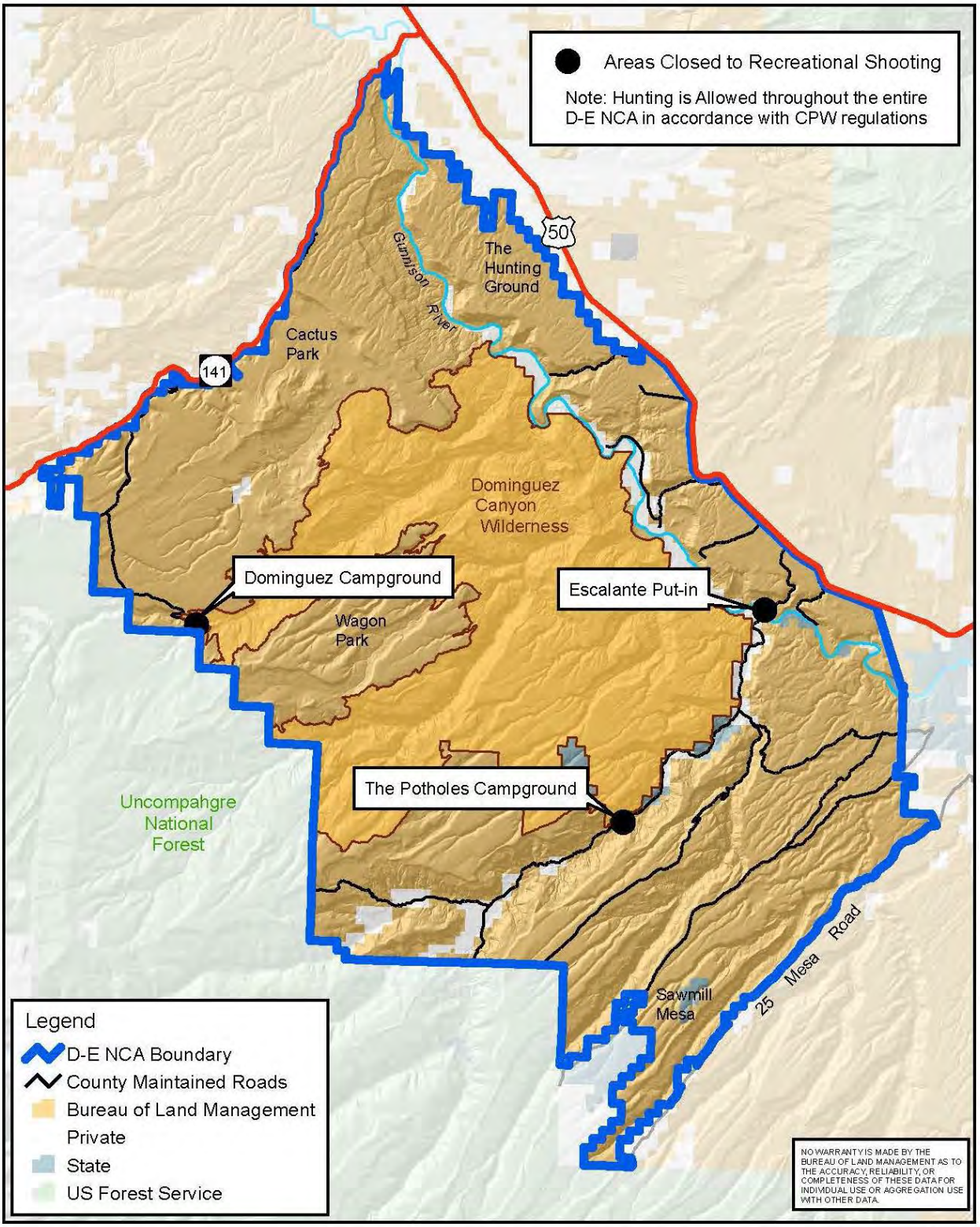


Proposed Plan Alternative: Areas Where Wildfires May be Managed to Meet Resource Objectives

0 2.5 5 7.5 10 Miles

N

Map 2-6p

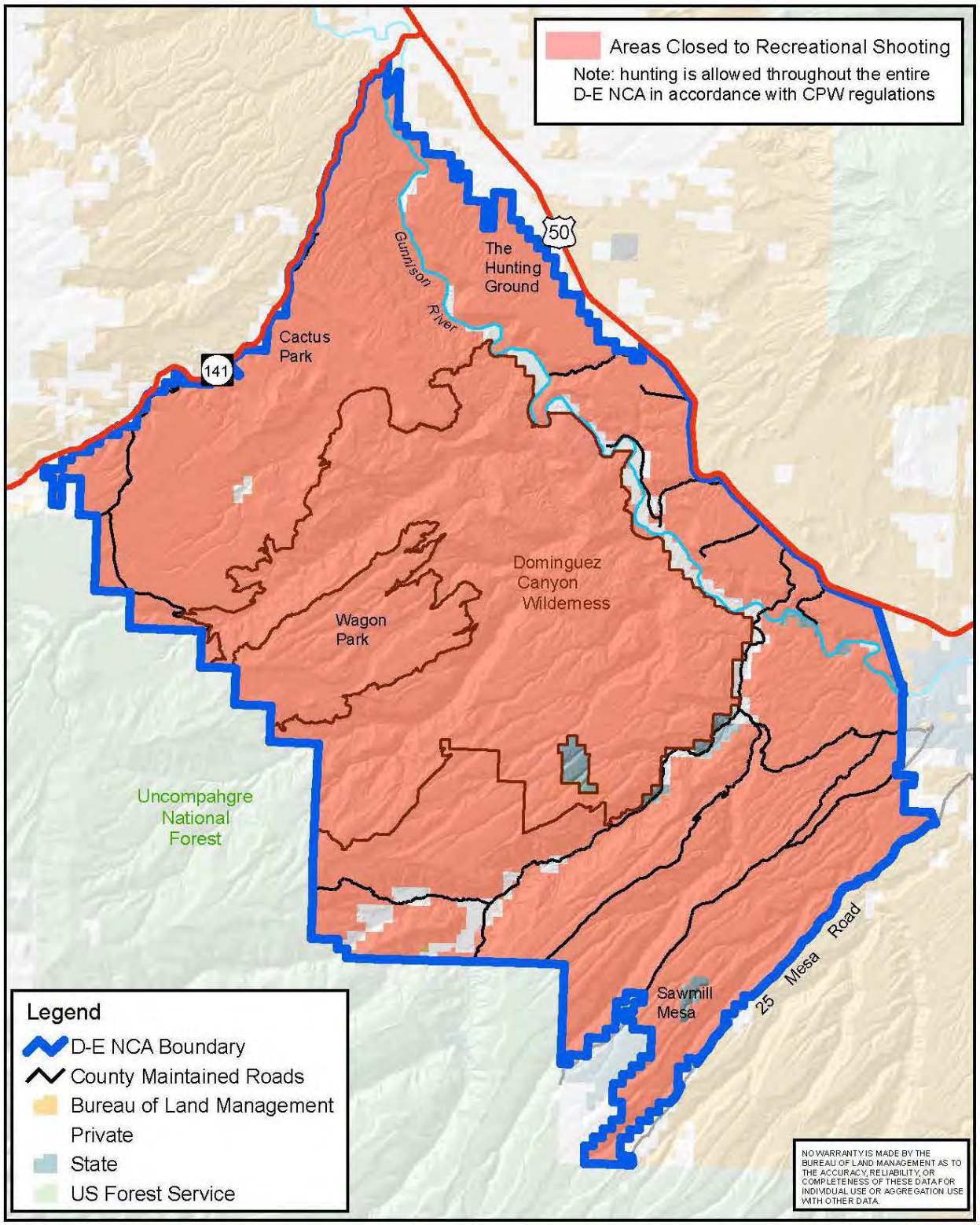


Alternative A: Areas Closed to Recreational Shooting

0 2.5 5 7.5 10 Miles

N

Map 2-7a

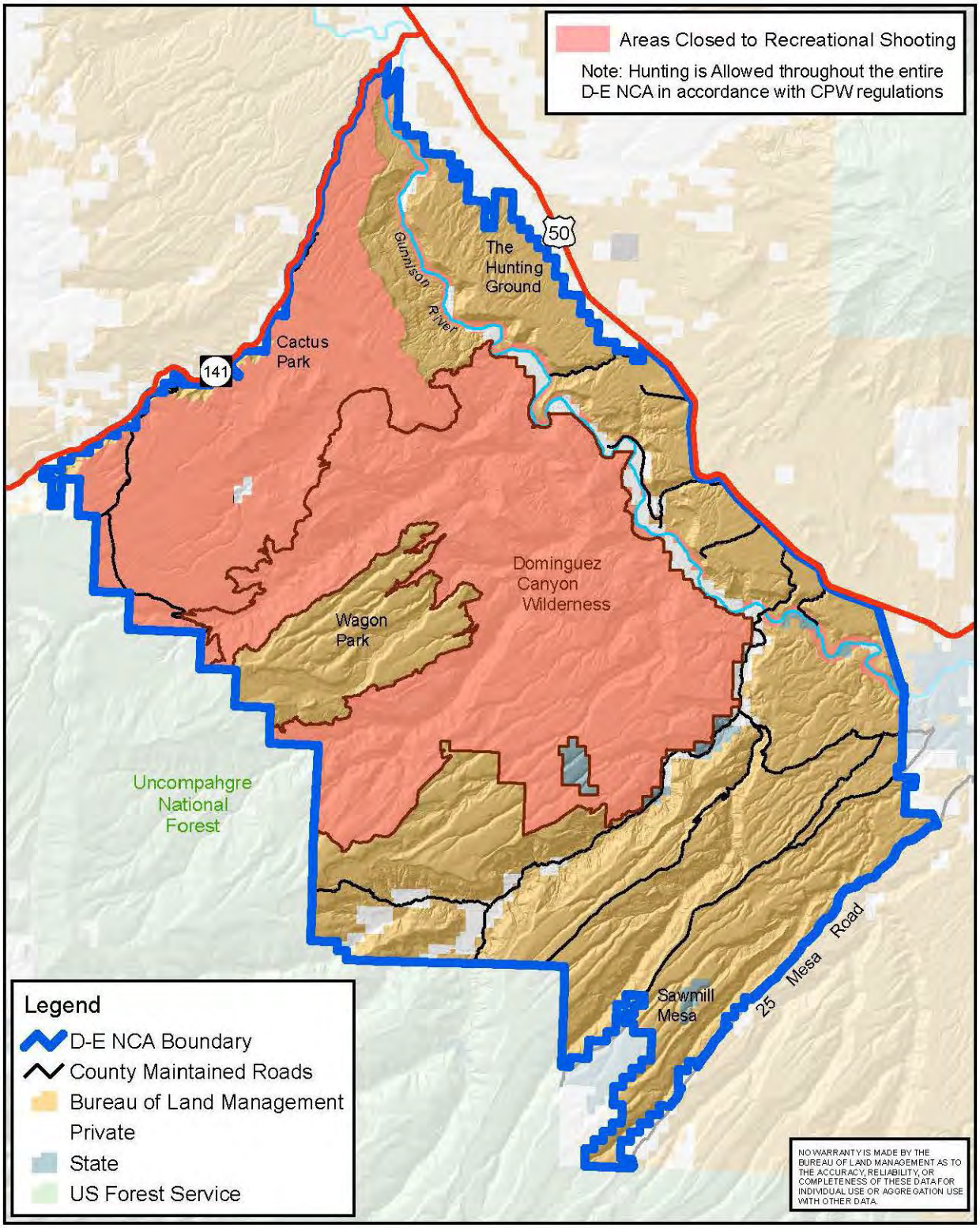


Alternative B: Areas Closed to Recreational Shooting

0 2.5 5 7.5 10 Miles

N

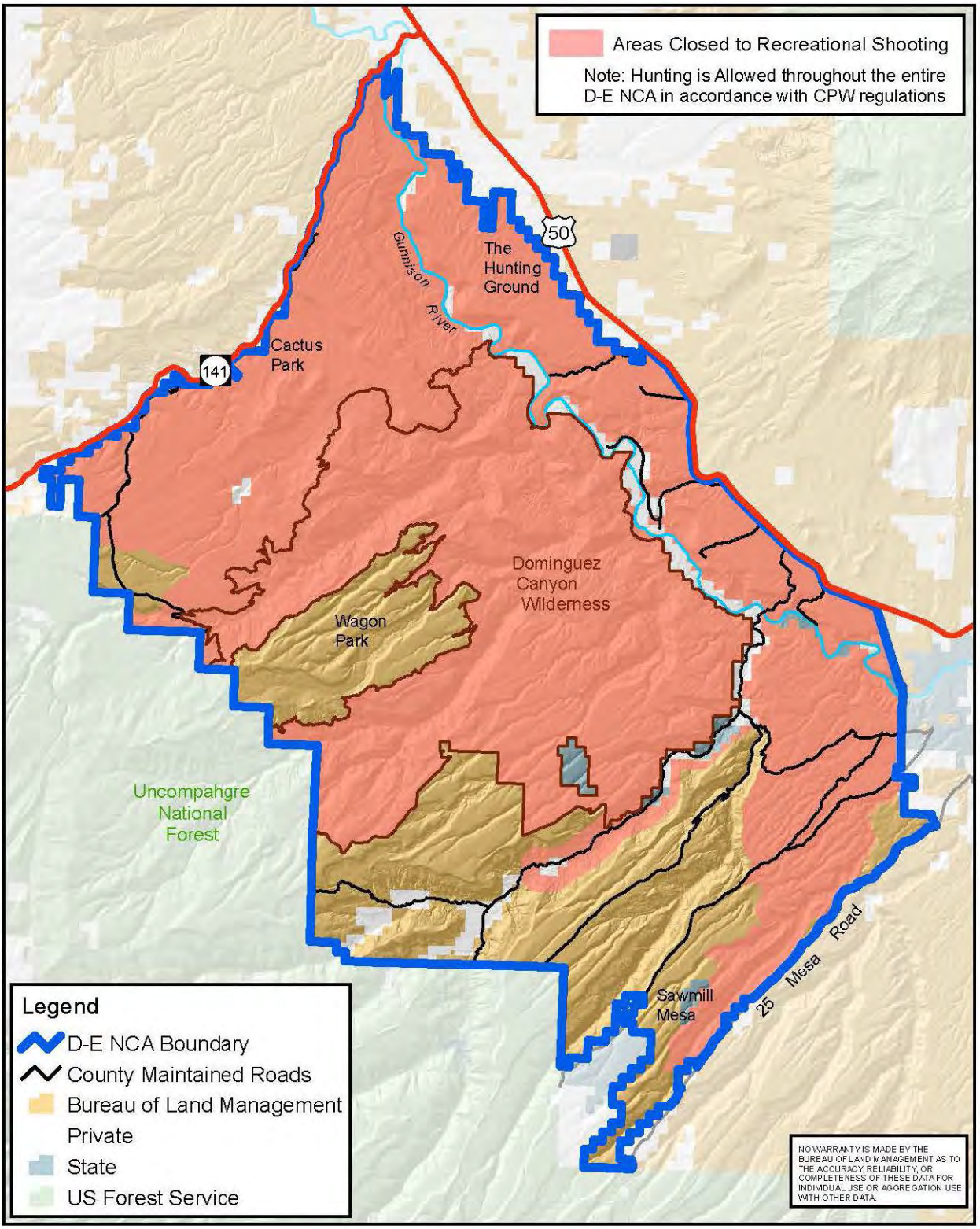
Map 2-7b



Alternative C: Areas Closed to Recreational Shooting

0 2.5 5 7.5 10 Miles

N

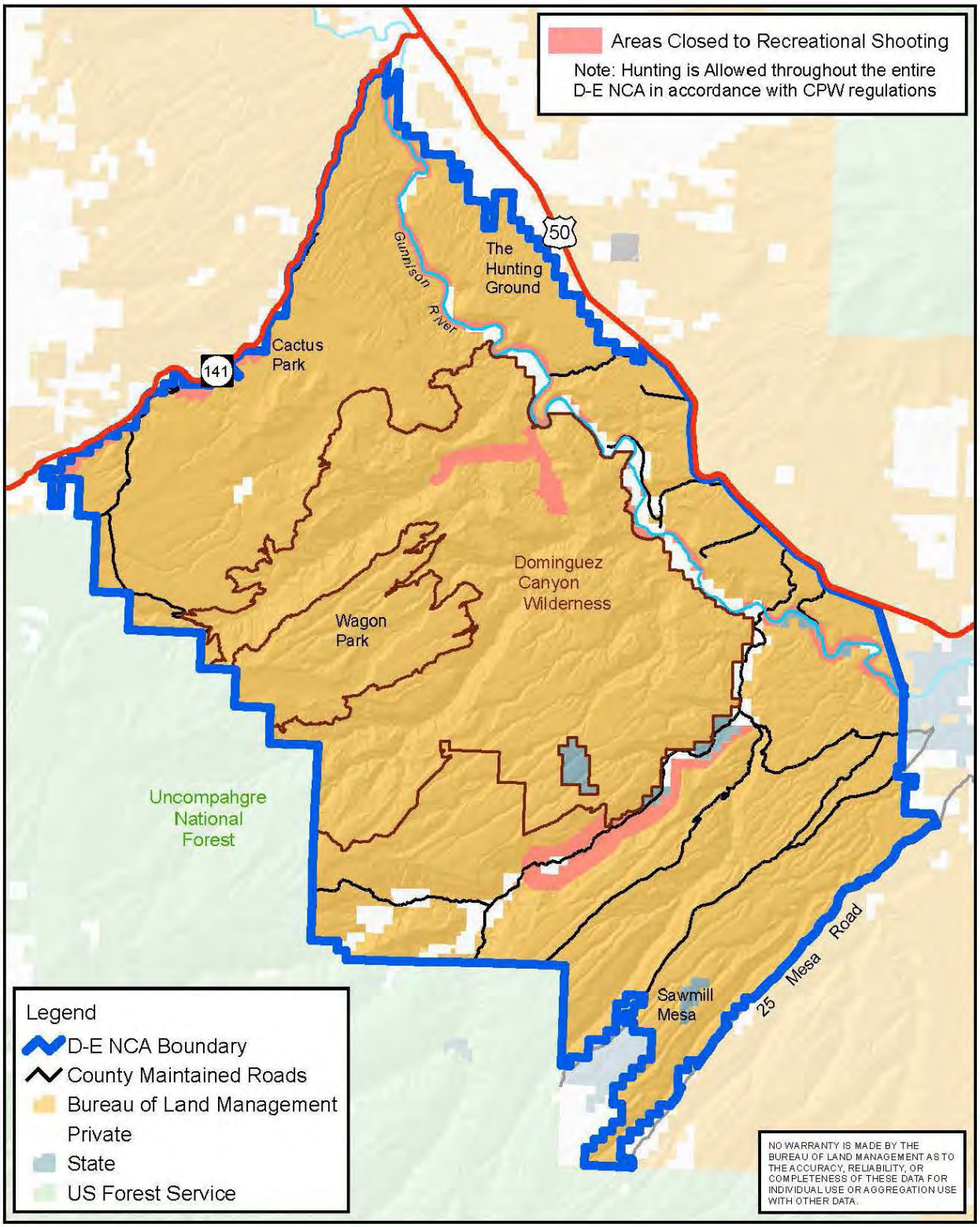


Alternative D: Areas Closed to Recreational Shooting

0 2.5 5 7.5 10 Miles

N

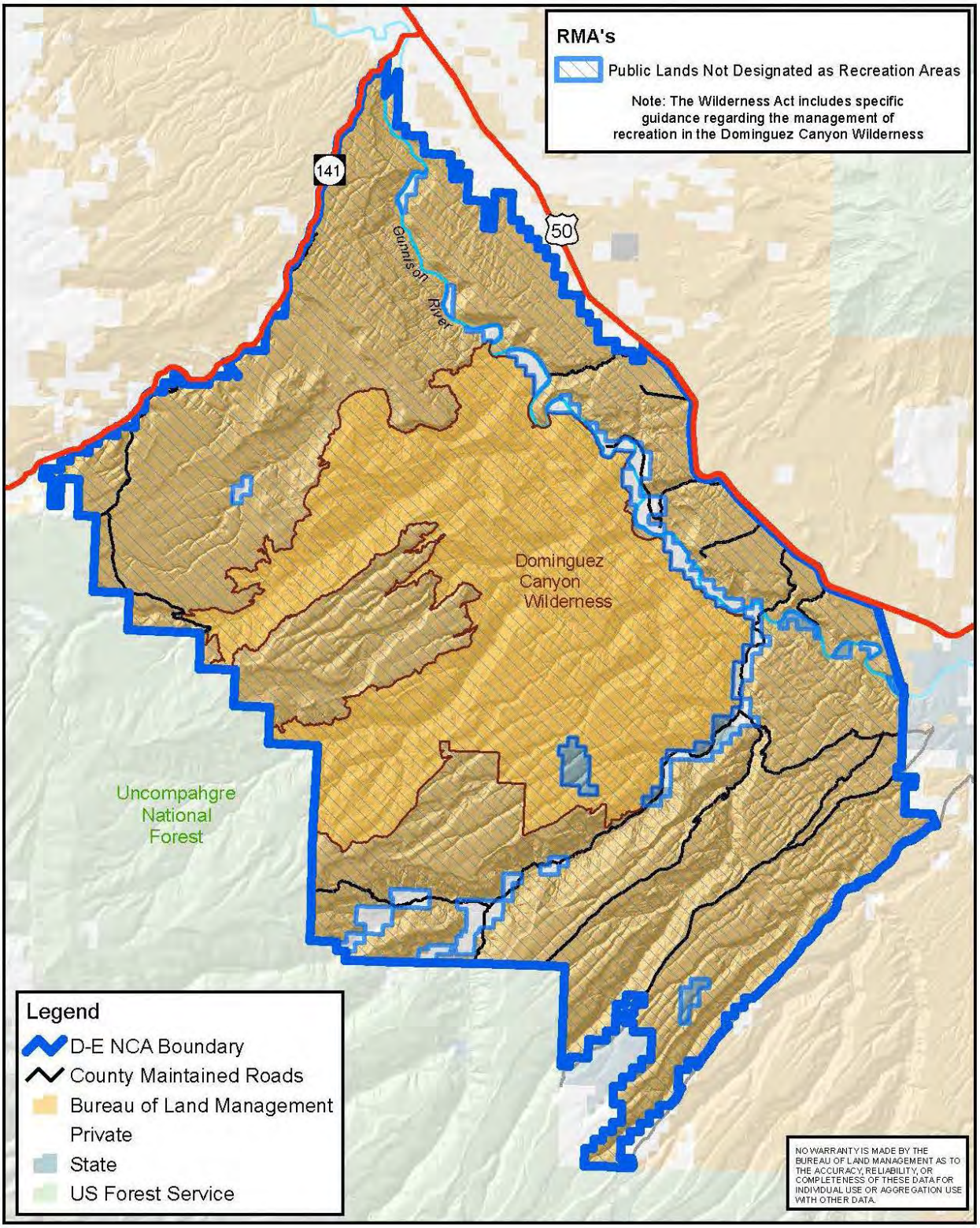
Map 2-7d



Proposed Plan Alternative: Areas Closed to Recreational Shooting

0 2.5 5 7.5 10 Miles

N

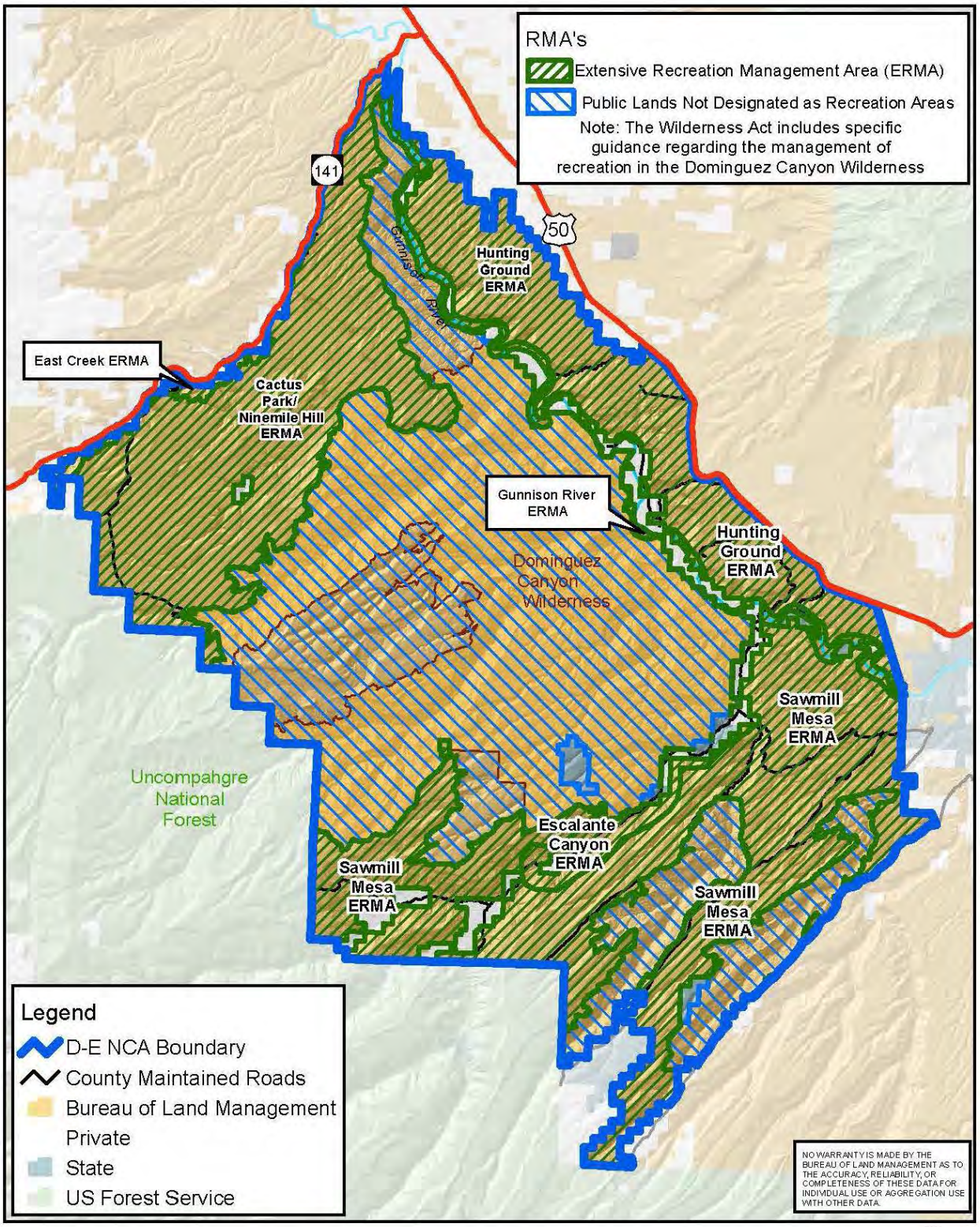


Alternative A: Recreation Management Areas

0 2.5 5 7.5 10 Miles

N

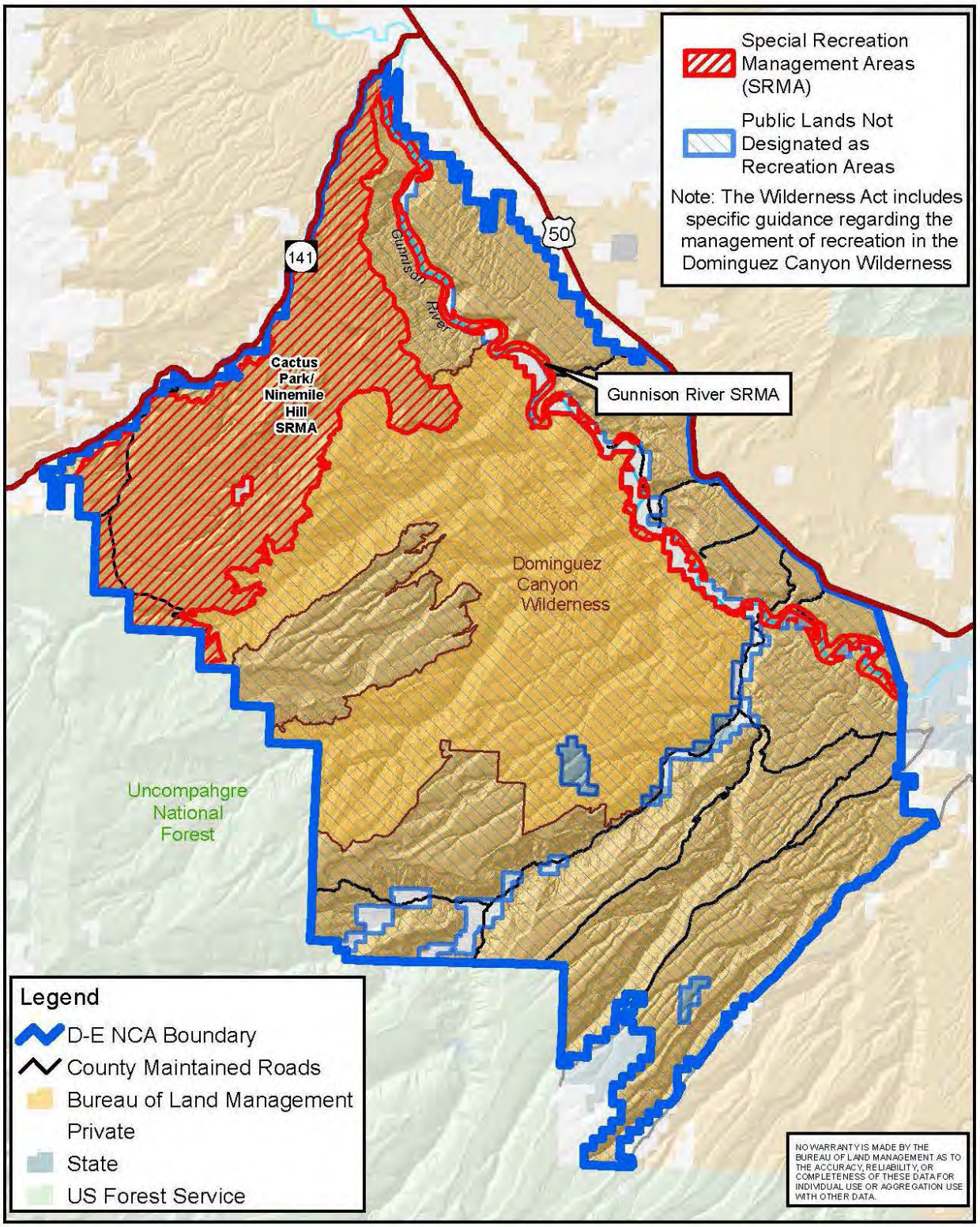
Map 2-8a



Alternative B: Recreation Management Areas

0 2.5 5 7.5 10 Miles

N

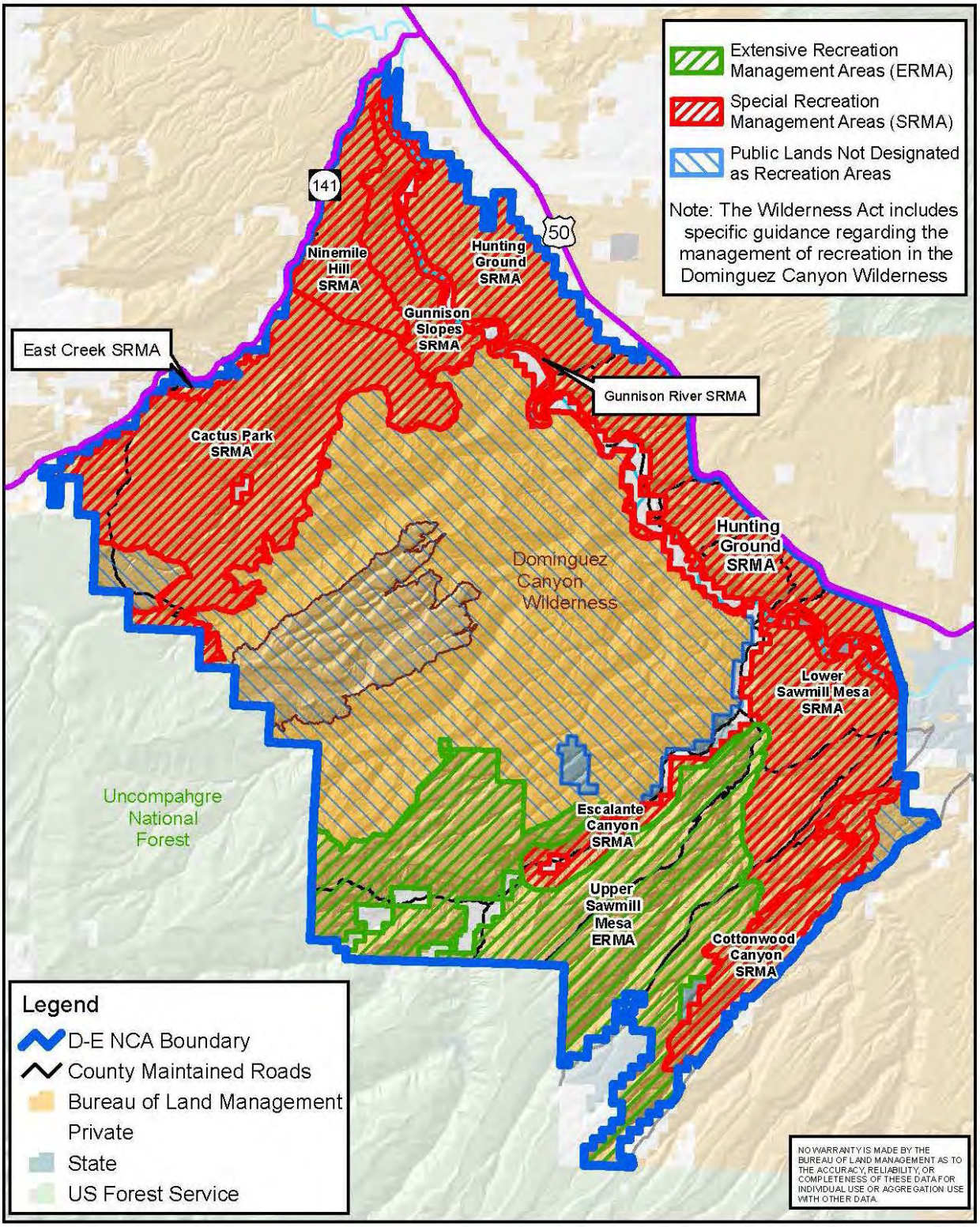


Alternative C: Recreation Management Areas

0 2.5 5 7.5 10 Miles

N

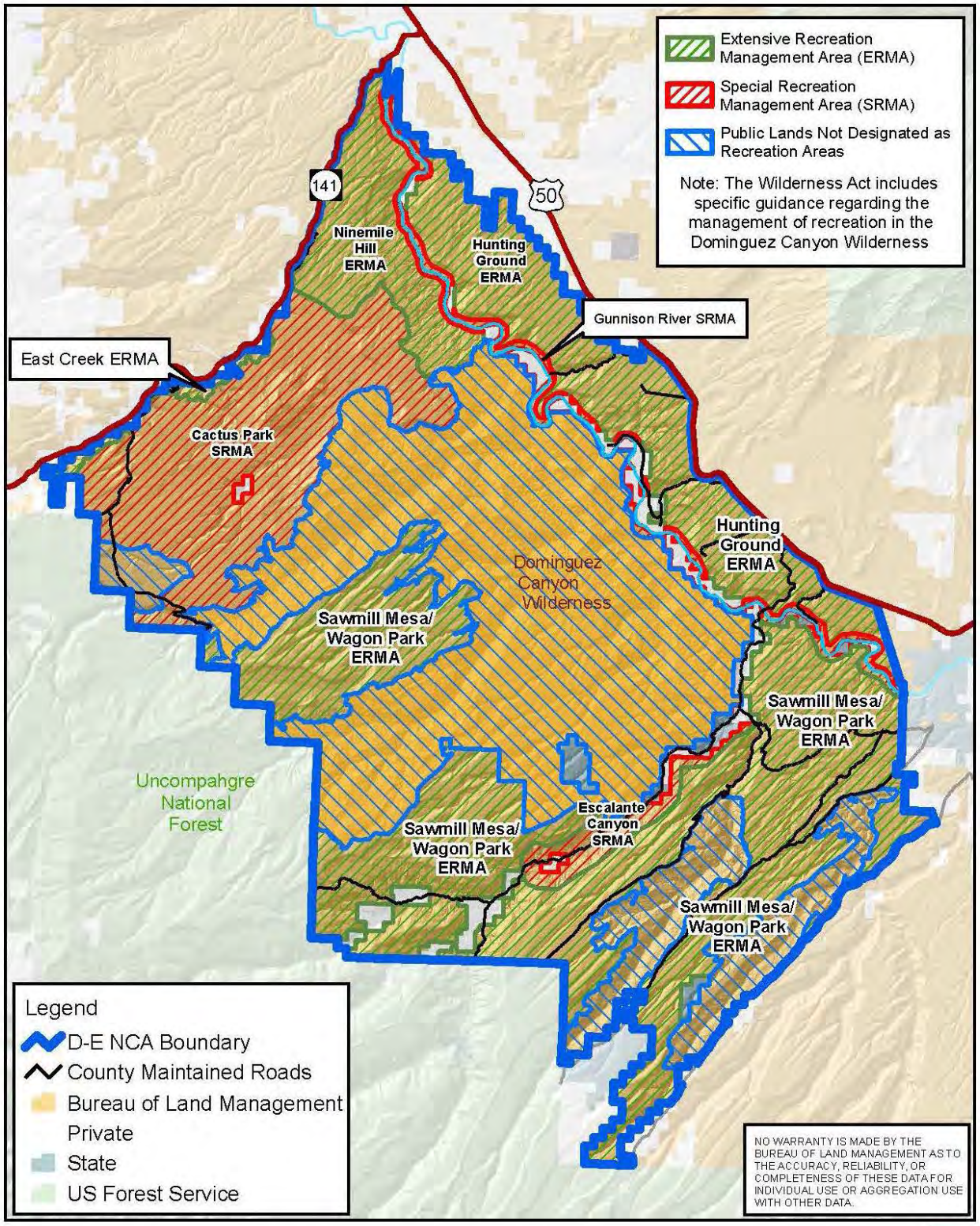
Map 2-8c



Alternative D: Recreation Management Areas

0 2.5 5 7.5 10 Miles

N

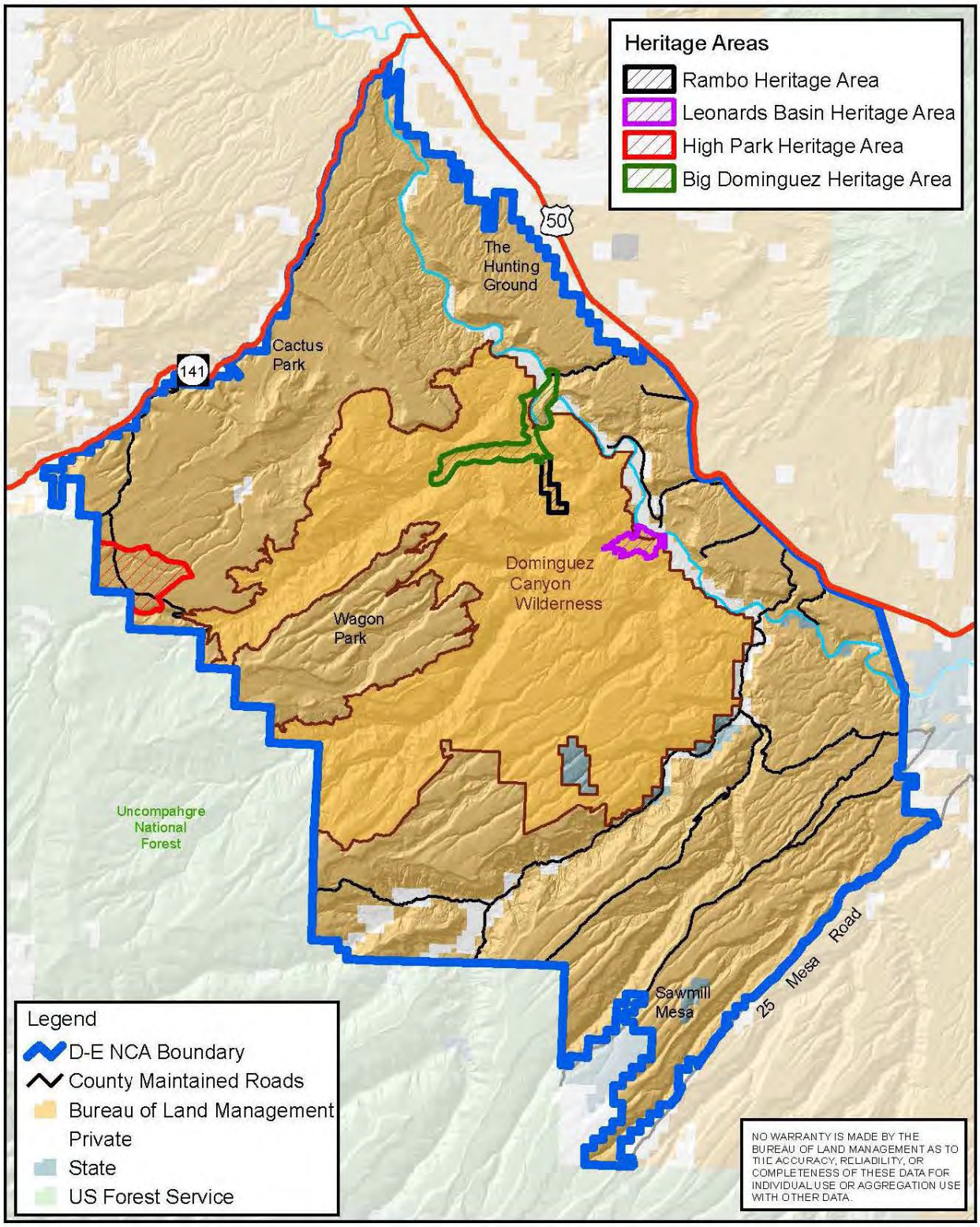


Proposed Plan Alternative: Recreation Management Areas

0 2.5 5 7.5 10 Miles

N

Map 2-8p

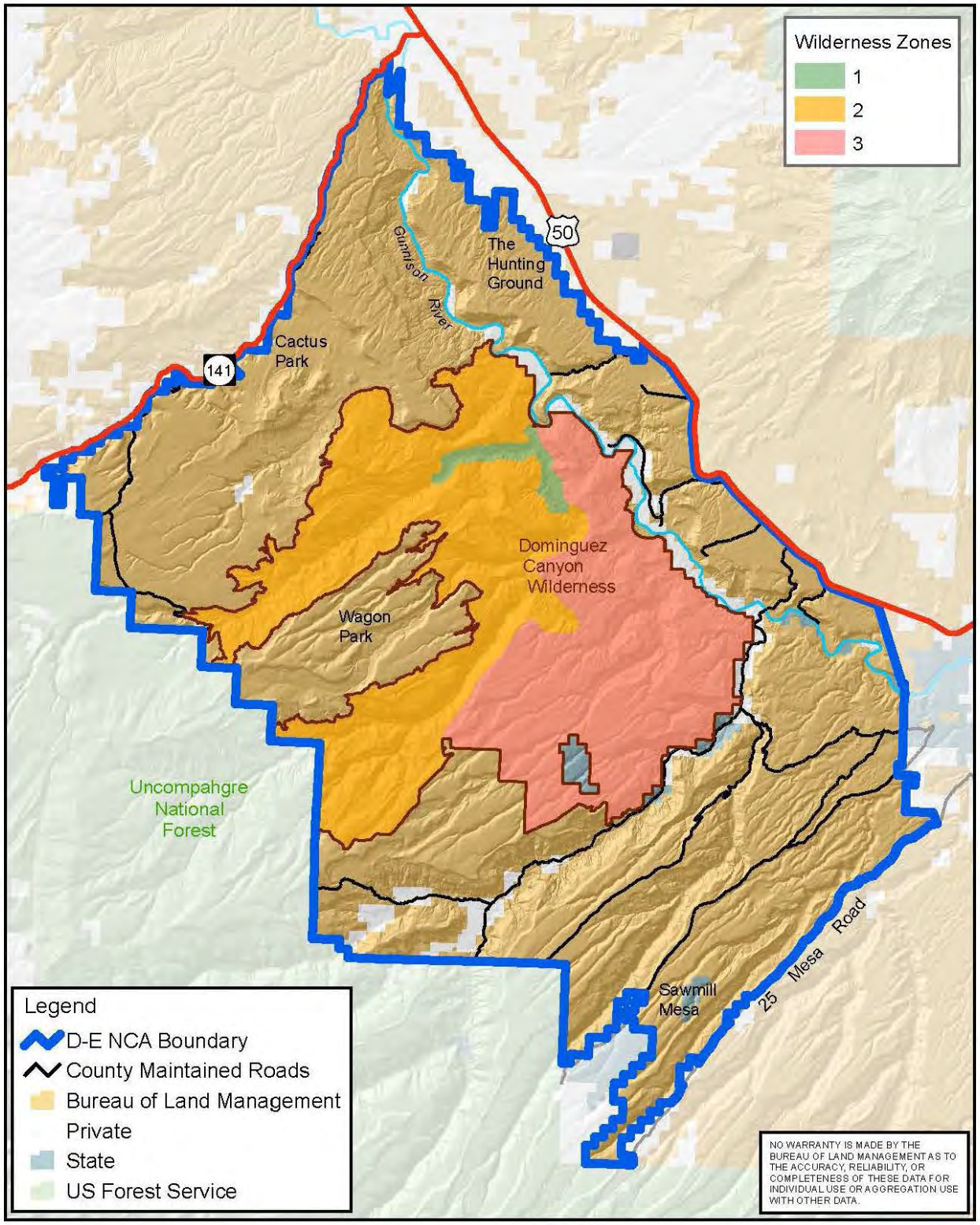


Proposed Plan Alternative: Heritage Areas

0 2.5 5 7.5 10 Miles

N

Map 2-9p

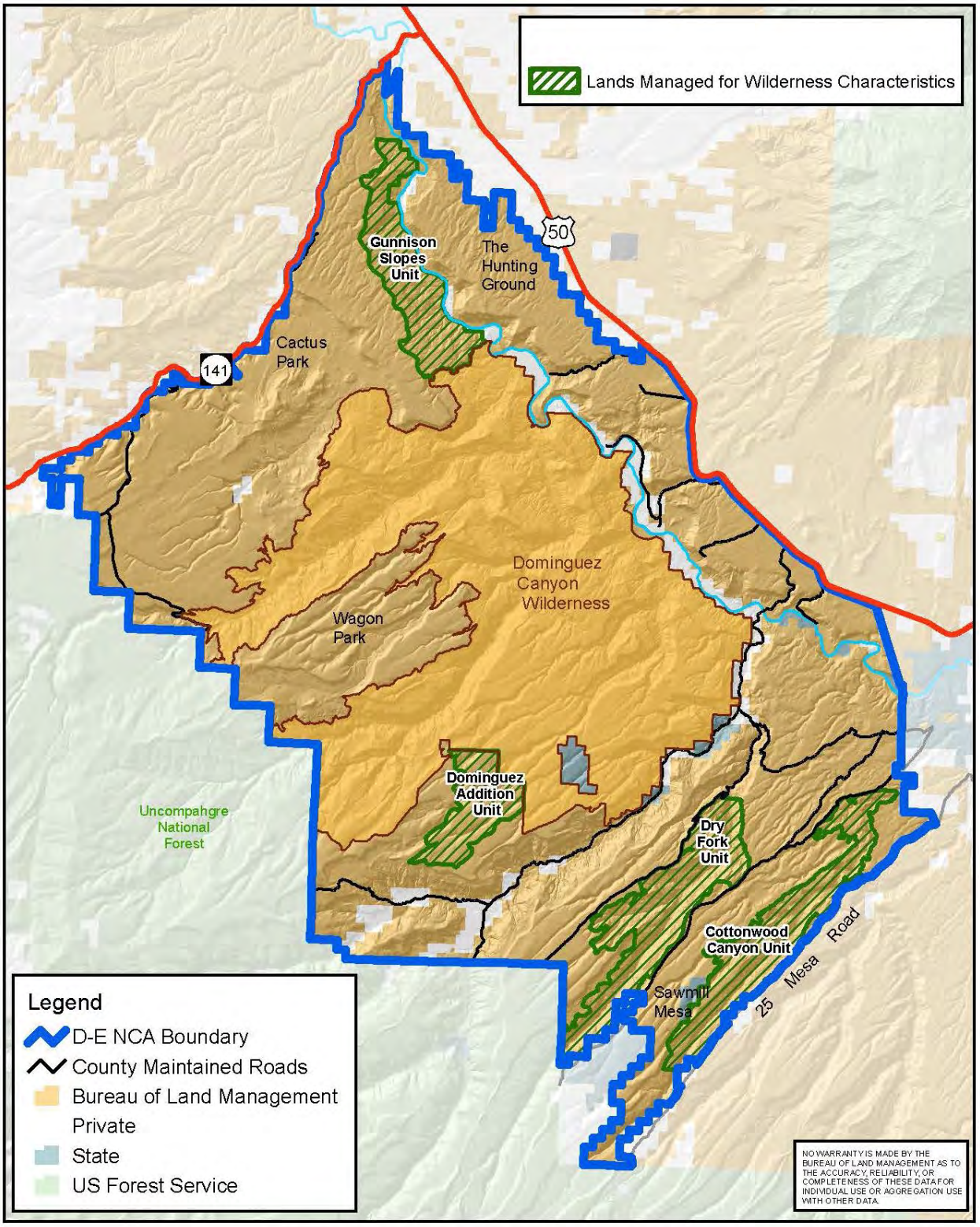


Proposed Plan Alternative: Wilderness Management Zones

0 2.5 5 7.5 10 Miles

N

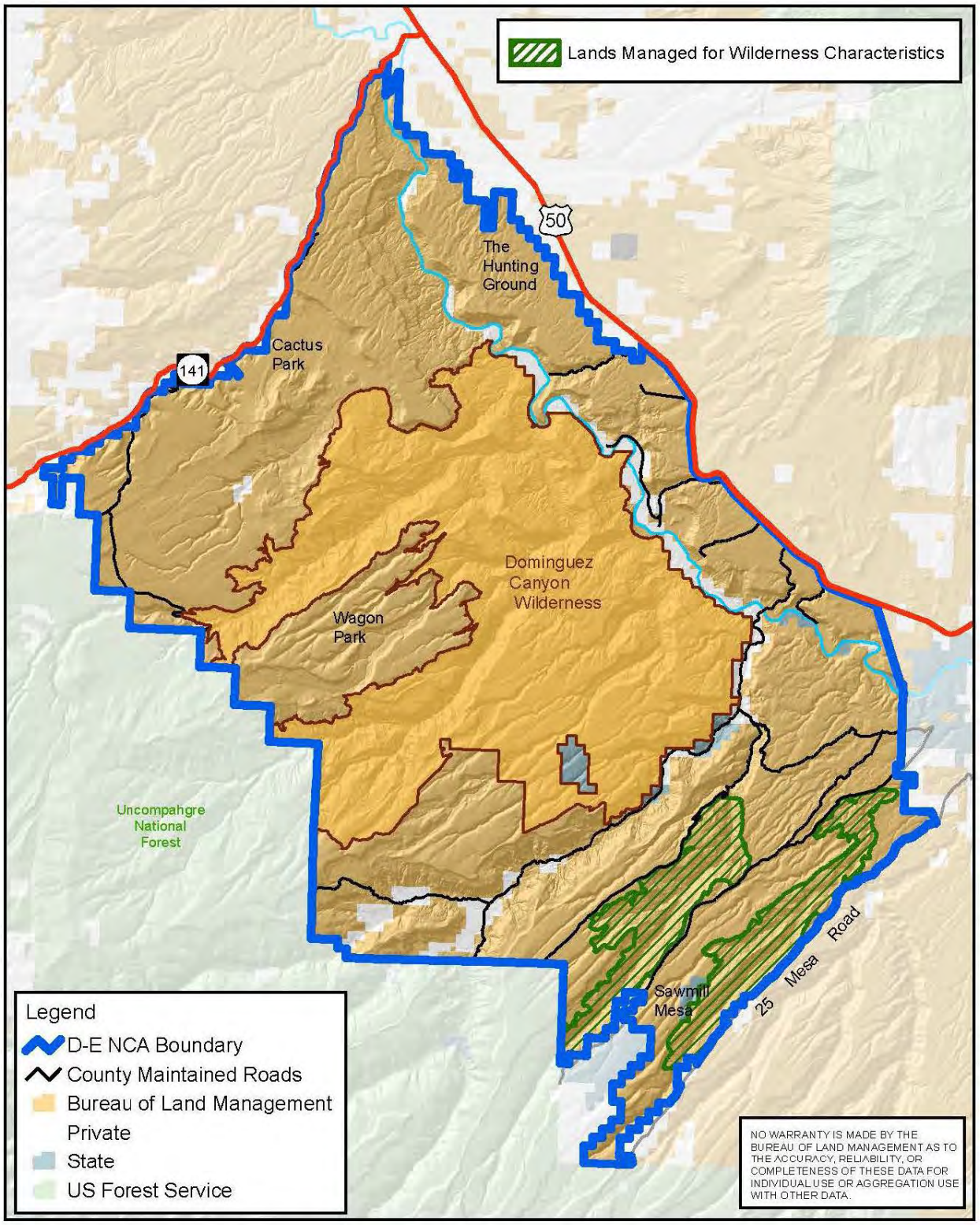
Map 2-10p



Alternative B: Lands Managed for Wilderness Characteristics
(Outside of designated Wilderness and WSAs)

0 2.5 5 7.5 10 Miles

N

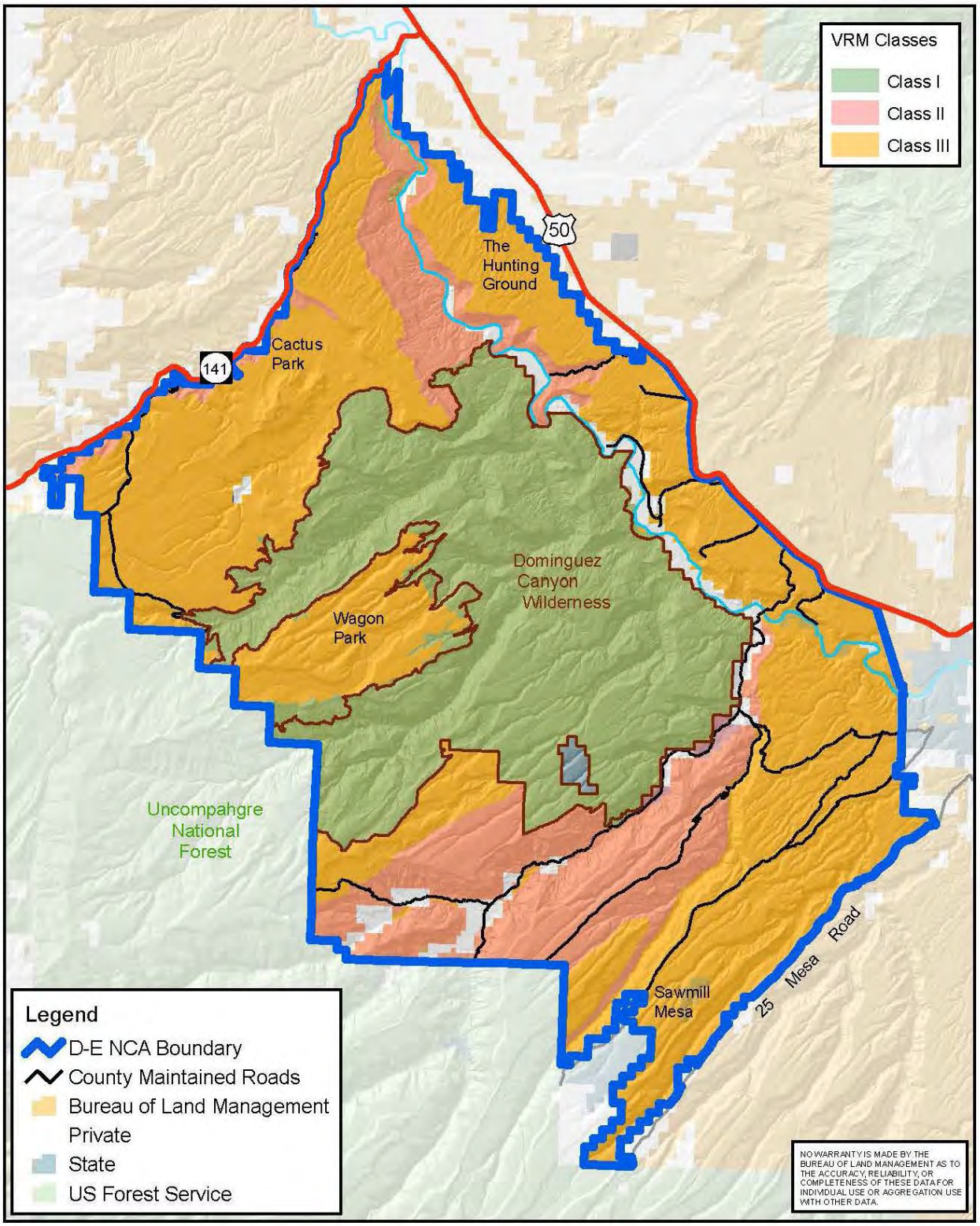


Proposed Plan Alternative: Lands Managed for Wilderness Characteristics
(Outside of designated Wilderness and WSAs)

N

0 2.5 5 7.5 10 Miles

Map 2-11p

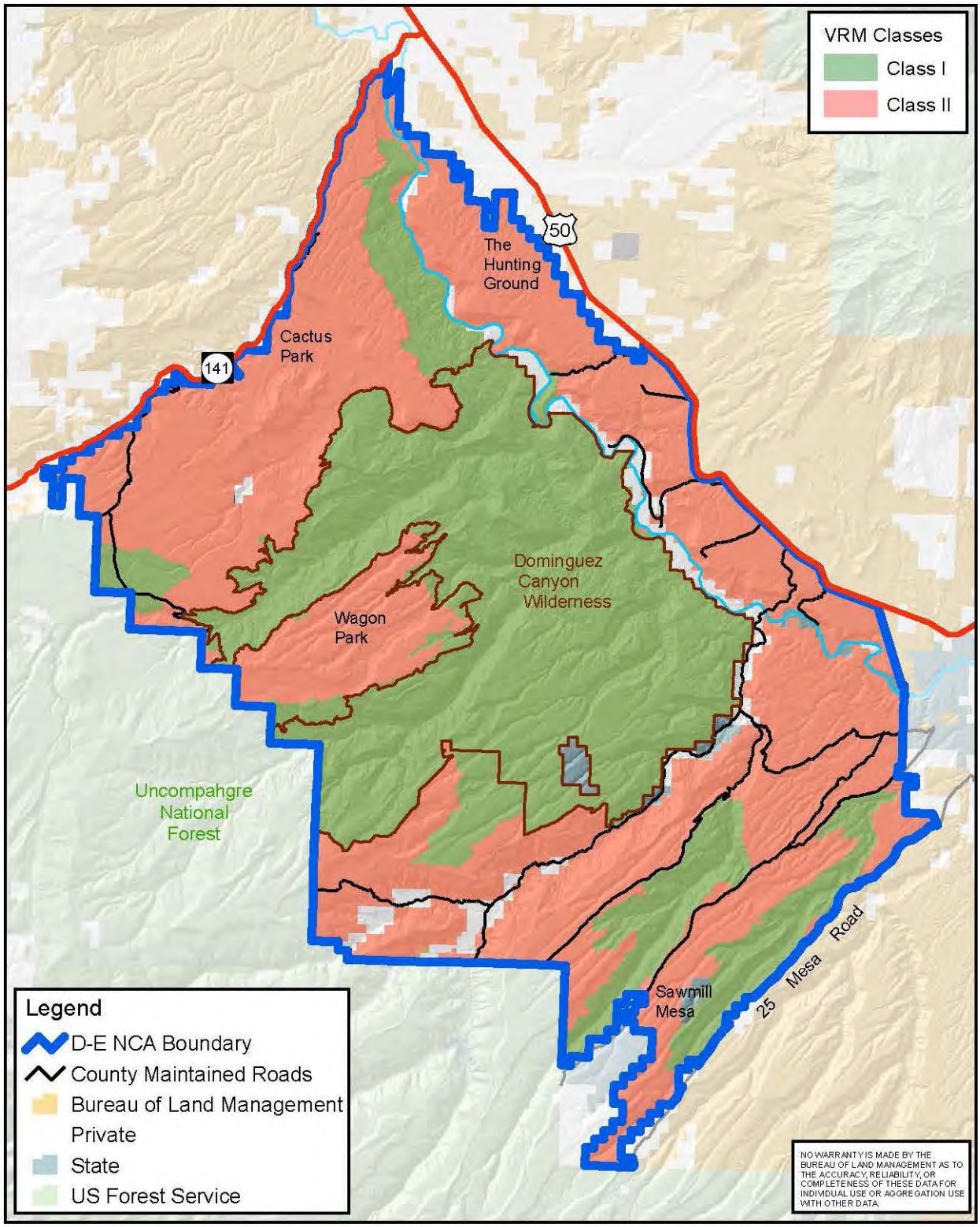


Alternative A: Visual Resource Management

0 2.5 5 7.5 10 Miles

N

Map 2-12a

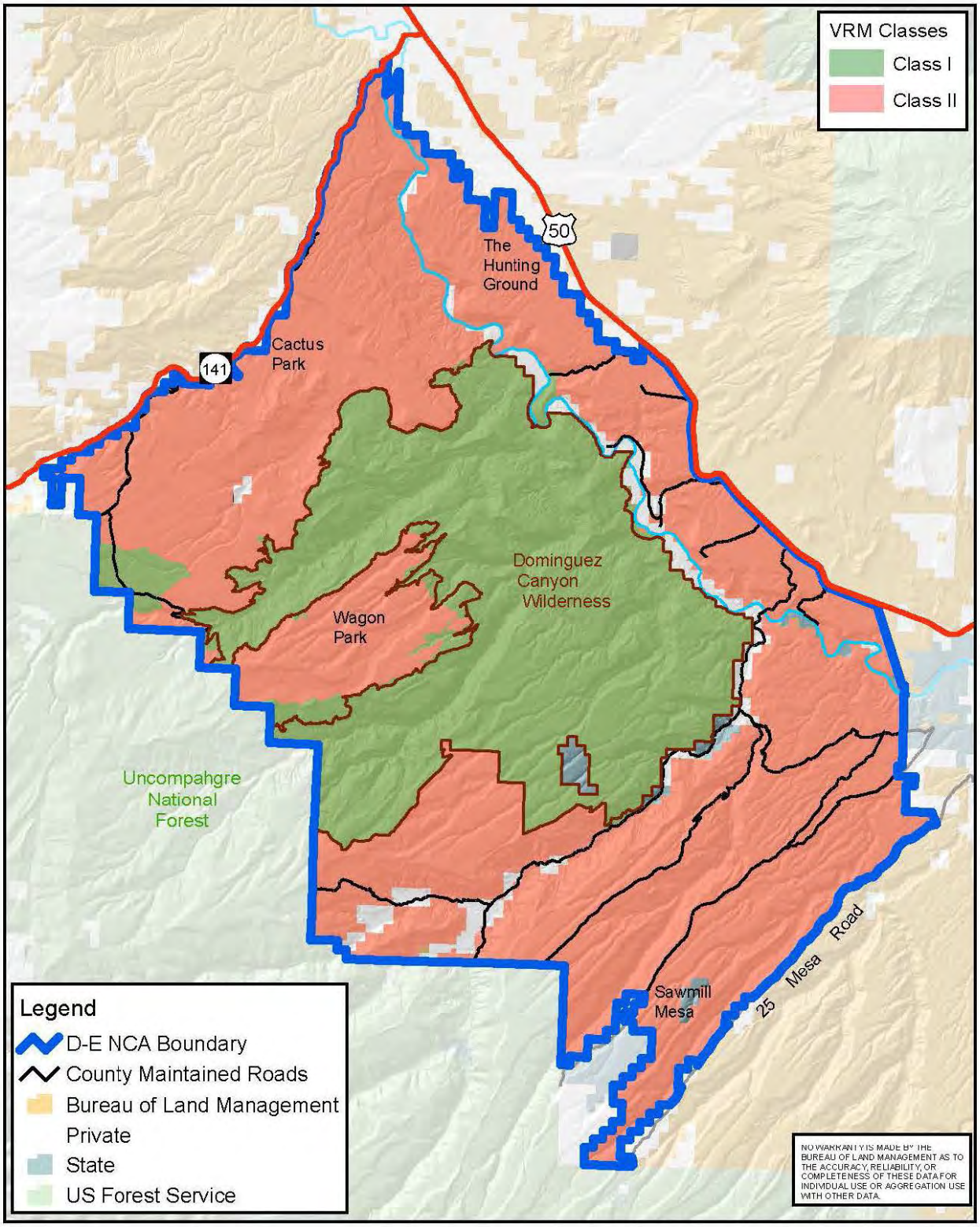


Alternative B: Visual Resource Management

0 2.5 5 7.5 10 Miles

N

Map 2-12b

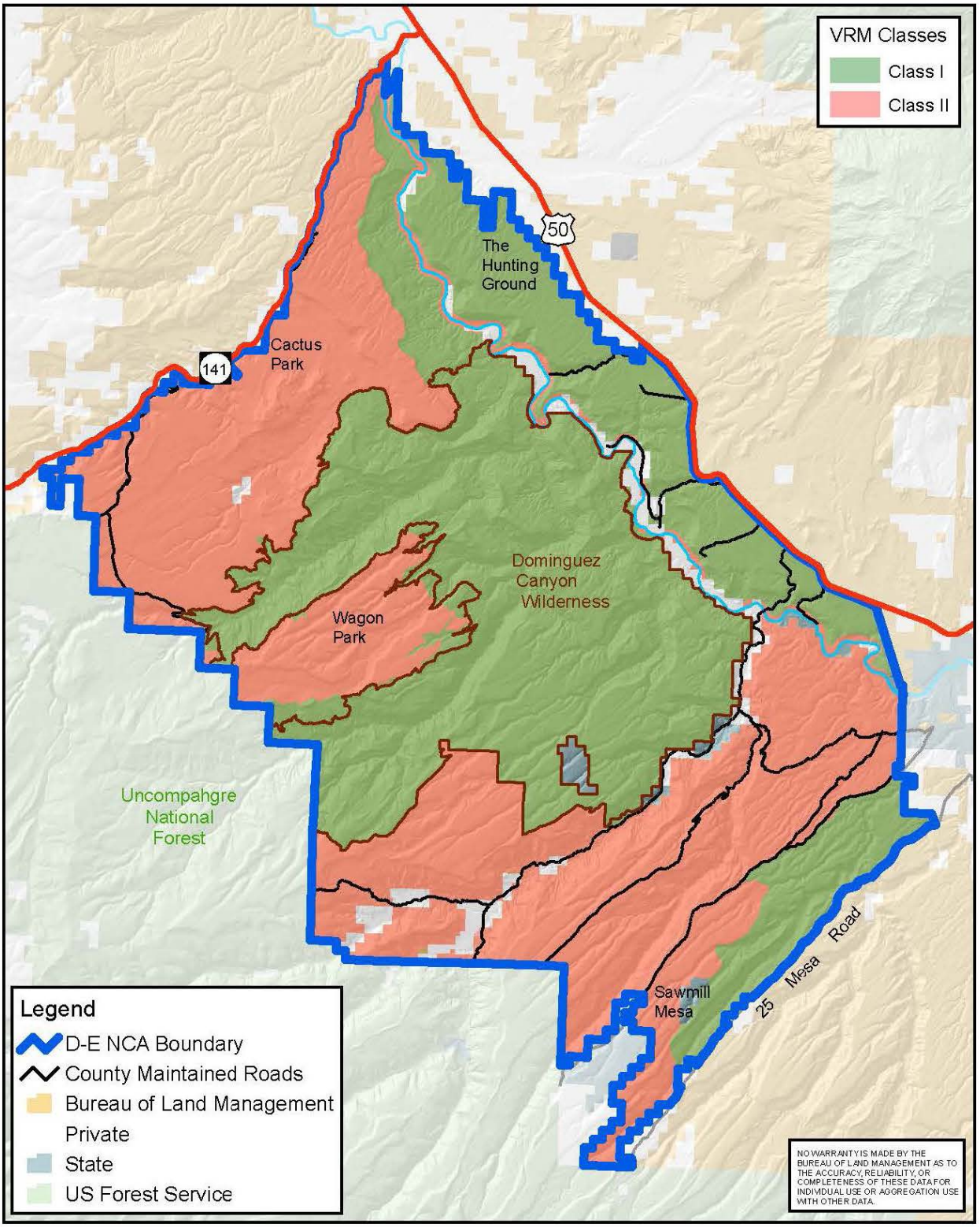


Alternative C: Visual Resource Management

0 2.5 5 7.5 10 Miles

N

Map 2-12c

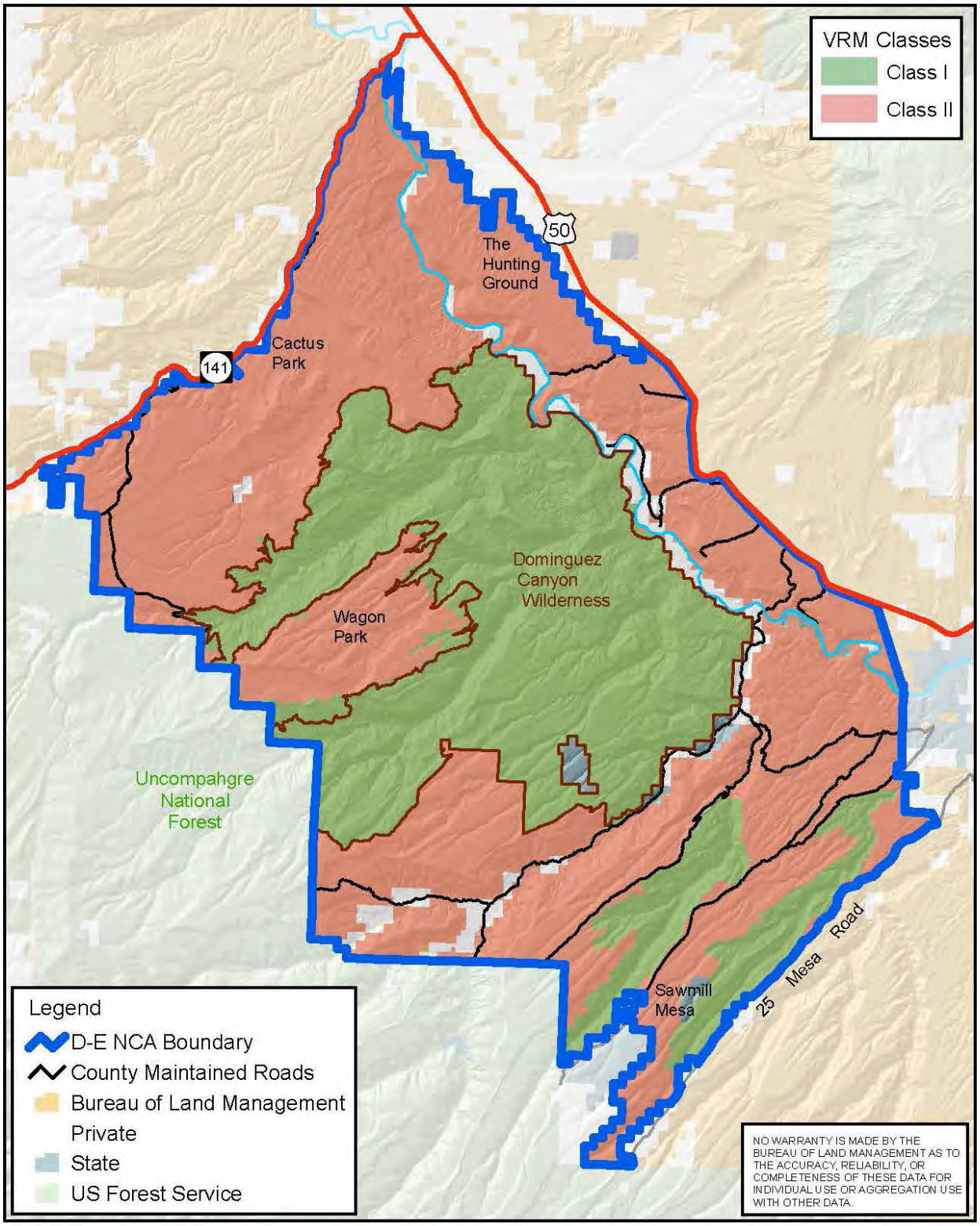


Alternative D: Visual Resource Management

0 2.5 5 7.5 10 Miles

N

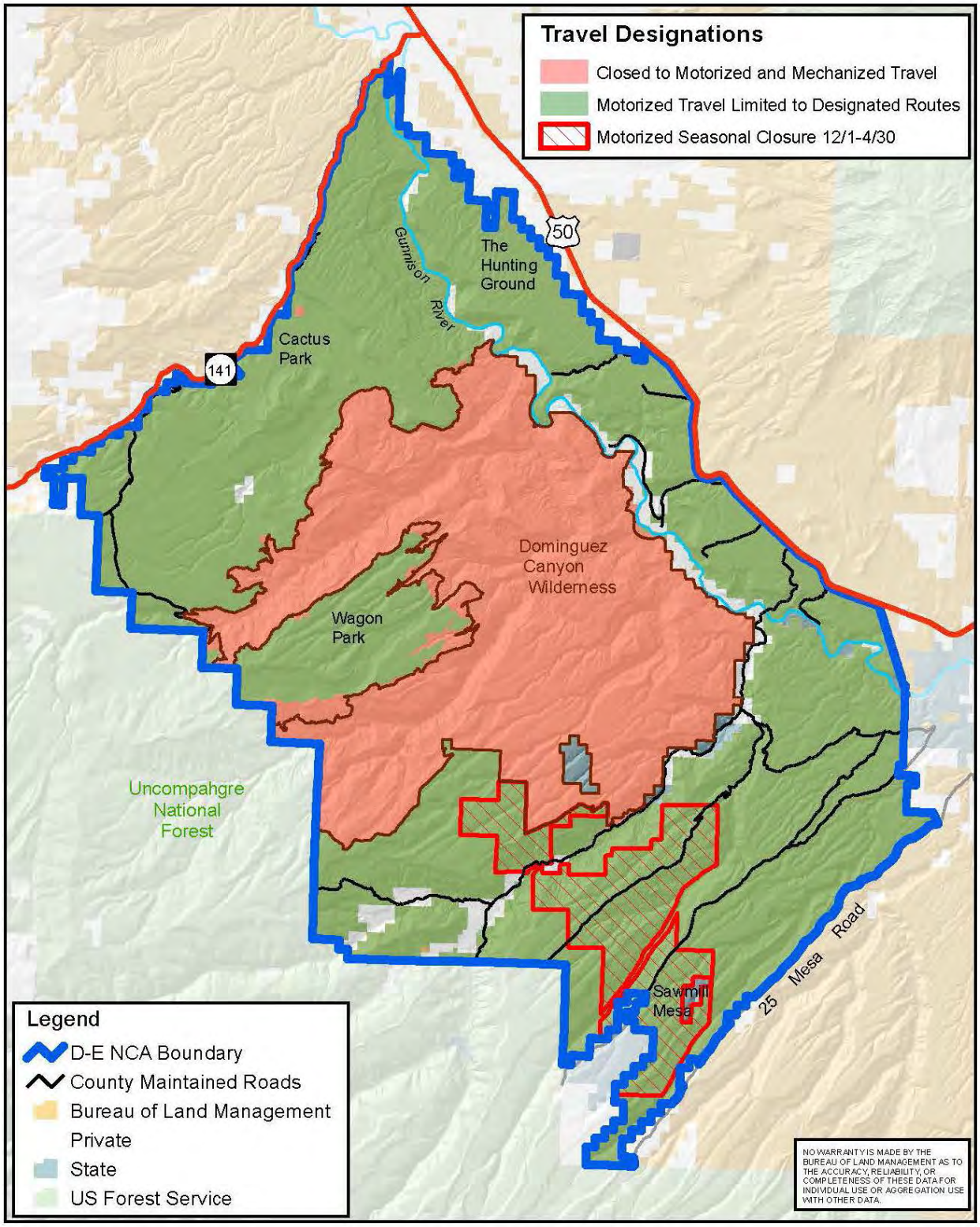
Map 2-12d



Proposed Plan Alternative: Visual Resource Management

N

0 2.5 5 7.5 10 Miles

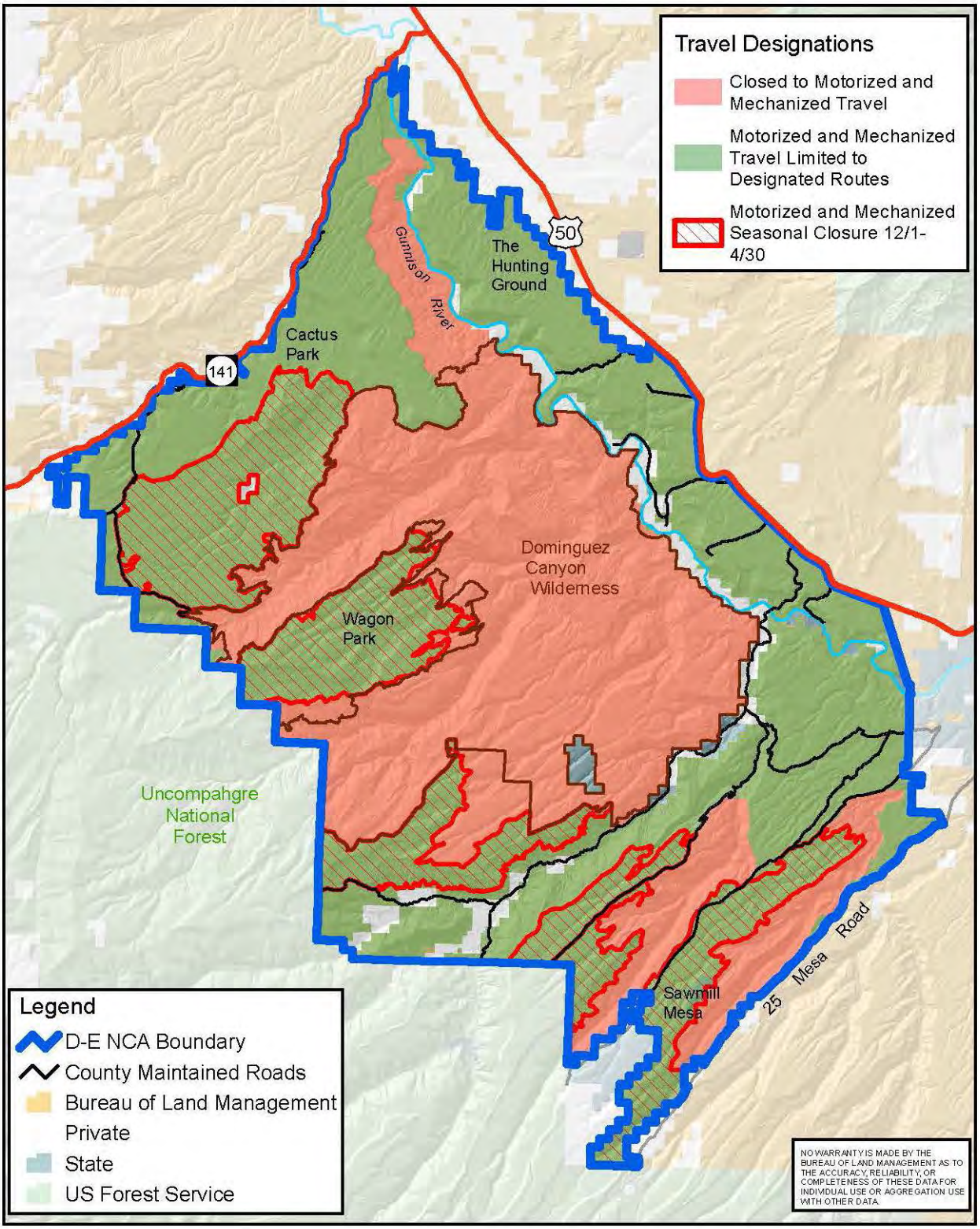


Alternative A: Travel Area Designations

0 2.5 5 7.5 10 Miles

N

Map 2-13a

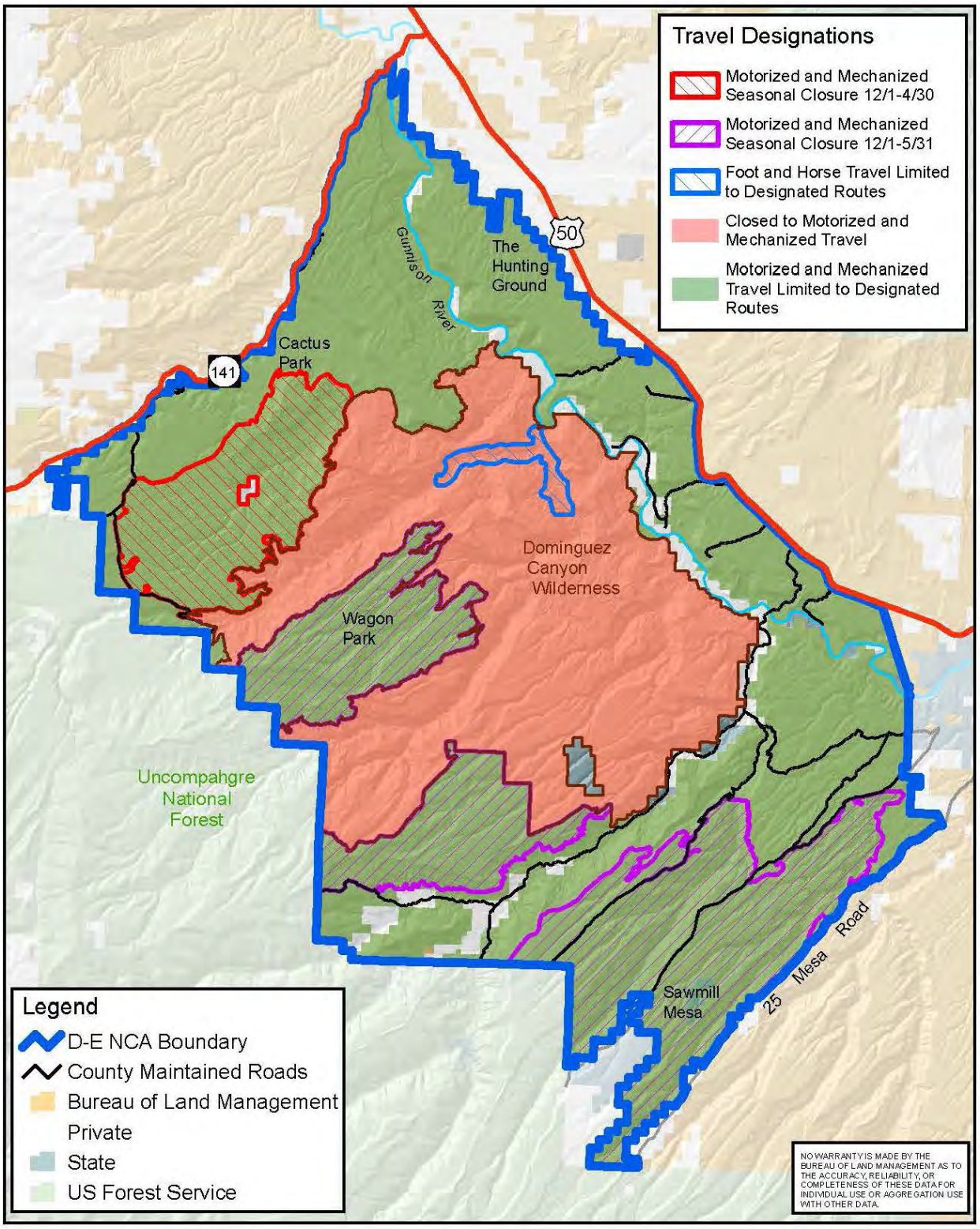


Alternative B: Travel Area Designations

0 2.5 5 7.5 10 Miles

N

Map 2-13b

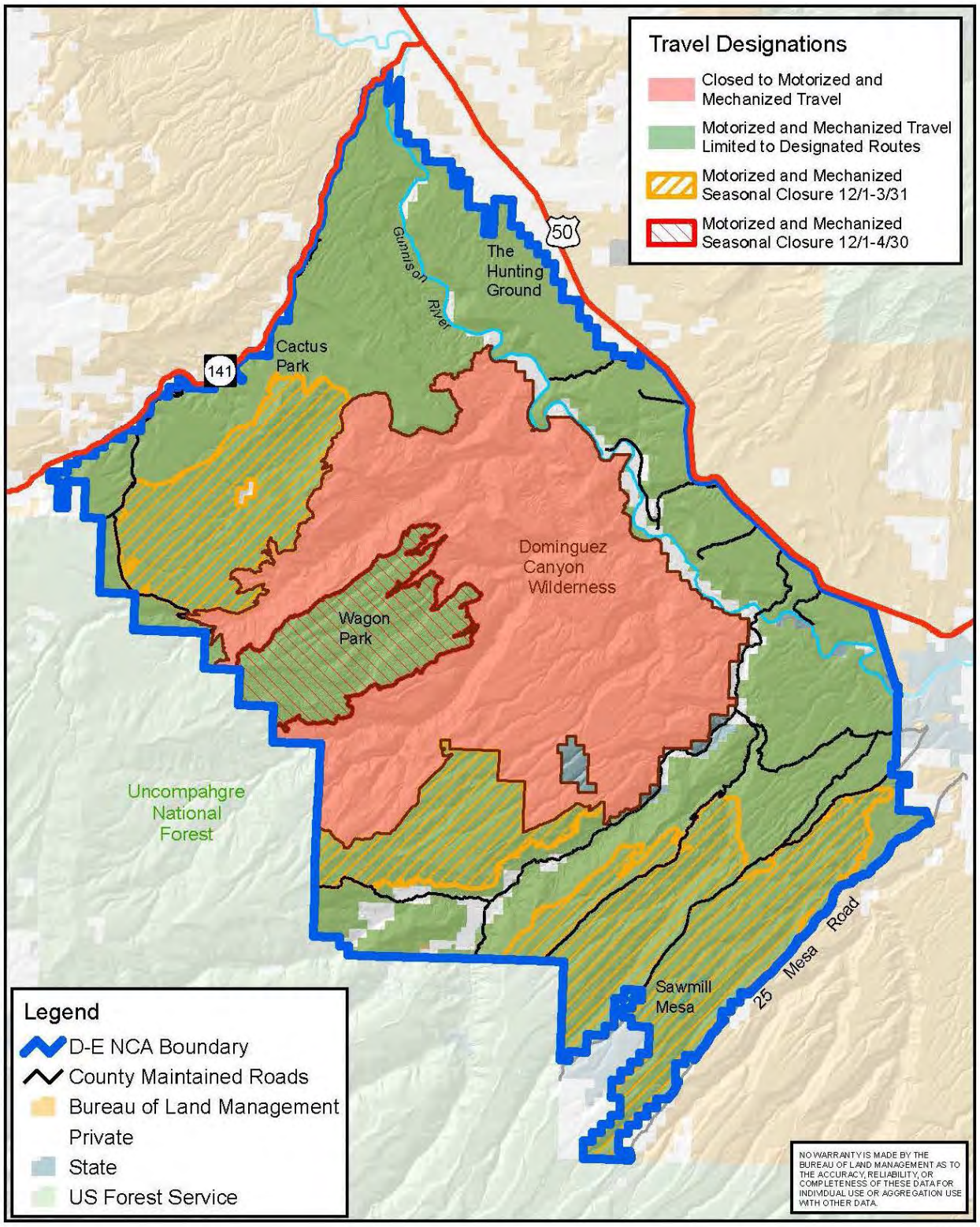


Alternative C: Travel Area Designations

0 2.5 5 7.5 10 Miles

N

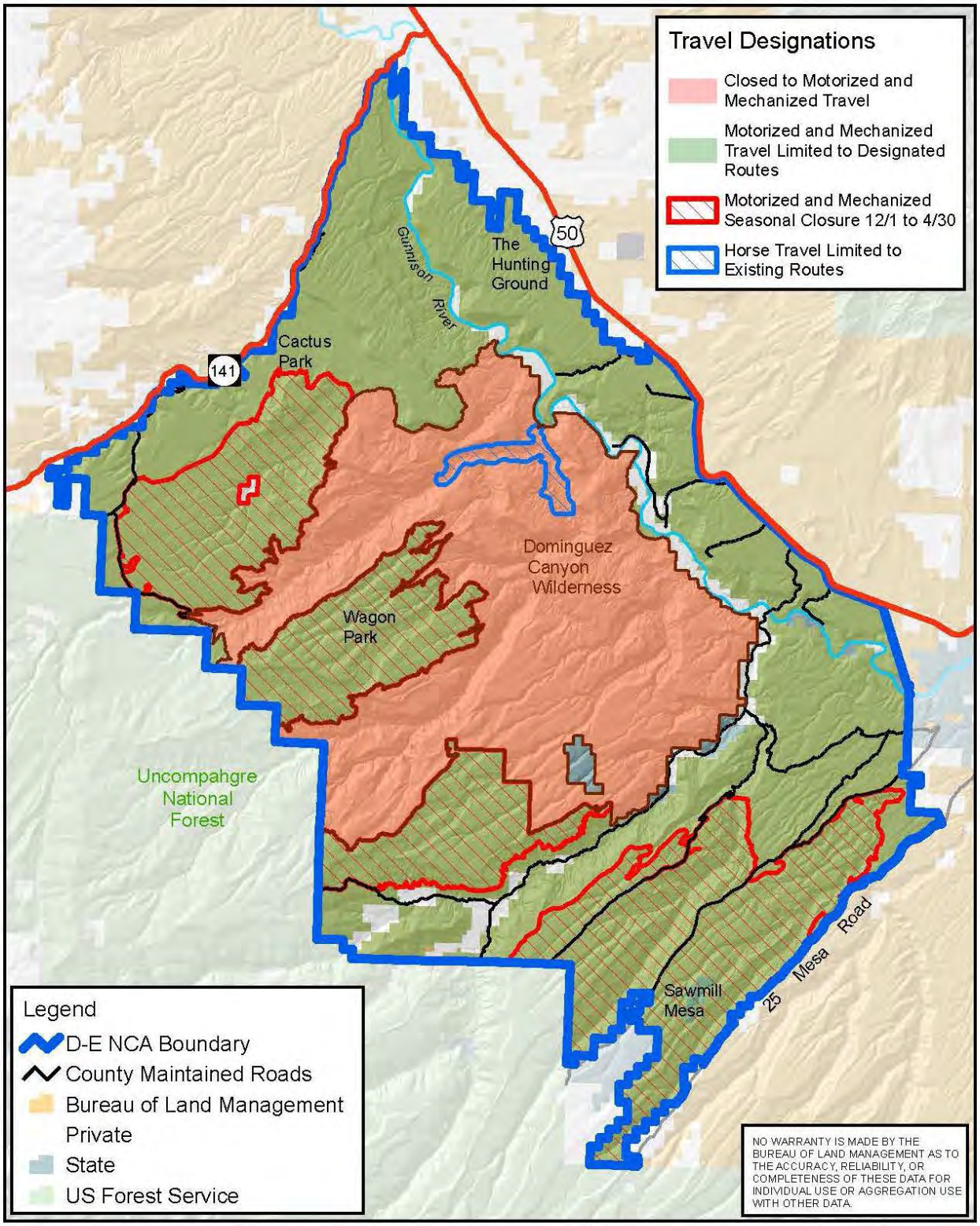
Map 2-13c



Alternative D: Travel Area Designations

0 2.5 5 7.5 10 Miles

N

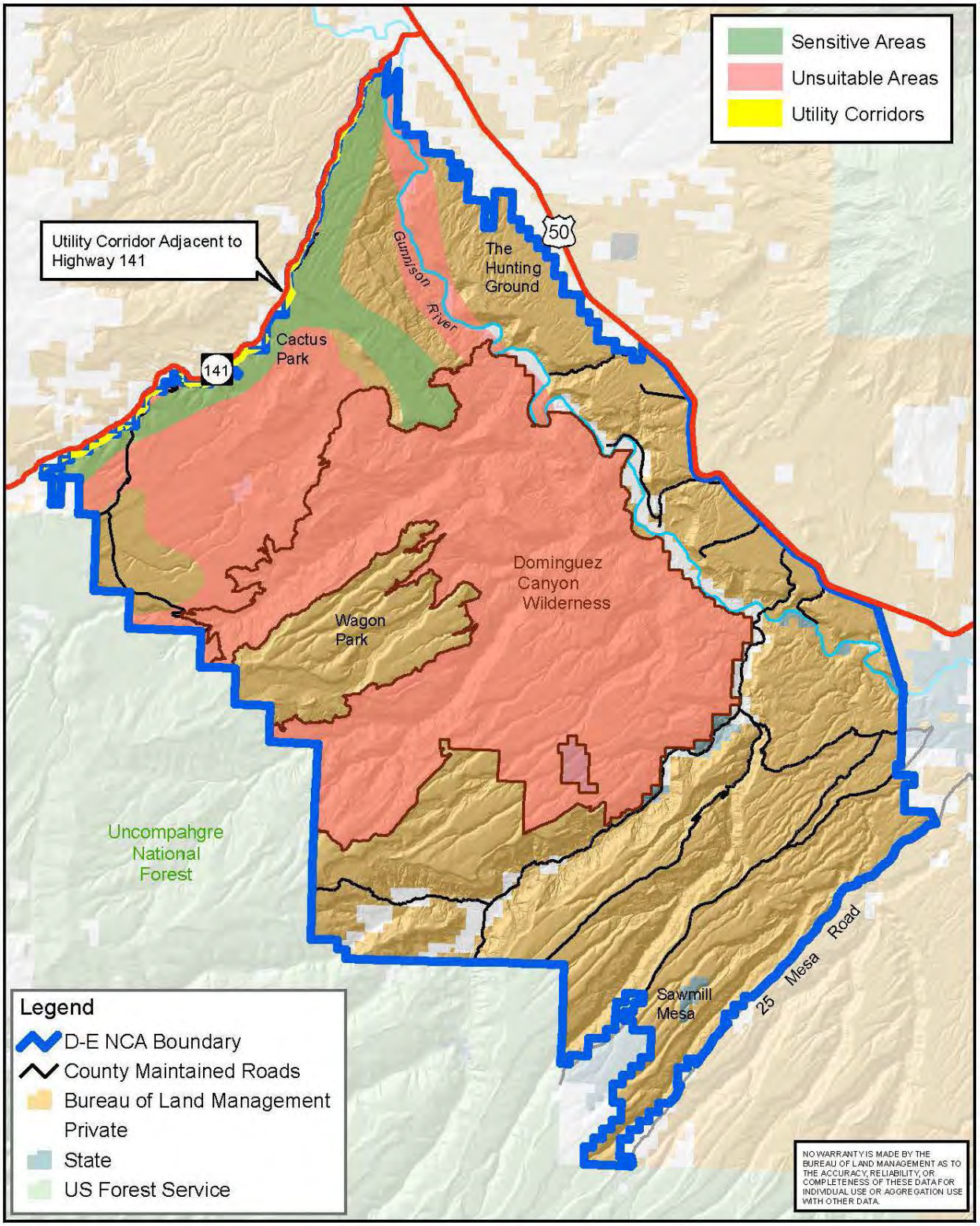


Proposed Plan Alternative: Travel Area Designations

0 2.5 5 7.5 10 Miles

N

Map 2-13p

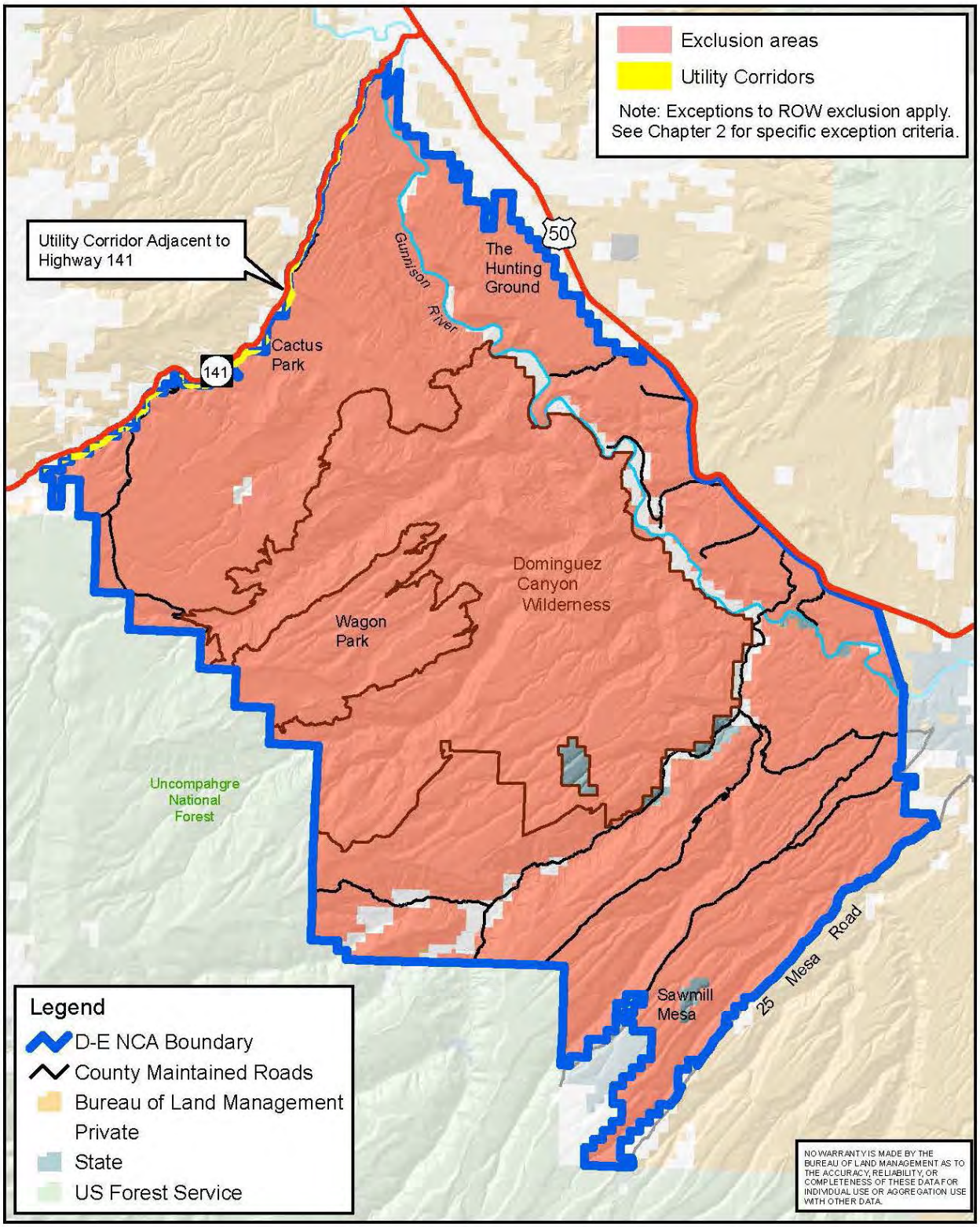


Alternative A: Right-of-Way Sensitive and Unsuitable Areas

0 2.5 5 7.5 10 Miles

N

Map 2-14a

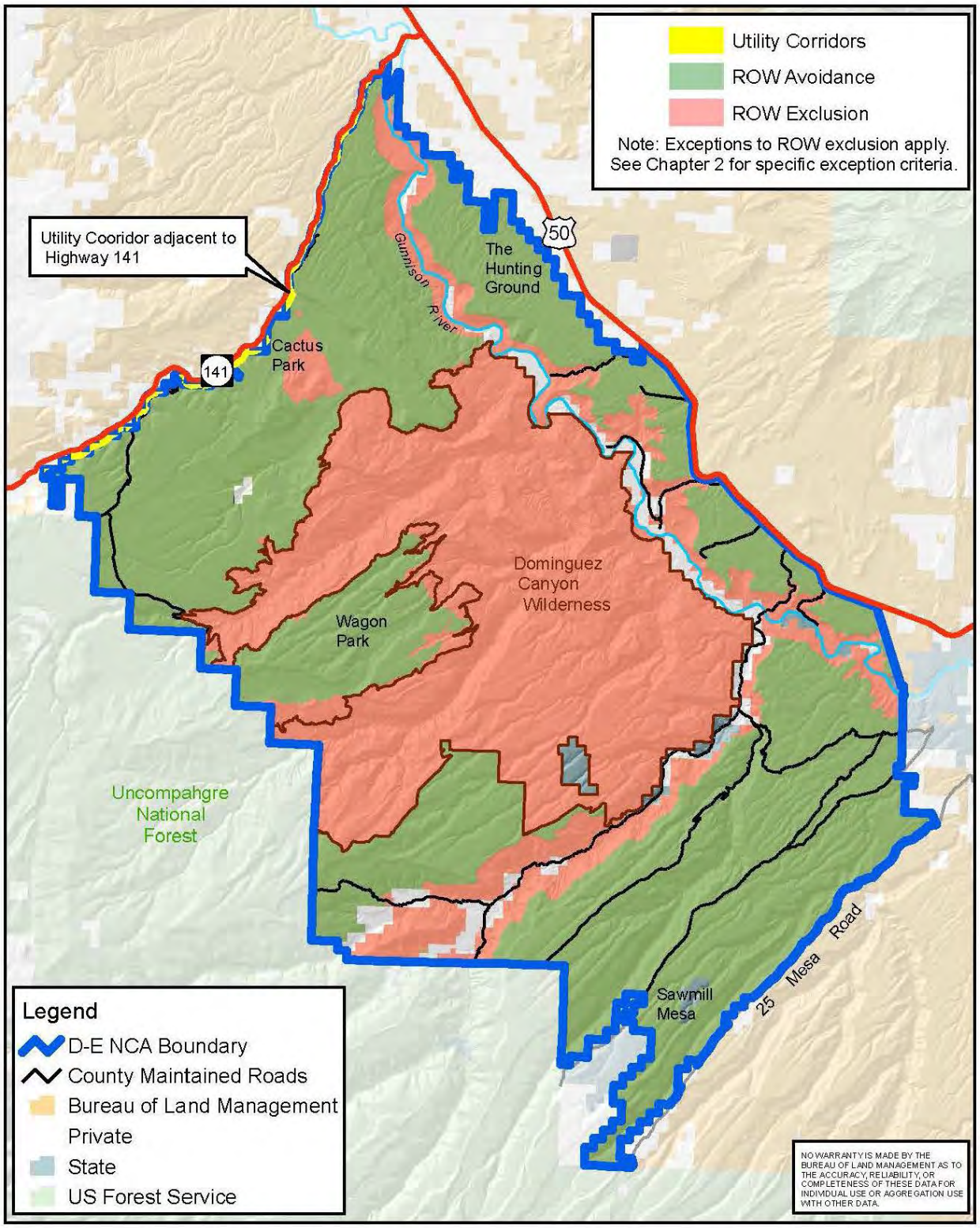


Alternative B and C: Right-of-Way Exclusion and Avoidance Areas
(only applies to new rights-of-way)

N

0 2.5 5 7.5 10 Miles

Map 2-14b

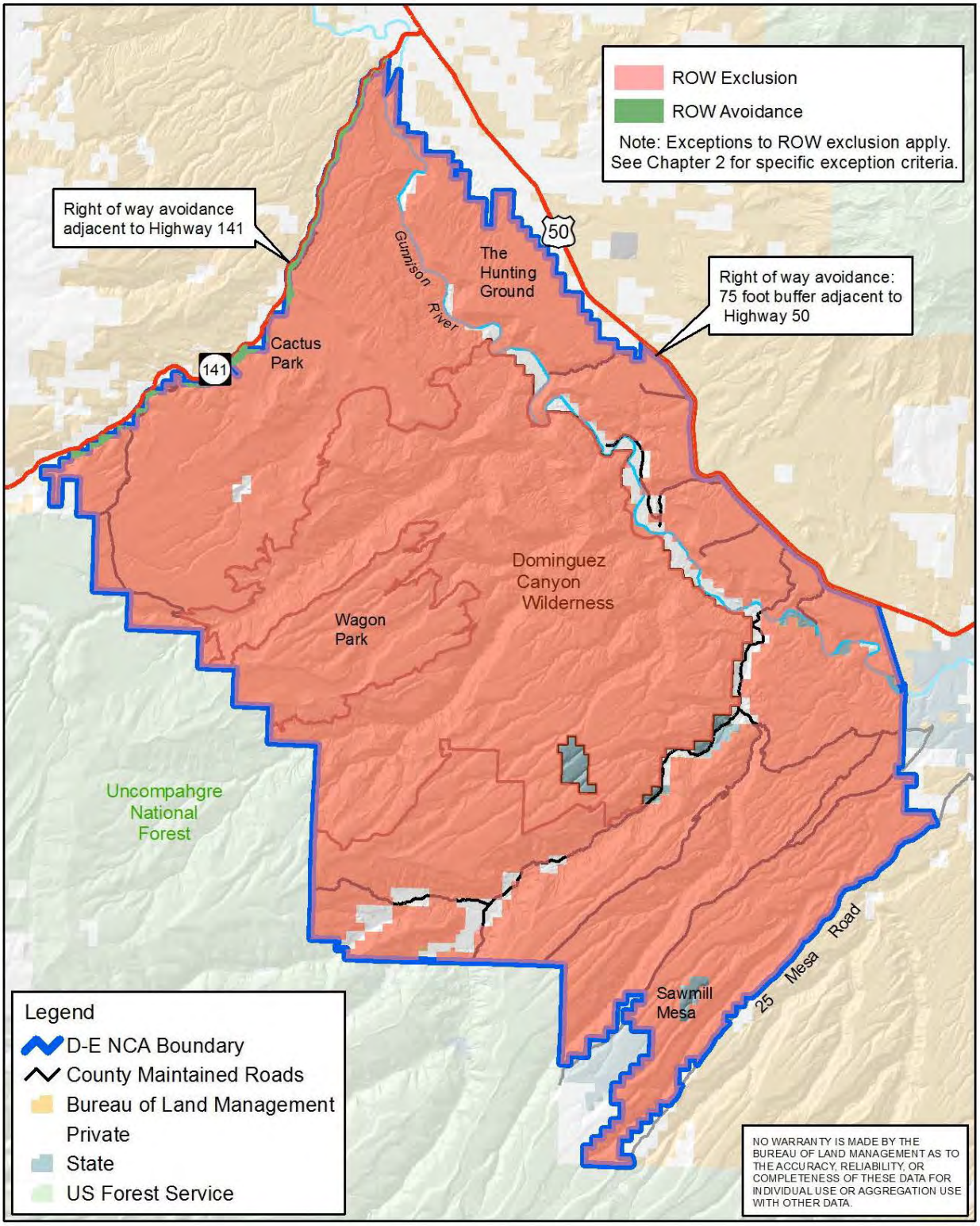


Alternative D: Right-of-Way Exclusion and Avoidance Areas
(only applies to new rights-of-way)

0 2.5 5 7.5 10 Miles

N

Map 2-14d

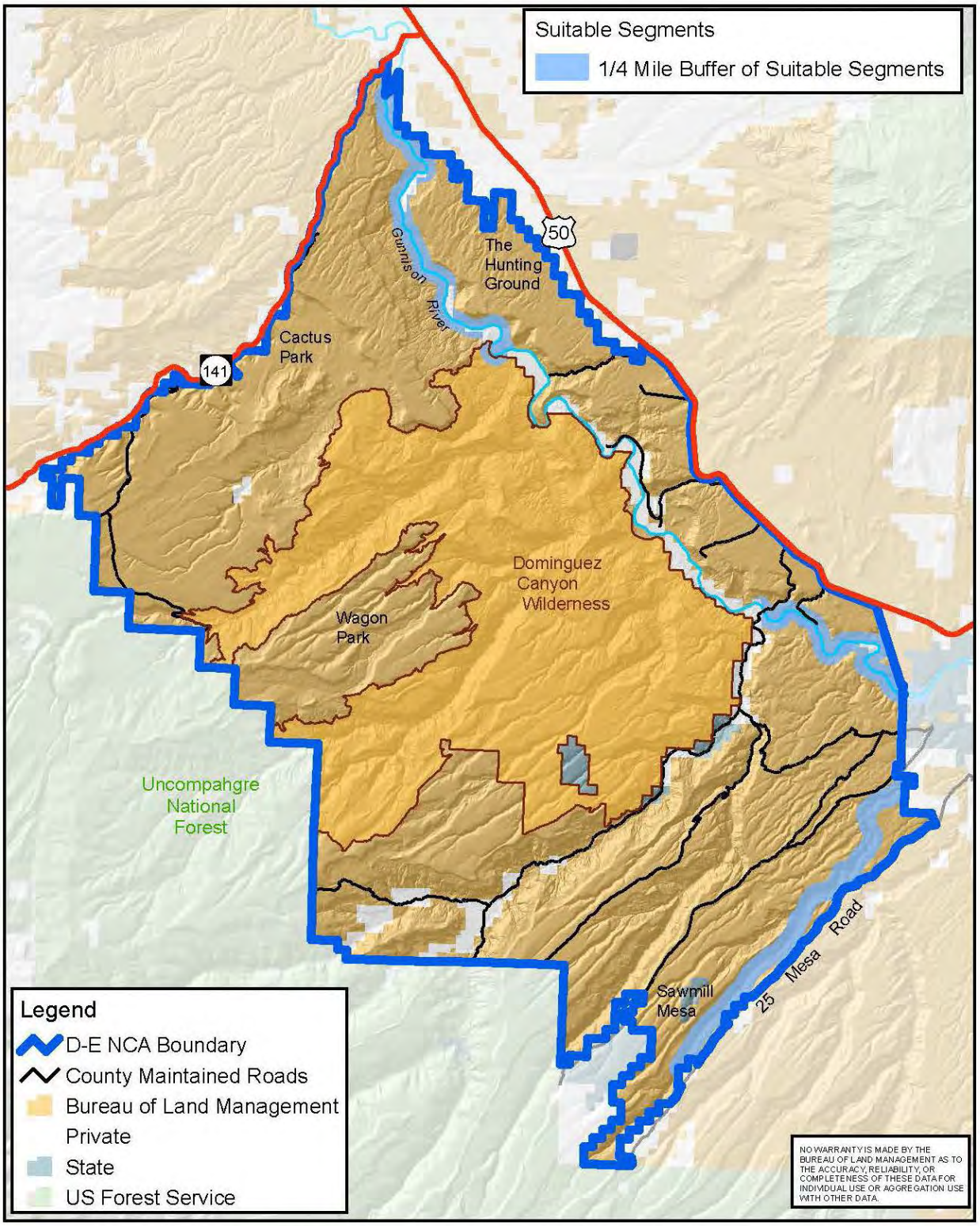


Proposed Plan Alternative: Right-of-Way Exclusion and Avoidance Areas
(only applies to new rights-of-way)

N

0 2.5 5 7.5 10 Miles

Map 2-14p

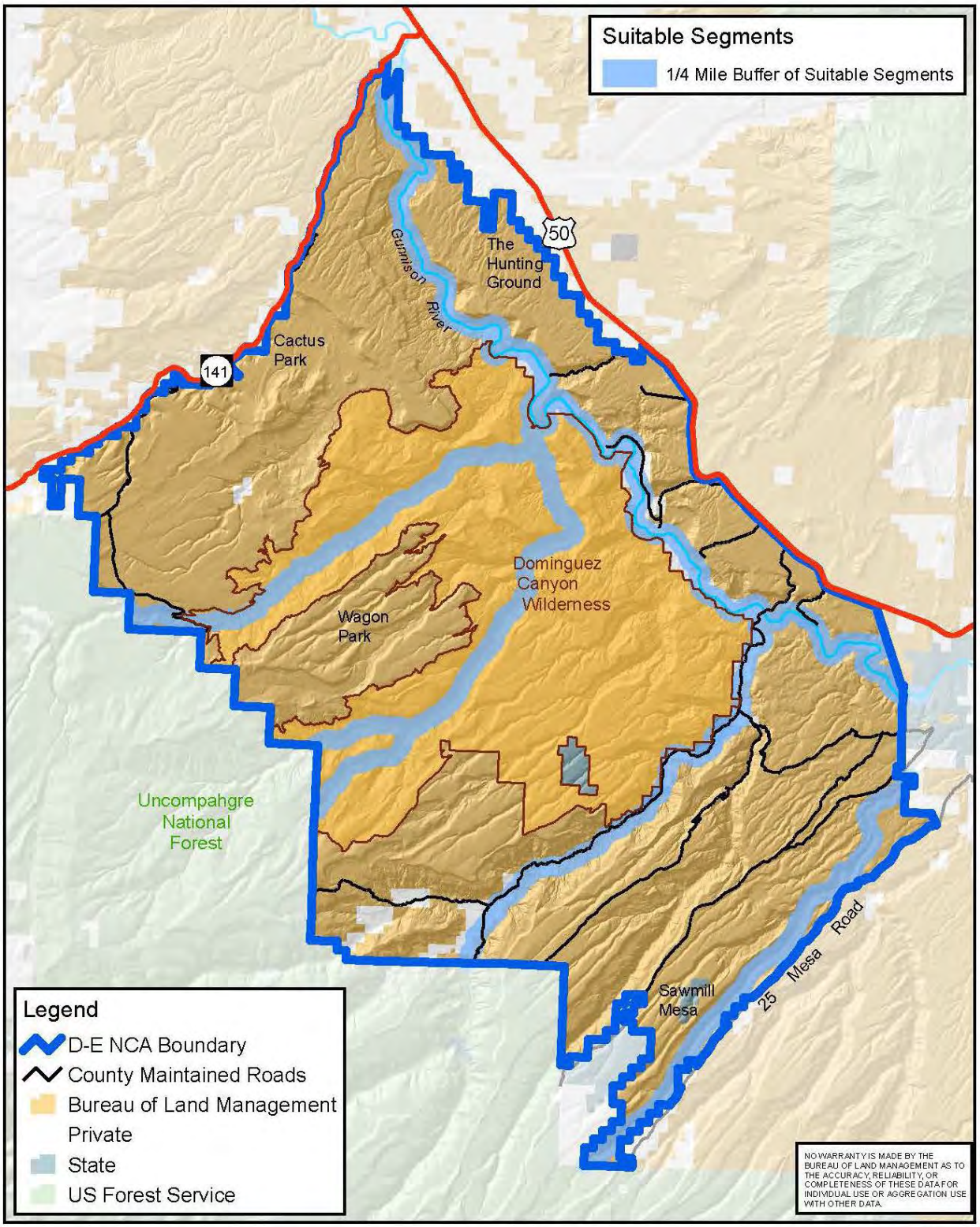


Alternative B: Segments Suitable for Inclusion as National Wild and Scenic Rivers

0 2.5 5 7.5 10 Miles

N

Map 2-15b

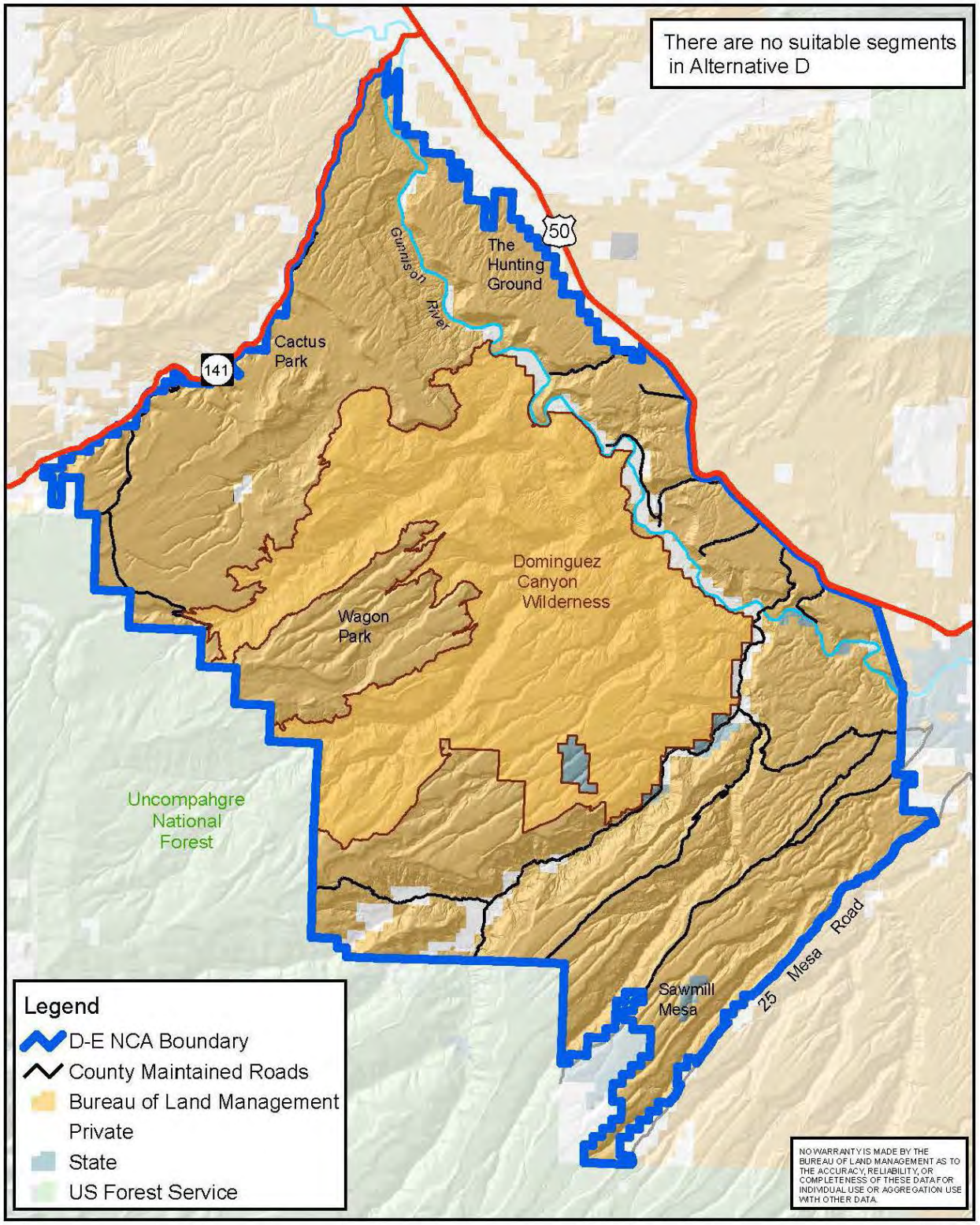


Alternative C: Segments Suitable for Inclusion as National Wild and Scenic Rivers

0 2.5 5 7.5 10 Miles

N

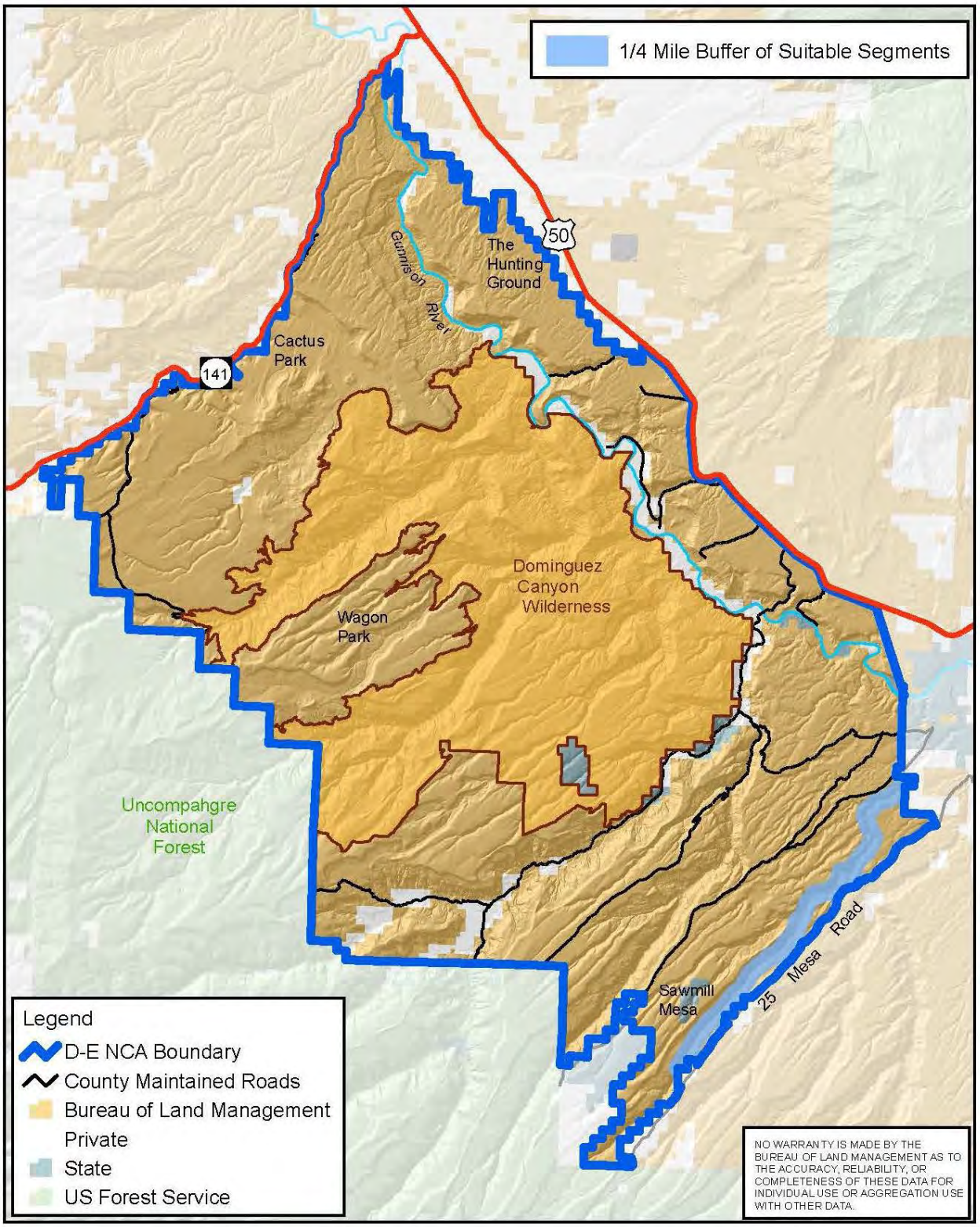
Map 2-15c



Alternative D: Segments Suitable for Inclusion as National Wild and Scenic Rivers

0 2.5 5 7.5 10 Miles

N

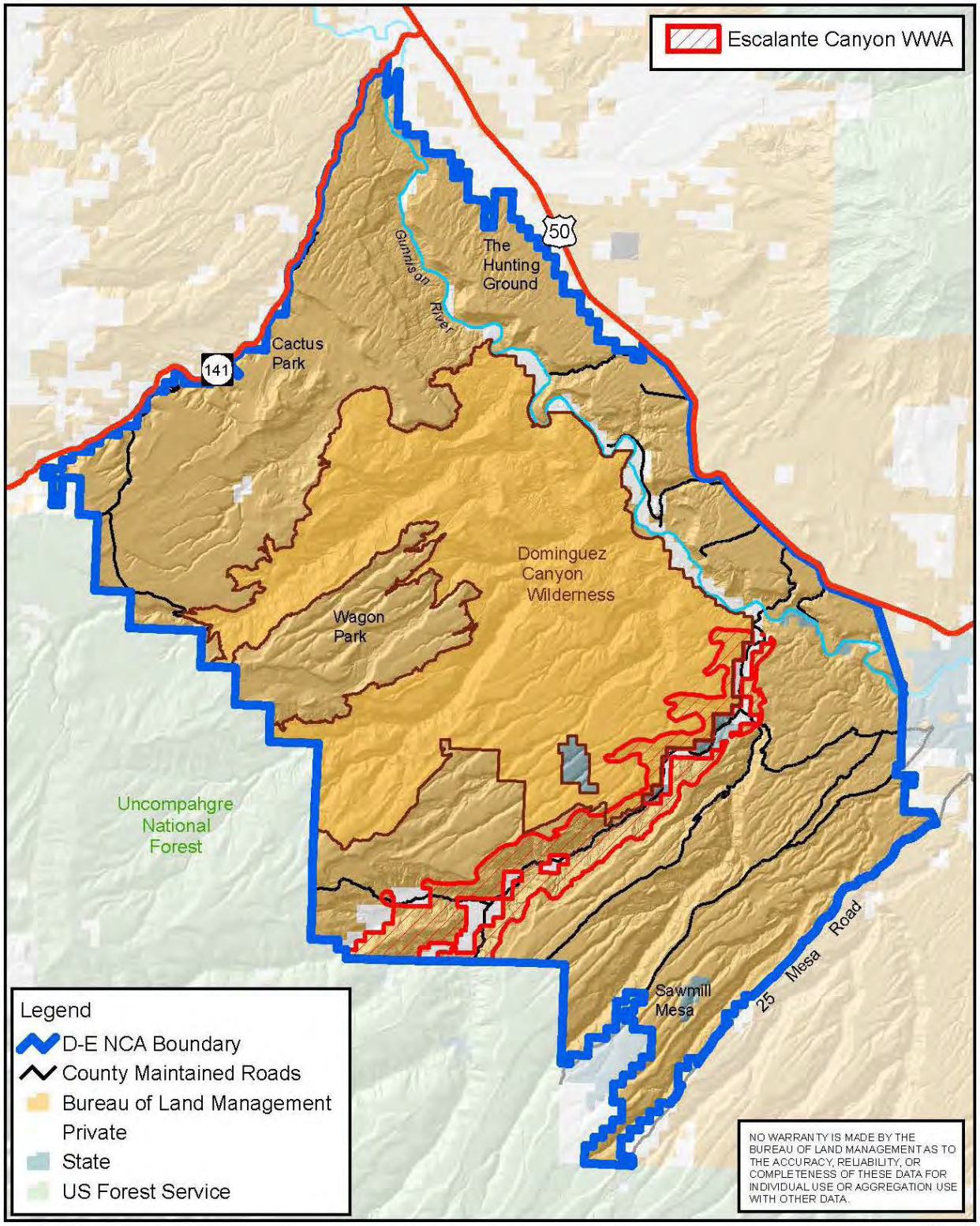


Proposed Plan Alternative: Segments Suitable for Inclusion as National Wild and Scenic Rivers

0 2.5 5 7.5 10 Miles

N

Map 2-15p

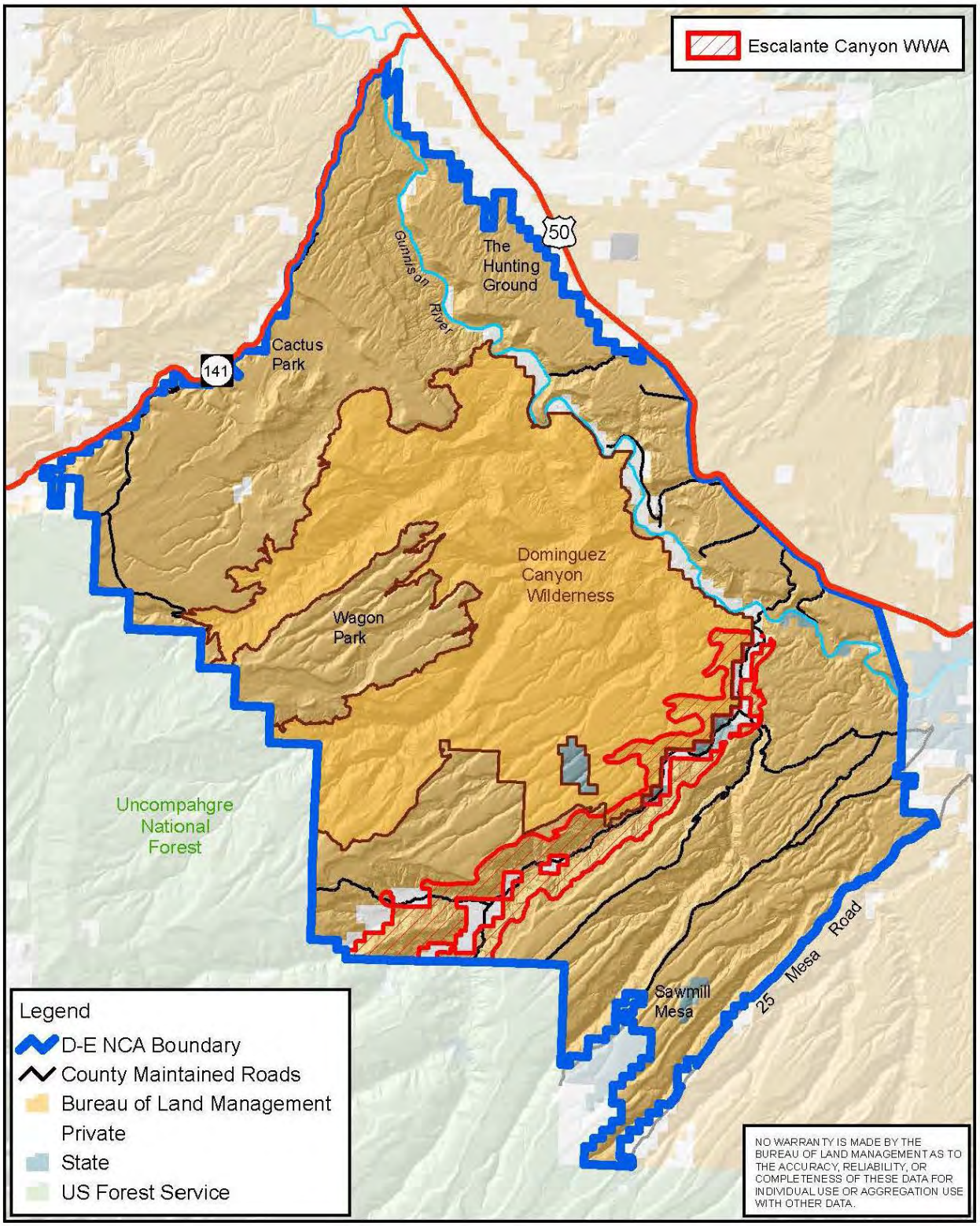


Alternative D: Watchable Wildlife Areas

0 2.5 5 7.5 10 Miles

N

Map 2-16d

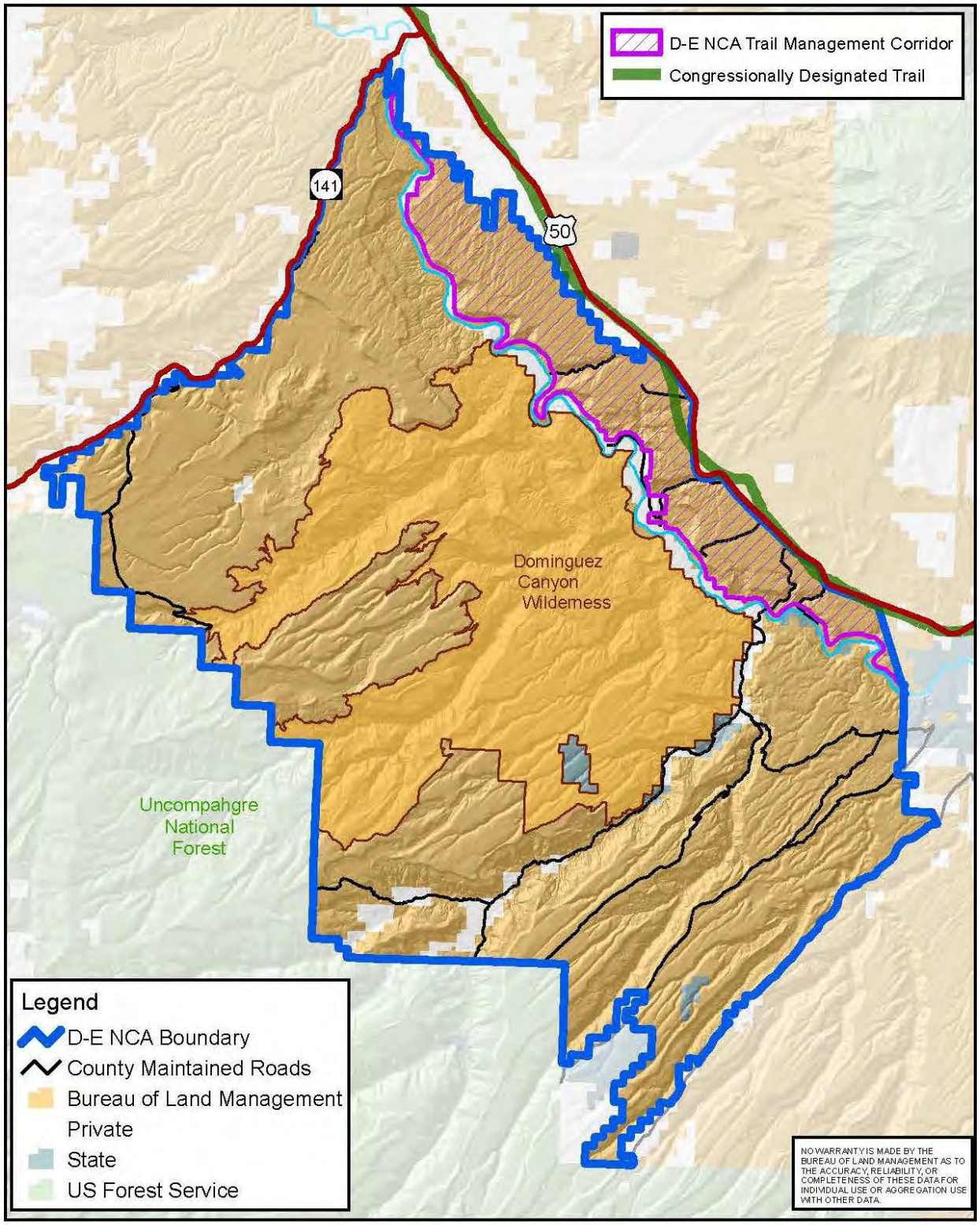


Proposed Plan Alternative: Watchable Wildlife Areas

0 2.5 5 7.5 10 Miles

N

Map 2-16p

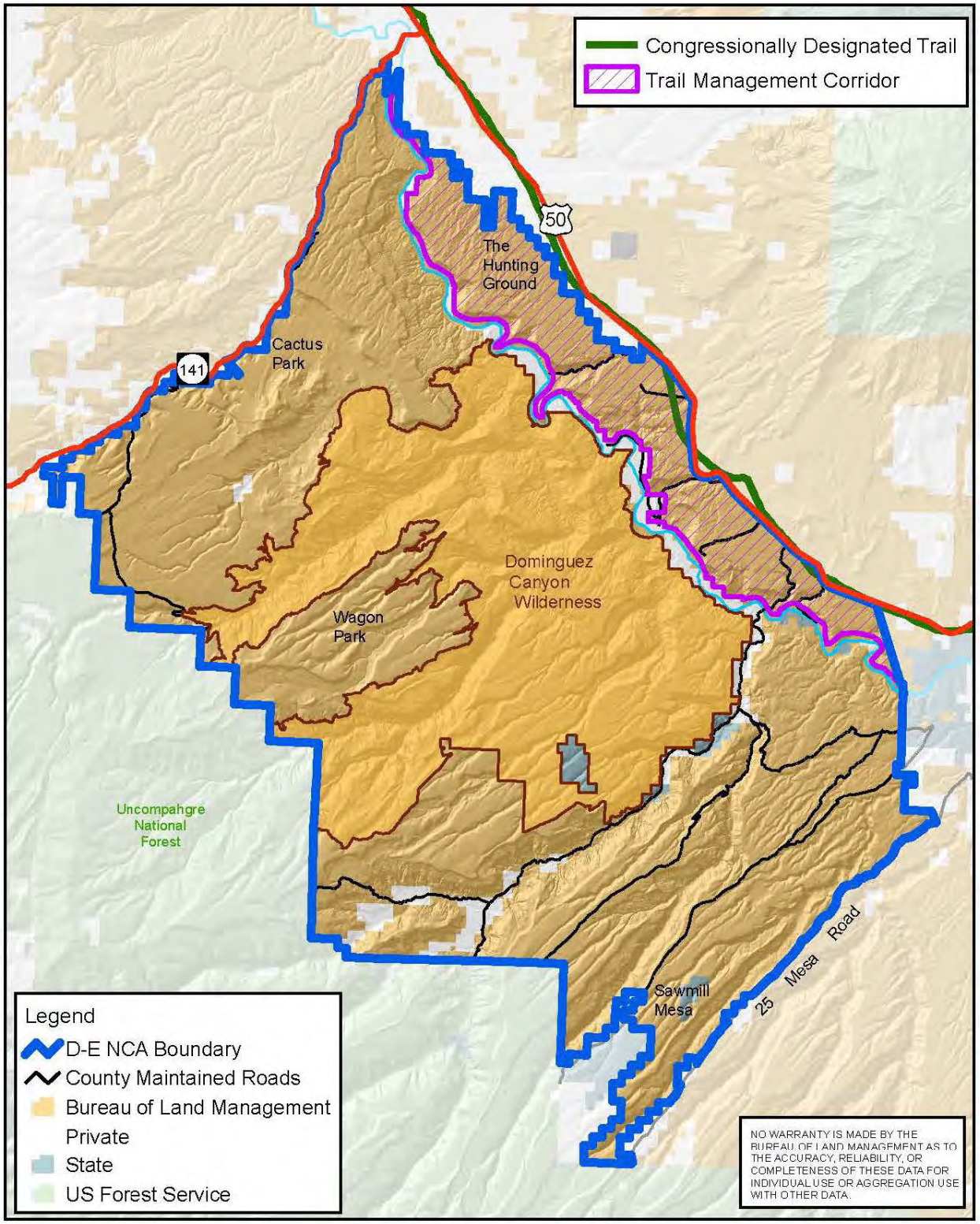


Alternatives B, C and D: Old Spanish
National Historic Trail Management Corridor

0 2.5 5 7.5 10 Miles

N

Map 2-17

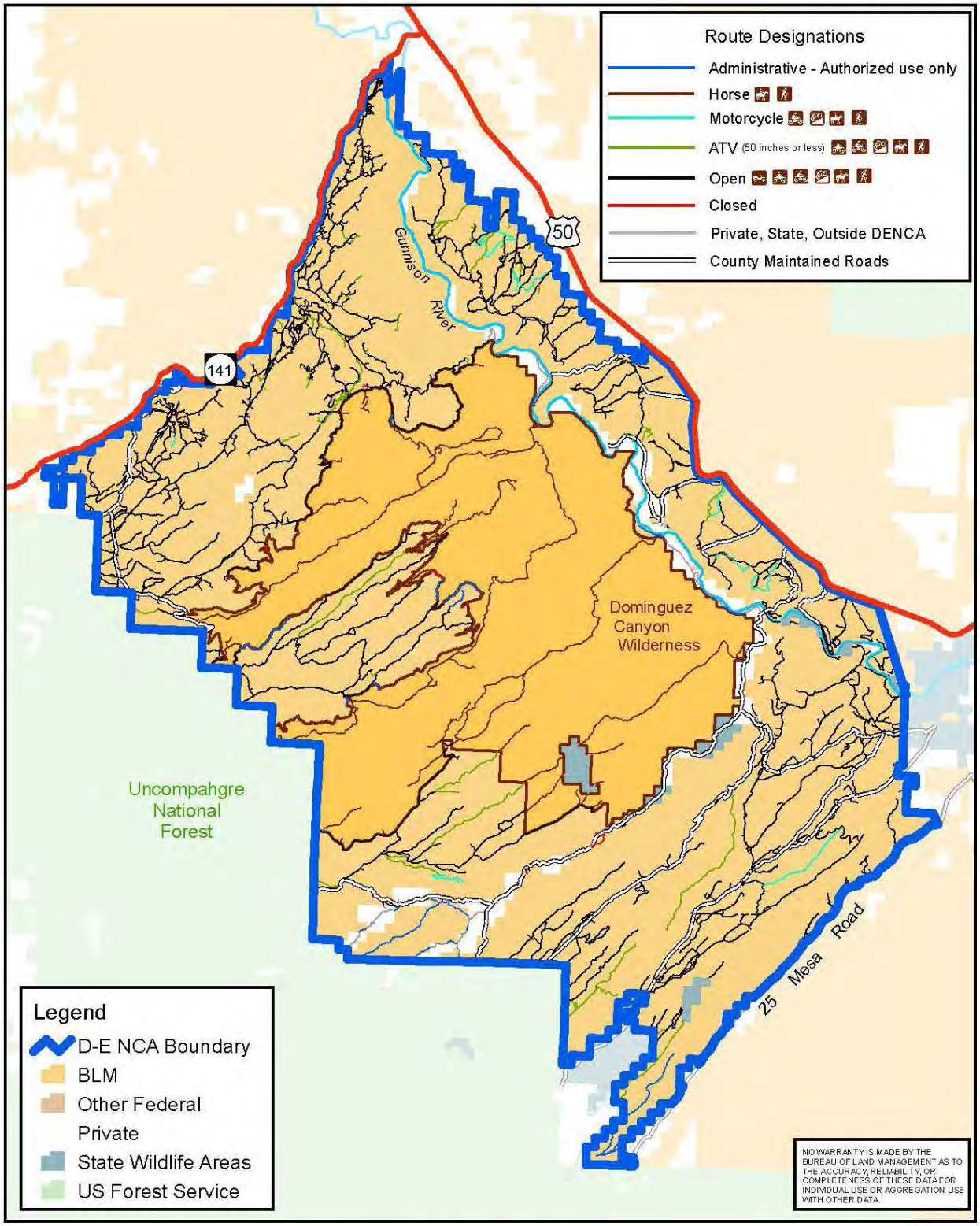


Proposed Plan Alternative: Old Spanish National Historic Trail Management Corridor

0 2.5 5 7.5 10 Miles

N

Map 2-17p

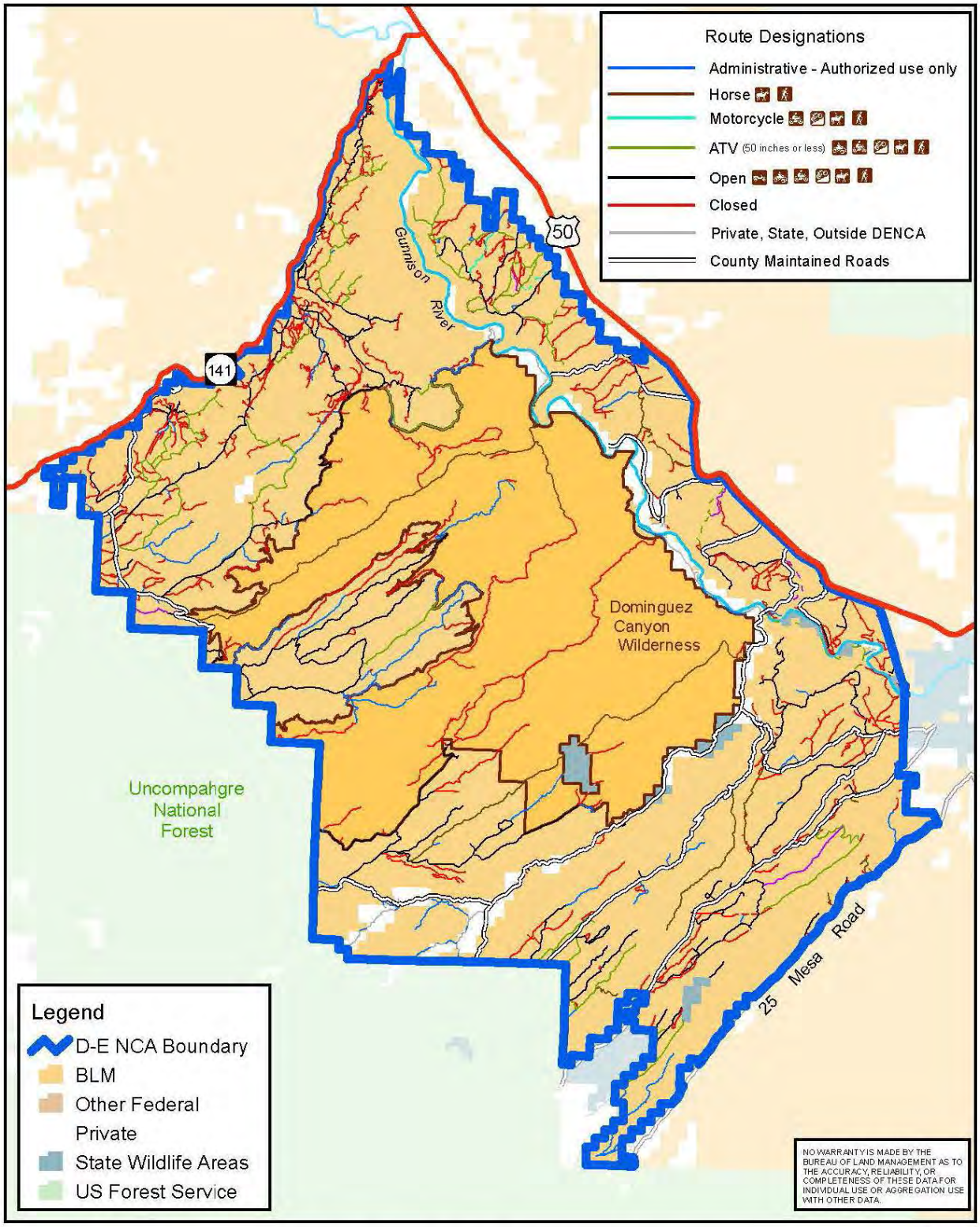


Alternative A: Route Designations

0 2.5 5 7.5 10 Miles

N

Map N-1a

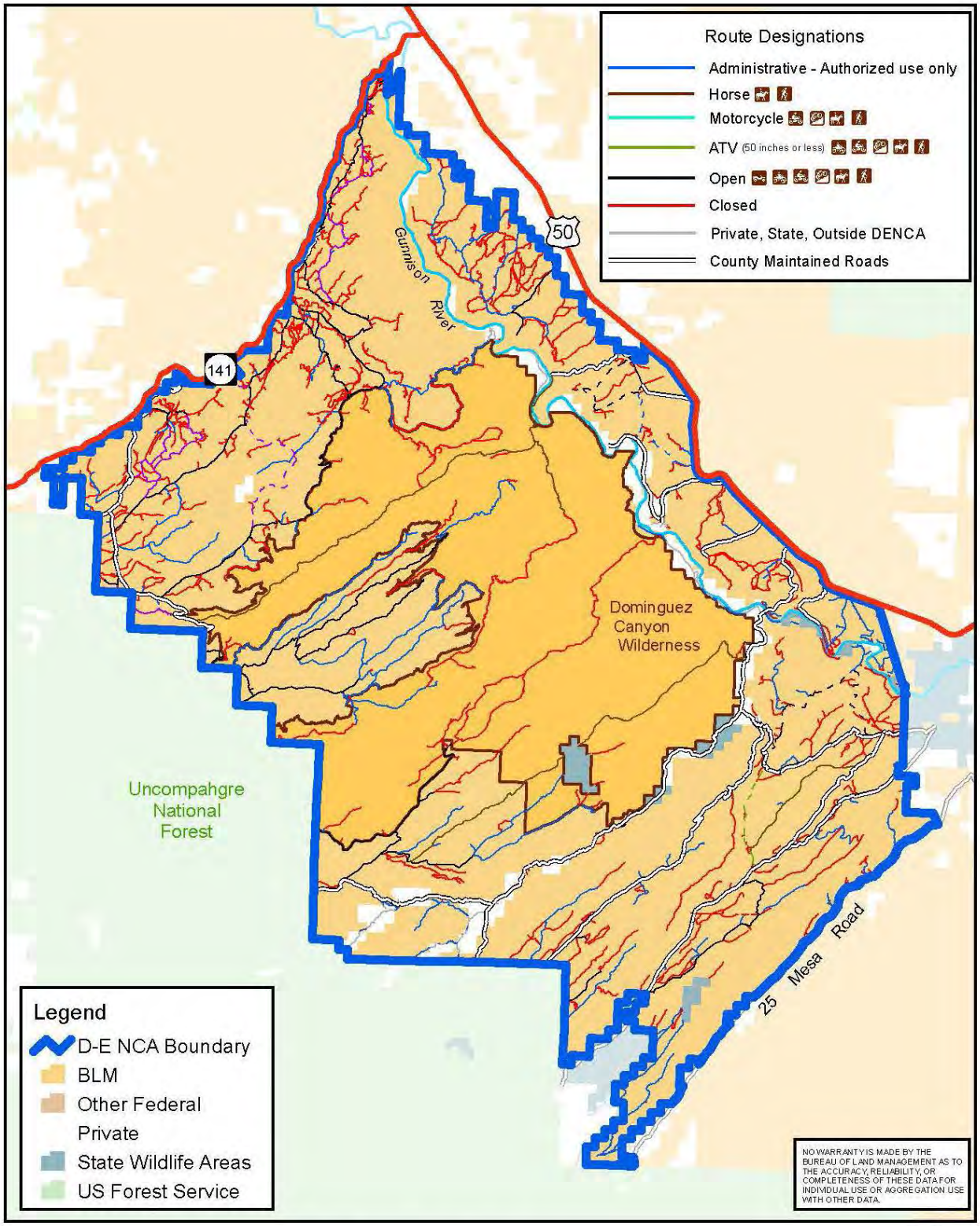


Alternative B: Route Designations

0 2.5 5 7.5 10 Miles

N

Map N-1b

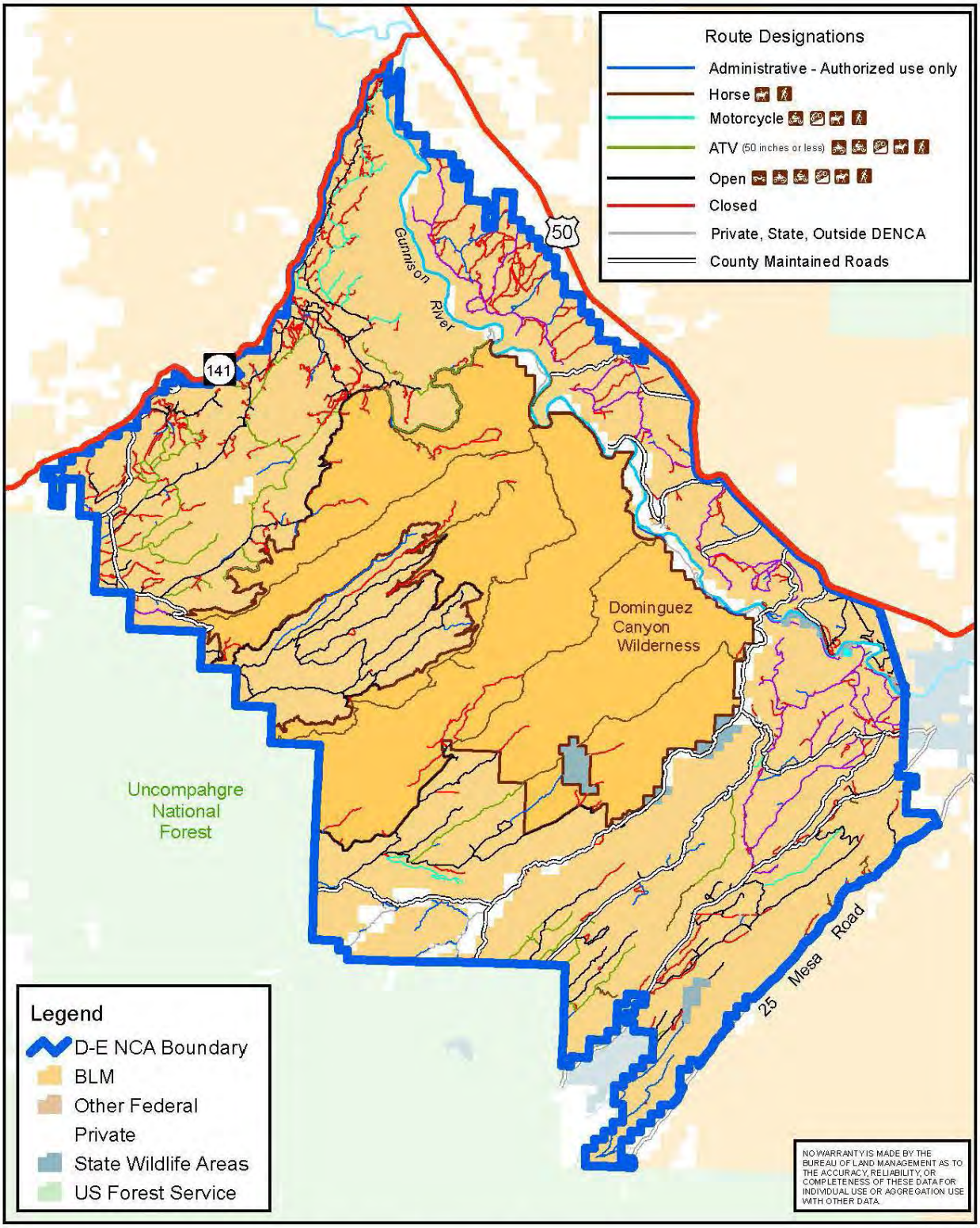


Alternative C: Route Designations

0 2.5 5 7.5 10 Miles

N

Map N-1c

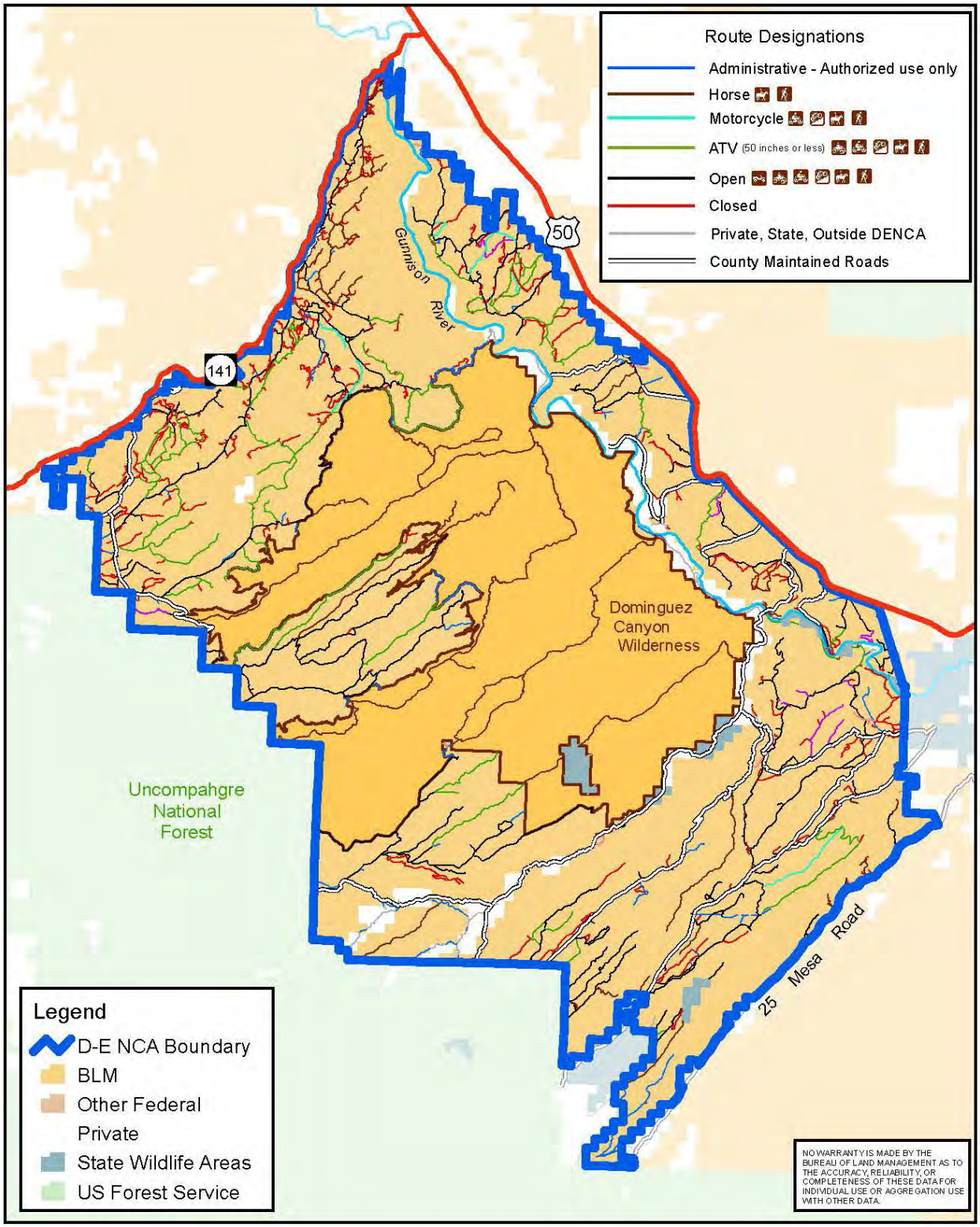


Alternative D: Route Designations

0 2.5 5 7.5 10 Miles

N

Map N-1d

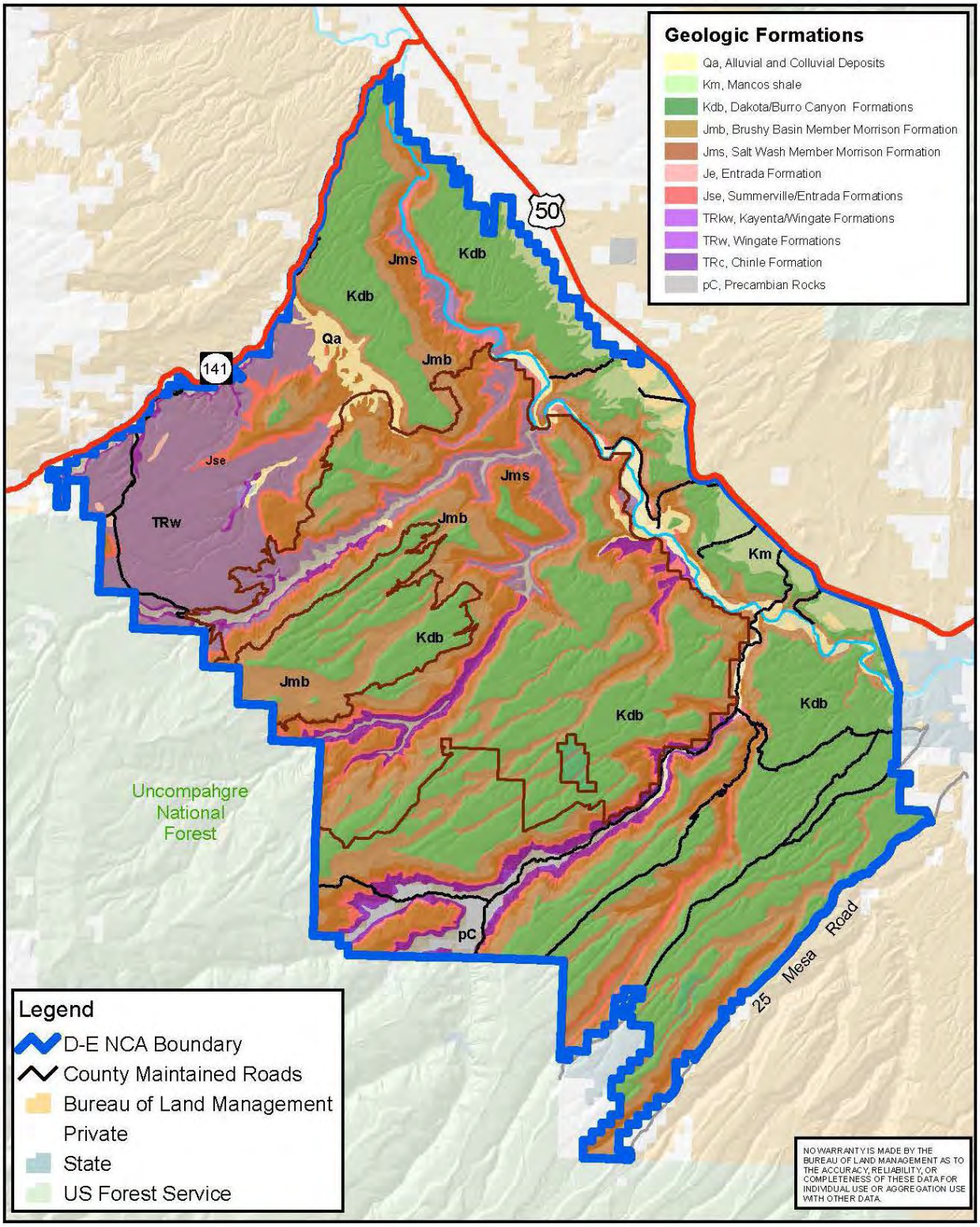


Proposed Plan Alternative: Route Designations

0 2.5 5 7.5 10 Miles

N

Map N-1p

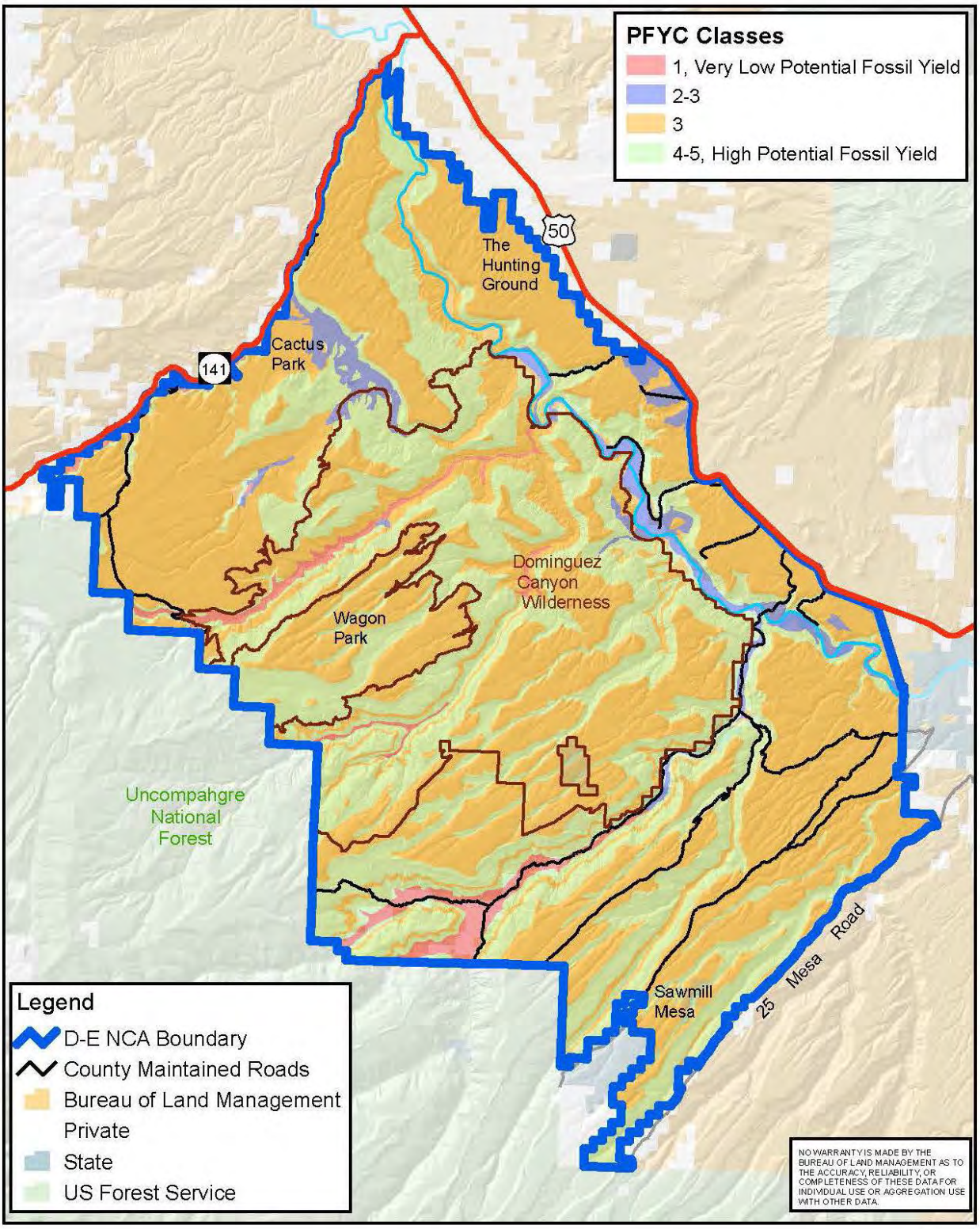


Surficial Geology

0 2.5 5 7.5 10 Miles

N

Map 3-1

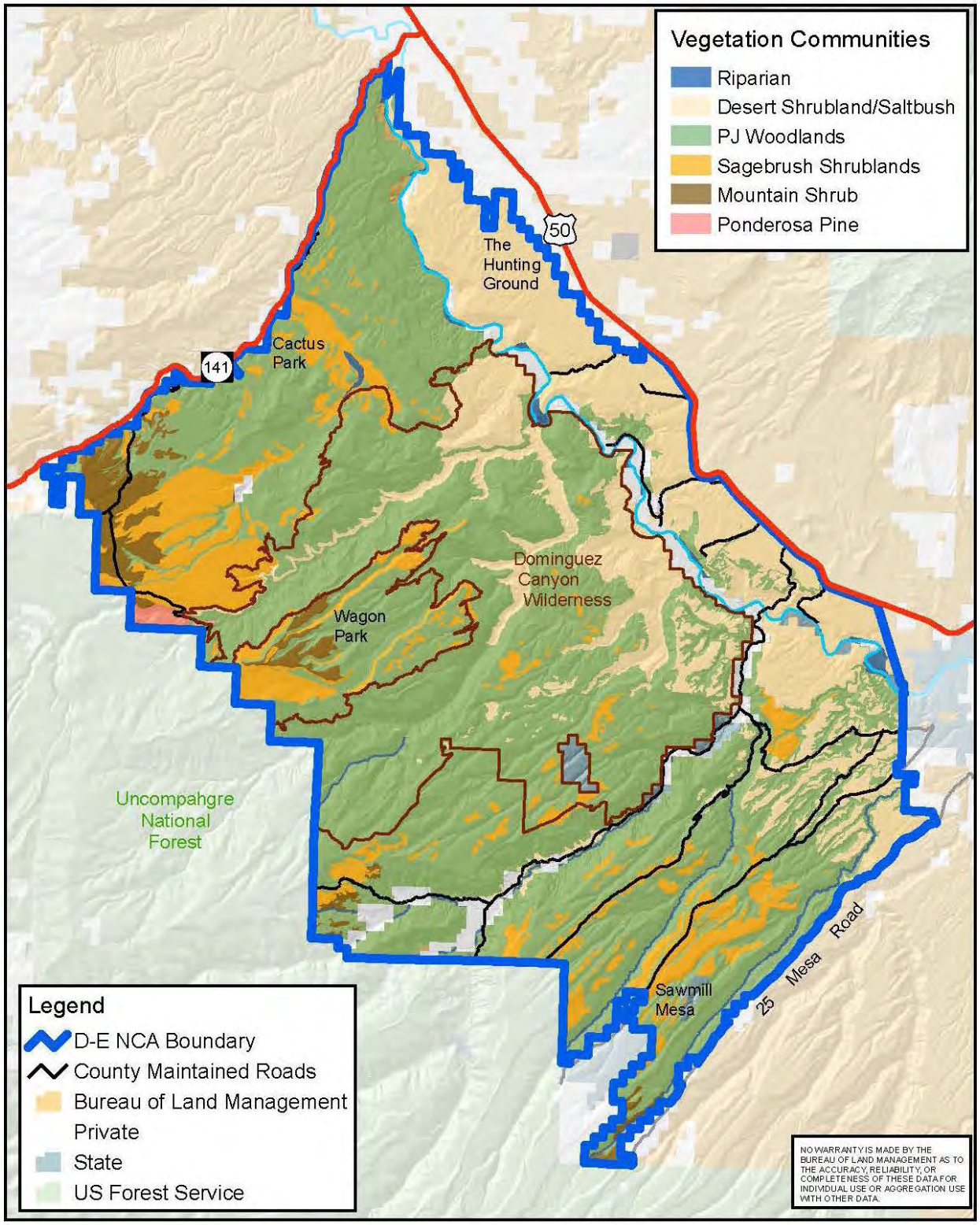


Potential Fossil Yield Categories (PFYC)

0 2.5 5 7.5 10 Miles

N

Map 3-2

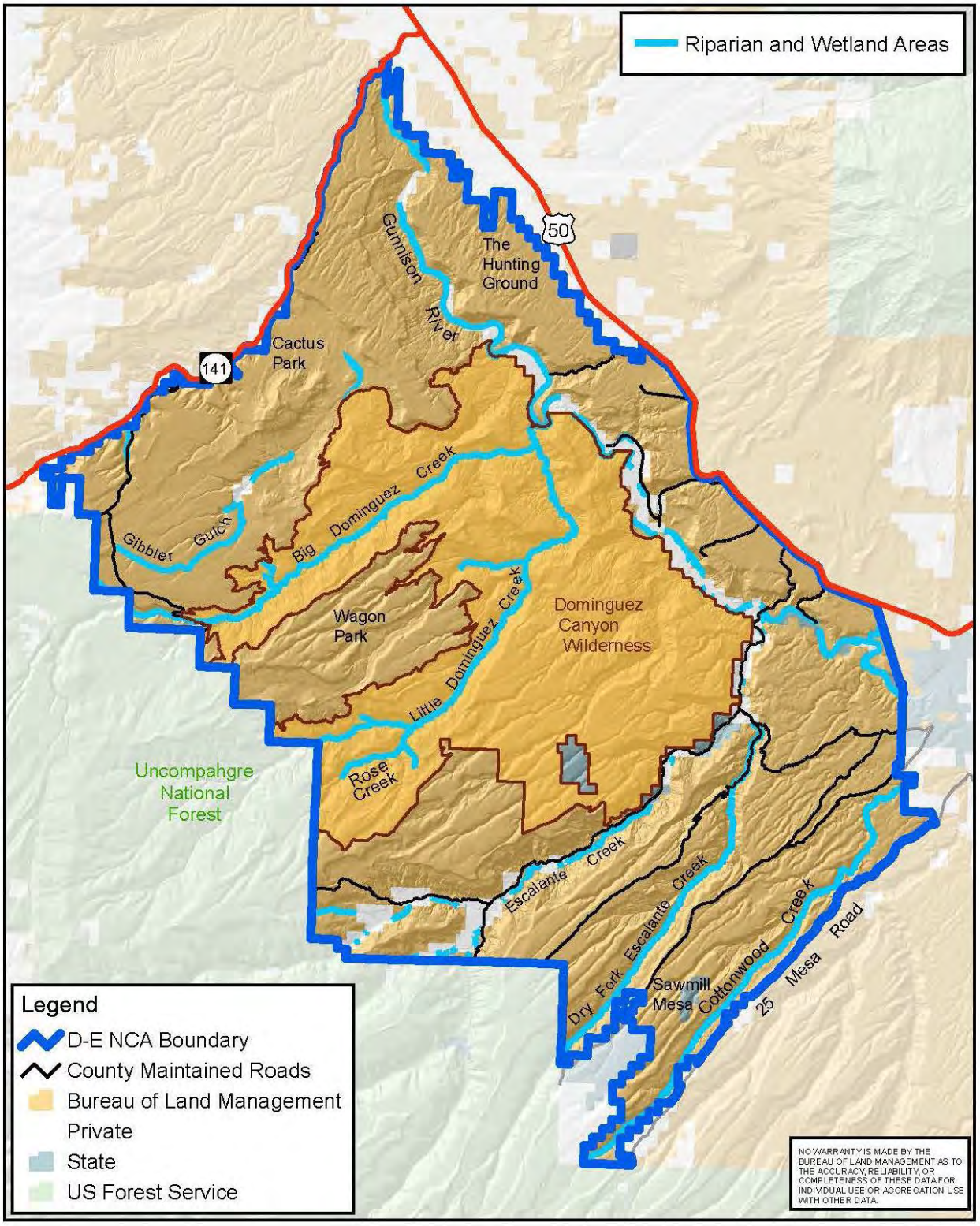


Vegetation Communities

0 2.5 5 7.5 10 Miles

N

Map 3-3

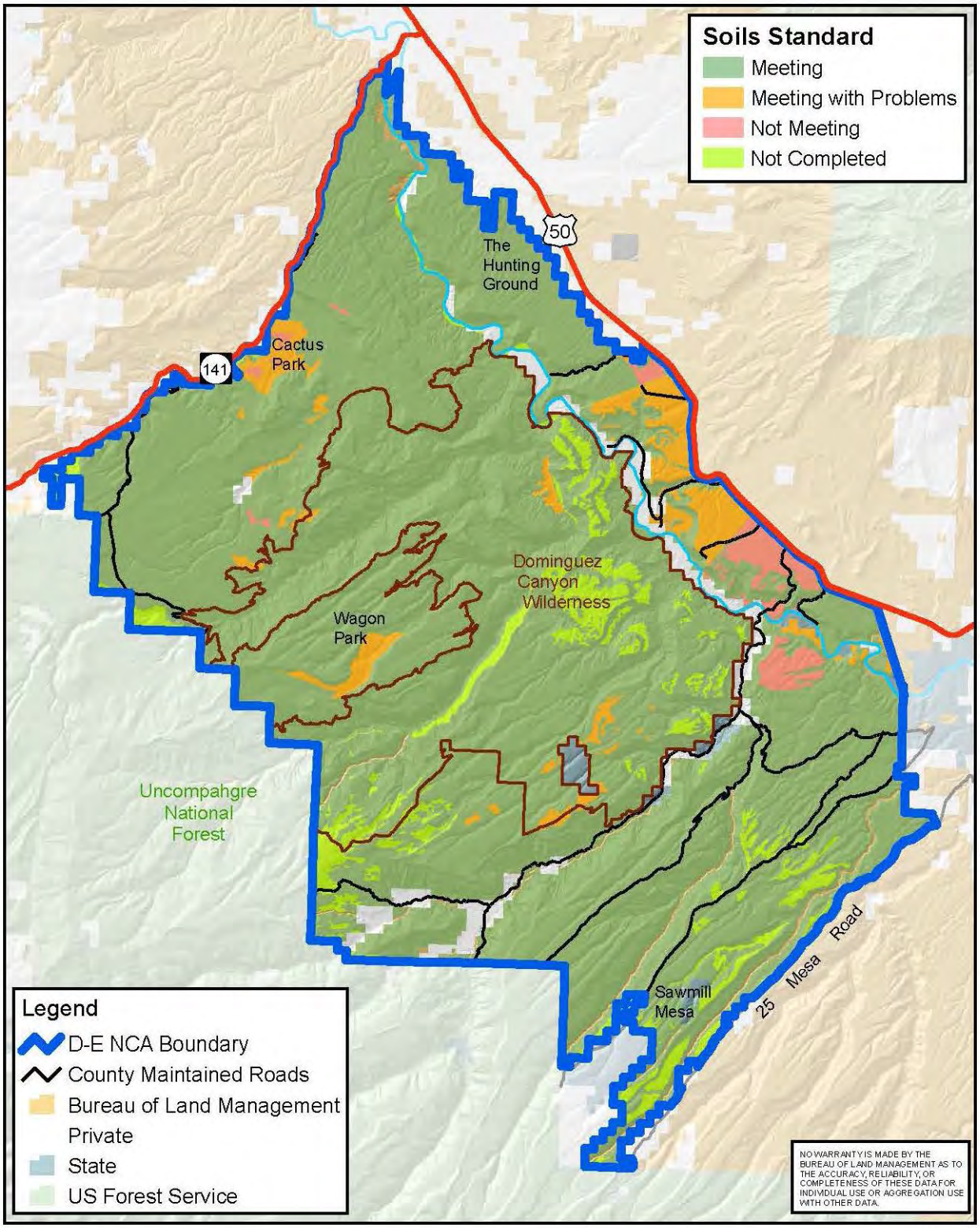


Riparian and Wetland Areas

0 2.5 5 7.5 10 Miles

N

Map 3-4

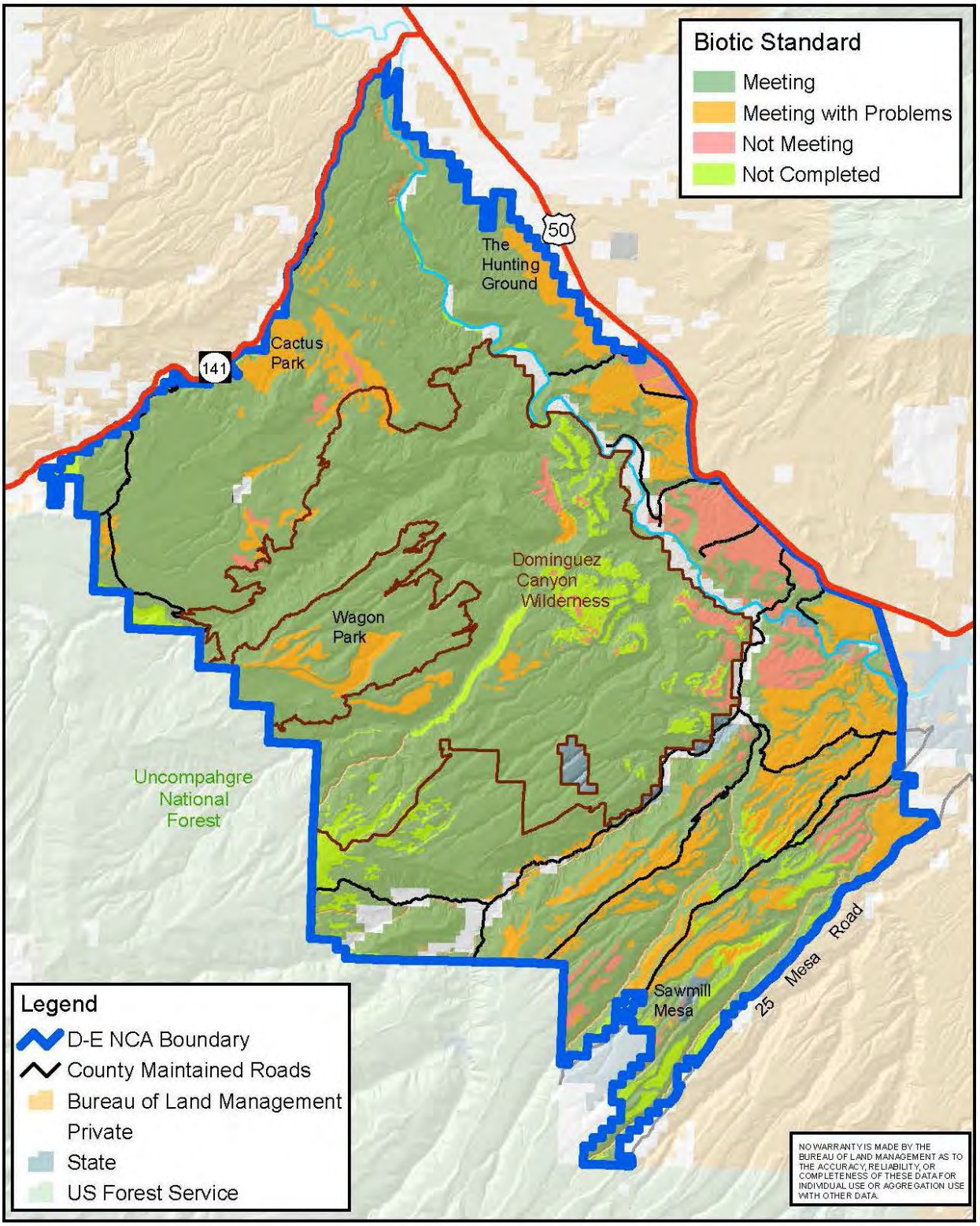


Land Health Assessment Standard I (Soils) Results

0 2.5 5 7.5 10 Miles

N

Map 3-6

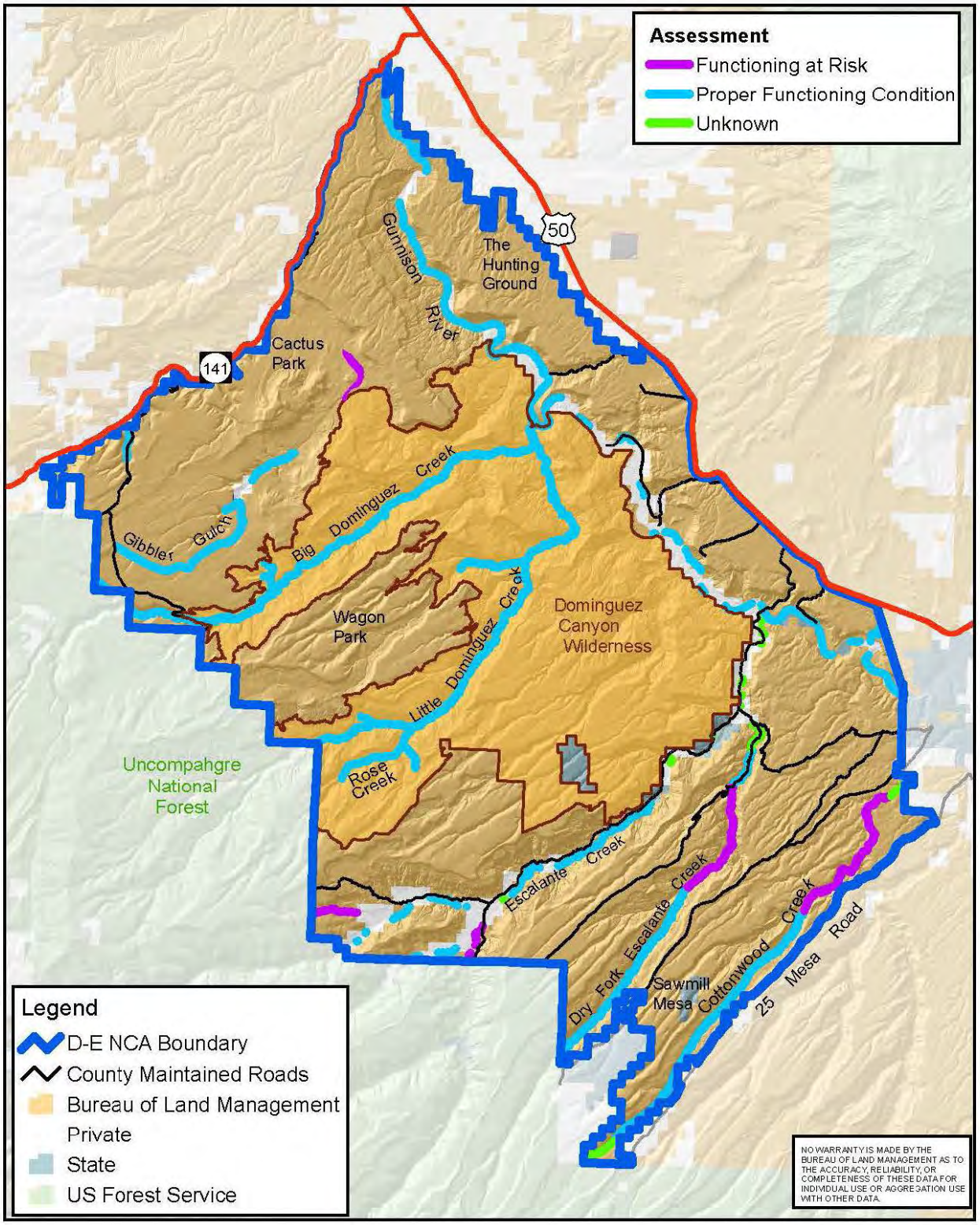


Land Health Assessment Standard III (Biota) Results

0 2.5 5 7.5 10 Miles

N

Map 3-7

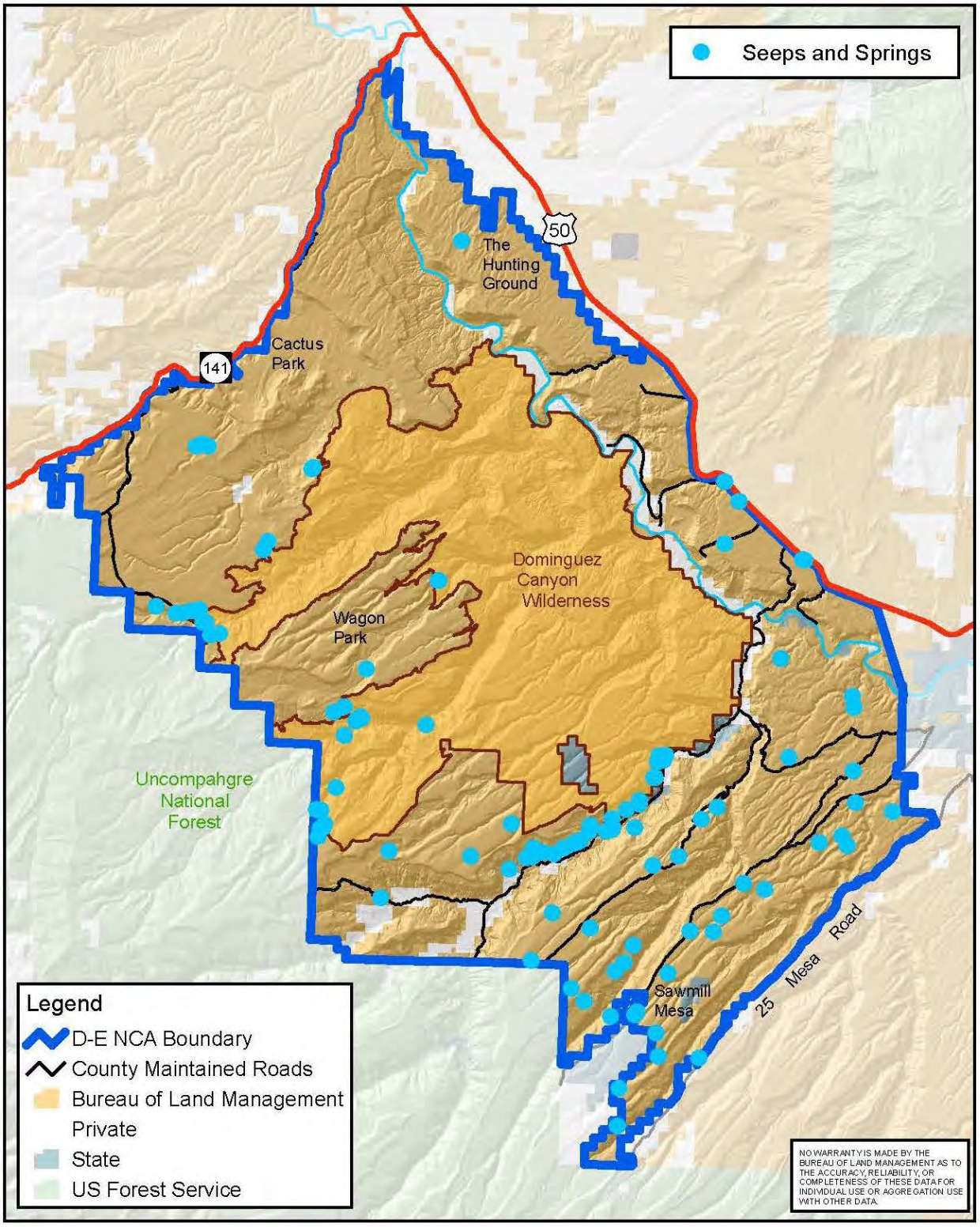


Riparian Assessment Results

0 2.5 5 7.5 10 Miles

N

Map 3-8

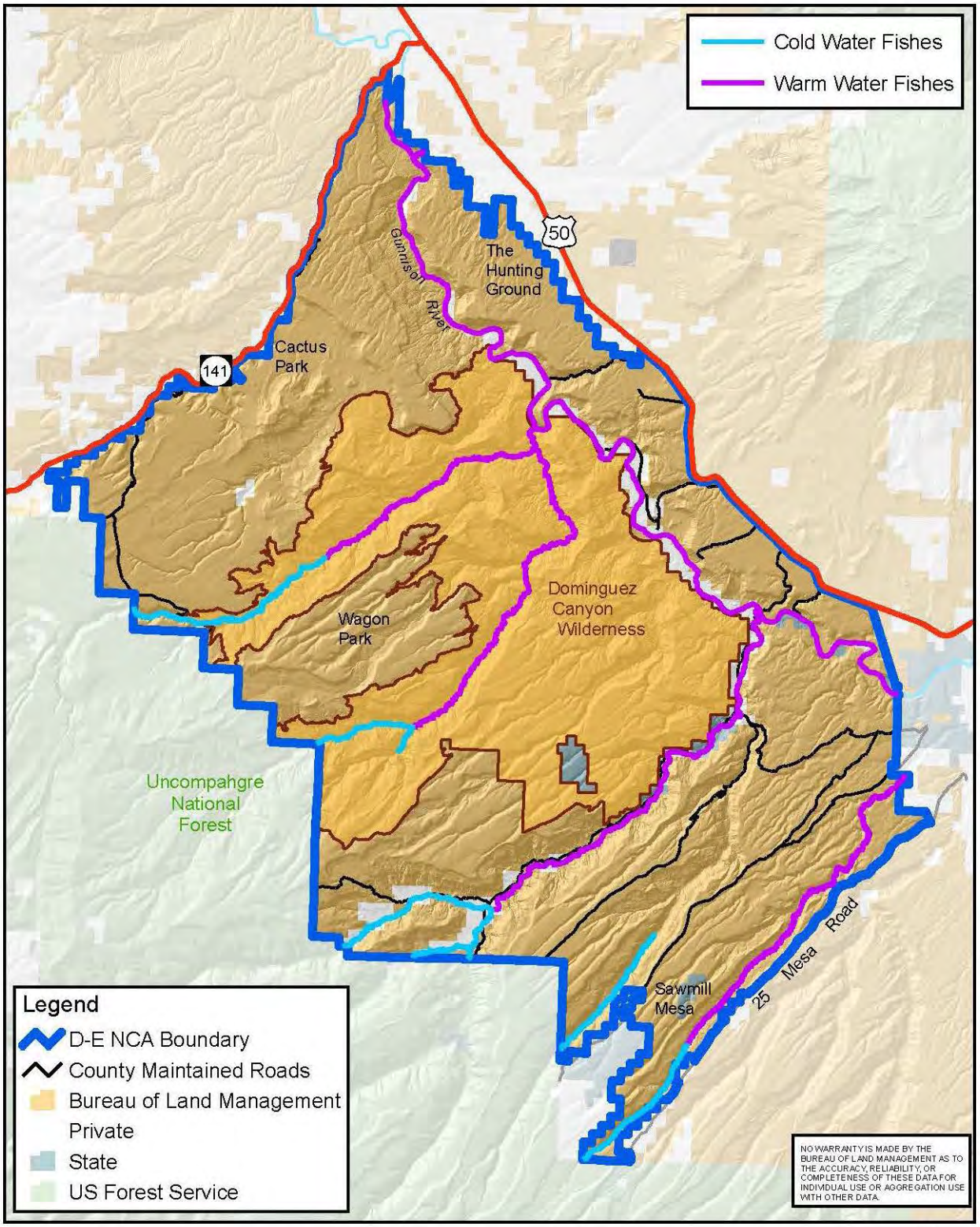


Seeps and Springs

0 2.5 5 7.5 10 Miles

N

Map 3-9

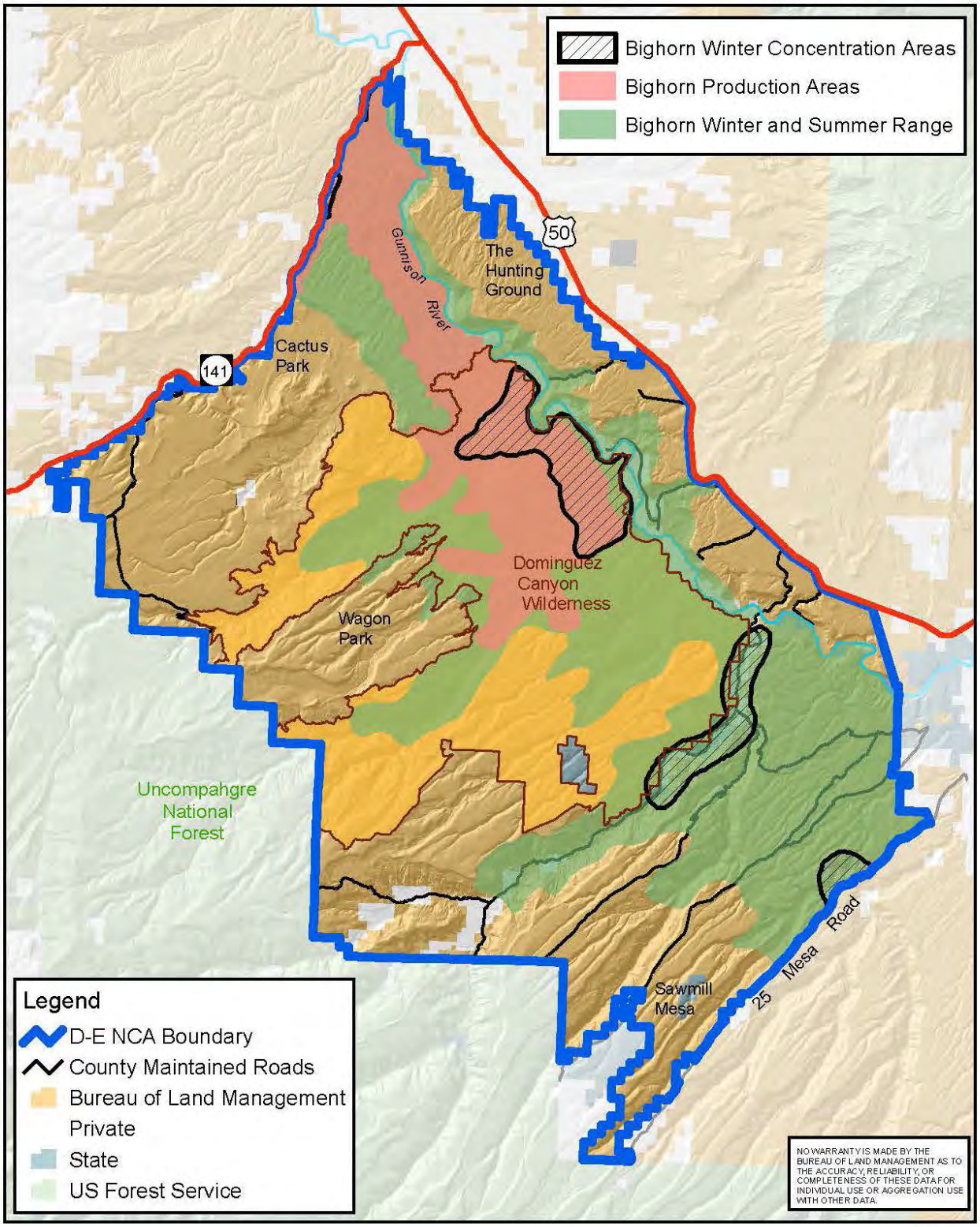


Aquatic Habitats

0 2.5 5 7.5 10 Miles

N

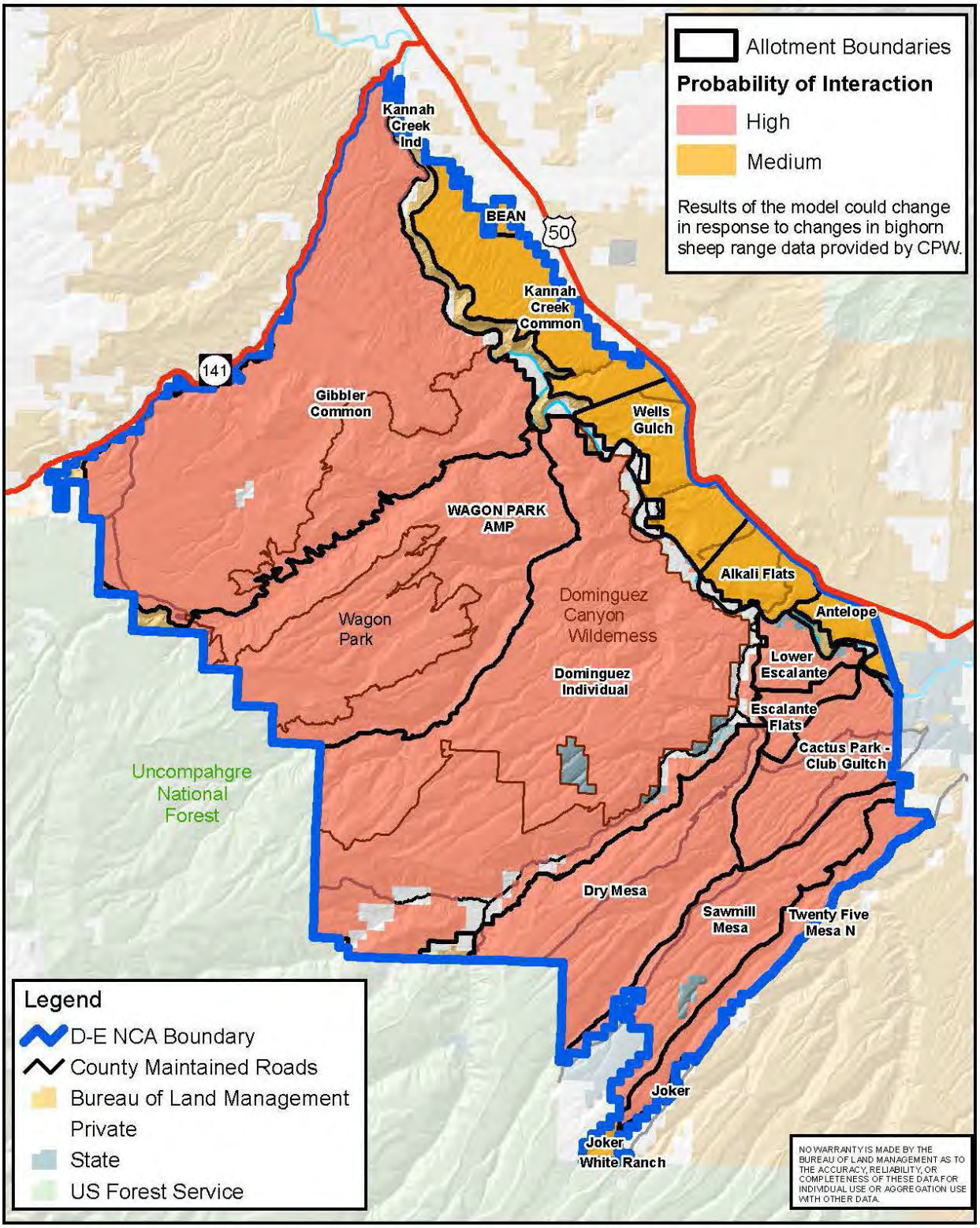
Map 3-10



Bighorn Sheep Range

0 2.5 5 7.5 10 Miles

N

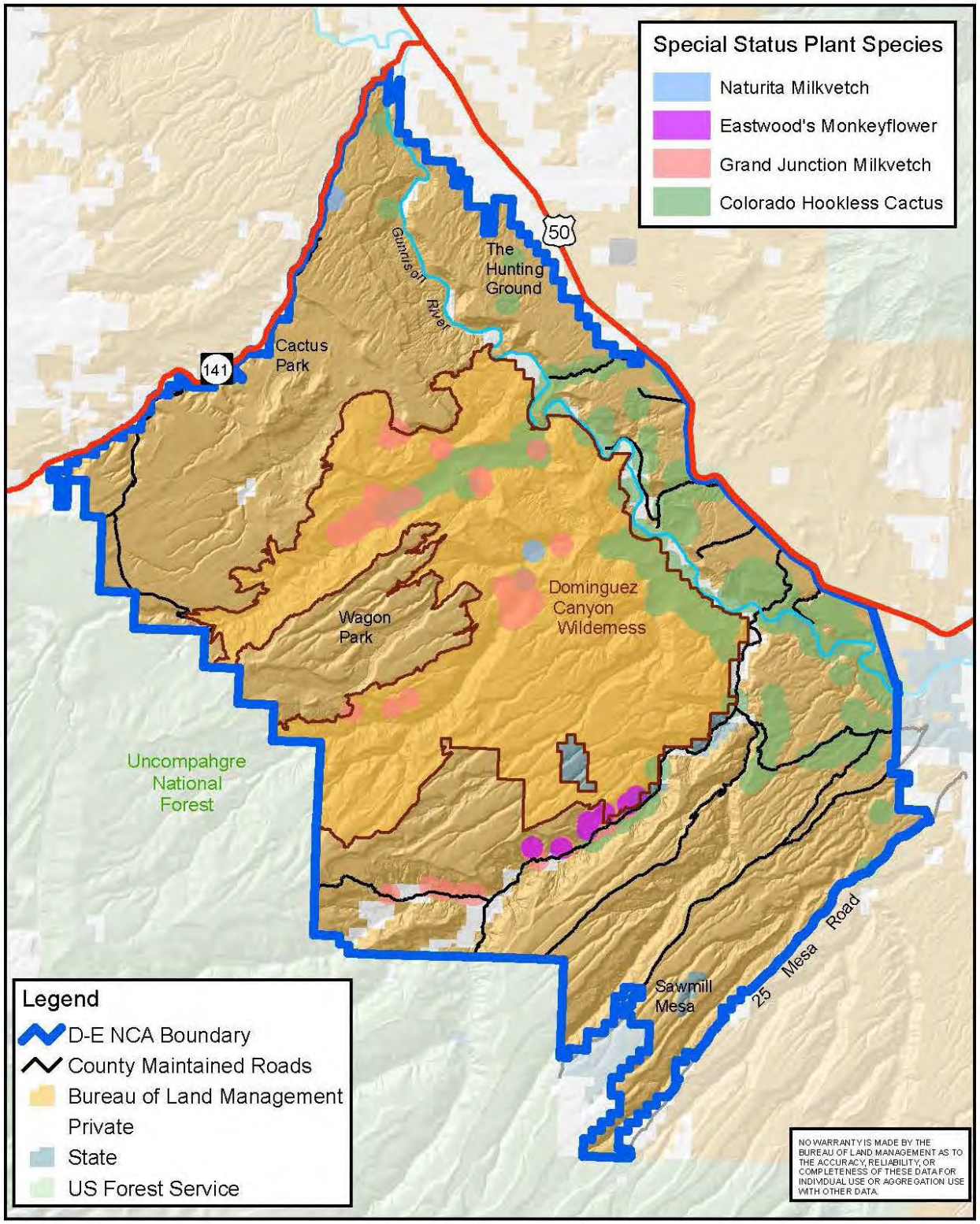


Results of Bighorn/Domestic Sheep Probability of Interaction Model

N

0 2.5 5 7.5 10 Miles

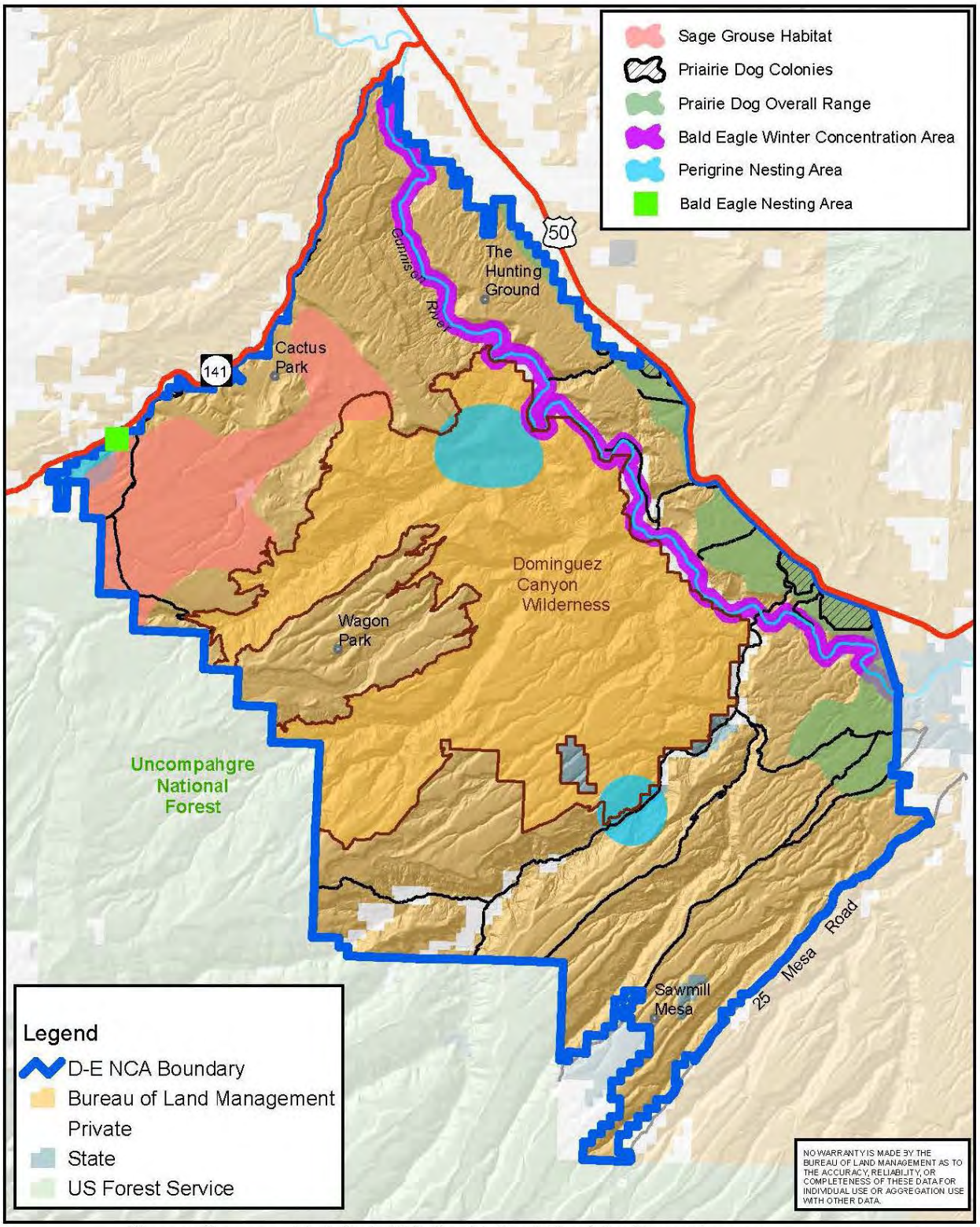
Map 3-12



Special Status Plant Species

0 2.5 5 7.5 10 Miles

N

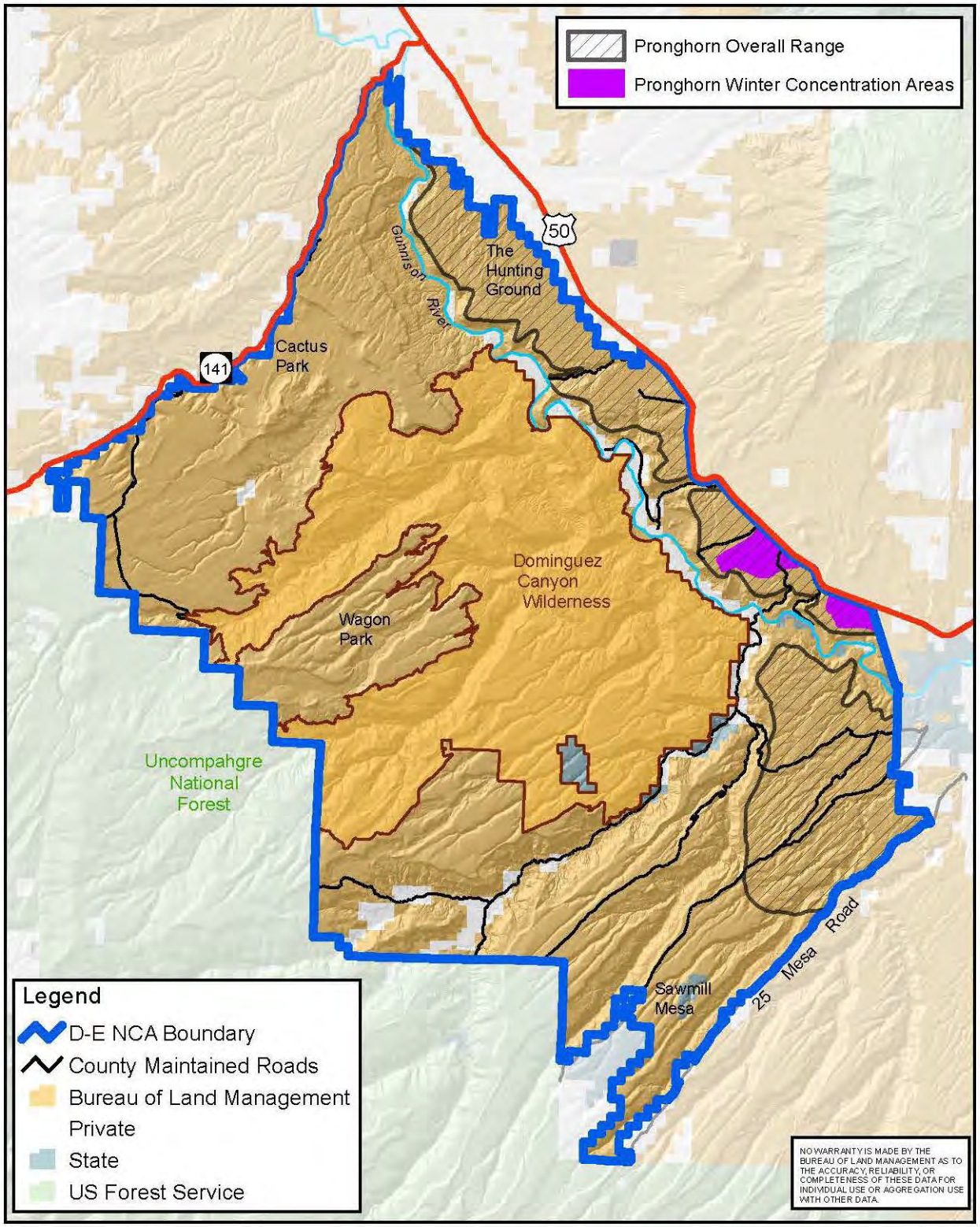


Sage Grouse Habitat, White-Tailed Prairie Dog Range, and Known Raptor Areas

0 2.5 5 7.5 10 Miles

N

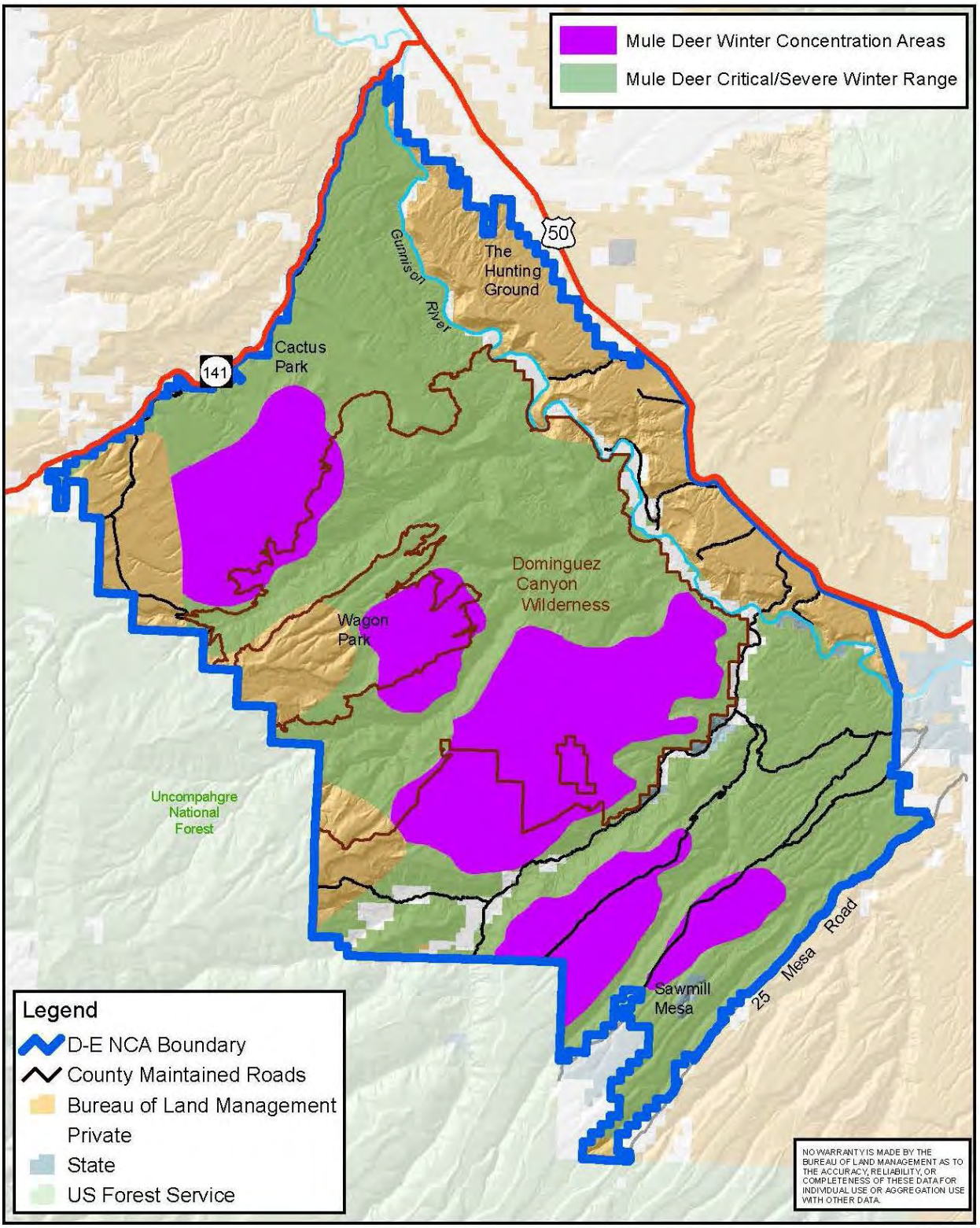
Map 3-14



Pronghorn Range

0 2.5 5 7.5 10 Miles

N

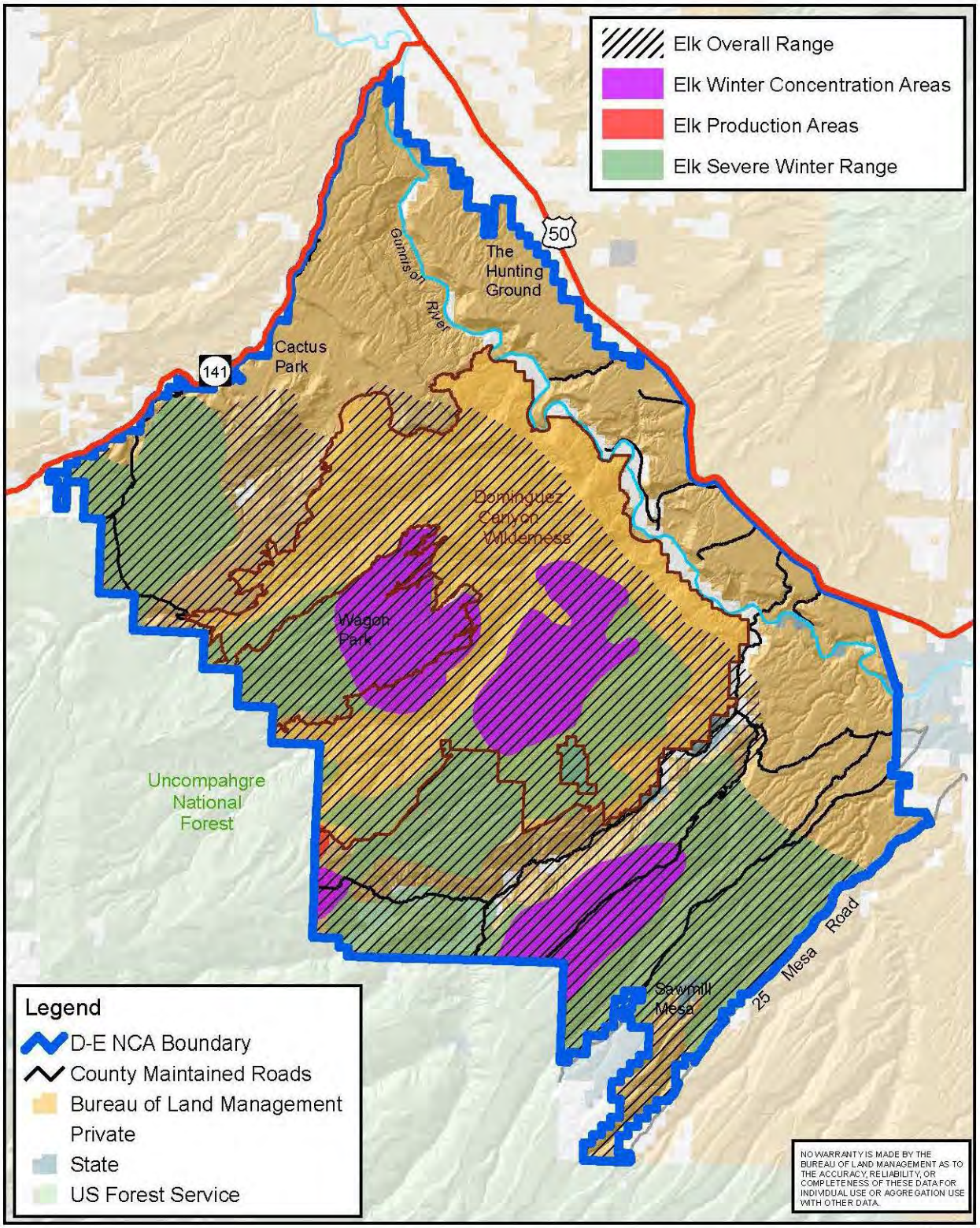


Mule Deer Range

0 2.5 5 7.5 10 Miles

N

Map 3-16

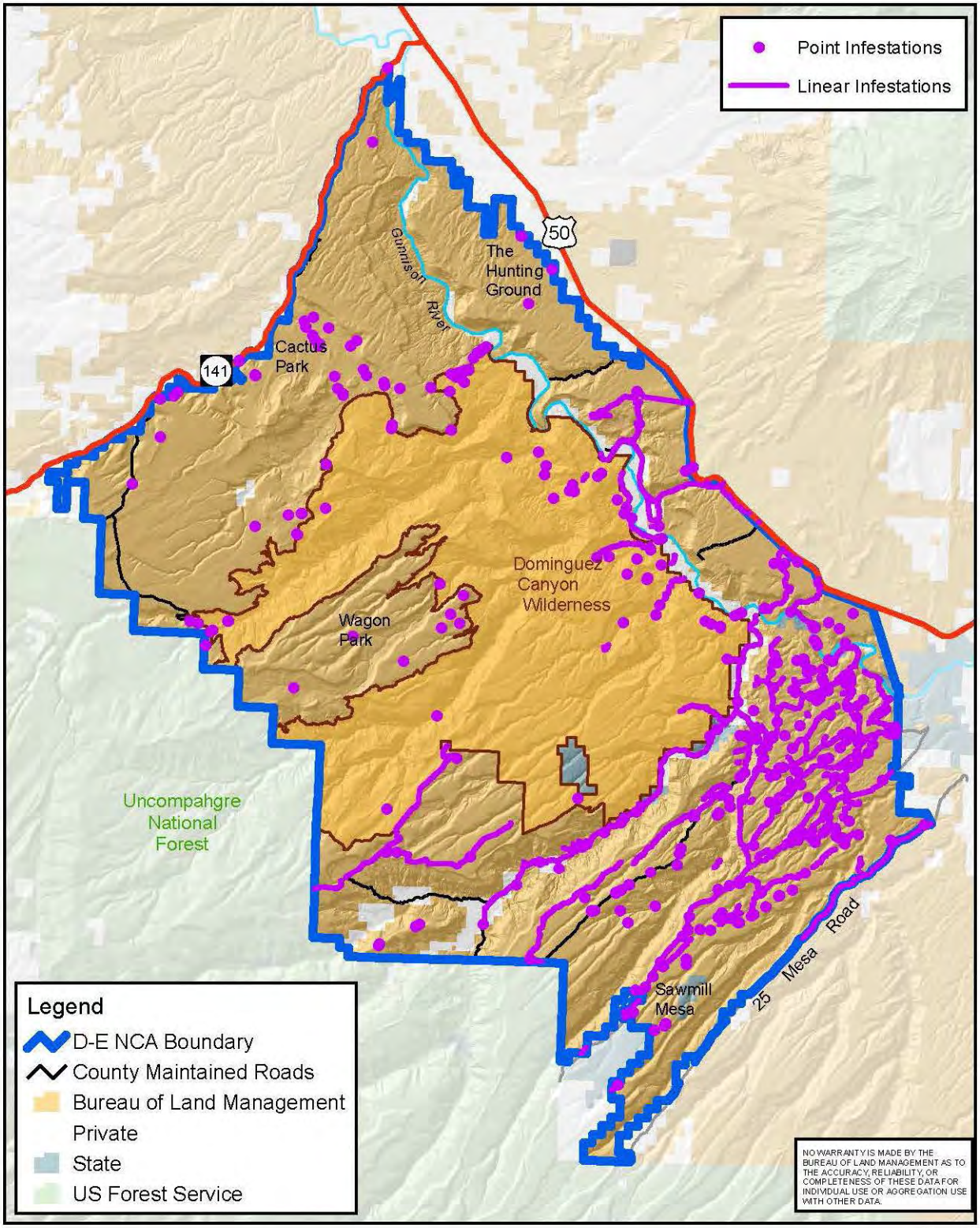


Elk Range

0 2.5 5 7.5 10 Miles

N

Map 3-17

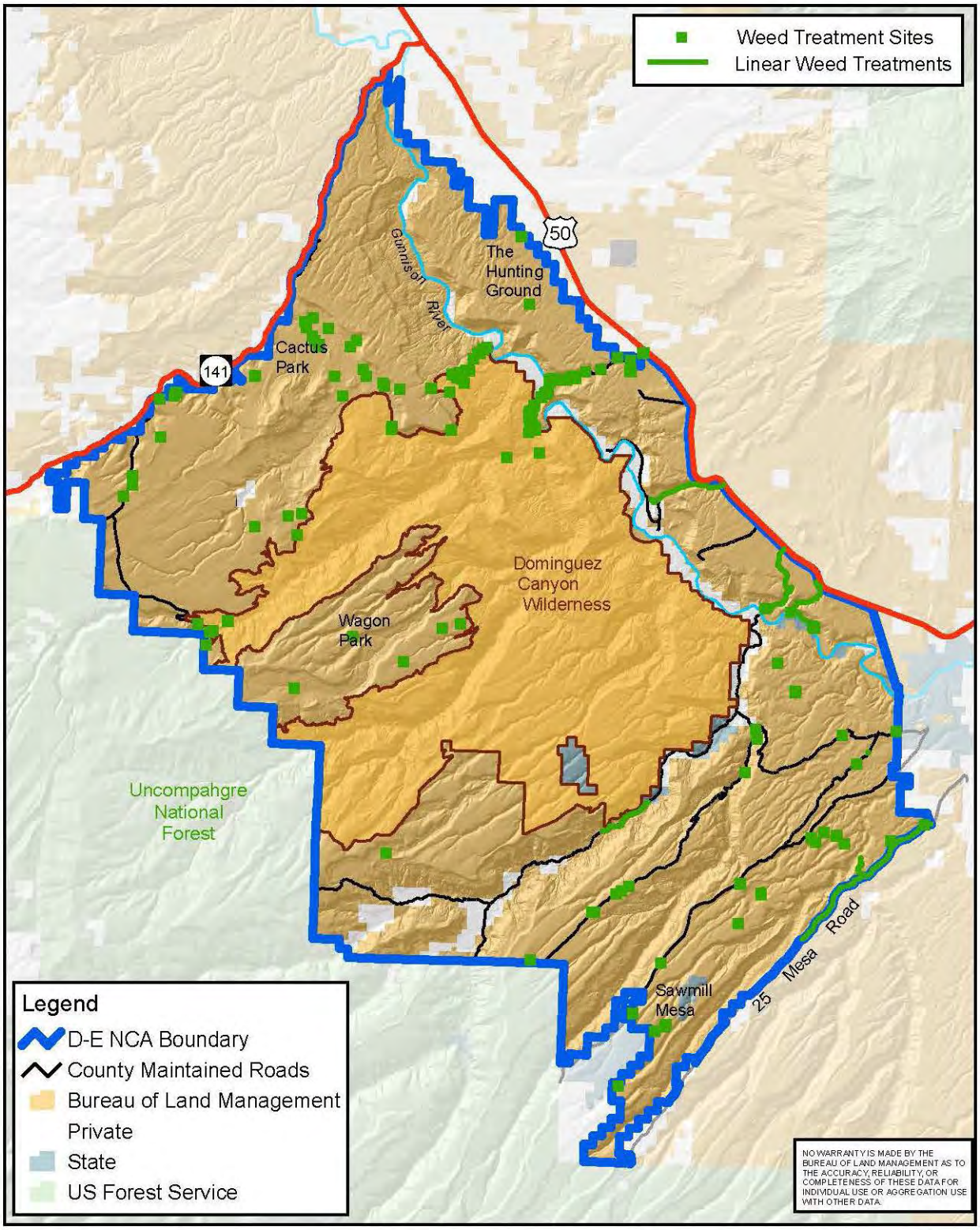


Weed Infestations

0 2.5 5 7.5 10 Miles

N

Map 3-18

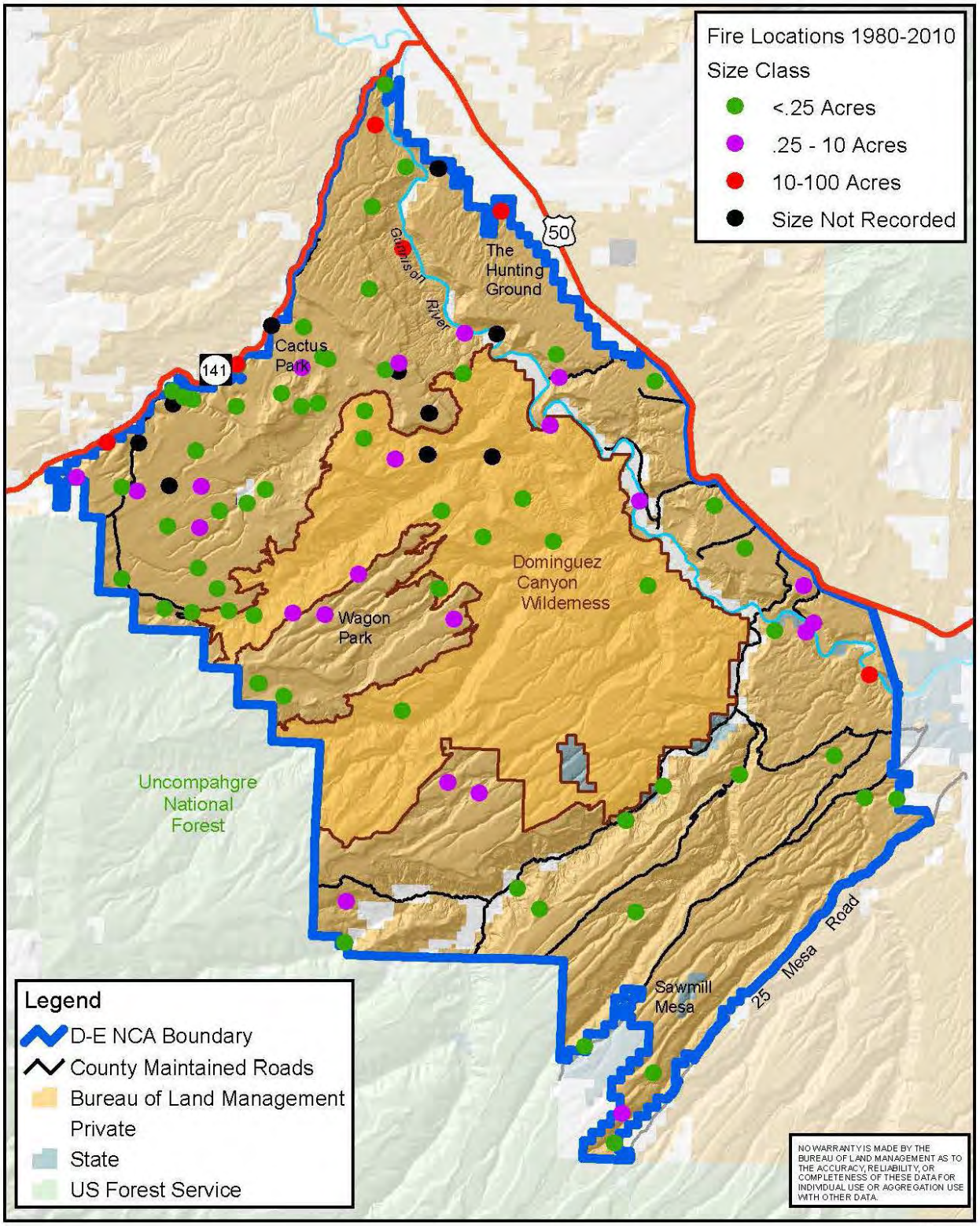


Weed Treatments

0 2.5 5 7.5 10 Miles

N

Map 3-19

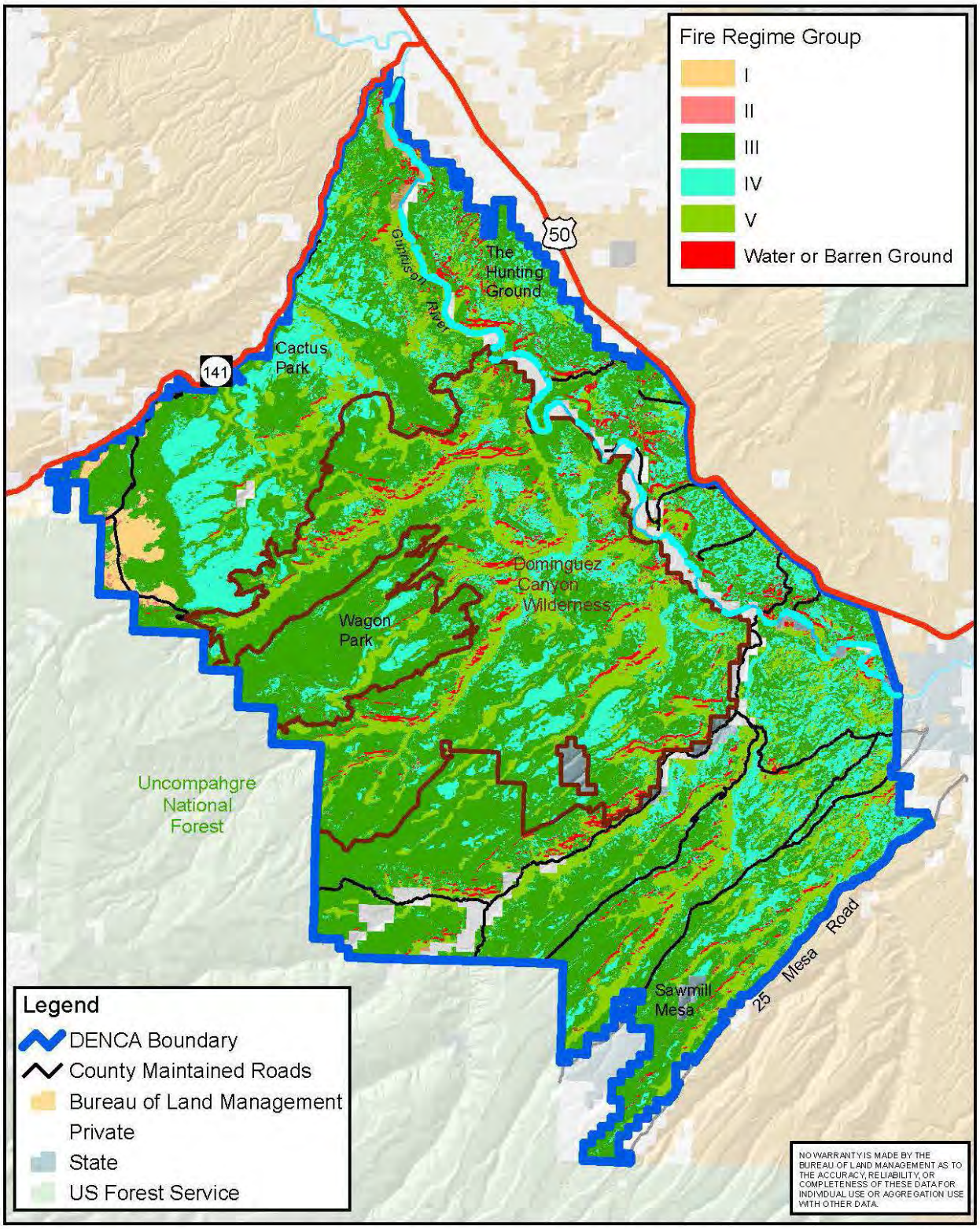


Fire Occurence

0 2.5 5 7.5 10 Miles

N

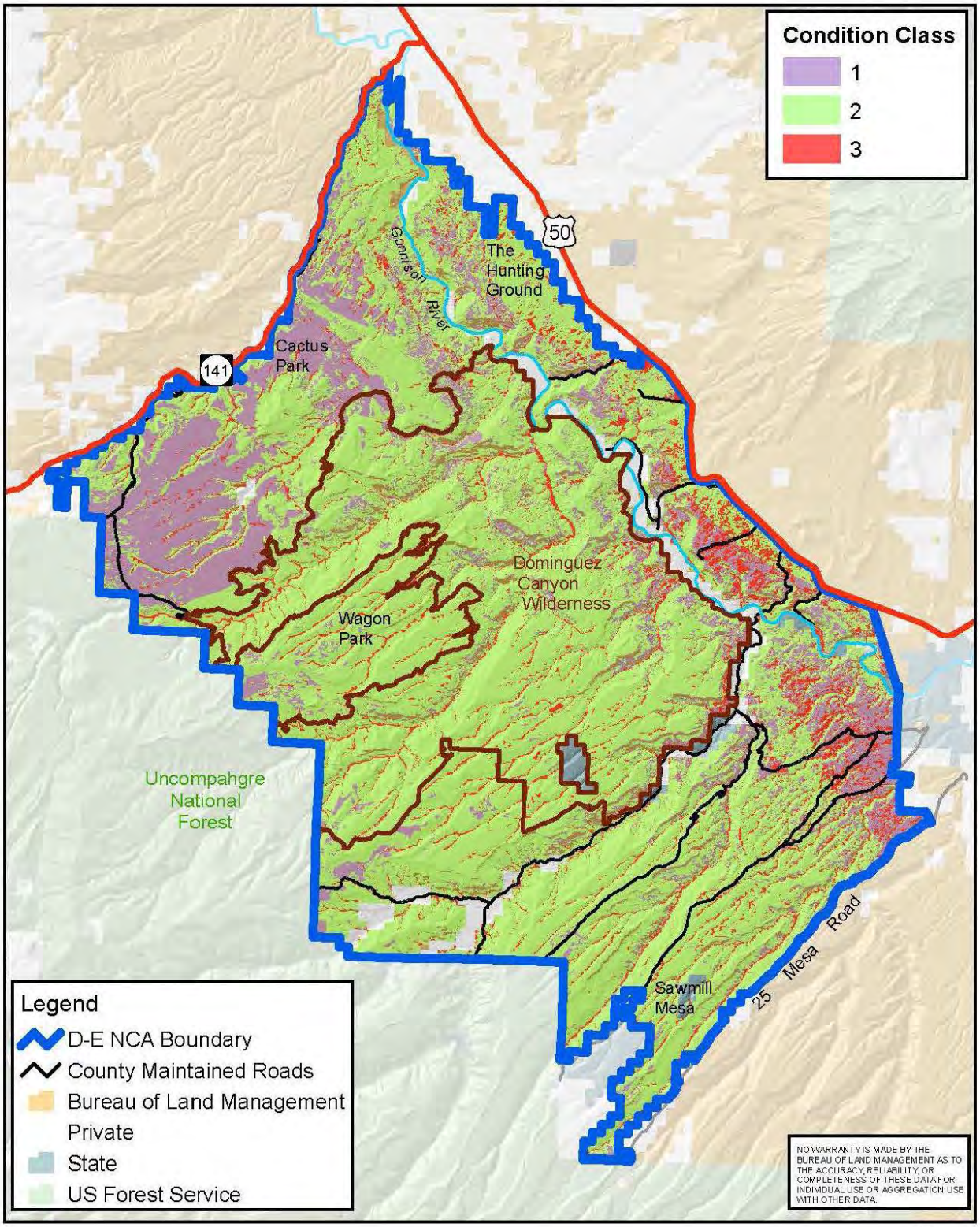
Map 3-20



Fire Regime Group

0 2.5 5 7.5 10 Miles

N

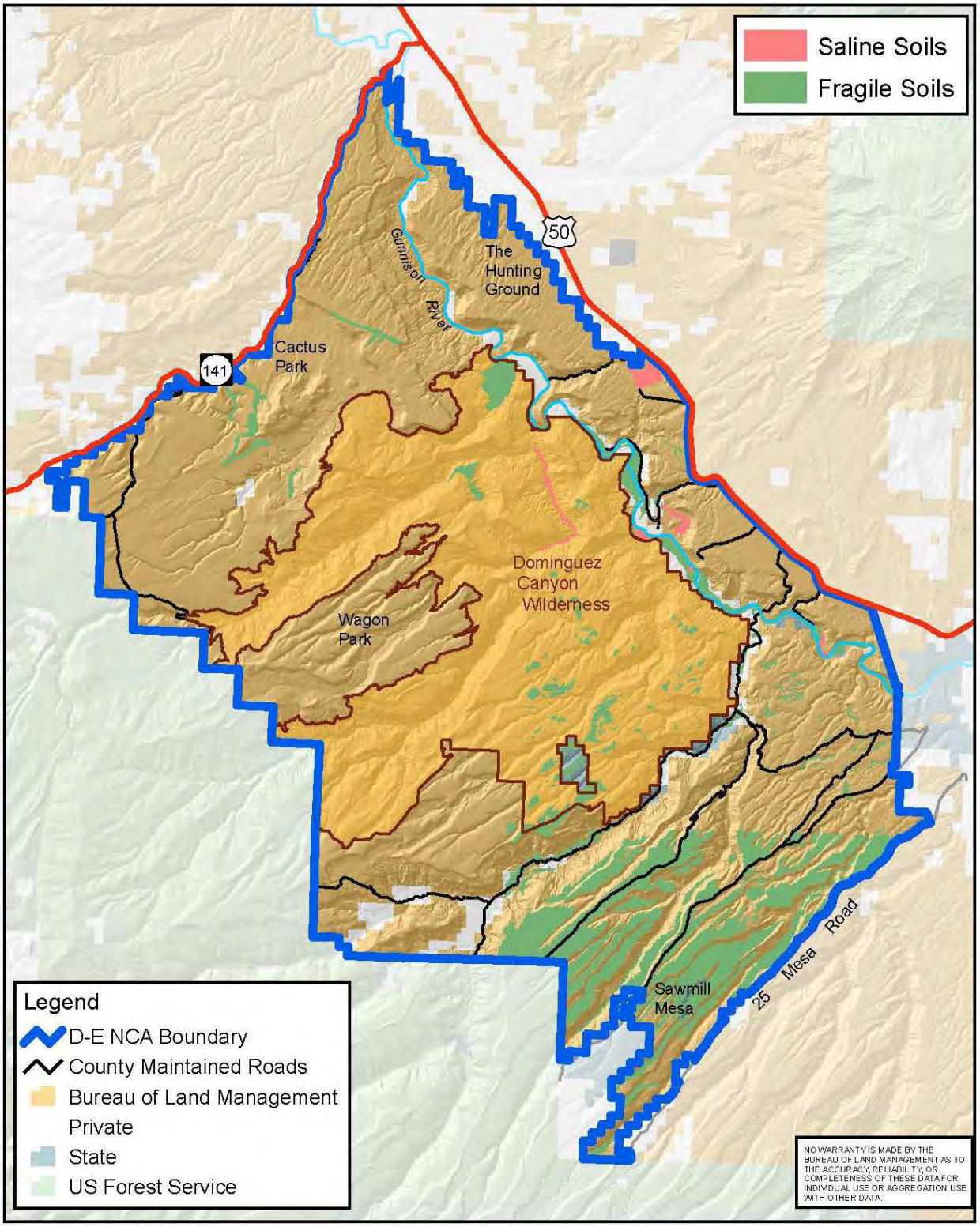


Fire Regime Condition Class (FRCC)

0 2.5 5 7.5 10 Miles

N

Map 3-22

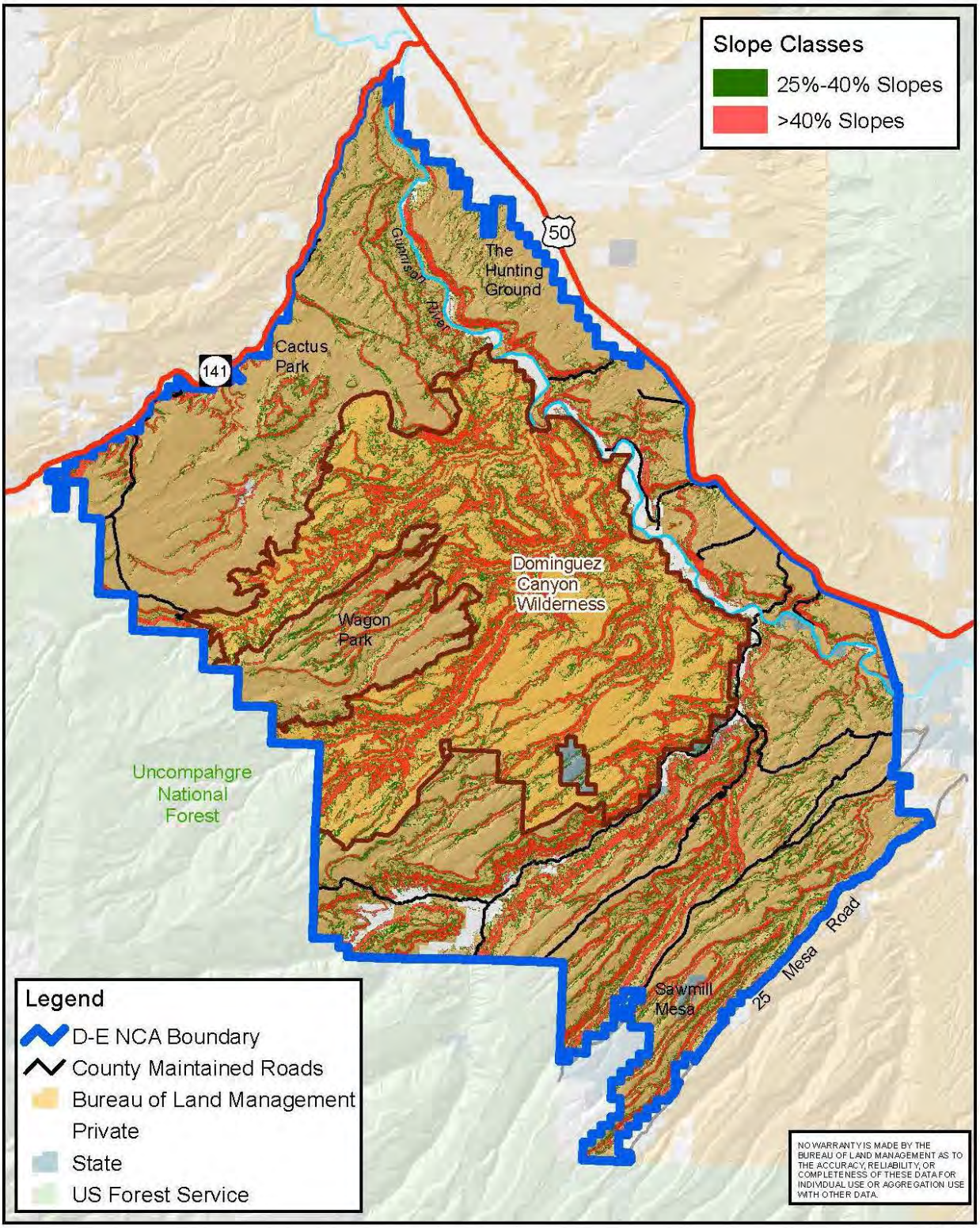


Fragile and Saline Soils

0 2.5 5 7.5 10 Miles

N

Map 3-23

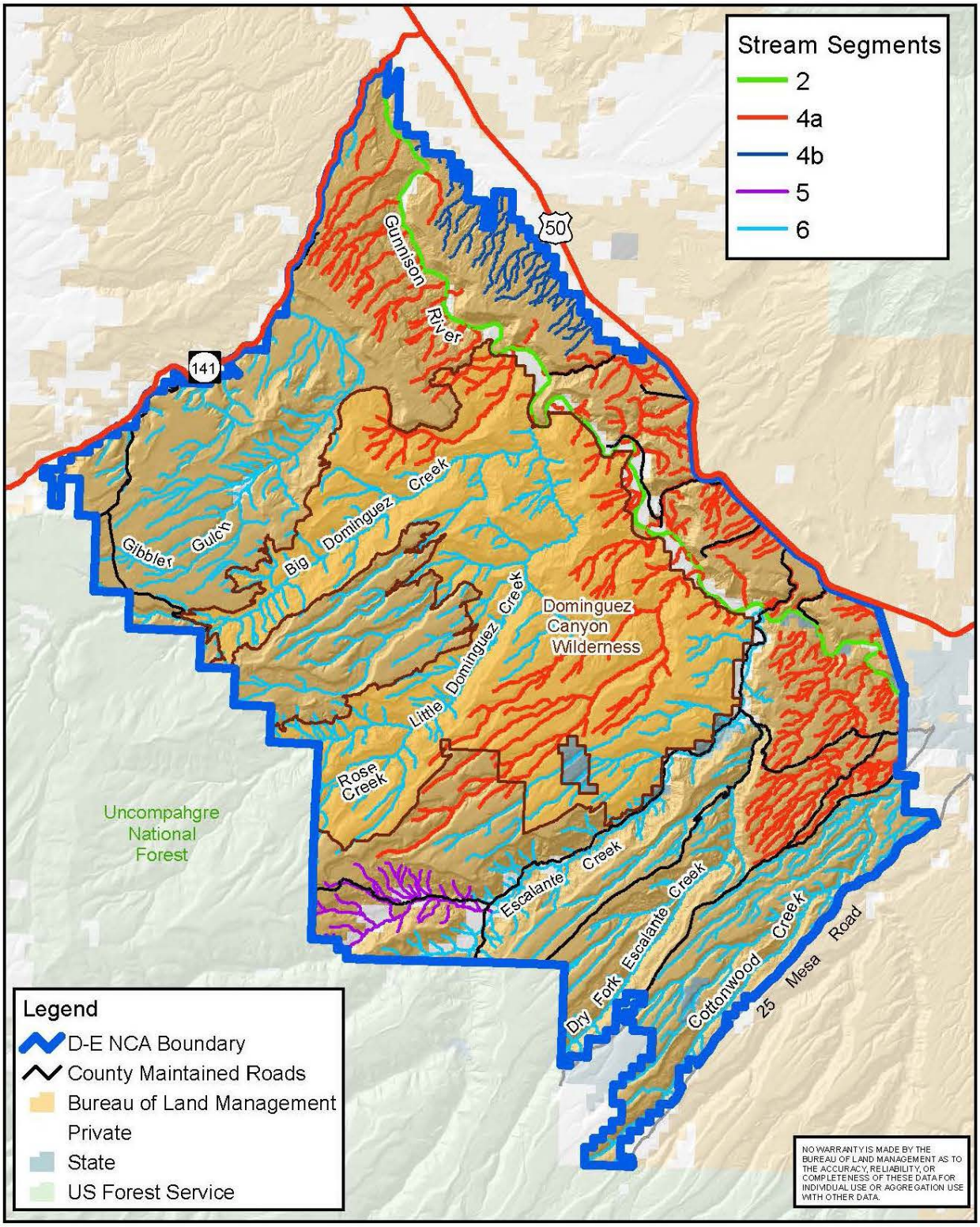


Steep Slopes

0 2.5 5 7.5 10 Miles

N

Map 3-24

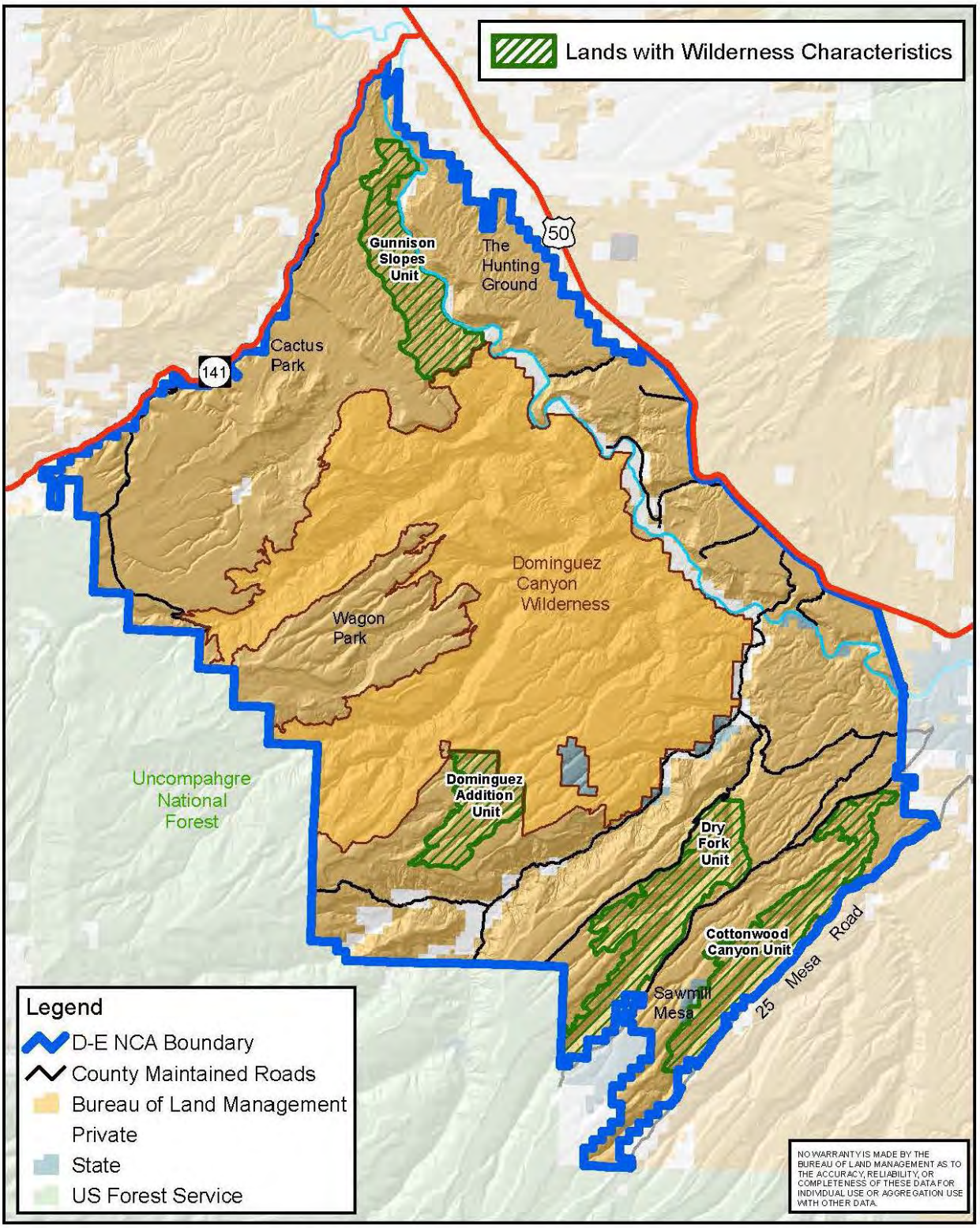


Water Quality Stream Segments

0 2.5 5 7.5 10 Miles

N

Map 3-25

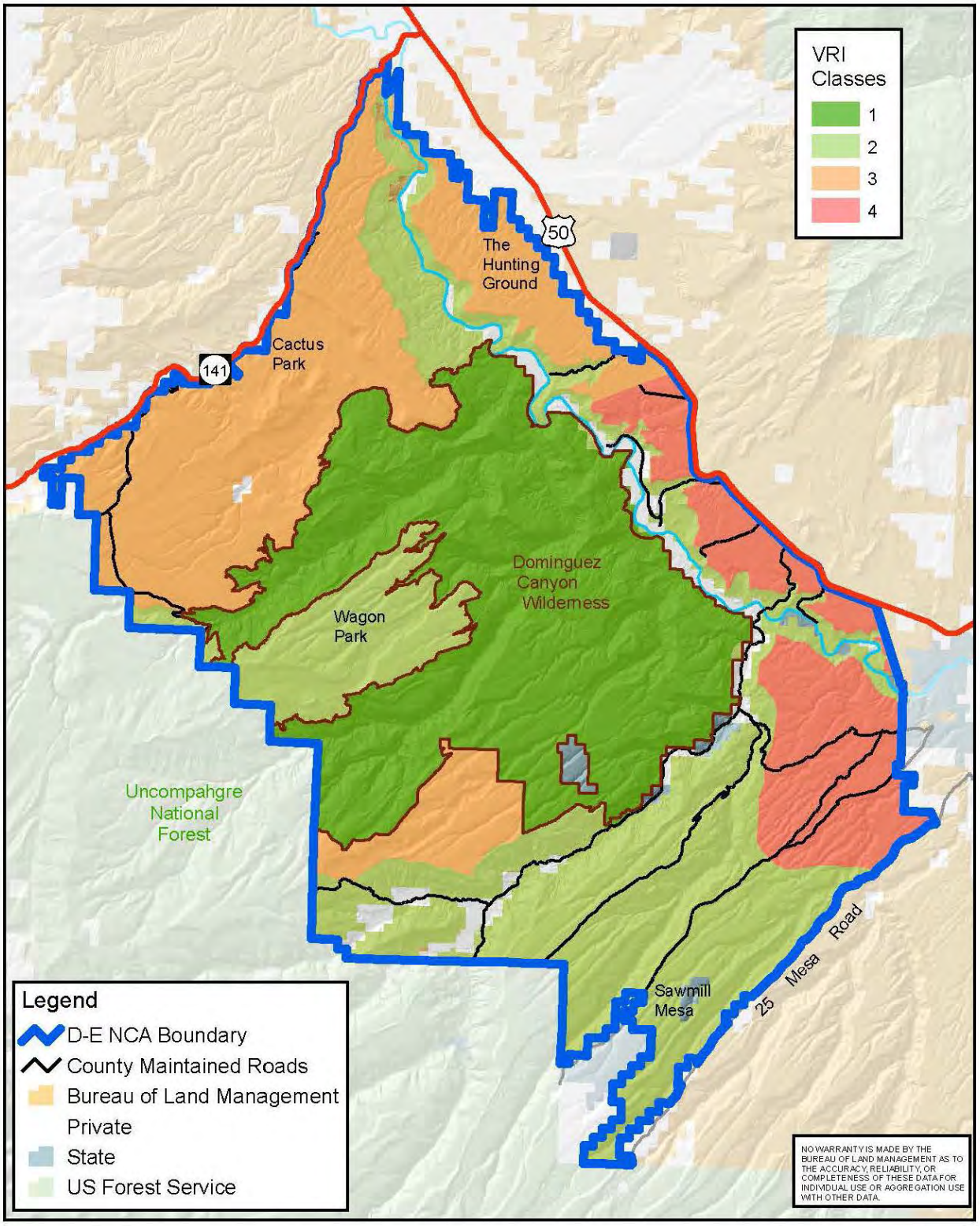


Lands with Wilderness Characteristics
(Outside of Designated Wilderness and WSAs)

0 2.5 5 7.5 10 Miles

N

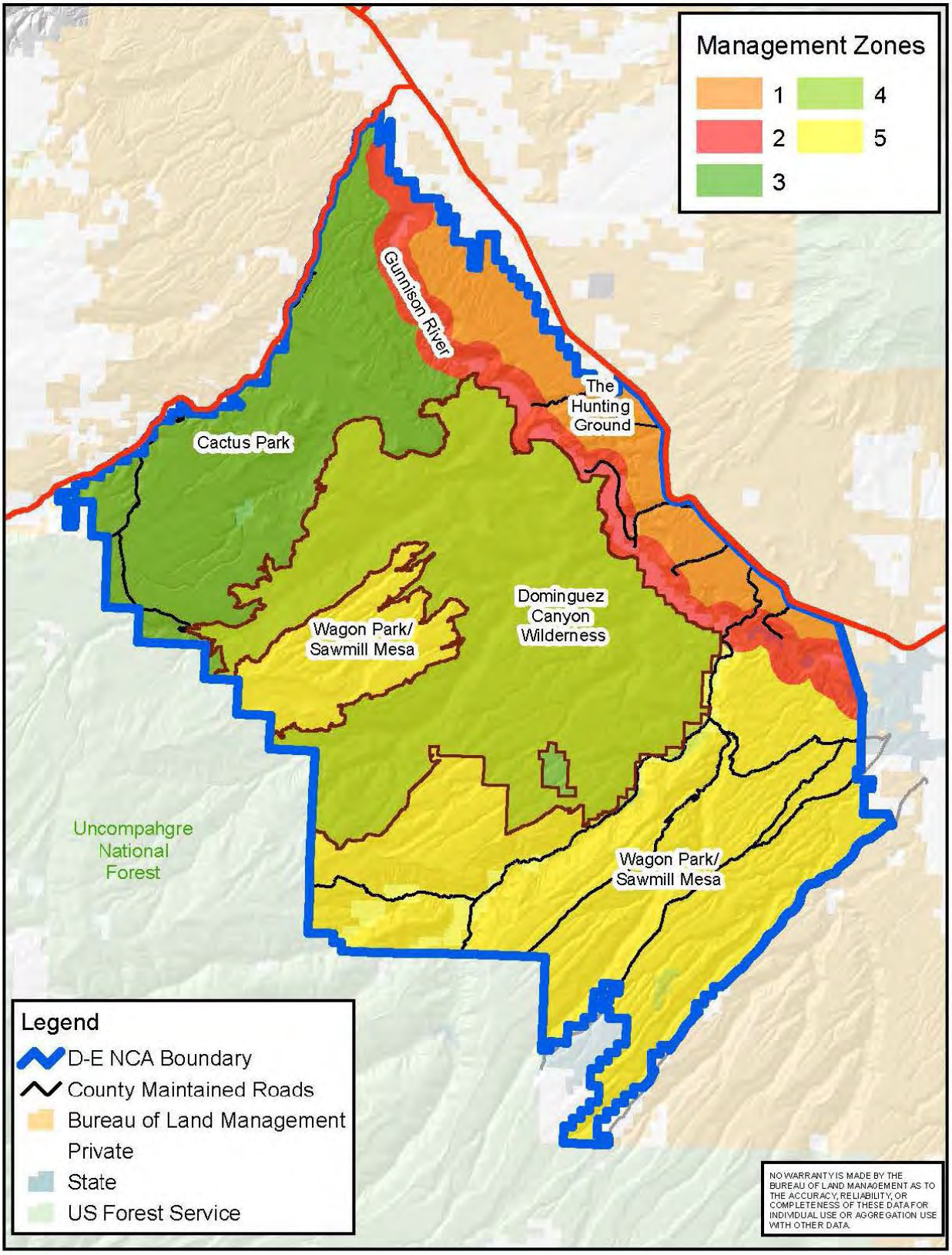
Map 3-26



Visual Resource Inventory Class

0 2.5 5 7.5 10 Miles

N

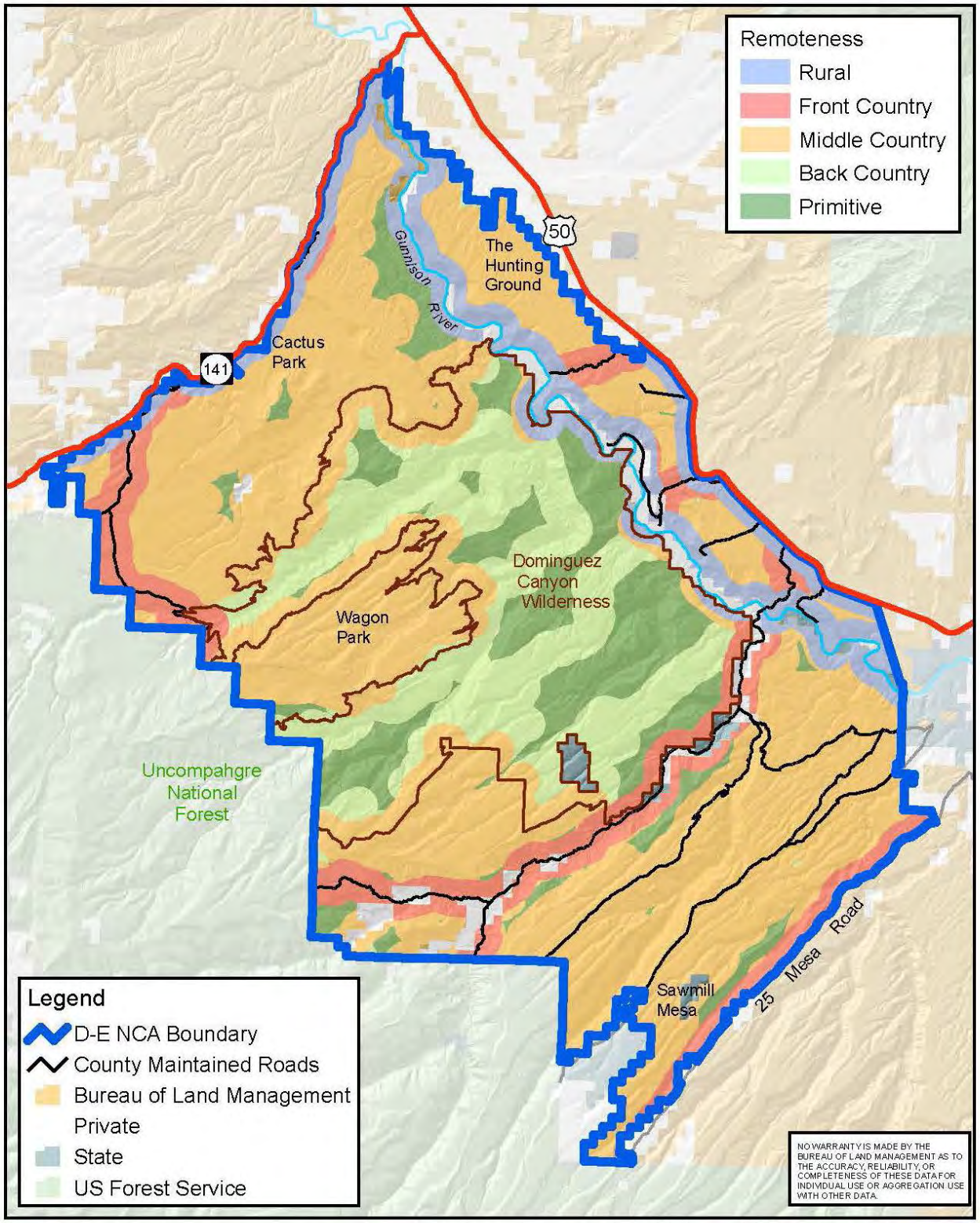


Recreation Management Zones

N

0 2.5 5 7.5 10 Miles

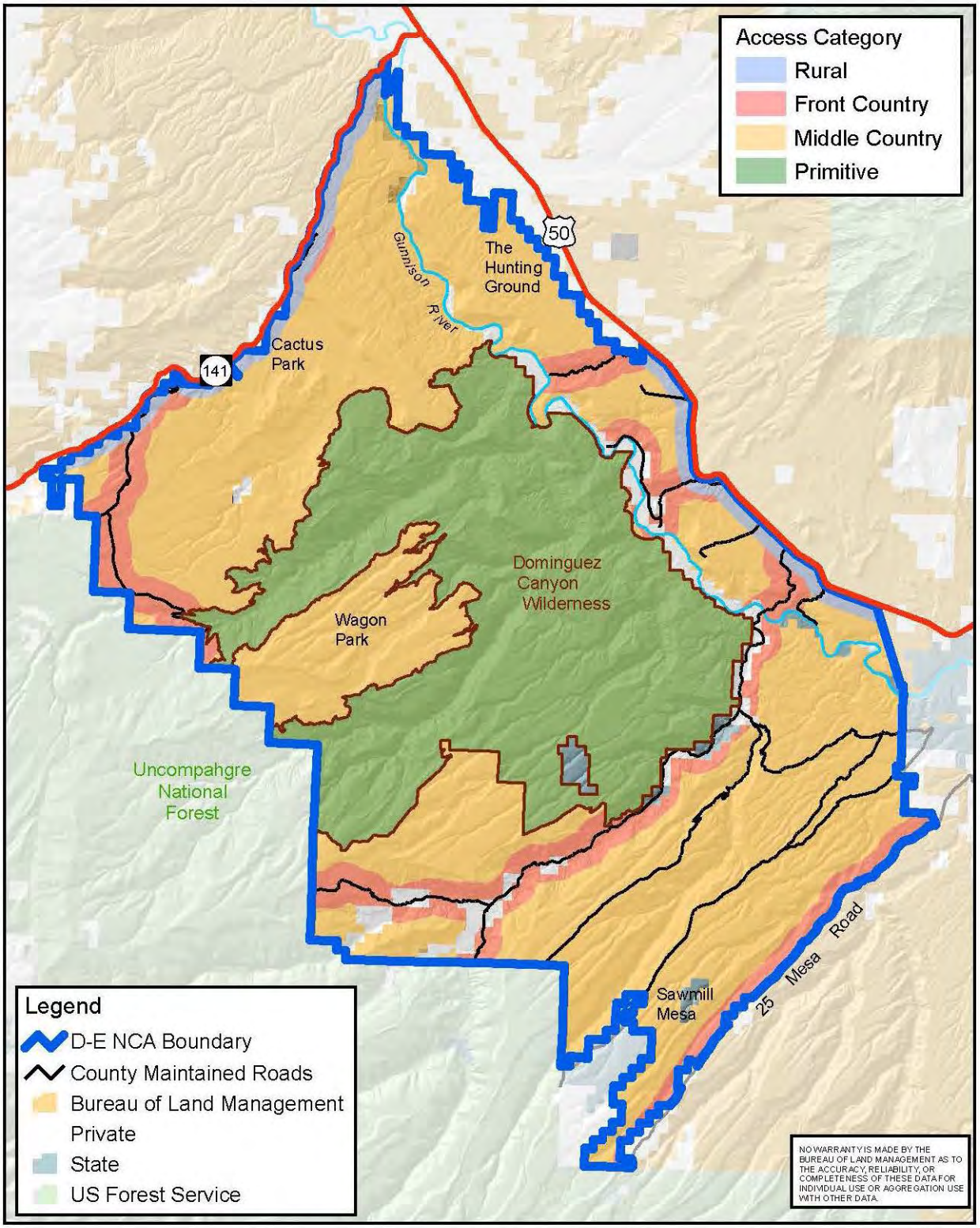
Map 3-28



Recreation Setting Characteristics: Remoteness

0 2.5 5 7.5 10 Miles

N

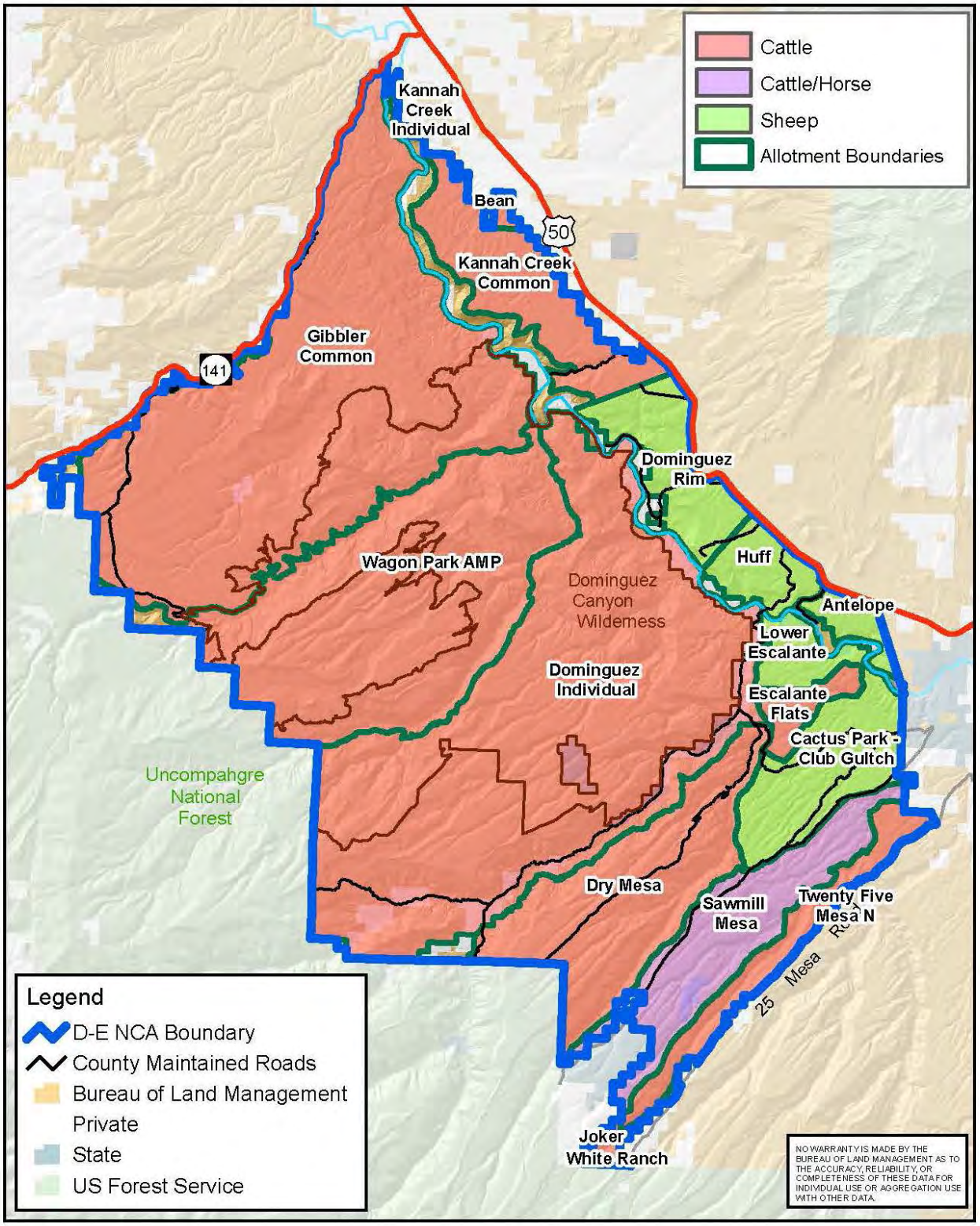


Recreation Setting Characteristics: Access

0 2.5 5 7.5 10 Miles

N

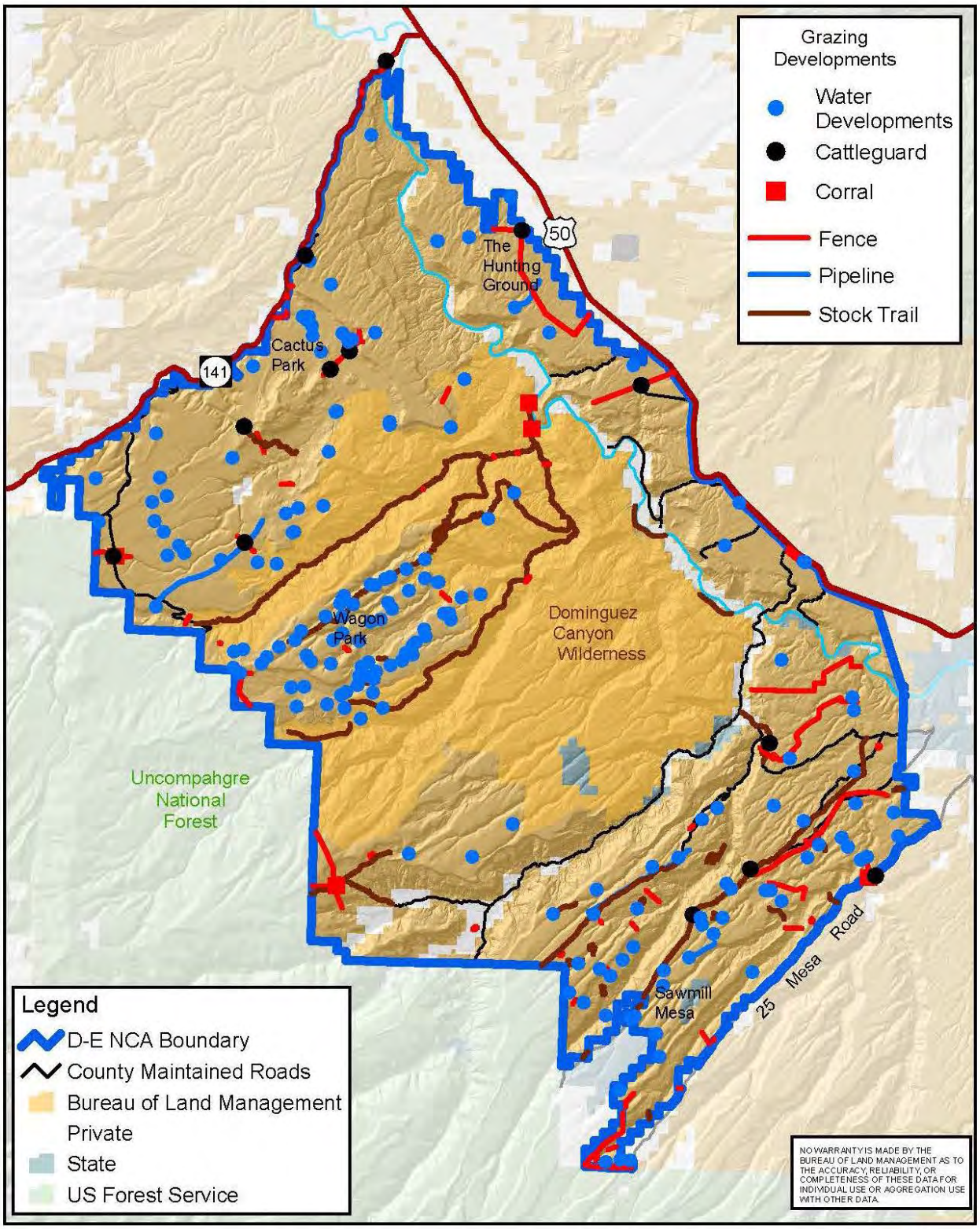
Map 3-30



Current Grazing Allotments

0 2.5 5 7.5 10 Miles

N

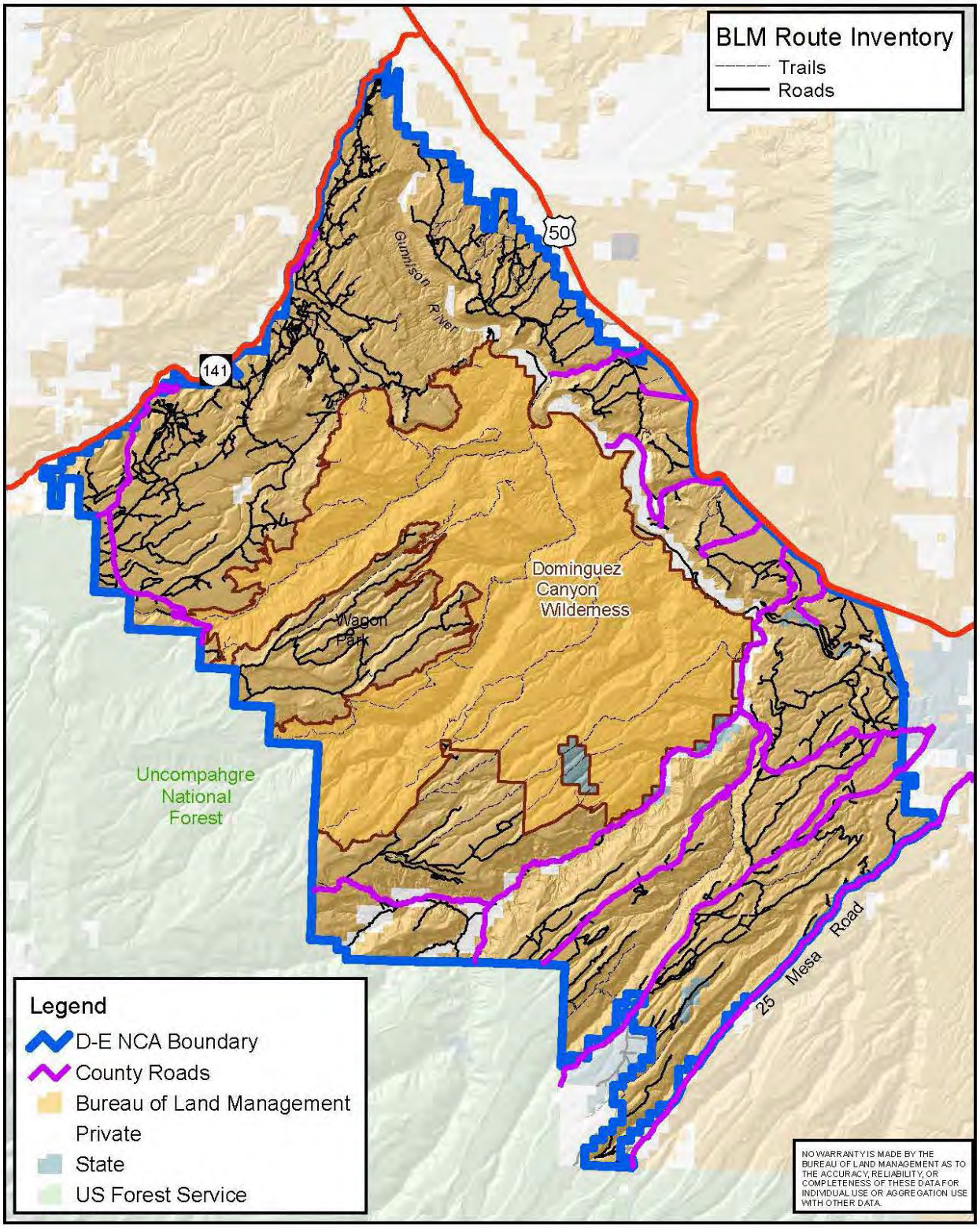


Livestock Grazing Developments

0 2.5 5 7.5 10 Miles

N

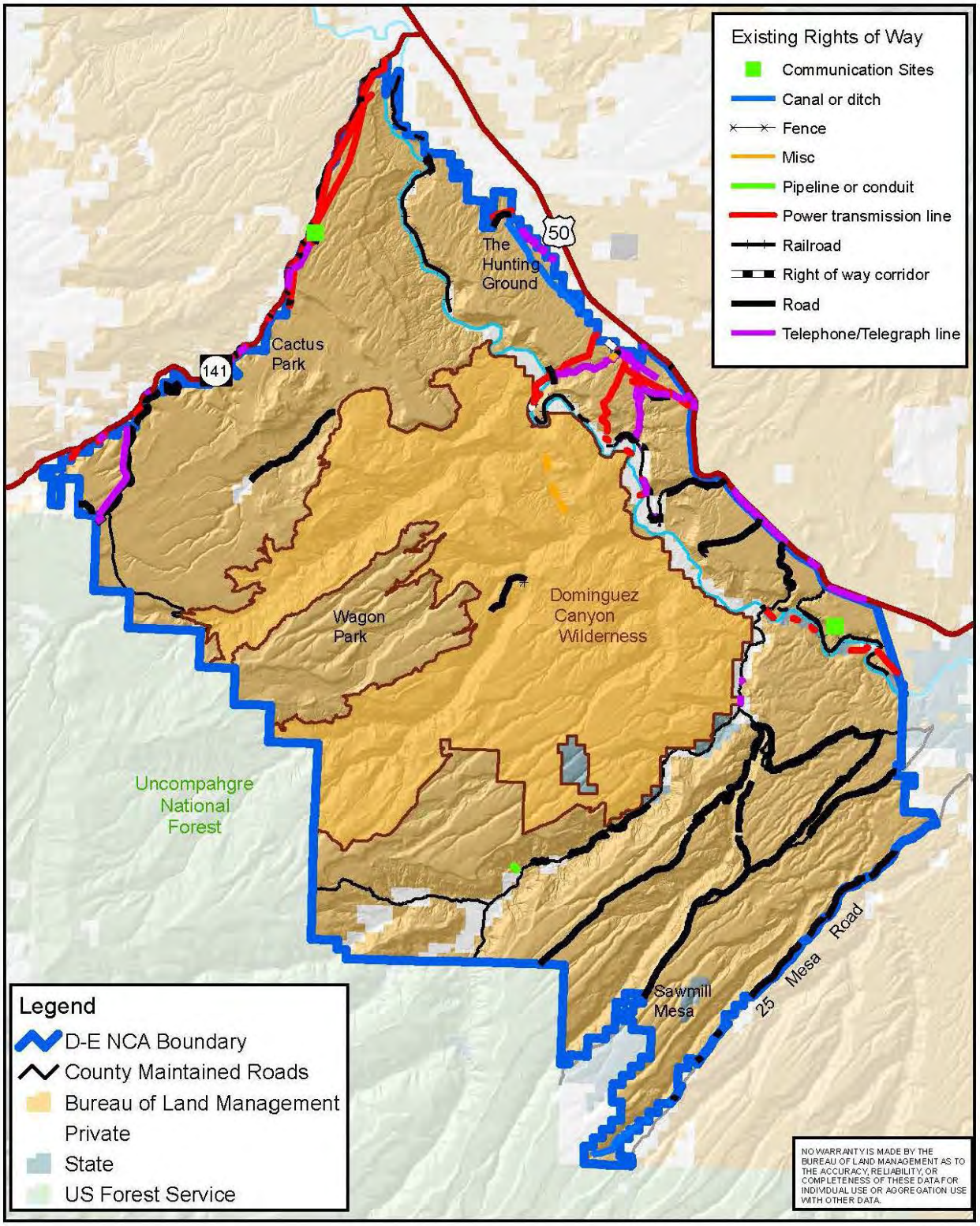
Map 3-32



Route Inventory

0 2.5 5 7.5 10 Miles

N

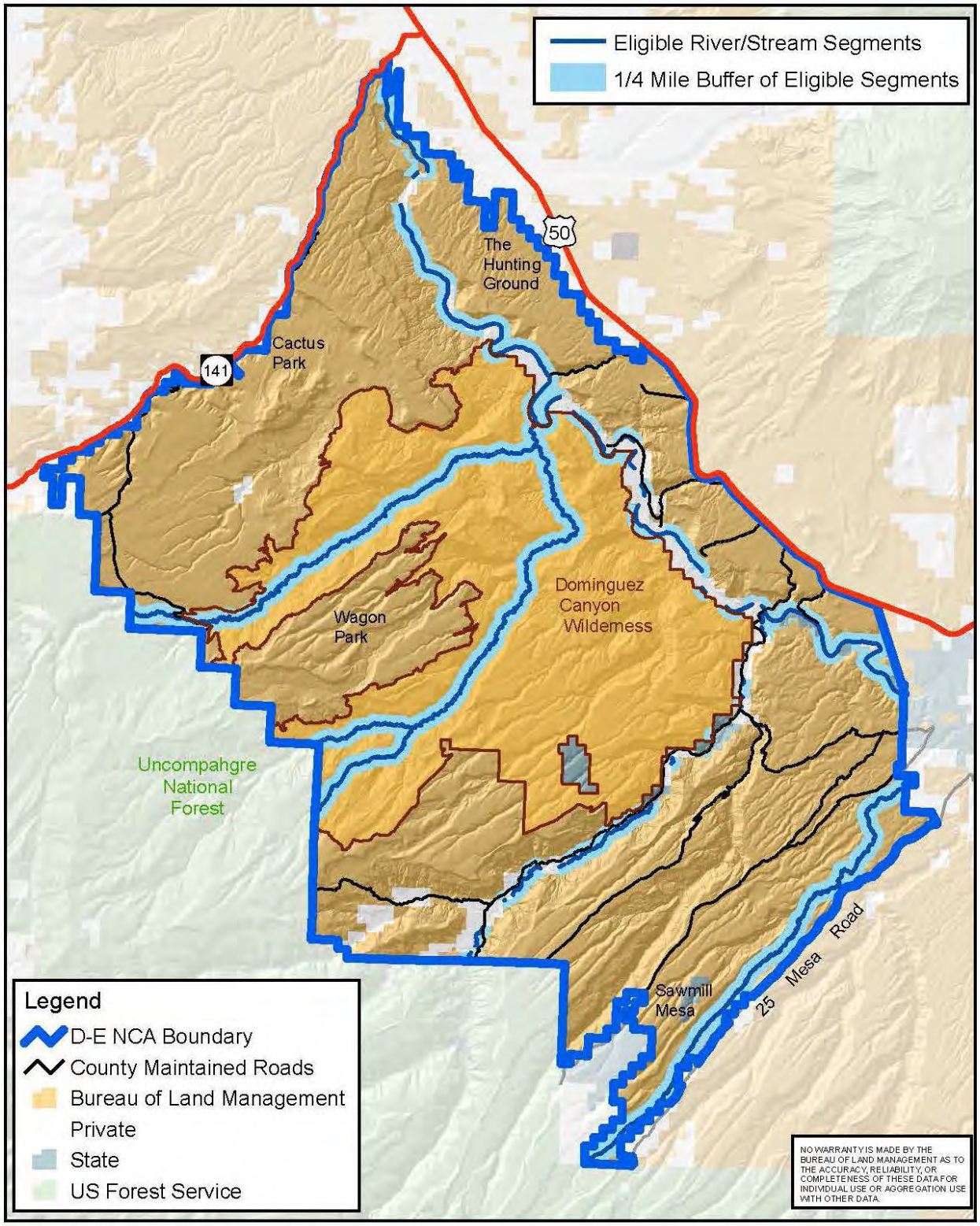


Existing Rights of Way

0 2.5 5 7.5 10 Miles

N

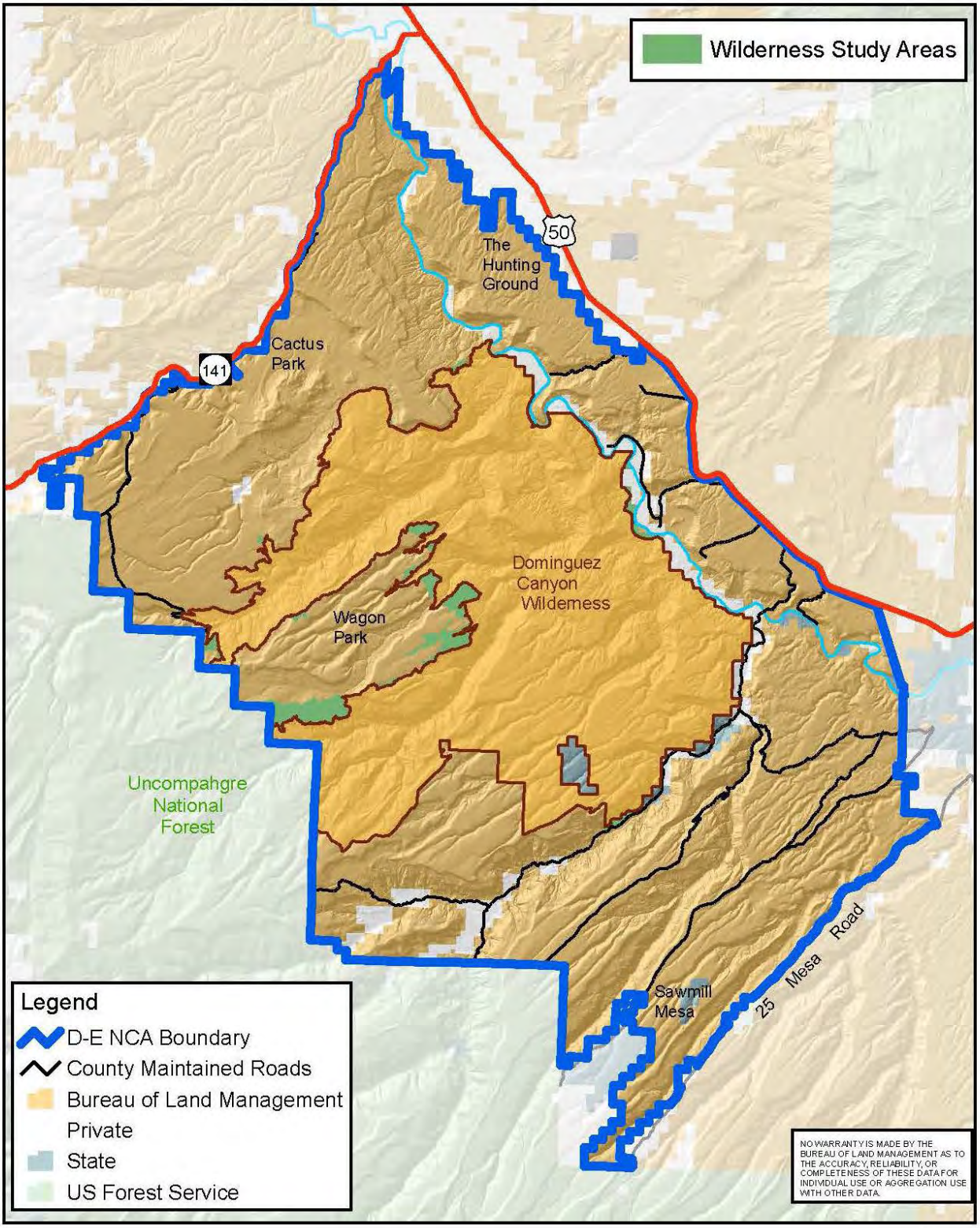
Map 3-34



Segments Eligible for Inclusion as National Wild and Scenic Rivers

N

0 2.5 5 7.5 10 Miles

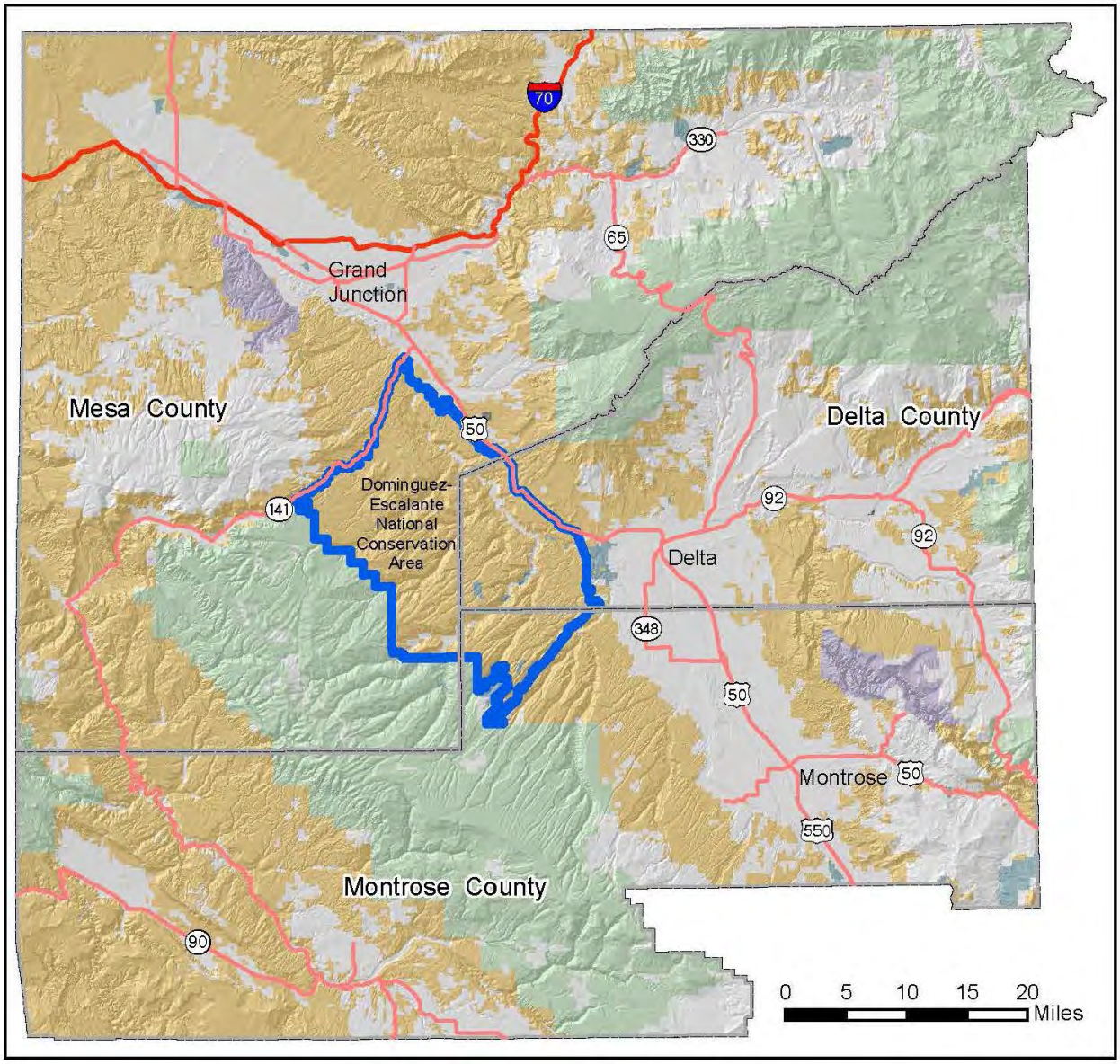


Wilderness Study Areas

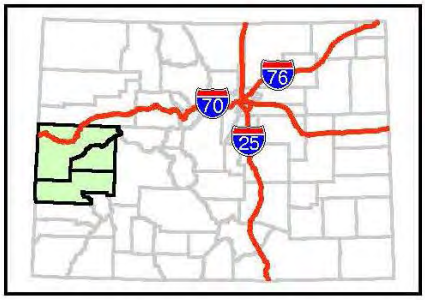
0 2.5 5 7.5 10 Miles

N

Map 3-36



Social and Economic Analysis Area



Analysis Area in Colorado

Legend

- County Boundaries
- DENCA_boundary
- Bureau of Land Management
- National Park Service
- Private
- State
- State Wildlife Aera
- US Forest Service

N

NO WARRANTY IS MADE BY THE BUREAU OF LAND MANAGEMENT AS TO THE ACCURACY, RELIABILITY, OR COMPLETENESS OF THESE DATA FOR INDIVIDUAL USE OR AGGREGATION USE WITH OTHER DATA.

Map 3-37

Appendix S. Economic Impact Analysis Methodology

S.1. Introduction

This appendix describes the methodology and data used to model the economic impacts of public land management decisions on communities surrounding Federal lands. Input-output models, such as the Impact Analysis for Planning (IMPLAN) model, (IMPLAN Group 2012) provide a quantitative representation of the production relationships between individual economic sectors. Thus, the economic modeling analysis uses information about physical production quantities and the prices and costs for goods and services. The inputs required to run the IMPLAN model are described in the following narrative and tables. The resulting estimates from the IMPLAN model, by alternative, can be found in the Economic Conditions section in Chapter 4. The first section of this appendix describes general aspects of the IMPLAN model and how it was used to estimate economic impacts. The remaining sections provide additional detailed data used in the analysis for livestock grazing, recreation, and oil and gas.

S.2. The IMPLAN Model

IMPLAN is a widely accepted model commonly used for estimating regional economic contribution and analyzing economic impacts. This model provides a mathematical representation of the local economy, which enables the flow of money, goods, and services to be tracked and reported in terms of regional jobs and income. IMPLAN models the way a dollar injected into one sector is spent and re-spent in other sectors of the local economy, creating a ripple-like effect. This ripple effect, also called the "multiplier effect," reflects changes in economic sectors that may not be directly affected by management actions but are linked to industries that are directly affected. In IMPLAN, these ripple effects are termed indirect impacts (for changes in industries that sell inputs to the industries that are directly affected) and induced impacts (for changes in household spending as household income increases or decreases due to the changes in production).

The analysis conducted for this resource management plan used IMPLAN (2012). Prior to running the model, cost and price data were converted to a consistent dollar year (2012), using sector-specific adjustment factors from the IMPLAN model. The values in this appendix are expressed in year 2012 dollars so that the earnings and employment estimates can be easily compared to the latest (2012) earnings and employment data available from the Bureau of Economic Analysis. The current IMPLAN model has 440 economic sectors, of which 250 are represented in the three planning area counties. This analysis considered direct changes in economic activity for 54 IMPLAN economic sectors, as well as changes in all other related sectors due to the ripple effect. The IMPLAN production coefficients were modified to reflect the interaction of producing sectors in the study area. As a result, the calibrated model does a better job of generating multipliers and reporting the subsequent impacts that result from the interaction between and among the sectors in the study area than a model using unadjusted national coefficients.

Key variables within the IMPLAN model use data specific to the region surrounding the D-E NCA, including employment estimates, labor earnings, and total industry output. Data on resource use levels (e.g., from recreation visits and AUMs) and operating expenditures were

collected from NCA subject-matter specialists. Because resource outputs from the BLM are only available at the multi-county level, the IMPLAN model was run at a regional (multi-county) scale, with the coefficients that describe linkages between sectors aggregated to the three-county level. Because of this mathematical aggregation, impacts for individual counties and communities are not included.

S.3. Livestock Grazing

Economic impacts associated with livestock grazing on BLM lands within the planning area were estimated in accordance with protocols developed by economists at the BLM and the USFS. Forage availability was measured in AUMs, with one AUM defined as the amount of forage needed to feed a cow-calf pair or five sheep for one month. Average annual AUMs authorized within the D-E NCA were obtained from the BLM's Rangeland Administration System (BLM 2013a). According to these rangeland reports, the DE-NCA annually supports 11,759 cattle AUMs and 2,644 sheep AUMs, on average (Table S.1).

Table S.1. Average Annual AUMs

Livestock Class	Current	Alt. A	Alt. B	Alt. C	Alt. D	Preferred Plan Alternative
Cattle & Horse	11,759	11,759	9,034	11,568	11,772	11,705
Sheep and Goat	2,644	2,644	1,000	2,617	2,644	2,644

The direct employment associated with cattle and sheep grazing on BLM lands within the planning area was estimated in two steps. First, the number of hired farm laborers was taken from the Census of Agriculture (USDA 2009b) for the beef cattle ranching and sheep and goat farming sectors. Second, unpaid and self-employed individuals were considered, as the Census of Agriculture data do not include these individuals. The 2005–2009 American Community Survey (U.S. Department of Commerce 2011c) includes information on the class of worker (e.g., self-employed, local government, or unpaid family worker) by two-digit North American Industry Classification System (NAICS) industry code. In order to determine how public land forage contributed to industry employment (hired laborers, unpaid, and self-employed individuals), the number of direct jobs per unit of forage was calculated. Data from the Census of Agriculture on total inventory of beef cows that calved, ewes one year or older, and all goats were used to calculate total forage requirements. The ratio of employment to forage requirements was then used to calculate direct contributions from BLM-administered forage within the DE-NCA, using data on average annual authorized AUMs.[1] The indirect and induced contributions were then estimated using analysis-by-parts in IMPLAN.[2] Economic impacts associated with changes in range management under the alternatives were modeled in similar fashion.

S.4. Recreation

Visitation data collected from the BLM's Recreation Management Information System (RMIS) suggest that BLM lands within the D-E NCA currently support 137,002 recreational visits annually (BLM 2014). On their way to the planning area, and once they arrive, these visitors

[1] Authorized AUMs are those AUMs that are authorized under a term grazing permit or lease.
[2] Analysis-by-parts is a method of calculating the impacts of a particular activity by separating out the various types of spending for that activity and analyzing their specific impacts. This is done because production functions for IMPLAN Sectors 11 and 14 for cattle ranching and other animal production are not completely adequate for consideration of indirect and induced contributions.

spend money on goods and services such as gas, food, lodging, and souvenirs. In contrast to many other resource and land uses, economic activity associated with outdoor recreation is not captured in any one industrial sector. Instead, spending associated with recreational visits to the DE-NCA stimulates economic activity in a wide range of economic sectors associated with accommodations and food service, arts and entertainment, passenger transportation, and retail trade (Marcouiller and Xia 2008).

Rather than measuring economic impacts, the analysis conducted for the proposed DE-NCA RMP examined the economic significance to the local economy of outdoor recreation conducted on planning area lands. Although both impact analysis and significance analysis measure the amount of local economic activity attributable to outdoor recreation within a defined area, impact analysis only examines spending by non-local visitors, as their recreation-related spending constitutes "new dollars" being injected into the local economy. A significance analysis, however, includes the effects of spending by all visitors, both those who reside in the planning area and those who do not. Since much of the spending by local recreationists would likely be shifted to other sectors of the local economy, the results of this analysis do not reflect the loss to the local economy if recreation on the DE-NCA lands were eliminated. Instead, the significance analysis shows the size and nature of economic activity associated with these recreational experiences to highlight their importance to the local economy.

Outdoor recreationists participating in activities on public lands have unique spending profiles. Analyses of expenditures reported by national forest visitors have shown that the primary factor determining the amount of money spent on a recreational visit to public lands is the type of trip taken rather than the specific activity they intend to participate in (White, Goodding, and Stynes 2013). On the basis of this assumption, visits to BLM lands within the DE-NCA reported by the RMIS were segmented into local and non-local visits and then by trip type. In the significance analysis, the following trip segments were examined separately for visitors who reside greater than 50 miles from BLM land in the planning area and for visitors who live within 50 miles of BLM land in the planning area:

- Non-local residents on day trips
- Non-local residents staying overnight on BLM land
- Non-local residents staying overnight off BLM land
- Local residents on day trips
- Local residents staying overnight on BLM land
- Local residents staying overnight off BLM land

The analysis of outdoor recreation is based on data collected by Mesa State College, BLM's RMIS, and the USFS National Visitor Use Monitoring (NVUM) program. Annual visitation to the DE-NCA was retrieved from RMIS and segmented on the basis of a previous analysis of planning area visitation by Mesa State College. By assuming that D-E NCA visitor spending is similar to that of local national forest visitors, detailed visitor spending profiles developed by the NVUM program.[3] were applied to DE-NCA visitation. Since the D-E NCA is adjacent to the Grand Mesa,

[3] National average spending profiles are developed for seven trip type segments categorized as day trips and overnight trips involving stays on and off the forest for local and non-local visitors, and trips by visitors whose primary purpose was not recreation on the forest. Distinct spending profiles are also estimated for high and low spending areas and for selected recreation activity subgroups.

Uncompahgre, and Gunnison National Forests (GMUG), visitor spending profiles developed for the GMUG were used as a proxy for visitor spending at the NCA. Total local recreation-related spending associated with recreational experiences in the DE-NCA was estimated by applying national forest spending profiles (Table S.2) to NCA visits by trip type (Table S.3). The economic contributions of current recreational visits to the DE-NCA, and those anticipated under alternative management actions were modeled in IMPLAN to estimate the indirect and induced effects on the local economy of recreation-related spending, under the different alternatives.

Table S.2. Spending Profiles by Trip Segments for Average Spending Forests[a]

Spending Category	Non-Local Segments			Local Segments		
	Day	Overnight on NF	Overnight off NF	Day	Overnight on NF	Overnight off NF
Lodging	0	72	203	0	34	61
Restaurant	15	27	114	6	7	34
Groceries	9	58	71	7	70	56
Gas and Oil	30	69	93	17	49	52
Other Transportation	1	2	4	0	1	1
Activities	4	8	29	1	3	6
Admissions/Fees	4	10	20	2	4	8
Souvenirs/Other	7	22	48	6	15	21
Total	72	267	581	38	184	240
Source: White, Goodding, and Stynes 2013						

[a]Dollar figures are expressed in 2012 dollars and represent trip expenditures of an average entire group while visiting BLM lands and within 50 miles of the boundary of BLM lands. Figures have been adjusted to 2012 dollars using the Bureau of Labor Statistics' CPI Inflation Calculator, available online: http://www.bls.gov/data/inflation_calculator.htm. The spending figures depicted in this table are one of three sets of national-level spending averages developed from the NVUM data. The shown spending averages are those determined to be most applicable to the selected forest on the basis of statistical analysis. For more information, see White, Goodding, and Stynes 2013.

Table S.3. Annual DE-NCA Recreation Visitor Days by Trip Segment

	Non-Local Segments			Local Segments			Total Annual Visits
	Day	Overnight on NCA	Overnight off NCA	Day	Overnight on NCA	Overnight off NCA	
Annual Visitor Days	41,030	15,978	18,833	33,088	12,886	15,188	137,002
Share of Total Visitor Days	30%	12%	14%	24%	9%	11%	_ _
Sources: BLM 2014; CMU 2011							

In addition to local economic activity stimulated by outdoor recreation on the DE-NCA, visitors derive a slew of social, physical, and emotional benefits from their recreational experiences. Although recreationists do not directly pay for these benefits, the natural settings within the DE-NCA provide opportunities for physical activity and have the power to improve the mental health and well-being of recreational visitors. Although recreationists may incur travel-related expenses on their way to the D-E NCA, the personal enjoyment and non-monetary benefits they derive from these experiences exceed what they spend for travel costs, parking fees, food, and lodging. These net benefits (i.e., total benefits or personal satisfaction derived from a recreational experience minus all trip-related expenses for the experience) reflect the additional non-monetary benefits that accrue to the DE-NCA's recreational resources.

To better assess the true value of outdoor recreation on the D-E NCA, non-market values associated with recreational opportunities available under the different alternatives were estimated

using a benefit transfer approach. This valuation method helps overcome data limitations when primary data collection is too costly or is prohibited. The method estimates benefits for a site by adapting values estimated in previous studies of similar sites and resources. By applying recreation use values developed by the USFS[4] to visitor use data from RMIS, the BLM was able to estimate values for the social, physical, and emotional benefits derived from recreational activities. The monetary value of these benefits was estimated by multiplying the average willingness to pay per visit day (Table S.4) times the number of visits to participate in a variety of recreational activities (Table S.5).

Table S.4. Average Consumer Surplus Values per Person per Day by Activity

Activity	Average Willingness to Pay per Activity Day (2012 Dollars)
Backpacking	63.30
Mountain Biking	224.14
Camping	42.18
Canoe/Kayaking	82.26
Climbing	61.30
Hiking/Walking/ Running	46.81
Horseback Riding	22.02
Hunting – Big Game	58.99
Hunting – Waterfowl	58.99
Interpretive Programs	7.30
OHV – ATV	27.71
OHV – Trucks/Jeeps	27.71
OHV – Motorcycle	27.71
Picnicking	34.35
Row/Float/Raft	82.26
Swimming/Wading	35.89
Sightseeing	28.65
Other Recreational Activities	68.47
Source: Loomis 2005	

Table S.5. Visits by Activity Under the Alternatives

Activity	Visits Under Alternatives[a]					
	Current	Alt. A	Alt. B	Alt. C	Alt. D	Proposed Plan Alternative
Backpacking	512	522	522	527	522	527
Mountain Bicycling	1,958	1,997	1,997	1,997	2,017	1,997
Camping	29,057	29,638	29,638	29,638	29,929	29,638
Canoe/Kayaking	1,884	1,922	1,922	1,922	1,922	1,922
Climbing	542	553	553	553	553	553
Hiking/Walking/ Running	9,891	10,089	10,089	10,188	10,188	10,188
Horseback Riding	3,142	3,205	3,205	3,236	3,236	3,236
Hunting—Big Game	7,311	7,457	7,457	7,457	7,457	7,457
Hunting—Waterfowl	265	270	270	270	270	270
Interpretive Programs	26	27	27	27	27	27
OHV—ATV	35,659	36,372	36,372	36,194	36,729	36,729

[4] The USFS developed recreation use values from empirical research conducted in the United States from 1967 to 2003. These use values were estimated from more than 1,000 original, primary contingent valuation method (CVM), or travel cost method (TCM) studies and reflect the average net benefits (total benefits or satisfaction derived from a recreational experience minus all trip related expenses for the experience) for a variety of recreational activities.

Activity	Visits Under Alternatives[a]					
	Current	Alt. A	Alt. B	Alt. C	Alt. D	Proposed Plan Alternative
OHV—Trucks/Jeeps	8,270	8,435	8,435	8,394	8,435	8,435
OHV—Motorcycle	2,863	2,920	2,920	2,906	2,949	2,920
Picnicking	9,911	10,109	10,109	10,109	10,109	10,109
Row/Float/Raft	1,615	1,647	1,647	1,647	1,647	1,647
Swimming/Wading	4,645	4,738	4,738	4,738	4,738	4,738
Target Practice	680	694	694	694	694	694
Viewing—Cultural Sites	8,922	9,100	9,100	9,100	9,190	9,190
Viewing—Scenery	9,849	10,046	10,046	10,046	10,046	10,046
Source: BLM 2013b						

[a] Number of visits is equal to the number of participants for each activity. These estimates are not the same as visitor days, since D-E NCA visitors may participate in a number of activities during a single visitor day. Anticipated visitation under the alternatives was estimated by BLM staff based on recent trends in visitation and population growth.

S.5. Payments to Counties

Federal land management agencies administer a number of revenue-sharing programs to compensate states and counties for Federal lands within their boundaries. These programs are complex and include stipulations affecting the formulas for the distribution of the payments; the recipients of the payments; and the timing, number, or specified uses of the payments. Because many of the programs and payments are linked across different agencies, numerous land management agencies work in partnership to collect and distribute revenue to counties entitled to compensation. Although only a small portion of natural resource–related payments are associated with BLM resources, these payments are critical to funding basic services such as law enforcement, education, fire protection, and road maintenance in rural communities across the West.

Revenue-sharing programs administered by the BLM entitle local governments to a portion of receipts derived from the use, extraction, or sale of natural resources on BLM lands within their jurisdiction; as well as payments in lieu of property taxes (PILT) that would have been received if these Federal lands were privately owned (Table S.6). Although PILT payments are calculated on the basis of population size and the number of Federal acres, revenue-sharing payments are determined by use levels and whether or not the revenue was generated on acquired or public domain lands.[5]

[5] There are two types of land under Federal ownership: public domain and acquired. Public domain lands are those that have always been in Federal ownership, and acquired lands (LU) are lands in Federal ownership that were obtained from private owners.

Table S.6. Distribution of Natural Resource–Related Payments to State/Counties

Type of Payment	Public Domain Lands	Acquired (LU) Lands
Taylor Grazing Act of 1934 (43 U.S.C. 315)	12.5% of grazing fees from Section 3 (inside grazing districts) and 50% of grazing fees from Section 15 (outside grazing districts) are distributed to the State. 100% of these funds are reallocated back to the counties and invested in range improvement projects.	None
PILT	Annual PILT payments are estimated in two ways on the basis of 1) eligible Federal acres in the county, 2) Federal revenue sharing in the prior fiscal year, and 3) the county's population to the extent that it limits the payment.[a] The county then receives the larger of the two calculated amounts as PILT, which is put toward the general fund.	

[a] A county's PILT is based on two calculations. First, the eligible Federal acres in the county are multiplied by a standard per-acre rate. The prior year's Federal revenue sharing amount is then subtracted from this number to estimate the county's PILT. The estimated PILT amount is then compared to a per capita payment ceiling based on population. The county's estimated payment is based on the smaller of the two amounts.

Federal revenues (Table 4.70) associated with livestock grazing were estimated on the basis of current Federal grazing fees and anticipated use under the alternatives ($1.35 x number of AUMs). The distribution of these payments back to the State and to local governments was then estimated in accordance with the regulations in Table S.6. Since all AUMs authorized in the D-E NCA are public domain and within a grazing district, 12.5 percent of Federal revenue collected from grazing activities within the NCA will be returned to the State of Colorado for range improvement projects within the grazing district.

Although payments associated with BLM resources only account for a portion of natural resource–related revenue distributed to Delta, Mesa, and Montrose Counties, local rural communities rely heavily on these payments to cover basic operating costs and to fund basic community services. The economic contributions of payments to counties from BLM natural resources were analyzed through the salary and non-salary expenditures funded by the redistribution of Federal grazing fee revenue. Range improvement projects were modeled in IMPLAN using institutional and household spending profiles developed by the USFS. Since the BLM and USFS manage adjacent lands in Mesa County, institutional and household spending profiles for the GMUG NF are likely to be very similar to those associated with the D-E NCA. To assess how management actions under the alternatives may affect future payments to counties, changes in Federal, State, and county revenue from BLM land and resource uses were estimated, and the anticipated levels of local government, education, construction, and household spending associated with these payments were modeled in IMPLAN.

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Appendix T. Conservation Measures for Listed Plant Species in the D-E NCA

Conservation Measures for Listed Plant Species in the D-E NCA

from the

2012 Programmatic Biological Assessment,

Effects to Listed Plant Species from the

Bureau of Land Management Livestock Grazing Program

As amended and signed September 21, 2012

Conservation Measures

The terms and conditions of grazing permits that include habitat occupied by Colorado hookless cactus, clay-loving wild buckwheat, or Debeque phacelia will include conservation measures designed to avoid, minimize, and/or remediate effects to species in mapped occupied habitat and may be specific to individual allotments.

Conservation measures to be implemented include but are not limited to the following:

1. In areas where there is a concern that Colorado hookless cactus, clay-loving wild buckwheat, and Debeque phacelia may be present, a survey will be conducted prior to any livestock management actions such as range improvements or maintenance, or weed management. The BLM threatened, endangered, and sensitive (TES) species specialist will determine the need for a survey and survey scope and intensity.

2. Maps will be provided to permittees that identify sensitive areas where restrictions may apply to particular grazing-related activities for the Colorado hookless cactus, clay-loving wild buckwheat, and Debeque phacelia. As new information becomes available, and as necessary, maps will be updated by the BLM and provided to permittees. (Note: Maps provided to permittees will include sufficient buffers and randomized perimeters to avoid disclosing exact species locations.)

3. The permittee is required to notify the BLM Rangeland Management Specialist prior to any surface disturbing range project maintenance activity in any allotment (standard for all BLM allotments). Surveys and avoidance measures will be required where effects to listed plants may occur.

   - Construction of new range developments (e.g., fences, ponds, water troughs) would be designed to avoid impacts to listed species whenever feasible. New range developments that may affect listed species would not be permitted until completion of additional consultation.

4. If a permittee wishes to apply an herbicide treatment, they must obtain prior approval from the BLM. Appropriate applicator licenses must be obtained, copies of the appropriate Pesticide Use Proposal must be obtained from the BLM, and a Pesticide Application Record

must be completed and returned to BLM no later than 10 days after herbicide application (standard for all BLM allotments).

- The permittee must consult with the BLM Rangeland Management Specialist and Biologist/Ecologist prior to applying herbicides or pesticides within 200 meters (656 feet) of individual plants or populations. Such treatments may be restricted or modified to avoid effects to the three listed species.
- All treatments will comply with the approved Integrated Pest Management Plan (IWMP) and Section 7 consultation (completed for GJFO and CRVFO, in progress for UFO). The 3 field offices' IWMPs differ slightly in their requirements for avoidance distances and triggers for re-initiation of consultation. Please see those consultation documents for specific details.

5. Within 200 meters (656 feet) of listed plants, motorized access for livestock grazing operations will be limited to existing roads and routes. Any additional access proposed for grazing operations would require additional surveys and section 7 consultation.

6. As a standard permit term and condition within occupied habitat, seasonal utilization levels on palatable perennial forage will be limited to 40 percent to the extent possible, and average utilization will not exceed 50 percent. These areas will be monitored by the BLM Rangeland Management Specialist and Biologist/Ecologist to ensure compliance.

7. Livestock crossing permits through occupied habitat will only be issued for existing livestock active movement areas.

   - Where this active movement occurs, minimization measures such as the following will be implemented to reduce impacts:
     - BLM will encourage the avoidance of known individuals or populations during livestock herding and active movement activities on BLM administered lands. Maps would be provided to permittees to facilitate avoidance.
     - In areas where active movement activities cannot be avoided (e.g., Escalante Canyon) monitoring of affected populations will be established. Where monitoring suggests population decline then the following will be considered by BLM to achieve appropriate protection:
       - Use additional herders/cowboys to direct livestock away from populations.
       - Trail smaller herds through at any given time to limit physical disturbance.
       - Use temporary fencing/barricades to inhibit livestock from trailing through populations during active movement activities.
       - Should all other attempts to reduce impacts from active movement not be successful, permanent drift fences may be considered.
     - Permittee will be required to notify the BLM office at least 24 hours in advance of the trailing activity.
     - Require that active movement activity be concentrated within existing road corridors as much as practicable, and done so in a timely and efficient manner. Overnighting of

livestock within occupied habitat is prohibited unless the area has been cleared for TES species prior to overnight activity.

  - Active movement will not be allowed during flowering periods where possible.

- Any future identified active movement activities through occupied habitat will be managed according to the above stated conservation measures. BLM will request that the newly identified active movement be included under the umbrella of this programmatic consultation.

8. No concentrations of livestock activities including but not limited to herding, routine active movement, bedding, salt or supplement, portable watering, and new stock ponds will be allowed within 200 meters (656 feet) of individual plants or populations, except as provided below:

   - Concentration may be allowed where separated by a fence or topographic feature (cliff) that will render the impacts to listed plants insignificant, discountable, or if the impacts are wholly beneficial (distribute livestock away from listed plants).

   - In allotments in which sheep bedding must occur within the 200 meter (656 feet) buffer, only dispersed bedding will be allowed. Dispersed bedding is defined as allowing the sheep to bed however the band has dispersed throughout the day, not congregating the band in any one common locale.

   - To minimize sheep grazing impacts in allotments containing clay-loving wild buckwheat, limit sheep grazing within 200 meters (656 feet) of occupied habitat to 5 nights per use area.

   - The BLM Rangeland Management Specialist will collaborate with the permittee to develop and employ appropriate grazing strategies for the allotment pastures and use areas to meet Colorado Public Land Health Standards, specifically standard 3 for upland plant communities and standard 4 for TES species. Where possible, grazing should be limited to 15 days or less in each pasture or use area during the flowering and fruiting period for the three focus species to ensure reproduction and recruitment.

9. Monitoring will be conducted (e.g., LHAs, utilization, trend, ecological site inventory) to evaluate rangeland health. If monitoring/LHAs conclude that an allotment with occupied habitat is not meeting the standards for special status plants, vegetation, or soils, and livestock grazing is identified as a significant causal factor to not meeting those standards, grazing permit modifications, mitigation, or other prescriptive measures will be required by BLM, such as:

   - The BLM Rangeland Management Specialist will work with the permittee to pursue opportunities to allow portions of the allotment(s) to receive yearlong rest or deferment in order to increase plant vigor.

   - Exclosures or drift fences may be considered in certain areas where individual plants or populations require special protections from livestock grazing or associated activities, as determined by the BLM.

   - Permit terms and conditions may be modified to minimize impacts to listed plants (e.g., improved distribution, changes in season of use/class of livestock).

10. BLM will seek to implement monitoring programs to assess grazing-related impacts to the species. Results from the monitoring will be used to inform future grazing management.

    - BLM field offices will continue to partner with the BLM Colorado State Office and other organizations (e.g., the U.S. Fish and Wildlife Service, Denver Botanic Gardens, Colorado Natural Heritage Program, Colorado Native Plant Society, Colorado Natural Areas Program) to monitor listed plants.

    - In areas where grazing has been identified as a threat to individuals or populations BLM will explore opportunities to modify existing monitoring and develop new monitoring to assess grazing-related impacts to the species.

11. To ensure the conservation of the three listed species, BLM will coordinate with USFWS to identify important areas for species conservation. This coordination may result in actions to improve species conservation, initiate adaptive management strategies to diminish grazing impacts to the three listed species, or place greater management emphasis on their conservation through BLM's planning and decision process.

12. The BLM intends to continue a similar annual inventory effort as in recent years, between 2,000- 10,000 acres annually, across the three species range, consistent with funding and priorities. Results will be sent to CNHP to ensure data are compiled in a centralized data base.

13. BLM will provide USFWS with monitoring data collected and will work with USFWS to develop a cooperative monitoring strategy that will capitalize on partnerships to augment existing monitoring studies and data. BLM, with the assistance of USFWS, will work on creating partnership opportunities to design and carry out additional monitoring needs.

14. BLM will report conservation actions taken annually to USFWS highlighting the adaptive management that is occurring within the grazing program. Future BLM actions, monitoring (trend, grazing, and LHA), and decisions covered under this programmatic consultation will be reported annually to USFWS.

15. Field Offices will individually schedule coordination meetings throughout the year with USFWS and will work to address grazing impacts to listed plants.

Note

In the D-E NCA Draft RMP, the term "trailing" was used to refer to movement of livestock between grazed areas. However, since publication of the Draft, the BLM has clarified its policy and corresponding terminology. In the Proposed RMP, the term "trailing" is generally used to mean livestock movement through an area not within the permittee's existing allotment or allotted time period in the allotment. To reflect a terminology change in associated BLM policy, the Proposed Plan Alternative redefines "trailing" as a specific and permitted activity: the active movement of livestock that occurs within the terms and conditions of an existing grazing permit. Other active movement of livestock outside of an existing grazing permit, which requires a temporary use authorization under 43 CFR 4130.6–3, is defined as "crossing." Throughout the Proposed RMP, "trailing" is generally replaced by the more generic term "active movement" to reflect the true intent of the management action to limit certain areas to active movement of livestock, whether or not a crossing permit is required by current BLM policy.

D-E NCA = Dominguez-Escalante National Conservation Area

GJFO = Grand Junction Field Office

CRVFO = Colorado River Valley Field Office

UFO = Uncompahgre Field Office

LHA = land health assessment

USFWS = U.S. Fish and Wildlife Service

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Appendix U. The BLM's Responses to Public Comments

U.1. Introduction

The BLM released the Draft Dominguez-Escalante National Conservation Area Resource Management Plan and Environmental Impact Statement (D-E NCA RMP/EIS) for public review and comment from May 17, 2013, to September 23, 2013. The BLM received almost 300 electronic and typed or hand-written comment letters ("submissions") over this comment period. Each submission letter was entered into a Web-based database using a computer program called CommentWorks, which was used to parse submissions into separate individual comments by subject and give each unique comment a code number.

Identical submission letters were treated as form letters, and only the first of each of these that the BLM received was considered. For example, if the BLM received 100 identical postcards, any comment on this first postcard was considered the "representative" for the entire group of identical such comments. Apart from actual form letters, there was a significant amount of duplication in the comments the BLM received, as commenters often copied information from someone else's comments into their own comment. Substantive duplicate text was considered a partial form letter, and the first of these duplicates was considered representative of the entire group of "clones."

In compliance with 40 CFR 1503.4, the BLM's interdisciplinary team (IDT) for the D-E NCA addressed all substantive comments submitted during the comment period. According to BLM Handbook H-1790-1, *National Environmental Policy Act* (BLM 2008a), a substantive comment does one or more of the following:

- Questions, with reasonable basis, the accuracy of information in the environmental impact statement (EIS) or environmental assessment (EA).
- Questions, with reasonable basis or facts, the adequacy of, methodology for, or assumptions used for the environmental analysis.
- Presents new information relative to the analysis.
- Presents reasonable alternatives other than those presented in the EIS or EA.
- Prompts the BLM to consider changes or revisions in one or more of the alternatives.

When there were several comments on a particular subject, the IDT summarized the comments and responded to the summary. The original comment letters are available for review by the public at the Grand Junction Field Office (GJFO), 2815 H Road, Grand Junction, Colorado 81506, 970-244-3000.

Please note that comments were not tallied or treated as "votes." As noted above, identical comments were regarded as one comment when the BLM was considering changes to the Draft RMP. Nevertheless, the BLM gave careful thought and consideration to each of the public comments it received and made changes to the RMP on the basis of those comments that were substantive. Substantive changes are highlighted in gray (or in white if on a dark background) throughout this document.

U.2. Index of Commenters

Table U.1 below lists the organizations and individuals who submitted comments on the D-E NCA Draft RMP during the public comment period, along with the codes that were assigned to their comments and the sections of this appendix where the BLM's responses to their comments can be found.

Table U.1. Index of Commenters

Organization(s), Individual(s)	Comment ID Numbers	Sections of Appendix U with the BLM's Responses to Comments
Access Fund, R.D. Pascoe; Western Colorado Climbers' Coalition	000000053-2, 000000053-5, 000000053-6, 000000053-7, 000000053-8	U.3.10.1, U.3.9.12, U.3.1
Alice Stanley	000000016-1	U.3.1
Allan Reishus	DENCA-1-21611-1	U.3.9.5
Allison Elliot	DENCA-1-22111-1, DENCA-1-22111-2, DENCA-1-22111-3, DENCA-1-22111-4	U.3.11.1, U.3.10.2, U.3.11.3, U.3.1
Anthony Martin	000000007-1	U.3.10.2
Back Country Horsemen of Colorado, Jan Potterveld	DENCA-1-21511-1, DENCA-1-21861-1, DENCA-1-21861-2, DENCA-1-21861-3, DENCA-1-21861-4	U.3.9.12, U.3.10.1
Backcountry Hunters and Anglers, Craig Grother	000000156-1, 000000156-10, 000000156-11, 000000156-12, 000000156-13, 000000156-14, 000000156-15, 000000156-16, 000000156-17, 000000156-18, 000000156-19, 000000156-2, 000000156-20, 000000156-21, 000000156-22, 000000156-3, 000000156-4, 000000156-5, 000000156-6, 000000156-7, 000000156-8, 000000156-9	U.3.1, U.3.10.1, U.3.9.5, U.3.11.3, U.3.9.6, U.3.20.2, U.3.9.13
Barbara Bernhardt	000000164-1, 000000164-2	U.3.10.1, U.3.10.2
Beth Meyer	000000047-1	U.3.2.1
Bill Day	000000087-1, 000000087-10, 000000087-11, 000000087-12, 000000087-13, 000000087-14, 000000087-15, 000000087-16, 000000087-17, 000000087-18, 000000087-2, 000000087-20, 000000087-21, 000000087-22, 000000087-23, 000000087-3, 000000087-4, 000000087-5, 000000087-6, 000000087-7, 000000087-8, 000000087-9	U.3.1, U.3.9.2, U.3.9.4, U.3.9.6, U.3.10.2, U.3.20.2, U.3.10.1, U.3.11.3, U.3.9.5
Black Canyon Audubon Society, Jon Horn	000000180-1, 000000180-2, 000000180-3, 000000180-4, 000000180-5, 000000180-6, 000000180-7, 000000180-8, 000000180-9	U.3.9.6, U.3.9.13, U.3.11.1, U.3.9.4, U.3.9.2, U.3.10.2, U.3.1
Bob Janowski	000000151-1, 000000151-2	U.3.20.2
Bookcliff Rattlers Motorcycle Club, Thomas Hundtoft	000000190-1, 000000190-10, 000000190-11, 000000190-12, 000000190-13, 000000190-14, 000000190-15, 000000190-16, 000000190-17, 000000190-18, 000000190-19, 000000190-2, 000000190-20, 000000190-21, 000000190-22, 000000190-23, 000000190-24, 000000190-25, 000000190-3, 000000190-4, 000000190-5, 000000190-6, 000000190-7, 000000190-8, 000000190-9	U.3.10.1, U.3.10.6, U.3.2.2, U.3.1, U.3.20.1, U.3.7.1
Brad Alexander	000000110-1, 000000110-3	U.3.10.1
Brad Duvall	000000043-1	U.3.1
Brandon Siegfried	000000068-1, 000000068-2, 000000068-3, 000000068-4	U.3.2.3, U.3.12.2
Brian Goodrich	000000003-1, 000000003-2	U.3.1, U.3.10.6
Cable Television Laboratories Inc., Mark Woodworth	000000041-1	U.3.10.6

Organization(s), Individual(s)	Comment ID Numbers	Sections of Appendix U with the BLM's Responses to Comments
Carol Bonnet-Butler, David Butler	000000182-1	U.3.1
Carole Chowen	000000116-1, 000000116-2, 000000116-3, 000000116-4, 000000116-5, 000000116-6, 000000116-7, 000000116-8	U.3.8.2, U.3.1, U.3.10.2, U.3.9.13, U.3.9.3, U.3.10.1
Centennial Canoe Outfitters, Inc., Marty Genereux	000000059-2, 000000059-3	U.3.10.1, U.3.9.12
Chad Daniel	000000009-1	U.3.10.2
Charles Wittenmyer	000000008-1	U.3.1
Chris Joyner	DENCA-1-21111-1	U.3.20.2
Christine Jauhola	000000152-1, 000000152-10, 000000152-11, 000000152-12, 000000152-13, 000000152-14, 000000152-2, 000000152-3, 000000152-4, 000000152-5, 000000152-6, 000000152-7, 000000152-8, 000000152-9	U.3.9.4, U.3.9.2, U.3.1, U.3.10.5, U.3.7.1, U.3.4
CMDA, Brandon Siegfried	DENCA-1-22470-2, DENCA-1-22470-3, DENCA-1-22470-4	U.3.2.3
CO State Parks/OHV Sub Committee Member, Lloyd Liebetrau, Marilyn Liebetrau	000000069-7	U.3.10.1
COHVCO, Douglas Stephens	000000042-1	U.3.1
COHVCO, James Solomon	000000065-1, 000000065-11, 000000065-12, 000000065-13, 000000065-14, 000000065-15, 000000065-16, 000000065-17, 000000065-18, 000000065-19, 000000065-2, 000000065-20, 000000065-21, 000000065-22, 000000065-23, 000000065-24, 000000065-25, 000000065-26, 000000065-27, 000000065-28, 000000065-29, 000000065-3, 000000065-30, 000000065-31, 000000065-32, 000000065-33, 000000065-34, 000000065-35, 000000065-5, 000000065-6, 000000065-7, 000000079-1, 000000079-2, 000000079-3, DENCA-1-21661-1	U.3.10.1, U.3.2.2, U.3.20.2, U.3.20.1, U.3.1, U.3.11.1, U.3.13, U.3.8.2, U.3.12.2
COHVCO, Scott Jones; Trails Preservation Alliance, D.E. Riggle; COHVCO, John Lane	000000172-1, 000000172-11, 000000172-12, 000000172-13, 000000172-14, 000000172-15, 000000172-16, 000000172-17, 000000172-18, 000000172-2, 000000172-21, 000000172-22, 000000172-23, 000000172-24, 000000172-25, 000000172-26, 000000172-27, 000000172-28, 000000172-29, 000000172-3, 000000172-30, 000000172-31, 000000172-32, 000000172-33, 000000172-34, 000000172-35, 000000172-36, 000000172-37, 000000172-38, 000000172-39, 000000172-4, 000000172-40, 000000172-41, 000000172-42, 000000172-43, 000000172-44, 000000172-45, 000000172-46, 000000172-47, 000000172-48, 000000172-49, 000000172-5, 000000172-50, 000000172-51, 000000172-53, 000000172-54, 000000172-56, 000000172-57, 000000172-58, 000000172-59, 000000172-6, 000000172-60, 000000172-61, 000000172-62, 000000172-63, 000000172-7, 000000172-8, 000000172-9	U.3.10.1, U.3.12.2, U.3.9.6, U.3.13, U.3.9.4, U.3.9.5, U.3.1, U.3.4, U.3.8.1, U.3.11.4, U.3.10.6

Organization(s), Individual(s)	Comment ID Numbers	Sections of Appendix U with the BLM's Responses to Comments
Colorado Canyons Association, Joe Neuhof	000000181-1, 000000181-10, 000000181-11, 000000181-12, 000000181-13, 000000181-15, 000000181-16, 000000181-17, 000000181-2, 000000181-3, 000000181-4, 000000181-5, 000000181-6, 000000181-7, 000000181-8, 000000181-9	U.3.1, U.3.20.2, U.3.10.6, U.3.10.2, U.3.10.5, U.3.9.2, U.3.10.4, U.3.11.5, U.3.9.9, U.3.9.4, U.3.9.3, U.3.9.5, U.3.11.1, U.3.10.1
Colorado Parks and Wildlife/ SW Region, Patricia Dorsey	000000094-1, 000000094-10, 000000094-11, 000000094-12, 000000094-13, 000000094-14, 000000094-2, 000000094-3, 000000094-6, 000000094-7, 000000094-8, 000000094-9	U.3.9.4, U.3.1, U.3.9.5, U.3.14, U.3.12.2, U.3.9.12, U.3.16
Colorado Water Conservation Board, Suzanne Sellers	000000045-2	U.3.11.3
Colorado Wool Growers Association; Colorado Sheep & Wool Authority; Colorado Lamb Council, Bonnie Brown	000000095-1, 000000095-2, 000000095-3, 000000095-4	U.3.8.2, U.3.9.5, U.3.16
Conrad Tucker	000000185-1, 000000185-2	U.3.10.1, U.3.12.2
Conservation Colorado, Al Jaffer	000000264-1	U.3.1
Conservation Colorado, Carolyn Emanuel	000000254-1, 000000254-2, 000000254-3, 000000254-4, 000000254-5	U.3.1, U.3.11.1, U.3.9.13, U.3.9.6, U.3.10.1
Conservation Colorado, Emily Orbanek	000000251-1, 000000251-2, 000000251-3, 000000251-4	U.3.10.1, U.3.1
Conservation Colorado, Garry Tullio	000000246-1, 000000246-2, 000000246-3, 000000246-4, 000000246-5	U.3.10.1, U.3.1, U.3.10.6, U.3.9.9
Conservation Colorado, Heidi Hoffman	000000259-1	U.3.1
Conservation Colorado, Jamie Porta	000000266-1, 000000266-2, 000000266-3	U.3.10.1, U.3.1
Conservation Colorado, Jan Burch	000000247-1, 000000247-2, 000000247-3, 000000247-4, 000000247-5, 000000247-6, 000000247-7	U.3.10.1, U.3.11.1, U.3.10.2, U.3.9.14, U.3.9.12
Conservation Colorado, John Hesse	000000248-1, 000000248-2	U.3.9.12, U.3.1
Conservation Colorado, Joyce Olson	000000257-1, 000000257-2, 000000257-3, 000000257-4, 000000257-5	U.3.1, U.3.4, U.3.10.1
Conservation Colorado, Julie Mamo	000000265-1	U.3.1

Organization(s), Individual(s)	Comment ID Numbers	Sections of Appendix U with the BLM's Responses to Comments
Conservation Colorado, Kate Graham	000000245-1, 000000245-10, 000000245-11, 000000245-2, 000000245-3, 000000245-4, 000000245-5, 000000245-6, 000000245-7, 000000245-8, 000000245-9	U.3.20.2, U.3.9.6, U.3.11.1, U.3.10.2, U.3.10.1, U.3.1, U.3.4, U.3.9.13, U.3.11.3
Conservation Colorado, Katey Buster	000000262-1, 000000262-2	U.3.1, U.3.10.1
Conservation Colorado, Kriz Cox	000000263-1, 000000263-2	U.3.20.2, U.3.10.1
Conservation Colorado, Linda Reeves	000000249-1, 000000249-2, 000000249-3, 000000249-4, 000000249-5, 000000249-6	U.3.1, U.3.10.1, U.3.11.1
Conservation Colorado, Mary Hertert	000000269-1, 000000269-2, 000000269-3, 000000269-4, 000000269-5	U.3.10.1, U.3.9.12, U.3.1, U.3.11.1
Conservation Colorado, Mary McCutchans	000000268-1, 000000268-2	U.3.1, U.3.4
Conservation Colorado, Penny Hills	000000256-1, 000000256-2, 000000256-3, 000000256-4, 000000256-5, 000000256-6	U.3.10.1, U.3.9.14, U.3.1
Conservation Colorado, Piera Nllankhja	000000255-1, 000000255-2, 000000255-3, 000000255-4	U.3.10.1, U.3.1, U.3.9.3
Conservation Colorado, Robyn Parker	000000260-1	U.3.1
Conservation Colorado, Ryan Dittmer	000000267-1	U.3.1
Conservation Colorado, Sherry Schenk	000000258-1, 000000258-2	U.3.1, U.3.10.1
Conservation Colorado, Skip Mitas	000000261-1, 000000261-2, 000000261-3, 000000261-4	U.3.1, U.3.10.1
Conservation Colorado, Thomas Beachman, Sue Beachman	000000250-1, 000000250-2	U.3.10.6, U.3.9.12
COPMOBA, Scott Winans	000000168-1, 000000168-2, 000000168-3, 000000168-4, 000000168-5	U.3.10.1, U.3.20.2
Cynthia Hardwood	000000132-1	U.3.1
Dale Znamenacek	000000128-1, 000000128-2, 000000128-3, 000000128-4, 000000128-5	U.3.20.1, U.3.10.1, U.3.10.6, U.3.20.2, U.3.8.2
Dan Elsner	000000159-1, 000000159-2, 000000159-3, 000000159-4	U.3.10.1, U.3.10.2
Dan Jenkins	000000163-1	U.3.10.2
Dan Ross	000000036-1	U.3.1
Darrell Weingard	000000136-1	U.3.9.13
Dave Malehorn	000000033-1, 000000033-3, 000000033-4	U.3.1, U.3.10.1

Organization(s), Individual(s)	Comment ID Numbers	Sections of Appendix U with the BLM's Responses to Comments
David Hoefer	000000101-1	U.3.10.4
Del Martin	000000191-1	U.3.1
Delta County Board of County Commissioners Delta County	DENCA-1-22461-1, DENCA-1-22461-2, DENCA-1-22461-3, DENCA-1-22461-4, DENCA-1-22461-5, DENCA-1-22461-6, DENCA-1-22461-7, DENCA-1-22461-8, DENCA-1-22461-9	U.3.12.2, U.3.9.3, U.3.10.5, U.3.1, U.3.9.5
Delta County Board of County Commissioners, Douglas Atchley	000000170-1, 000000170-10, 000000170-11, 000000170-12, 000000170-13, 000000170-14, 000000170-15, 000000170-16, 000000170-17, 000000170-18, 000000170-19, 000000170-2, 000000170-20, 000000170-21, 000000170-22, 000000170-23, 000000170-24, 000000170-25, 000000170-26, 000000170-27, 000000170-28, 000000170-29, 000000170-3, 000000170-30, 000000170-31, 000000170-32, 000000170-33, 000000170-34, 000000170-35, 000000170-36, 000000170-37, 000000170-38, 000000170-39, 000000170-4, 000000170-40, 000000170-41, 000000170-42, 000000170-43, 000000170-44, 000000170-45, 000000170-46, 000000170-47, 000000170-48, 000000170-49, 000000170-5, 000000170-50, 000000170-51, 000000170-52, 000000170-53, 000000170-54, 000000170-56, 000000170-57, 000000170-58, 000000170-59, 000000170-6, 000000170-60, 000000170-61, 000000170-62, 000000170-63, 000000170-7, 000000170-8, 000000170-9	U.3.1, U.3.9.2, U.3.10.5, U.3.4, U.3.9.5, U.3.16, U.3.17, U.3.18.3, U.3.9.3, U.3.15, U.3.9.7, U.3.9.13, U.3.9.14, U.3.9.15, U.3.10.2, U.3.10.1, U.3.10.4, U.3.10.6, U.3.9.10, U.3.12.2
Delta County Sheriff's Office, Fred McKee	000000062-2	U.3.10.2
Delta-Montrose Electric Association (DMEA)	000000193-10, 000000193-11, 000000193-12, 000000193-13, 000000193-2, 000000193-3, 000000193-4, 000000193-5, 000000193-6, 000000193-7, 000000193-8, 000000193-9	U.3.20.2, U.3.20.1, U.3.10.7, U.3.11.3, U.3.20.3
Denny Niemeier	000000026-1	U.3.1
Desert Ecosystem Analysis and Restoration, Eric Rechel	000000109-1, 000000109-10, 000000109-11, 000000109-12, 000000109-2, 000000109-3, 000000109-4, 000000109-5, 000000109-6, 000000109-7, 000000109-8, 000000109-9	U.3.1, U.3.9.4, U.3.20.2, U.3.9.9, U.3.10.1, U.3.9.2, U.3.9.13, U.3.11.3, U.3.11.1, U.3.11.5, U.3.10.2, U.3.9.7
Dick Steele	000000118-1, 000000118-2, 000000118-3, 000000118-4	U.3.1, U.3.10.6
Doug Jones	000000107-1, 000000107-2, 000000107-3	U.3.10.1, U.3.1
Douglas Glaspell	000000014-1	U.3.1
Eric Rechel	000000150-1, 000000150-10, 000000150-11, 000000150-12, 000000150-13, 000000150-14, 000000150-3, 000000150-4, 000000150-5, 000000150-6, 000000150-7, 000000150-8, 000000150-9	U.3.1, U.3.11.5, U.3.11.1, U.3.9.11, U.3.10.5, U.3.16, U.3.20.2, U.3.9.9, U.3.9.6, U.3.9.7

Organization(s), Individual(s)	Comment ID Numbers	Sections of Appendix U with the BLM's Responses to Comments
Escalante Ranch, Kent Davis	000000192-1, 000000192-10, 000000192-11, 000000192-12, 000000192-13, 000000192-14, 000000192-15, 000000192-16, 000000192-17, 000000192-18, 000000192-19, 000000192-2, 000000192-20, 000000192-21, 000000192-22, 000000192-23, 000000192-24, 000000192-25, 000000192-26, 000000192-27, 000000192-28, 000000192-29, 000000192-3, 000000192-30, 000000192-31, 000000192-32, 000000192-33, 000000192-34, 000000192-35, 000000192-36, 000000192-37, 000000192-38, 000000192-39, 000000192-4, 000000192-40, 000000192-41, 000000192-42, 000000192-43, 000000192-44, 000000192-45, 000000192-46, 000000192-47, 000000192-48, 000000192-49, 000000192-5, 000000192-50, 000000192-51, 000000192-52, 000000192-53, 000000192-54, 000000192-55, 000000192-6, 000000192-7, 000000192-8, 000000192-9	U.3.1, U.3.10.1, U.3.10.2, U.3.10.5, U.3.10.6, U.3.9.6, U.3.9.2, U.3.9.13, U.3.20.2, U.3.9.5, U.3.9.9, U.3.9.4
Escalante Ranch, Richard Miller	000000171-1, 000000171-10, 000000171-11, 000000171-12, 000000171-13, 000000171-14, 000000171-15, 000000171-16, 000000171-3, 000000171-4, 000000171-5, 000000171-6, 000000171-7, 000000171-8, 000000171-9	U.3.11.3, U.3.11.1, U.3.11.5, U.3.10.5, U.3.20.2, U.3.10.6
Etchart Livestock, Inc., Ernie Etchart	000000072-1, 000000072-10, 000000072-11, 000000072-12, 000000072-13, 000000072-2, 000000072-3, 000000072-4, 000000072-5, 000000072-6, 000000072-8, 000000072-9	U.3.10.5, U.3.9.5, U.3.18.2, U.3.1
Ewell Cubertson	DENCA-1-21462-1	U.3.20.2
Fort Lewis College, Andrew Gulliford	000000097-1, 000000097-2	U.3.10.1
Garth Conroe	DENCA-1-22411-1	U.3.1
Gary Lindberg	DENCA-1-21761-1	U.3.1
Gary Thorton	000000188-1, 000000188-2, 000000188-3, 000000188-4, 000000188-5	U.3.9.5, U.3.16
George Alderson	000000162-1	U.3.10.1
GMJC, Amber Garner	000000235-1	U.3.10.1
GMJC, Andrew Oliver	000000198-1	U.3.20.2, U.3.10.1
GMJC, Antonia Noel	000000203-1	U.3.10.1
GMJC, April Nixon	000000223-1	U.3.10.1
GMJC, Bob Farnsworth	000000236-1, 000000236-2	U.3.10.6, U.3.10.1
GMJC, Bruclcher	000000238-2	U.3.10.1
GMJC, Carrie Sheata	000000211-1, 000000211-2	U.3.1, U.3.10.1
GMJC, Chuck Burns	000000228-1, 000000228-2	U.3.10.1
GMJC, Clint Eddy	000000233-1	U.3.10.1
GMJC, Cody Houtchens	000000230-1, 000000231-1	U.3.10.1
GMJC, Cody Lange	000000196-2, 000000196-3, 000000196-4	U.3.10.6, U.3.10.1
GMJC, Cody Nostrand	000000215-1	U.3.10.1
GMJC, Dale Znamenacek	000000225-1	U.3.10.1
GMJC, Dalton Jansma	000000208-1	U.3.10.1
GMJC, Dane Murphy	000000212-1, 000000212-3	U.3.10.1
GMJC, Dave McColluan	000000216-1	U.3.10.1

Organization(s), Individual(s)	Comment ID Numbers	Sections of Appendix U with the BLM's Responses to Comments
GMJC, Dave McColluan	000000216-2	U.3.10.2
GMJC, Dave McColluan	000000216-3	U.3.10.3
GMJC, Dave McColluan	000000216-4	U.3.10.4
GMJC, Dave McColluan	000000216-5	U.3.10.5
GMJC, James Sheata	000000210-1, 000000210-2	U.3.1, U.3.10.1
GMJC, Jamie McKague	000000234-1, 000000234-2	U.3.10.1, U.3.10.6
GMJC, Jason Crick	000000229-1, 000000229-2	U.3.10.1
GMJC, Jennifer Murrell	000000219-1	U.3.10.1
GMJC, Jeremiah Benton	000000241-1	U.3.20.2, U.3.10.1
GMJC, Jim "Grumpy" Burdine	000000224-1	U.3.10.1
GMJC, Keri Hawthorne	000000206-1	U.3.10.1
GMJC, Kristran Benton	000000240-1	U.3.10.1
GMJC, Kyle Hathaway	000000207-1, 000000207-5	U.3.10.1
GMJC, Levi Jansma	000000209-3	U.3.20.1
GMJC, Mary Burns	000000226-1, 000000226-2, 000000226-3	U.3.10.6, U.3.10.1
GMJC, Matt Thesing	000000213-1	U.3.10.1
GMJC, Michael Noel	000000204-1, 000000204-2	U.3.10.6, U.3.20.2, U.3.10.1
GMJC, Natalie Snik	000000227-1, 000000227-2, 000000227-3	U.3.20.2, U.3.10.1
GMJC, Nate Goodwin	000000232-1	U.3.10.1
GMJC, Pam Johnson	000000221-1	U.3.10.1
GMJC, Randy Vital	000000220-1	U.3.10.1
GMJC, Ray Joseph	000000214-1, 000000214-2	U.3.10.1
GMJC, Roger Barton	000000218-1	U.3.10.1
GMJC, Sean Huber	000000202-1	U.3.10.1
GMJC, Todd Mickelsen	000000199-1, 000000199-2, 000000199-3	U.3.20.1, U.3.10.6, U.3.1
GMJC, Travis Cantrall	000000239-1	U.3.10.1
GMJC, Wendy Barton	000000201-1, 000000201-2	U.3.10.1, U.3.12.1
Grand Mesa Jeep Club, Dale Znamenacek	000000130-1, 000000130-2, 000000130-3, 000000130-4, 000000130-5, 000000130-6, 000000130-7, 000000130-8, 000000130-9	U.3.20.2
Grand Mesa Jeep Club, Jeff Bates	000000197-1, 000000197-10, 000000197-12, 000000197-13, 000000197-14, 000000197-15, 000000197-2, 000000197-3, 000000197-4, 000000197-5, 000000197-6, 000000197-7, 000000197-8, 000000197-9	U.3.1, U.3.9.12, U.3.10.1, U.3.10.6, U.3.20.2, U.3.20.1, U.3.12.2, U.3.9.6
Grand Valley Audubon Society, Nic Korte	000000102-1, 000000102-3, 000000102-4, 000000102-5, 000000102-6, 000000102-7	U.3.10.1, U.3.10.2, U.3.1, U.3.9.12, U.3.9.2

Organization(s), Individual(s)	Comment ID Numbers	Sections of Appendix U with the BLM's Responses to Comments
Grand Valley Motorized Recreation Coalition, James Solomon	000000143-1, 000000143-10, 000000143-11, 000000143-12, 000000143-13, 000000143-14, 000000143-15, 000000143-16, 000000143-17, 000000143-18, 000000143-19, 000000143-2, 000000143-3, 000000143-4, 000000143-5, 000000143-6, 000000143-7, 000000143-8, 000000143-9	U.3.10.1, U.3.12.2, U.3.1, U.3.10.6, U.3.8.1, U.3.8.2, U.3.20.1, U.3.20.2
Grand Valley Peace and Justice, Julie Mamo	000000174-1, 000000174-2, 000000174-3, 000000174-4	U.3.9.12, U.3.1, U.3.11.1, U.3.9.9
Great Old Broads for Wilderness, Katie Kemper	DENCA-1-22512-1, DENCA-1-22512-2, DENCA-1-22512-3, DENCA-1-22512-4, DENCA-1-22512-5, DENCA-1-22512-6, DENCA-1-22512-7	U.3.10.1, U.3.1, U.3.11.1, U.3.11.3, U.3.9.2, U.3.10.2
Gregory Corle	000000148-1	U.3.10.2
Henry Bellew	000000121-1, 000000121-2, 000000121-3, 000000121-4, 000000121-5, 000000121-6, 000000121-7	U.3.8.2, U.3.15, U.3.1, U.3.9.9
Interpretive Association of Western Colorado, Jody Kliska	000000178-10, 000000178-11, 000000178-12, 000000178-2, 000000178-3, 000000178-4, 000000178-5, 000000178-6, 000000178-7, 000000178-8, 000000178-9	U.3.4, U.3.9.11, U.3.1, U.3.11.3, U.3.10.1, U.3.10.6, U.3.9.13, U.3.11.1, U.3.11.2, U.3.10.4
Irene Queen	000000090-1	U.3.1
Jack Mincher	000000028-1, 000000028-2, 000000028-3, 000000028-5	U.3.1, U.3.12.2
Jacob Hanson	000000133-1, 000000133-2, 000000133-3, 000000133-4, 000000133-5, 000000133-6, 000000133-7, 000000133-8, 000000133-9	U.3.11.3, U.3.10.2, U.3.9.13, U.3.10.1, U.3.11.1, U.3.1, U.3.9.11, U.3.9.2
James	000000018-1	U.3.1
James Anderson	000000071-1, 000000071-2, 000000073-1	U.3.10.2, U.3.1
James Maroney	000000112-1	U.3.10.1
James Pope	000000012-1, 000000020-1	U.3.1, U.3.10.2
James Riddell	000000123-1, 000000123-2, 000000123-4, 000000123-5, 000000123-6, 000000123-7, 000000123-8, 000000123-9	U.3.1, U.3.10.2, U.3.20.2, U.3.9.13, U.3.11.3, U.3.9.11, U.3.10.1
James Solomon	000000187-1, 000000187-2, 000000187-3	U.3.1, U.3.10.1, U.3.8.2
Jan Burch	000000186-1, 000000186-2, 000000186-3, 000000186-4	U.3.10.5, U.3.9.11, U.3.10.2, U.3.9.4
Jan Smeltzer	000000158-1, 000000158-2	U.3.10.1, U.3.1

Organization(s), Individual(s)	Comment ID Numbers	Sections of Appendix U with the BLM's Responses to Comments
Janice Shepherd	000000125-1, 000000058-1, 000000058-2, 000000106-1, 000000106-10, 000000106-100, 000000106-101, 000000106-102, 000000106-103, 000000106-104, 000000106-105, 000000106-106, 000000106-107, 000000106-108, 000000106-109, 000000106-11, 000000106-110, 000000106-111, 000000106-112, 000000106-113, 000000106-114, 000000106-115, 000000106-116, 000000106-117, 000000106-118, 000000106-119, 000000106-12, 000000106-120, 000000106-121, 000000106-122, 000000106-123, 000000106-124, 000000106-125, 000000106-126, 000000106-127, 000000106-128, 000000106-129, 000000106-13, 000000106-130, 000000106-131, 000000106-132, 000000106-133, 000000106-134, 000000106-135, 000000106-136, 000000106-137, 000000106-138, 000000106-139, 000000106-14, 000000106-140, 000000106-141, 000000106-142, 000000106-143, 000000106-144, 000000106-145, 000000106-146, 000000106-147, 000000106-148, 000000106-149, 000000106-15, 000000106-150, 000000106-151, 000000106-152, 000000106-153, 000000106-154, 000000106-155, 000000106-156, 000000106-157, 000000106-158, 000000106-159, 000000106-16, 000000106-160, 000000106-161, 000000106-162, 000000106-163, 000000106-164, 000000106-165, 000000106-166, 000000106-167, 000000106-168, 000000106-169, 000000106-17, 000000106-170, 000000106-171, 000000106-172, 000000106-173, 000000106-174, 000000106-175, 000000106-177, 000000106-178, 000000106-179, 000000106-18, 000000106-180, 000000106-181, 000000106-182, 000000106-183, 000000106-184, 000000106-185, 000000106-186, 000000106-187, 000000106-188, 000000106-189, 000000106-19, 000000106-190, 000000106-191, 000000106-192, 000000106-193, 000000106-194, 000000106-195, 000000106-196, 000000106-197, 000000106-198, 000000106-199, 000000106-2, 000000106-20, 000000106-200, 000000106-201, 000000106-202, 000000106-203, 000000106-204, 000000106-205, 000000106-206, 000000106-207, 000000106-208, 000000106-209, 000000106-21, 000000106-210, 000000106-211, 000000106-212, 000000106-213, 000000106-214, 000000106-215, 000000106-216, 000000106-217, 000000106-218, 000000106-219, 000000106-22, 000000106-220, 000000106-221, 000000106-222, 000000106-223, 000000106-224, 000000106-225, 000000106-226, 000000106-227, 000000106-228, 000000106-229, 000000106-23, 000000106-230, 000000106-231, 000000106-232, 000000106-233, 000000106-234, 000000106-235, 000000106-236, 000000106-237, 000000106-238, 000000106-239, 000000106-24, 000000106-240, 000000106-241, 000000106-242, 000000106-243, 000000106-244, 000000106-245, 000000106-246, 000000106-247, 000000106-248, 000000106-249, 000000106-25, 000000106-250, 000000106-251, 000000106-252, 000000106-253, 000000106-26, 000000106-27, 000000106-28, 000000106-29, 000000106-3, 000000106-30, 000000106-31, 000000106-32, 000000106-33, 000000106-34, 000000106-35, 000000106-36, 000000106-37, 000000106-38, 000000106-39, 000000106-4, 000000106-40, 000000106-41, 000000106-42, 000000106-43, 000000106-44, 000000106-45, 000000106-46, 000000106-47, 000000106-48, 000000106-49, 000000106-50, 000000106-51, 000000106-52, 000000106-53, 000000106-54, 000000106-55, 000000106-56,	U.3.4, U.3.10.1, U.3.17, U.3.1, U.3.20.2, U.3.11.1, U.3.9.4, U.3.9.13, U.3.10.3, U.3.10.4, U.3.10.5, U.3.9.1, U.3.10.6, U.3.10.7, U.3.19, U.3.9.12, U.3.11.2, U.3.11.3, U.3.11.5, U.3.9.7, U.3.9.2, U.3.9.3, U.3.9.6, U.3.9.9, U.3.9.11, U.3.9.8, U.3.9.15, U.3.20.1, U.3.8.2, U.3.7.2, U.3.9.5, U.3.10.2

Organization(s), Individual(s)	Comment ID Numbers	Sections of Appendix U with the BLM's Responses to Comments
	000000106-57, 000000106-58, 000000106-59, 000000106-6, 000000106-60, 000000106-61, 000000106-62, 000000106-63, 000000106-64, 000000106-65, 000000106-66, 000000106-67, 000000106-68, 000000106-69, 000000106-7, 000000106-70, 000000106-71, 000000106-72, 000000106-73, 000000106-74, 000000106-75, 000000106-76, 000000106-77, 000000106-78, 000000106-79, 000000106-8, 000000106-83, 000000106-84, 000000106-85, 000000106-86, 000000106-87, 000000106-88, 000000106-89, 000000106-9, 000000106-90, 000000106-91, 000000106-92, 000000106-93, 000000106-94, 000000106-95, 000000106-96, 000000106-97, 000000106-98, 000000106-99, 000000113-2, 000000113-3, 000000113-4, DENCA-1-21361-1, DENCA-1-21361-2, DENCA-1-21361-3, DENCA-1-21411-1, DENCA-1-21411-2, DENCA-1-21411-3, DENCA-1-21411-4, DENCA-1-21561-1, DENCA-1-21561-10, DENCA-1-21561-2, DENCA-1-21561-3, DENCA-1-21561-4, DENCA-1-21561-5, DENCA-1-21561-6, DENCA-1-21561-7, DENCA-1-21561-8, DENCA-1-21561-9, DENCA-1-21811-1, DENCA-1-21811-10, DENCA-1-21811-11, DENCA-1-21811-12, DENCA-1-21811-13, DENCA-1-21811-14, DENCA-1-21811-2, DENCA-1-21811-3, DENCA-1-21811-4, DENCA-1-21811-5, DENCA-1-21811-6, DENCA-1-21811-7, DENCA-1-21811-8, DENCA-1-21811-9	
Jason Anders	000000037-1	U.3.1
Jean Public	000000002-1	U.3.1
Jeffery Fleming	000000105-1, 000000105-2, 000000105-3, 000000105-4, 000000105-5, 000000105-6	U.3.10.1, U.3.1, U.3.20.2
Jenny Russell	DENCA-1-21311-1	U.3.1
Jerrall Warwick	000000011-1	U.3.10.2
Jim Hays, Beverly Biggs	000000154-1, 000000154-2, 000000154-3, 000000154-4, 000000154-5, 000000154-6, 000000154-7, 000000154-8, 000000154-9	U.3.10.1, U.3.11.4, U.3.9.13, U.3.9.11, U.3.1, U.3.10.2
Joan Woodward	DENCA-1-22468-1, DENCA-1-22468-2, DENCA-1-22468-3, DENCA-1-22468-4	U.3.1, U.3.10.2
John Field	000000166-1	U.3.10.1
John Hoffman	000000077-2, 000000077-3, 000000077-4, 000000077-5	U.3.10.1, U.3.1
John Nelson	000000092-1	U.3.1
Jolene George	000000096-1, 000000096-10, 000000096-2, 000000096-3, 000000096-4, 000000096-5, 000000096-6, 000000096-7, 000000096-8, 000000096-9	U.3.20.2, U.3.12.2, U.3.10.6, U.3.20.1, U.3.1
Jonathan West	000000061-1, 000000061-2, 000000061-3	U.3.10.1, U.3.2.3
Karen Green	000000091-1, 000000091-10, 000000091-11, 000000091-12, 000000091-13, 000000091-14, 000000091-15, 000000091-16, 000000091-3, 000000091-5, 000000091-6, 000000091-7, 000000091-8, 000000091-9	U.3.20.2, U.3.9.6, U.3.10.1, U.3.12.2
Katie Steele	000000056-2, 000000056-3	U.3.20.2, U.3.9.12
Katrina Davis	000000147-1, 000000147-2, 000000147-3, 000000147-4	U.3.10.1, U.3.1, U.3.11.1, U.3.11.3
Kay Heinschel	000000078-1, 000000078-3, 000000078-4	U.3.4
Keith Collins	000000005-1	U.3.1
Kent Sundgren	DENCA-1-22161-1	U.3.1, U.3.10.1
Kitty Tattersall	DENCA-1-21961-1	U.3.10.1

Organization(s), Individual(s)	Comment ID Numbers	Sections of Appendix U with the BLM's Responses to Comments
Lawrence Ribnick	000000099-1, 000000099-2, 000000099-3, 000000099-4, 000000099-5, 000000099-6, 000000099-7	U.3.1, U.3.10.2, U.3.9.12, U.3.10.1, U.3.9.7, U.3.9.2
Lee Gelatt	000000093-1	U.3.9.13
Lyle Herrmann	000000015-1	U.3.10.2
Margot Gates	000000067-1	U.3.1
Mark Herrmann, Reford Herrmann, Michelle Herrmann, Danae Herrmann, Boyd Herrmann	000000017-1	U.3.10.1
Marv Ballantyne	000000124-1, 000000124-2, 000000124-3, 000000124-4, 000000124-5, 000000124-6, 000000124-7	U.3.1, U.3.10.1, U.3.10.5, U.3.11.1
Mary McCutchan	000000161-1, 000000161-2	U.3.10.1
Mary Tucker	000000243-1, 000000243-2	U.3.10.1, U.3.12.2
Mesa County, John Justman, Rose Pugliese	000000183-1, 000000183-10, 000000183-11, 000000183-12, 000000183-13, 000000183-14, 000000183-15, 000000183-16, 000000183-17, 000000183-18, 000000183-2, 000000183-3, 000000183-4, 000000183-5, 000000183-6, 000000183-7, 000000183-8, 000000183-9	U.3.1, U.3.10.1, U.3.10.5, U.3.9.11, U.3.11.3, U.3.12.2, U.3.10.6, U.3.9.6, U.3.9.3, U.3.9.5, U.3.9.12, U.3.9.13, U.3.9.15, U.3.10.2
Mevlee Shields	000000176-1	U.3.10.1
Michael Genevay	000000138-1	U.3.1
Michael Link	000000038-1, 000000038-2	U.3.1, U.3.10.6
Mike Allaben	000000013-1	U.3.1
Mike Hawkins	000000030-1	U.3.1
Millard Atkins	000000081-1	U.3.10.1
Montrose County Board of County Commissioners, Jon Waschbusch	000000035-1	U.3.3
Nancy Terrill	DENCA-1-21512-1	U.3.1

Organization(s), Individual(s)	Comment ID Numbers	Sections of Appendix U with the BLM's Responses to Comments
National Rifle Association of America; Boone and Crockett Club; Campfire Club of America; Congressional Sportsmen's Foundation; National Shooting Sports Foundation; North American Bear Foundation	000000076-1, 000000076-10, 000000076-11, 000000076-12, 000000076-3, 000000076-4, 000000076-5, 000000076-6, 000000076-7, 000000076-9	U.3.4, U.3.10.2, U.3.1, U.3.10.1, U.3.9.6
National Rifle Association, Gary Maxfield	000000004-1	U.3.1
Patrick Wehling	000000104-1, 000000104-10, 000000104-11, 000000104-2, 000000104-3, 000000104-5, 000000104-6, 000000104-7, 000000104-8, 000000104-9	U.3.10.1, U.3.10.6, U.3.9.6, U.3.1
Paul Thielsen	000000029-1	U.3.1
Pauline Struckman	000000064-1	U.3.1
Penny Heuscher	000000119-1, 000000119-10, 000000119-11, 000000119-2, 000000119-3, 000000119-4, 000000119-5, 000000119-6, 000000119-7, 000000119-8, 000000119-9	U.3.10.1, U.3.1, U.3.10.5, U.3.9.2, U.3.10.2, U.3.10.7, U.3.9.3
Phil Boinske	000000006-1	U.3.1
Piera Kllanxhja	000000088-1	U.3.1
Priscilla Vance	000000063-1, 000000063-2, 000000063-3, 000000063-4	U.3.1, U.3.9.6, U.3.9.13, U.3.11.1
Quiet Trails Group, Sherry Schenk	000000115-1, 000000115-10, 000000115-11, 000000115-12, 000000115-13, 000000115-14, 000000115-15, 000000115-16, 000000115-17, 000000115-18, 000000115-19, 000000115-2, 000000115-20, 000000115-21, 000000115-22, 000000115-23, 000000115-24, 000000115-25, 000000115-26, 000000115-27, 000000115-28, 000000115-29, 000000115-3, 000000115-30, 000000115-31, 000000115-32, 000000115-33, 000000115-34, 000000115-35, 000000115-36, 000000115-37, 000000115-38, 000000115-39, 000000115-4, 000000115-40, 000000115-41, 000000115-42, 000000115-43, 000000115-44, 000000115-45, 000000115-46, 000000115-47, 000000115-48, 000000115-49, 000000115-5, 000000115-50, 000000115-51, 000000115-52, 000000115-53, 000000115-54, 000000115-55, 000000115-56, 000000115-57, 000000115-58, 000000115-59, 000000115-6, 000000115-60, 000000115-61, 000000115-62, 000000115-63, 000000115-64, 000000115-65, 000000115-66, 000000115-67, 000000115-68, 000000115-69, 000000115-7, 000000115-70, 000000115-71, 000000115-72, 000000115-73, 000000115-74, 000000115-75, 000000115-76, 000000115-77, 000000115-78, 000000115-79, 000000115-8, 000000115-80, 000000115-81, 000000115-82, 000000115-9	U.3.1, U.3.10.6, U.3.10.1, U.3.20.2, U.3.9.12, U.3.10.2, U.3.9.2, U.3.10.5, U.3.9.11, U.3.9.14, U.3.9.4, U.3.11.1, U.3.9.6, U.3.4, U.3.11.3, U.3.9.13, U.3.11.5, U.3.9.5, U.3.9.9
Randy Dworshak	000000010-1, 000000010-2, 000000010-3	U.3.1, U.3.10.2
Regina Sowell	000000145-1, 000000145-2, 000000145-3, 000000145-5, 000000145-6, 000000145-7, 000000145-8, 000000145-9	U.3.10.2, U.3.9.5, U.3.1, U.3.11.1, U.3.9.2

Organization(s), Individual(s)	Comment ID Numbers	Sections of Appendix U with the BLM's Responses to Comments
Richard Miller	000000141-1	U.3.1
Rob Bradshaw	000000049-1	U.3.10.2
Robert Green	000000086-1	U.3.1
Robyn Cascade	000000120-1, 000000120-10, 000000120-11, 000000120-12, 000000120-13, 000000120-14, 000000120-15, 000000120-16, 000000120-4, 000000120-5, 000000120-6, 000000120-7, 000000120-8, 000000120-9	U.3.1, U.3.11.1, U.3.11.3, U.3.9.11, U.3.9.2, U.3.9.13, U.3.9.5, U.3.10.1
Rocky Mountain Bighorn Society, Terry Meyers	000000173-1, 000000173-2, 000000173-3, 000000173-4, 000000173-5, 000000173-6, 000000173-7	U.3.9.5, U.3.16, U.3.1
Rocky Mountain Recreation Initiative, Rosalind McClellan	000000135-1, 000000135-10, 000000135-11, 000000135-12, 000000135-13, 000000135-14, 000000135-15, 000000135-16, 000000135-17, 000000135-18, 000000135-19, 000000135-2, 000000135-20, 000000135-21, 000000135-22, 000000135-23, 000000135-24, 000000135-25, 000000135-26, 000000135-27, 000000135-28, 000000135-29, 000000135-3, 000000135-30, 000000135-31, 000000135-32, 000000135-33, 000000135-34, 000000135-35, 000000135-36, 000000135-37, 000000135-38, 000000135-39, 000000135-4, 000000135-5, 000000135-6, 000000135-7, 000000135-8, 000000135-9	U.3.1, U.3.20.2, U.3.6, U.3.10.1, U.3.20.1, U.3.10.6, U.3.9.3, U.3.9.4, U.3.9.6, U.3.11.1, U.3.9.13, U.3.10.2, U.3.9.5
Ron Mansour	000000024-1	U.3.1
Ross Patrick	000000032-1	U.3.1
Roy Kirkman	000000025-1	U.3.10.2
Rudy Rodriguez, Joyce Rodriguez	000000082-1, 000000082-2	U.3.1, U.3.20.2
Russell Evans	000000137-1, 000000137-2, 000000137-3, 000000137-4, 000000137-5, 000000137-6	U.3.1, U.3.9.13, U.3.9.11, U.3.10.2, U.3.9.3
Shane Haas	000000179-1, 000000179-2	U.3.10.1
Shane Wildeman	000000019-1	U.3.1
Sherry Schenk	000000153-1, 000000153-2	U.3.1, U.3.7.3
Sierra Club Uncompahgre, Eric Rechel	000000149-1, 000000149-2, 000000149-3, 000000149-4, 000000149-5, 000000149-6	U.3.1, U.3.11.3, U.3.10.5, U.3.9.2
Sperry Livestock, Renee Deal, Joe Sperry	000000054-10, 000000054-11, 000000054-12, 000000054-13, 000000054-14, 000000054-15, 000000054-16, 000000054-17, 000000054-18, 000000054-19, 000000054-2, 000000054-3, 000000054-4, 000000054-5, 000000054-6, 000000054-7, 000000054-8, 000000054-9	U.3.10.5, U.3.1, U.3.16, U.3.9.5, U.3.18.3, U.3.9.3
Stan Kiser	000000165-1	U.3.10.1
Steve Williams	000000044-1, 000000044-2	U.3.12.2, U.3.10.1
Steven Kovarovics	000000039-1, 000000039-2, 000000039-3	U.3.1, U.3.10.1, U.3.12.2
Susan Baldwin	000000108-1, 000000108-2, 000000108-3, 000000131-1	U.3.1, U.3.10.1, U.3.11.3
Susan Frontcak	000000155-1, 000000155-2	U.3.10.1
Terence Haley	000000023-1	U.3.9.4, U.3.7.2, U.3.9.3

Organization(s), Individual(s)	Comment ID Numbers	Sections of Appendix U with the BLM's Responses to Comments
The Wilderness Society, Juli Slivka	000000031-1, 000000031-10, 000000031-11, 000000031-12, 000000031-13, 000000031-14, 000000031-15, 000000031-16, 000000031-17, 000000031-18, 000000031-19, 000000031-2, 000000031-21, 000000031-22, 000000031-23, 000000031-24, 000000031-25, 000000031-26, 000000031-27, 000000031-28, 000000031-29, 000000031-3, 000000031-30, 000000031-31, 000000031-32, 000000031-33, 000000031-34, 000000031-35, 000000031-36, 000000031-37, 000000031-38, 000000031-39, 000000031-4, 000000031-40, 000000031-41, 000000031-42, 000000031-43, 000000031-44, 000000031-45, 000000031-46, 000000031-47, 000000031-48, 000000031-49, 000000031-5, 000000031-50, 000000031-51, 000000031-52, 000000031-6, 000000031-7, 000000031-8, 000000031-9	U.3.1, U.3.10.1, U.3.10.6, U.3.20.1, U.3.9.13, U.3.9.3, U.3.9.5, U.3.11.2, U.3.9.11, U.3.11.5, U.3.11.3, U.3.9.12, U.3.10.3, U.3.10.4, U.3.9.14, U.3.5, U.3.9.10, U.3.12.2, U.3.11.1, U.3.9.4, U.3.10.2
Thunder Mountain Wheelers ATV Club, Walt Blackburn	000000001-10, 000000001-11, 000000001-12, 000000001-13, 000000001-14, 000000001-15, 000000001-16, 000000001-17, 000000001-19, 000000001-20, 000000001-21, 000000001-22, 000000001-23, 000000001-24, 000000001-25, 000000001-26, 000000001-4, 000000001-5, 000000001-7, 000000001-8, 000000001-9	U.3.10.1, U.3.9.6, U.3.10.6, U.3.20.2, U.3.9.9, U.3.1, U.3.10.2, U.3.12.2, U.3.11.4
Thunder Mountain Wheelers, Mike Wilson	000000157-1, 000000157-10, 000000157-11, 000000157-12, 000000157-13, 000000157-14, 000000157-2, 000000157-3, 000000157-4, 000000157-5, 000000157-6, 000000157-7, 000000157-8, 000000157-9	U.3.1, U.3.10.1, U.3.12.2, U.3.20.2, U.3.9.6, U.3.10.2, U.3.10.6, U.3.20.1
Tom Heffernan	000000085-1, 000000085-2, 000000085-3	U.3.11.3, U.3.10.2, U.3.1
Tom Thomas	000000034-1, 000000034-2, 000000034-3	U.3.1, U.3.10.1
Tom Tucker	000000189-1	U.3.1
Tracey Rohde	000000027-1, 000000103-1, 000000103-10, 000000103-11, 000000103-12, 000000103-13, 000000103-14, 000000103-15, 000000103-17, 000000103-18, 000000103-2, 000000103-3, 000000103-4, 000000103-5, 000000103-6, 000000103-7, 000000103-8, 000000103-9	U.3.3, U.3.1, U.3.20.2, U.3.10.1, U.3.10.2, U.3.10.6, U.3.9.6
Trevor Bellew	000000134-1, 000000134-2, 000000134-3, 000000134-4	U.3.8.2, U.3.8.1, U.3.20.2, U.3.10.2
Tri-State Generation and Transmission Association, Inc., Karl Myers, Rick Thompson	000000117-1, 000000117-2, 000000117-3, 000000117-4	U.3.10.7, U.3.1, U.3.9.14
Tyron Lofton	000000237-1	U.3.10.1
U.S. Environmental Protection Agency, Region 8, Suzanne Bohan	000000074 -1, 000000074 -2, 000000074 -3, 000000074 -4, 000000074 -5, 000000074 -6, 000000074 -7, 000000074 -8, 000000074 -9	U.3.9.9, U.3.9.2, U.3.18.1
Wayne	000000127-1, 000000127-2, 000000127-3, 000000127-4, 000000127-5, 000000127-6, 000000127-7	U.3.10.1, U.3.9.2, U.3.10.2, U.3.9.6, U.3.9.13, U.3.11.1, U.3.11.3, U.3.1, U.3.9.11
Wayne Ash	000000057-1	U.3.10.1
Western Slope ATV Association, Steve Chapel	000000089-1, 000000089-10, 000000089-11, 000000089-12, 000000089-13, 000000089-14, 000000089-15, 000000089-2, 000000089-3, 000000089-4, 000000089-5, 000000089-6, 000000089-7, 000000089-8, 000000089-9	U.3.10.1, U.3.20.2, U.3.1, U.3.8.1

Organization(s), Individual(s)	Comment ID Numbers	Sections of Appendix U with the BLM's Responses to Comments
Western Slope Stewards, Greg Armon	000000048-1, 000000048-2	U.3.2.1, U.3.2.3
Widefield School District 3, Terry Kimber	000000046-1, 000000046-2, 000000046-3	U.3.1, U.3.20.2
Wilderness Society, Judith Weil	000000146-1	U.3.1
Wilderness Watch, Gary Macfarlane	000000169-1, 000000169-2, 000000169-3, 000000169-4, 000000169-5, 000000169-6, 000000169-7	U.3.9.12, U.3.9.7, U.3.1
William Alexander	000000111-1	U.3.10.1
William Davis	000000040-1, 000000040-2, 000000040-3, 000000040-4, 000000040-5	U.3.1, U.3.12.2, U.3.10.1
William Sutton	000000021-1, 000000021-2, 000000021-3, 000000021-4	U.3.2.3, U.3.8.2, U.3.1

U.3. The BLM's Responses to Public Comments on the Draft RMP

U.3.1. Non-Substantive Comments

Total Number of Submissions: 142

Total Number of Comments: 326

Summary

These comments simply stated an opinion or preference.

Response

The BLM greatly appreciates the time spent by members of the public to examine the D-E NCA Draft RMP and submit their comments during the public comment period. After the release of the Draft RMP, the BLM conducted extensive outreach through open houses, fact sheets, and the D-E NCA website to clarify the type of comment the agency would be able to respond to ("substantive" comments). On the basis of guidance provided by BLM Handbook H-1790-1 (BLM 2008a), comments were considered substantive if they addressed specific details in the plan, such as the accuracy of the BLM's data or the methods used by the BLM, or provided new information or suggested reasonable alternate courses of action. For the most part, the agency was not able to respond to comments that simply stated an opinion or preference. Such comments were considered non-substantive.

U.3.2. Comments on Authorities

U.3.2.1. Constitutionality and State Rights

Total Number of Submissions: 2

Total Number of Comments: 2

Summary

These comments 1) questioned the constitutionality of the RMP and asserted that only the State has the sovereign right to manage lands within the D-E NCA and/or; 2) asserted that both of BLM's congressional authorizations to manage the NCA, the Federal Land Policy and Management Act of 1976 and the Omnibus Act of 2009 (Public Law 111–8; referred to as the "Omnibus Act" in the rest of this chapter), violate the Constitution of the United States and/or the State of Colorado's Enabling Act.

Response

1. It is not within the authorities of the BLM or the scope of this planning process to determine whether or not congressional legislation is constitutional. That power is reserved by the Federal courts. However, only public lands (BLM-administered surface and subsurface) within the planning area are subject to decisions contained in the D-E NCA RMP. Private and other lands are not subject to decisions contained in the D-E NCA RMP. For a detailed

description of the planning area, please see section 1.2, Description of the Planning Area, of this Proposed RMP.

2. The BLM is preparing the D-E NCA RMP in accordance with Section 202 of the FLPMA, which requires that "the Secretary shall...develop, maintain, and, when appropriate, revise land use plans which provide by tracts or areas for the use of the public lands." As defined in Section 103 of FLPMA, public lands "means any land and interest in land owned by the United States within the several States and administered by the Secretary of the Interior through the Bureau of Land Management, without regard to how the United States acquired ownership."

U.3.2.2. Statutory Authorities

Total Number of Submissions: 2

Total Number of Comments: 8

Summary

These comments questioned the authority of the BLM to propose and implement a variety of management actions in this RMP planning process. Comments stated that 1) protecting lands with wilderness characteristics is unlawful, as only a) Congress has the authority to designate wilderness and b) Section 201 of FLPMA does not explicitly identify lands with wilderness characteristics; 2) designating routes as limited to certain types of recreational use or designating routes to minimize trespass on private land is not within the authorities granted by FLPMA or the Omnibus Act, nor is managing recreational use conflicts; 3) only the limitations specifically called out in the Omnibus Act should take precedence if and when those limitations conflict with FLPMA, and all other areas of concern not raised in the Omnibus Act remain in the jurisdiction of FLPMA; 4) the BLM has misconstrued the Omnibus Act as giving the agency free rein to elevate natural values above all other values, including recreation and other forms of human use, in violation of FLPMA's mandate in Section 102(a) and the NEPA; and 5) FLPMA does not require developing a proposed plan to address future needs, and since the future is unknown, the BLM should manage for current users and current demand.

Response

1. The BLM agrees that only Congress has the authority to designate wilderness, and is only proposing to manage those areas designated in the Omnibus Act as wilderness; managing lands with wilderness characteristics is a separate action with authorities *derived directly from FLPMA Section 201 (43 U.S.C. 1711). Section 201 of FLPMA requires the BLM to maintain on a continuing basis an inventory of all public lands and their resources and other values.* The statute provides some examples but should not be construed as an exhaustive list. This inventory requirement includes maintaining information regarding wilderness characteristics.

2. Title III, Section 302(b) of FLPMA states, "In managing the public lands, the Secretary shall, subject to this Act and other applicable law...regulate...through published rules...the use, occupancy, and development of the public lands." Designating routes and limiting uses is consistent with the regulation of use, occupancy, and development of public lands. Section 2406(b)(4) of the Omnibus Act mandates the BLM to include in its management plan a comprehensive travel management plan. Section 2402(c)(2)(B)(II) states that "after the effective date of the management plan, [travel will be allowed] only on roads and trails

designated in the management plan for the use of motor vehicles." Therefore, it is within the BLM's authority to designate travel routes as open to some uses and closed to others in this management plan. Section 2402(b)(1) directed the BLM to conserve and protect the "unique and important values" of the D-E NCA. These values include the "geological, cultural, archaeological, paleontological, natural, scientific, recreational, wilderness, wildlife, riparian, historical, educational, and scenic resources of the public lands." Conservation of the above values sometimes causes contradictions in the implementation of the different values that must be reconciled, and the BLM must, through public participation and internal analysis, determine the most effective way to manage the NCA for protection of human and natural resources.

3. The BLM concurs with this interpretation regarding application of the Omnibus Act and FLPMA, and finds that it is not contradictory to the original Draft RMP language that cited the BLM's National Landscape Conservation System (NLCS) Manual 6100: "...as a general rule, if the act of Congress or presidential proclamation that designates an NLCS unit conflicts with FLPMA's multiple use mandate, the designating language will apply. Land use planning decisions for each NLCS unit must be consistent with the purposes and objectives of the designating proclamation or Act of Congress." As the BLM has followed both of these congressional authorities and their mandates accordingly, the BLM's proposed plan and its management actions need no revision in order to comply with FLPMA or to comply with the Omnibus Act. As drafted and proposed, the plan complies with both.

4. In accordance with the Omnibus Act, the BLM has drafted and proposed a management plan that conserves or protects "for the benefit and enjoyment of present and future generations…the unique and important resources and values of the land, including the geological, cultural, archaeological, paleontological, natural, scientific, recreational, wilderness, wildlife, riparian, historical, educational, and scenic resources of the public land; and…the water resources of area streams, based on seasonally available flows, that are necessary to support aquatic, riparian, and terrestrial species and communities" (Section 2402).

   The BLM does not have the authority to elevate natural values above all other values in every instance, nor does it attempt to do so in the Proposed RMP. The human element drives BLM's recreation management to maintain or enhance recreation experience for a variety of users, the management of heritage areas, cultural resources, and livestock grazing, and identification of watchable wildlife areas, among others. With respect to how FLPMA and NEPA influence the planning process and the BLM's decisions to balance uses and resources, NEPA merely establishes the procedural context, directing BLM to evaluate the environmental impacts of its proposed RMP and provide the public an opportunity to comment on the proposal and its impacts; FLPMA directs BLM to balance multiple uses for the long-term benefit of both the natural environment and human uses. NEPA is purely a procedural statute; it establishes no preferences (for built environment or any other resource) and requires no specific outcomes. A Federal agency complies with NEPA when it makes its decision based on sound science provided in the administrative record, and when it gives stakeholders an opportunity to participate in the decision-making process. Under FLPMA, where one use is incompatible with a multitude of other, equally valuable uses, the balancing of multiple uses may result in a reduction of the incompatible use.

5. The guiding legislation for this RMP is the Omnibus Act, which states "The purposes of the Conservation Area are to conserve and protect for the benefit and enjoyment of present and

future generations." See Appendix Q. Under this guidance, the BLM has taken present uses and anticipated future demand into consideration in this RMP.

U.3.2.3. R.S. 2477 Rights-of-Way

Total Number of Submissions: 5

Total Number of Comments: 9

Summary

These comments assert that 1) the BLM failed to acknowledge legal R.S. 2477 rights-of-way in the planning process for the D-E NCA; and/or 2) most or all of the routes within the NCA are R.S. 2477 routes, and as such, the counties should retain the authority to manage them.

Response

1. The BLM acknowledges that all decisions made in the RMP must be subject to valid existing rights. Although the BLM recognizes *adjudicated* R.S. 2477 rights-of-way as valid existing rights, current policy does not allow the BLM to consider *unadjudicated* R.S. 2477 claims as valid existing rights. Additionally, the BLM can in no way validate or adjudicate R.S. 2477 assertions in the BLM land use planning or route designation processes. R.S. 2477 claims must be asserted in Federal court for adjudication. Because the BLM cannot determine the validity of R.S. 2477 assertions, the existence of the claims will not control resource allocation decisions in the RMP or route designations made by the BLM.

2. Working with each of the three counties as cooperating agencies, the BLM has left county-maintained roads within the D-E NCA under the jurisdiction and management of the counties, including legal and adjudicated R.S. 2477 routes. Although other routes in the NCA may qualify as R.S. 2477, and therefore qualify for remaining in a county's jurisdiction, it is not within the BLM's authority to determine whether or not a route may qualify. Future adjudications that result in additional R.S. 2477 routes will be acknowledged by the BLM and incorporated into the travel management plan for the NCA at that time through the NEPA planning process.

U.3.3. Request for Extension of Public Comment Period

Total Number of Submissions: 2

Total Number of Comments: 2

Summary

These commenters asked for an extension of the time to submit comments to the Draft RMP.

Response

The BLM extended the public comment period by 30 days.

U.3.4. Implementation-Level Comments

Total Number of Submissions: 12

Total Number of Comments: 31

Summary

These comments 1) provided input on a variety of implementation-level issues, ranging from communication tools to the use of volunteers to implement aspects of the D-E NCA RMP once completed; and/or 2) emphasized Federal budget constraints and questioned the ability of the BLM to implement the RMP with limited funding.

Response

1. Implementation-level decisions are generally not included in the RMP, with some exceptions, such as route-by-route designations in the travel management plan; instead, the RMP outlines planning-level decisions, such as area allocations and use restrictions. The BLM did not incorporate implementation comments in the Proposed RMP; however, public comments provided a number of worthwhile ideas that the BLM will consider during plan implementation, once the RMP is approved and final.

2. The BLM, with the help of public input, has attempted to craft an RMP that will be reasonable to implement given past, current, and future projected budgets.

U.3.5. Comments Regarding Other Planning Areas

Total Number of Submissions: 1

Total Number of Comments: 2

Summary

This commenter addressed issues in other management plans or in other planning areas besides the Dominguez-Escalante NCA.

Response

Issues in other management plans or in other planning areas are outside the scope of this RMP and were not considered.

U.3.6. Route-Specific Comments Made Prior to Draft RMP Release

Total Number of Submissions: 1

Total Number of Comments: 25

Summary

These were substantive, travel management–related, route-specific comments that were submitted prior to the release of the Draft RMP and were considered in the development of the travel management plan for the D-E NCA.

Response

The BLM carefully considers all the comments it receives, regardless of when they are received. Although the BLM is not required to respond to comments provided outside the public comment period, the comments in this section were substantive, route-specific comments that were considered in the development of the travel management plan, so the responses to them can be found in the route-specific travel management comment section of this document (section U.3.20.2), and in the *Dominguez-Escalante NCA Travel Management Plan Route Comment Report* available online: http://1.usa.gov/1qKkMVi.

U.3.7. General Comments on the Entire Draft RMP

U.3.7.1. Data Adequacy

Total Number of Submissions: 2

Total Number of Comments: 2

Summary

These commenters stated that 1) the lack of specific information hindered the BLM's ability to determine appropriate management strategies and/or conduct a sufficient level of analysis, citing the Colorado Plateau Rapid Ecoregional Assessment and the disclosure of incomplete or unavailable information in Chapter 4 of the Draft RMP; and 2) incomplete or unknown information in section 4.1.3 is substantial enough to render any action alternative baseless, claiming there would be no way to factually or scientifically support changes to the status quo.

Response

1. The referenced Colorado Plateau Rapid Ecoregional Assessment (REA) was completed in May 2012, subsequent to the development of the Draft RMP. Nonetheless, in order to ensure the use of the best available scientific information, the BLM revised the Proposed RMP to incorporate key components of the REA. See section 1.8, Related Land Use Plans and Assessments, of this document.

2. With respect to whether or not the BLM had sufficient information to develop management strategies and analyze the environmental impacts resulting from the various alternatives, CEQ regulations require an EIS to "succinctly describe the environment of the area(s) to be affected or created by the alternatives under consideration. The description shall be no longer than is necessary to understand the effects of the alternatives. Data and analysis in a statement shall be commensurate with the importance of the impact, with less important material summarized, consolidated, or simply referenced. Agencies shall avoid useless bulk in statements and shall concentrate effort and attention on important issues" (40 CFR 1502.15). The requisite level of information necessary to make a reasoned choice among the alternatives in an EIS is based on the scope and nature of the proposed action(s). The baseline data provided in Chapter 3, Affected Environment, of this document have been revised and updated to include information provided by commenters and additional relevant

data. This updated information, along with the various appendices in the D-E NCA Proposed RMP, supports, at the general land use planning level of analysis, the EIS resulting from management actions presented in the Chapter 2, Alternatives. Incomplete or unavailable information as identified in section 4.1.3 includes comprehensive, site-specific inventories of wildlife and special status species, visitor use, air emissions, and cultural and paleontological resources. Although existing information is not comprehensive, the BLM has a substantial amount of data from select locations that can be reasonably extrapolated to similar ecological conditions, locations, and habitat types. It is not practical to postpone the planning process until every site-specific location in the planning area has been surveyed for all resources; reasonable and logical inferences must be made from existing data.

U.3.7.2. Range of Alternatives

Total Number of Submissions: 2

Total Number of Comments: 2

Summary

These commenters 1) expressed support for a plan alternative that would emphasize protecting geological and paleontological resources; and 2) questioned a lack of alternatives restricting consumptive land uses.

Response

1. The BLM acknowledges that many variations of alternatives could be included in the RMP analysis; however, the BLM is not required to analyze in detail each variation, including those variations determined not to meet the RMP's purpose and need or those determined to be unreasonable given BLM mandates, policies, and programs (CEQ 1981, question number 29b). CEQ regulations require the BLM to analyze a reasonable range of alternatives. The BLM examined all alternatives and found that all alternatives have goals, objectives, and management actions for protecting geological and paleontological resources. These include applying site-specific relocation (SSR) in areas where geologic features could be identified, requiring clearance surveys prior to surface-disturbing activities, and prohibiting or restricting collection of vertebrate and trace fossils to scientific purposes or Native American spiritual or traditional uses. The Proposed Plan Alternative contains management actions that emphasize protection of geologic and paleontological resources. Please see section 2.6, Alternatives Matrix, rows 1–10.

2. As described in Appendix Q, all Federal lands within the NCA are withdrawn from location, entry, and patent under the mining law and withdrawn from operation of mineral leasing, mineral materials, and geothermal leasing laws. Other consumptive land uses are being driven by the goals and objectives to protect the purposes of the NCA, which are "to conserve and protect… the unique and important resources and values of the land, including the geological, cultural, archeological, paleontological, natural, scientific, recreational, wilderness, wildlife, riparian, historical, educational, and scenic resources of the public land; and the water resources of area streams, based on seasonally available flows, that are necessary to support aquatic, riparian, and terrestrial species and communities." See Appendix Q. The alternatives in the Proposed RMP provide a range of options for various resource uses within the NCA and describe their resulting effects.

U.3.7.3. Need for a Monitoring Plan

Total Number of Submissions: 1

Total Number of Comments: 1

Summary

This commenter asked the BLM to articulate a monitoring plan and corresponding schedule to ensure that the management objectives for species and vegetation within the D-E NCA are met and expresses concern about the BLM's ability to implement such monitoring due to limited resources.

Response

The BLM and FLPMA require that BLM staff monitor the conditions of resources over the life of resource management plans. Section 2.4 of this document, Actions Common to All Alternatives, includes monitoring. The Alternatives Matrix in section 2.6 shows the decisions proposed for each of five alternatives, along with goals, objectives, allowable uses, and actions, including general monitoring requirements, for each alternative based on those goals, objectives, and allowable uses. Appendix T contains general conservation measures, including monitoring, for threatened and endangered (T&E) listed plant species in the D-E NCA.

Site-specific, resource-specific monitoring plans and corresponding schedules for monitoring are implementation-level activities and outside the scope of this project. Specific plans and time lines are dependent on individual resource needs and are tailored to suit those needs. Currently, the BLM implements land health assessments, livestock utilization monitoring, and ecological site inventory, among other methods, to assess species and vegetation. Changes in best available science make committing to a specific plan in an RMP restrictive when new information or methods are available. Therefore, the BLM commits to monitoring the effectiveness of management actions but does not prescribe how or when that monitoring will be conducted.

U.3.8. Comments on Chapter 1. Introduction

U.3.8.1. Purpose of and Need for the Plan

Total Number of Submissions: 4

Total Number of Comments: 4

Summary

These commenters questioned the purpose and need of the RMP, asserting that no change in management is needed, because 1) Alternative A meets the necessary congressional mandates; 2) the BLM did not justify a change in management due to existing conditions; and 3) significant travel management changes implemented by the Omnibus Act in 2009 have not been in place long enough for the BLM to analyze associated effects, and it is therefore too early to propose further management changes in the RMP, especially for travel.

Response

1. See section 1.1, Purpose of and Need for the Plan, of this document for more information regarding the purpose and need for the D-E NCA RMP in light of the Omnibus Act. Specifically, Section 2406 of the Omnibus Act states, "The Secretary shall develop a comprehensive management plan for the long-term protection and management of the Conservation Area. The management plan shall describe the appropriate uses and management of the Conservation Area; be developed with extensive public input; take into consideration any information developed in studies of the land within the Conservation Area; and include a comprehensive travel management plan." Furthermore, BLM policy requires individual management plans for each NCA.

2. As noted in the Proposed RMP, section 1.6, Planning Criteria and Legislative Constraints, list item 24, "decisions in existing plans (i.e., Grand Junction RMP, Uncompahgre Basin RMP) [were] considered during the process of developing the new RMP. Where existing decisions [remained] valid and responsive to the purposes of the congressional designation, they [were] carried forward into one or more alternatives." With the planning sideboards identified in relevant legislation, and further delineated in BLM and applicable policy, the BLM IDT developed and considered a range of alternatives to meet the purpose and need of the Plan. There is no requirement in NEPA to place greater emphasis on status quo management over other alternatives. Selection of the No Action Alternative/Alternative A for all management goals, objectives, and actions would not meet the purpose and need of the plan.

3. Travel management decisions are designed to support resource management plan objectives. The BLM IDT determined that the No Action Alternative did not meet the management intent of the purposes of the NCA designating legislation. Since the travel system is designed to support RMP objectives; the BLM IDT determined a different travel system was needed to support new resource management objectives aligned with the purposes of the Omnibus Act.

U.3.8.2. Planning Process

Total Number of Submissions: 10

Total Number of Comments: 11

Summary

These commenters 1) noted a variety of barriers to effective public participation, including the length of the comment period and the complexity and length of the Draft RMP; 2) questioned the ability of the BLM to actually use the public input it received; 3) questioned the BLM's ability to properly balance uses and resources considering the issue representation on the current IDT; and 4) requested additional spatial information be made available to the public.

Response

1. Although the 90-day comment period for the Draft RMP was relatively brief, notwithstanding the 30-day extension, the BLM has initiated several opportunities for meaningful public participation throughout the planning process. See section 1.4, Planning Process, for more information. The BLM knows that the Proposed RMP is lengthy and complex, but the level of detail included enables greater transparency and input from the public to a higher level of detail regarding allocations and management actions than would be afforded by a short document, as well as full disclosure of associated impacts from those decisions. Furthermore, delineating the action and disclosing the impacts is necessary

to meet the BLM's statutory obligation to comply with NEPA. Nonetheless, the IDT took several steps to break the key issues from the RMP down into more accessible, manageable pieces and communicate those to the public. See section 1.4, Planning Process.

2. The BLM must and does consider all substantive public comments. Consideration may result in minor or more significant changes to the plan, or they may not. But the plan would not be possible without public input at the beginning, throughout, and in the final stages.

3. The weight of one value, resource, or use in the planning process is not commensurate with its staff representation on the IDT. Rather, the mandate to conserve and protect the NCA's values, and to balance multiple uses and sustained yield, results in necessary trade-offs.

4. The BLM has made more spatial information pertaining to the RMP available to the public on the Dominguez-Escalante NCA planning website: http://1.usa.gov/1qKkMVi.

U.3.9. Comments on Chapters 2–4: Resources

U.3.9.1. Geological and Paleontological Resources

Total Number of Submissions: 3

Total Number of Comments: 6

Summary

These comments stated that the BLM should 1) monitor for “attractive” geological features or survey for geological resources prior to surface-disturbing projects; 2) ban casual removal of rocks and minerals; 3) include geological formations in permit classification criteria; 4) continue the ongoing compilation and analysis of all available paleontological resource data; or 5) noted inconsistencies between information in Chapters 2 and 4 for paleontological and geological resources.

Response

1. The Proposed Plan Alternative includes mapping for outstanding geological features; see section 2.6, Alternatives Matrix, row 5.

2. Prohibiting the casual collection of rocks and minerals was considered under Alternatives A, B, and C. See Alternatives Matrix, row 10.

3. Section 4.4.1, Recreational Use, discusses impacts to sensitive geological areas from recreation management. Restrictions to surface-disturbing activities under the Proposed Plan Alternative provide protection from potential negative impacts from all recreational activities, including those authorized by special recreation permits.

4. See section 2.6, Alternatives Matrix, row 5, which states that under all action alternatives, the BLM will allow geological and paleontological research using a variety of methods.

5. Revisions have been made to ensure consistency in reported data throughout the RMP.

U.3.9.2. Priority Vegetation and Habitats

Range of Alternatives

General Comments

Total Number of Submissions: 2

Total Number of Comments: 2

Summary

These commenters wanted better descriptions of a number of planning for priority species and vegetation (PPSV) terms and concepts.

Response

A reference to Appendix D, Colorado Standards for Public Land Health, has been added to section 2.4, Management Common to All Alternatives. This directs the reader to where he or she will find a description of PPSV concepts. The Proposed Plan Alternative includes the objective that, in order to meet land health standards for vegetation, 60 percent (or more) of sampled vegetation should include an "adequate" mixture of warm and cool season grasses. A definition of "adequate" as defined by ecological site descriptions (see Glossary) has been added to Appendix A, Planning for Priority Species and Vegetation.

Goals

Total Number of Submissions: 6

Total Number of Comments: 6

Summary

These commenters were concerned that the BLM's goals for PPSV species that are in "fair" or "poor" condition are not adequate to improve the condition of these species.

Response

The Proposed Plan Alternative has an objective to enhance or maintain the ranking of all priority species and vegetation that are currently rated as in "good" or "very good" condition, and enhance the ranking of priority species and vegetation that are currently rated in "fair" or "poor" condition. These objectives have the likely outcome of increasing percent cover of native species and removing undesired species, positively affecting plant functional group composition, such as changes in vegetation structural diversity. Over the long term, management actions could facilitate a more natural disturbance regime in woodland habitats, increase the health and presence of native sagebrush shrublands, and increase the presence of seeps and dependent rare plants. Please see section 4.3.2.1, Priority Species and Vegetation, for a complete analysis of impacts from all alternatives.

Objectives

Total Number of Submissions: 1

Total Number of Comments: 1

Summary

This commenter thought that the objectives for vegetation treatments were not flexible enough for "arid environments which take years to respond to changes."

Response

The D-E NCA Proposed RMP includes biological objectives for all action alternatives to help guide how the BLM implements its management actions. These objectives provide a well-defined vision of the environmental conditions BLM hopes to achieve, but they are still flexible enough to allow for changes in management based on changing conditions observed through monitoring data. For example, section 2.6, Alternatives Matrix, row 28, states that vegetation treatments and/or restrictions on allowable uses may be made to meet objectives, and row 30 allows the BLM to restrict, adjust, or intensively manage allowable uses to meet objectives. Management actions that are flexible in nature can be found under PPSV subheadings for specific vegetation types in the Alternatives Matrix; language within these management actions that indicate flexibility include lists of activities that are not similar or are counter to each other, or use terms like "adjust."

Desert Shrub/Saltbush

Total Number of Submissions: 1

Total Number of Comments: 1

Summary

This commenter expressed concern regarding the effects of grazing on desert shrub/saltbush habitat.

Response

The Proposed Plan Alternative states that grazing permits would include use limits that reflect best management practices (BMPs) and do not prevent attainment of land health standards. The use of monitoring and/or vegetation inventory to evaluate land health would be used to assess allotted animal unit months (AUMs; see Glossary), and would be used to prioritize areas where livestock grazing is preventing achievement of biological objectives. Changes to permitted grazing would be made in response to data that indicate land health standards are not being met (section 2.6, Alternatives Matrix, rows 516 and 521). An analysis of livestock grazing in section 4.4.4, Livestock Grazing, shows that these measures would aid in achieving land health standards and would protect priority vegetation and habitats, including desert shrub/saltbush.

Pinyon Juniper Woodlands

Total Number of Submissions: 2

Total Number of Comments: 4

Summary

These commenters 1) noted the need to inventory ancient pinyon-juniper (PJ) woodlands; and 2) protect them from firewood collectors; 3) wanted the Proposed RMP to allow the BLM to do treatments in unchained PJ woodlands; and 4) showed concern for wildlife species in PJ woodlands.

Response

1. Please see section 2.6, Alternatives Matrix, row 47, which states that an objective for PJ woodlands is to manage for public land health standards. Determining if land health standards are being met is done through various inventory and monitoring methods. Specific plans, time lines, and methods for monitoring are implementation-level decisions and outside the scope of this RMP, so they have not been included.

2. See section 2.6, Alternatives Matrix, row 31, for different restrictions on firewood collection. Alternative B would be the most restrictive, limiting firewood collection to Native American tribal members only. The impact analysis in section 4.4.1, Recreational Use, indicates that more stringent restrictions on firewood collection, while having positive environmental affects, would have the potential to disparately affect environmental justice populations. The Proposed Plan Alternative evaluates firewood collection areas on an annual basis to best meet the needs of people and biological resources.

3. Please see section 2.6, Alternatives Matrix, row 49. Within the Proposed Plan Alternative, there is language that would allow the BLM to use a variety of vegetation treatments in PJ woodlands. The emphasis is on previously treated woodlands but does not preclude previously untreated areas.

4. The impact analysis in section 4.3.2.1, Priority Species and Vegetation, shows that the Proposed Plan Alternative would promote a more rapid movement toward achieving desired trends for PJ indicators. Over the long term, these changes allow for increased habitat suitability for PJ-dependent wildlife.

Sagebrush Shrublands

Total Number of Submissions: 3

Total Number of Comments: 4

Summary

These commenters 1) wanted restrictions on routes to prevent more sagebrush fragmentation; 2) were concerned that routes fully encircling sagebrush habitat would not allow adequate room for wildlife transiting the area, particularly during times of heavy motorized use; and 3) wanted vegetation treatments to prevent sagebrush and other such plant communities from developing into woodlands.

Response

1. In response to public comment and Advisory Council recommendations, the Proposed Plan Alternative would modify the management action for sagebrush parks to avoid new route placement in sagebrush patches larger than 60 acres, to only use offset mitigation in smaller patches, to avoid surrounding more than 50 percent of the patch edge with routes, and to place new routes at the patch edges. The impact analysis in section 4.3.2.1, Priority Species

and Vegetation, shows that impacts from these management actions would reduce overall fragmentation.

2. The impact analysis in section 4.3.2.1 shows that reduced fragmentation under the Proposed Plan Alternative provides the best protection overall for wildlife. The analysis of impacts to wildlife in section 4.3.2.3, Non–Special Status Fish and Wildlife, show that the seasonal closures of big game concentration areas in sagebrush habitat (which are part of the Proposed Plan Alternative) provide additional critical protection for wildlife, which most frequently utilize and move through sagebrush habitats during the winter. Although complete closure of roads within sagebrush habitats would provide the most protection for wildlife in sagebrush habitats, balancing the needs of people and biological resources is best represented in the Proposed Plan Alternative.

3. On sites where the ecological site description potential is for sagebrush shrublands, the Proposed Plan Alternative allows the BLM to use mechanical and/or manual treatments and prescribed fire or wildfire to prevent expansion of pinyon-juniper vegetation into these areas. See section 2.6, Alternatives Matrix, row 54.

Ponderosa Pine Woodlands

Total Number of Submissions: 2

Total Number of Comments: 2

Summary

These commenters asked for 1) protective measures for ponderosa pine snags and older trees; and 2) consideration of the impact of route density on ponderosa pine stands.

Response

1. The Proposed Plan Alternative includes an objective to retain snags and older trees (section 2.6, Alternatives Matrix, row 66).

2. Management of all PPSV communities (including ponderosa pine) under the Proposed Plan Alternative includes restricting, adjusting, or intensively managing allowable uses that are preventing achievement of PPSV objectives (section 2.6, Alternatives Matrix, row 30). This applies to travel management. If route density is identified as a contributing factor in the failure to meet PPSV objectives for ponderosa, the BLM would address the pertinent routes at that time through an implementation-level NEPA analysis.

Mountain Shrublands

Total Number of Submissions: 2

Total Number of Comments: 2

Summary

These commenters wanted more active management of mountain shrublands.

Response

The Preferred Alternative from the Draft RMP was modified in the Proposed Plan Alternative to include vegetation treatments as well as planned and unplanned fire events in mountain shrubland vegetation (see section 2.6, Alternatives Matrix, row 72). This is the highest level of active management possible.

Riparian Areas, Seeps, and Springs

Riparian Areas, Seeps, and Springs—Use Restrictions

Total Number of Submissions: 10

Total Number of Comments: 13

Summary

These commenters suggested a variety of use restrictions to protect and maintain riparian areas and seeps and springs, including 1) restrictions to protect resources from road and route damage; 2) restrictions to prevent trampling associated with livestock and camping; and 3) restrictions on spring and seep development for the benefit of livestock and wildlife.

Response

To address concerns associated with uses that adversely affect riparian areas and seeps and springs, the Proposed Plan Alternative does the following:

1. It minimizes travel routes in and across riparian and wetland areas, and closes and rehabilitates, relocates, and/or re-engineers these routes. The riparian and seep and spring SSRs described in the Draft RMP are also included in the Proposed RMP, and they apply to the full width of the riparian zone, including a 100-meter buffer around the wetland zone. See section 2.6, Alternatives Matrix, row 94.

2. The Proposed Plan Alternative includes grazing and camping restrictions for riparian areas and limits livestock use to active movement between grazing areas in Big and Little Dominguez Creeks, the Dry Fork of Escalante Creek, Escalante Creek below the forks, Escalante Creek above the forks, and Rose Creek. These limitations allow livestock movement in riparian areas and canyons in order to enable appropriate grazing in other parts of the grazing allotments, while reducing the impacts of grazing on riparian vegetation. See section 2.6, Alternatives Matrix, row 510. Camping will be confined to designated sites if observation of dispersed camping indicates damage to riparian areas. See section 2.6, Alternatives Matrix, row 332.

3. With respect to water developments, the Proposed Plan Alternative clarifies the language regarding spring developments, wells, and water catchments in recharge areas. See section 2.6, Alternatives Matrix, rows 95 and 96. These management actions ensure the BLM carefully considers new developments, mitigates any damage to resources by repairing or reclaiming less functional developments, and avoids further damage to the limited and vulnerable natural spring and seep resources in the D-E NCA.

Riparian Areas, Seeps, and Springs—Invasive Species

Total Number of Submissions: 2

Total Number of Comments: 2

Summary

These commenters said the BLM should 1) adequately control invasive species in riparian areas; and 2) should broaden the definition of the riparian structure indicator to include understory woody species.

Response

1. The Proposed Plan Alternative includes management actions and BMPs for the prevention of weed establishment and weed spread in riparian areas (see section J.6, Noxious and Invasive Weed Prevention). The impact analysis in section 4.3.2.4, Noxious and Invasive Weeds, indicates this will have beneficial impacts that are adequate to control invasive species as much as is practical.

2. The Proposed RMP defines the PPSV riparian structure indicator according to Standard 2 of the Colorado Standards for Public Land Health, which the BLM is required to meet (see Appendix D). In addition, the BLM has carried forward from the Draft RMP additional structural indicators for riparian health, found in Chapter 3, Table 3.9. This definition includes overstory and understory woody species such as willows.

Riparian Areas, Seeps, and Springs—Historic Seeps and Springs

Total Number of Submissions: 1

Total Number of Comments: 1

Summary

This commenter said SSRs should also apply to historically inventoried seeps and springs.

Response

The Proposed RMP outlines measures to protect seeps and springs that should reduce trampling, support sustained water levels and wetland obligate species, and reduce non-native species. See section 2.6, Alternatives Matrix, rows 93–96. Row 94, under the Proposed Plan Alternative, would apply SSR within a minimum distance of 100 meters from the edge of *naturally occurring* seeps and springs. Naturally occurring seeps and springs do not preclude historic seeps and springs.

Riparian Areas, Seeps, and Springs—Manageability

Total Number of Submissions: 1

Total Number of Comments: 4

Summary

These comments noted the impracticality of meeting indicators of vegetative health, and/or placing restrictions in riparian areas, seeps and springs, stating that 1) less than 5 percent of seeps and springs have evidence of trampling, and there is 20 percent or less relative cover of invasive plants; 2) 15 percent or less of seeps and springs have non-native plants; and 3) SSRs are impractical.

Response

With respect to the specific indicators in question:

1. The impact analysis in section 4.3.2.1, Priority Species and Vegetation, indicates these objectives will best maintain the resource in fair or good condition according to Colorado Standards for Public Land Health.

2. The impact analysis in section 4.3.2.1 shows that deviation from the Proposed Plan Alternative either results in more perennial weeds or more upland plant species or prevents attainment of land health standards.

3. The SSR for riparian areas, seeps, and springs allows for disturbance to occur within this zone, but it must occur in ways that do not damage the resources. See section 4.3.2.1, Priority Species and Vegetation, Table 4.4.

Aquatic Systems

Total Number of Submissions: 1

Total Number of Comments: 1

Summary

This comment stated that the BLM should collaborate with stakeholders to manage the Gunnison River's flow regime.

Response

Although irrigation and agriculture are flow-dependent activities associated with the Gunnison River, they are not values as defined by the NCA's enabling legislation; however, water users will be able to discuss and reach agreement with the BLM on particulars relating to these activities during the implementation phase of the RMP (section 2.6, Alternatives Matrix, row 107).

Monitoring

Total Number of Submissions: 1

Total Number of Comments: 2

Summary

This commenter wanted the BLM to determine the cause of problems before placing restrictions on uses.

Response

In the Proposed RMP, the action alternatives under management common to all alternatives state that the BLM will adapt its management tactics based on the results of monitoring resource condition and use. (see section 2.4, Management Common to All Alternatives).

Revegetation

Total Number of Submissions: 2

Total Number of Comments: 2

Summary

These commenters were concerned about the quality and diversity of seed mixes the BLM would use for restoring vegetation.

Response

In the Proposed RMP, Alternative C would restrict seed mix to native material only, and Alternative B would restrict seed mixes to native, locally derived material only (section 2.6, Alternative Matrix, row 29). Although the BLM prefers to use local, native seeds, and will do so whenever possible, it is not always practical due to cost or availability. For this reason the Proposed Plan Alternative includes the use of native, locally derived, non-invasive, or non-native seed mixes. The Proposed Plan Alternative states that plant materials used by the BLM for restoration and revegetation should be designed to allow the agency to meet biological objectives.

Livestock Grazing

Total Number of Submissions: 1

Total Number of Comments: 1

Summary

This commenter 1) expressed concern regarding the effects of grazing on land health, vegetation, and riparian resources; and 2) recommended closing the Bean Ranch allotment.

Response

1. This EIS contains alternatives that include various levels of livestock grazing. Alternative B would provide the least AUMs and acres available to grazing, and Alternative D would provide the most AUMs and acres for grazing (see section 2.6, Alternative Matrix, row 506). The Proposed Plan Alternative has AUMs and acres available for grazing in a range between Alternatives B and D. The impact analysis for vegetation and PPSV indicates that Alternative B would best reduce impacts from livestock grazing, and Alternative D would have the most impacts to riparian and other sensitive species. Although the Proposed Plan Alternative may have more impacts on vegetation and other sensitive resources than Alternative B, management actions in the Proposed Plan Alternative would prevent downward trends in land health. The Proposed Plan Alternative states that where livestock grazing prevents achievement of biological resource objectives, management techniques would be employed to reduce those impacts. Should management techniques fail to reduce impacts, the BLM will consider reducing AUMs or allotment closure. This type of flexible management would allow for more options for improving habitat while still allowing for livestock grazing. See section 4.3.2.1, Priority Species and Vegetation, for the complete analysis.

2. The Bean Ranch allotment would be closed in the Proposed Plan Alternative.

Best Available Information

Total Number of Submissions: 1

Total Number of Comments: 3

Summary

This commenter disagreed with map data, stating that 1) some ponderosa stands were missing from the vegetation map, and 2) some riparian areas were missing from the text of Chapter 3.

Response

1. The vegetation map shows general vegetation types on a broad scale. This scale of the map is not able to accurately depict small stands of ponderosa or other vegetation types. Maps of sensitive species occurrences were reviewed and updated.

2. Potentially missing riparian areas were reviewed for inclusion in section 3.2.2.1, Priority Vegetation and Habitats, and East Creek was added to this section.

Impact Analysis

Impacts to Sagebrush

Total Number of Submissions: 1

Total Number of Comments: 1

Summary

This commenter 1) suggested no new roads be constructed in Gunnison sage-grouse (GUSG) habitat, and 2) questioned how the BLM would determine what areas are sagebrush shrublands for the purposes of vegetation treatments.

Response

1. The Preferred Alternative from the Draft RMP has been modified in the Proposed Plan Alternative to prohibit the construction of new routes in existing unfragmented sagebrush shrublands 60 acres or larger, regardless of whether they are GUSG habitat or not (section 2.6, Alternatives Matrix, row 58).

2. The BLM would determine those areas that contain the characteristics described in section 3.2.2.1, under "Sagebrush Shrublands," as potential areas for sagebrush habitat vegetation treatments.

Impacts to Riparian Resources

Total Number of Submissions: 3

Total Number of Comments: 4

Summary

These commenters expressed concern 1) over the amount of acreage of surface protection provided for riparian areas under the Draft Preferred Alternative and 2) about the degree of channelization and riprap allowed under the Draft Preferred Alternative (50 percent), stating that it has the highest allowable percentage among the alternatives, and that is not good for wildlife.

Response

1. Section 4.3.2.1, Table 4.3, shows that "no surface disturbance restrictions" would apply to 28 percent of acres of riparian habitat under the Proposed Plan Alternative, which is the least amount of acres restricted under any alternative. However, Table 4.4 shows that SSR would apply to 68 percent of riparian acres under the Proposed Plan Alternative, more than any other alternative. The analysis in section 4.3.2.1 indicates that the balance under the Proposed Plan Alternative between no surface disturbance restrictions and SSR requirements would allow recreational and other land use activities to continue, while still protecting riparian resource values.

2. Objectives for aquatic systems in the Proposed Plan Alternative have been changed from the Draft Preferred Alternative, and allowable riprap/channelization has been lowered to 25 percent to better meet overarching biological resource protection needs . See section 2.6, Alternatives Matrix, row 103.

Livestock Grazing Impacts

Total Number of Submissions: 1

Total Number of Comments: 3

Summary

This commenter expressed concern that 1) reductions in grazing levels under all alternatives are not enough to meet land health standards in places currently not meeting them, and the increase in grazing levels under the Draft Preferred Alternative is likely to prevent meeting biological objectives; 2) allotments where biological objectives are not being met should be closed if management changes are not effective in one year; and 3) the cost of vegetation treatments and potential risk of failed vegetation treatments were not adequately addressed in the Draft RMP.

Response

1. Additions were made to section 4.3.2.1 to better describe the impacts to PPSV from grazing. The BLM acknowledges that even under proper management, livestock grazing could cause impacts on PPSV to varying degrees. Under the Proposed Plan Alternative, the BLM would include seasonal use limits for palatable forage that reflect BMPs and are consistent with meeting land health standards or other biological objectives, which limits impacts. In addition, the Proposed Plan Alternative allows management flexibility to meet resource objectives that would have positive impacts to PPSV when land health standards are not being met and livestock grazing is determined to be a causal factor (see section 4.3.2.1).

2. The Proposed Plan Alternative has been modified from the Draft Preferred Alternative to ensure effective application of evidence-based vegetation treatments. Prior to completing vegetation treatments, research or pilot plots would be established, or existing data from current pilot plots would be used to guide vegetation treatment prescriptions (section 2.6, Alternatives Matrix, row 56). The impact analysis in section 4.3.2.1, under "Impacts from Management of Priority Species and Vegetation," suggests this would aid in the success of vegetation treatments. The cost of treatments is an implementation-level consideration and outside the scope of this plan.

Impacts from Surface Disturbance Restrictions

Total Number of Submissions: 1

Total Number of Comments: 1

Summary

This commenter states that limits on surface-disturbing activity in Cottonwood Canyon/Dry Fork, particularly the use of vegetation treatments, will limit flexibility and management options for restoration and maintenance of natural, riparian, wildlife, and water resources.

Response

The Draft EIS analyzed alternatives that did not include the "no surface-disturbing activities" restriction. The no surface-disturbing activities restriction was not included in Alternative A for Cottonwood Creek or Dry Fork, or in Alternative D for Dry Fork. The Proposed Plan Alternative also does not include this restriction.

U.3.9.3. Special Status Species and Natural Communities—Plants

Range of Alternatives

Total Number of Submissions: 8

Total Number of Comments: 15

Summary

These commenters 1) asked for better protection for Eastwood's monkey-flower, 2) asked the BLM to monitor to confirm that a given use is responsible for damage to hookless cactus or habitat before restrictions are put in place, 3) asked for protection for hookless cactus and wanted the BLM to protect vegetation in Wagon Park and the Hunting Ground by closing routes, and 4) wanted a clearer definition of health for special status species.

Response

1. The Proposed Plan Alternative has SSR restrictions within 100 meters (328 feet) of known occurrences of BLM sensitive plant species. These protections would apply to the monkey-flower in Wagon Park and are sufficient for its protection (section 2.6, Alternatives Matrix, row 94).

2. Language that specifies using monitoring of resource conditions and resource uses has been included for all action alternatives in section 2.4, Management Common to All Alternatives.

3. The Proposed Plan Alternative carries forward many measures to protect Colorado hookless cactus. These include designation of the River Rims Area of Critical Environmental Concern (ACEC) largely for cactus protection, an SSR restriction and reduction in existing routes within a 200-meter buffer around cactus, and direction to minimize impacts from livestock grazing, trail development, and other permitted activities in habitat supporting "excellent" and "good" occurrences. See section 2.6, Alternatives Matrix. Route reductions have been made in Wagon Park and the Hunting Ground. See Appendix N, Comprehensive Travel and Transportation Management Plan, for route closures in these areas.

4. A definition of health has been added to the glossary. Health is defined as the degree to which the integrity of the soil, water, and ecological and life history processes of vegetation communities and plant and animal populations are sustained.

Best Available Information

Total Number of Submissions: 6

Total Number of Comments: 6

Summary

These commenters 1) called attention to an omission in the Draft RMP regarding Grand Junction milkvetch, 2) stated that the BLM has no data on special status species, 3) did not feel the cactus 200-meter buffer had a scientific basis, 4) requested protection for cactus and prairie dogs located east of the Gunnison River by Escalante Creek Road, 5) argued that surface disturbance from livestock grazing and reduction in habitat for Colorado hookless cactus is not scientifically correlated as stated in Appendix J, section J.8, and 6) asked why specific species recovery plans were not included in the Draft RMP.

Response

1. A reference to the population of Grand Junction milkvetch on Gibbler Mountain has been added to section 3.2.2.1, Priority Species and Vegetation.

2. The BLM has inventoried many acres for sensitive plant species, and these data are shown in Chapter 3. Known presence of sensitive plants is described in section 3.2.2.1.

3. Based on a review of the scientific literature (Winder 2012), the BLM has concluded that a 200-meter buffer is reasonable when balancing plant conservation with multiple-use management.

4. The Proposed Plan Alternative includes designation of River Rims ACEC, which would protect the Colorado hookless cactus habitat and, subsequently, prairie dog habitat near Escalante Creek Road. Management actions to protect all areas with Colorado hookless cactus are found in section 2.6, Alternatives Matrix, rows 140−147.

5. The reference to livestock grazing and reduction in cactus habitat in section J.8 has been removed.

6. The Proposed Plan Alternative states that the BLM will consult agency species management plans and other conservation plans as appropriate to guide management and devise mitigation measures when needed, including recovery plans for federally listed species. See section J.8.

U.3.9.4. Special Status Species and Natural Communities—Wildlife

Range of Alternatives

Total Number of Submissions: 11

Total Number of Comments: 20

Summary

These comments 1) questioned why specific species conservation/recovery plans were not in Draft RMP and why no "plan" included a "significant decrease in consumptive land use"; 2) supported proposed protections for sage-grouse and sage-grouse habitat, or wanted greater protection for sage-grouse habitat than what was in the Draft Preferred Alternative, or similarly, for other vegetation; 3) wanted shooting prohibited or routes closed to protect prairie dog towns as well as greater protections for foxes and other animals; 4) wanted greater protections for eagles and other birds; and 5) wanted expanded access for motorized use unless sensitive species are "at significant risk."

Response

1. The language in the Proposed RMP was updated to be clear that the BLM will follow existing and new recovery plans.

2. Some of these ideas were considered in the range of alternatives. Although an ACEC for GUSG was not analyzed, it is unlikely this would have met the relevance and importance criteria, because the habitat mentioned is not considered currently occupied, even though GUSG use of the adjacent U.S. Forest Service land in the D-E NCA area has been documented by CPW as recently as January 2014. The Final EIS has criteria for new roads and relocating existing roads that include avoiding sagebrush parks.

3. Regulations on white-tailed prairie dog hunting are outside the scope of the RMP. Travel management restrictions are within the range of alternatives. Several alternatives reduce route density in areas containing prairie dog towns. While there is not an action under any management alternative to relocate prairie dog colonies to the D-E NCA, there is an action to work in coordination with CPW to maintain healthy white-tailed prairie dog populations as part of a healthy salt desert shrub/saltbush vegetation community (section 2.6, Alternatives Matrix). BLM is responsible for the management of the vegetation, while CPW is responsible for the wildlife populations. If CPW proposed to relocate prairie dogs to the D-E NCA, that action would be analyzed on a site-specific level. Kit fox is a BLM sensitive species, and extremely rare, if not extirpated from the area. CPW has conducted surveys for the species in Delta and Montrose Counties of the Uncompahgre Valley and found little to no definitive evidence that they are still present in the area. If a kit fox den were to be located, BLM would review impacts to that site and foxes associated with the den and take action if needed to preserve the species in the area.

4. Protections for bald eagle nests are provided in the Proposed Plan Alternative. To balance needs for protection of special status species, including migratory birds, and the needs of other activities, prohibitions to surface-disturbing or disruptive activities were developed to cover the most critical time periods, such as those that have impacts on species reproduction. During site-specific analysis of proposed actions, effects on species, needs for mitigation, and trade-offs between short and long term goals will be evaluated. See Appendix B for standard exceptions to surface-disturbing and disruptive prohibitions. An exception may be granted if an environmental analysis indicates that conditions can be placed on the proposed action to avoid adverse impacts on the protected species within the project vicinity. Additionally, migratory bird species are nested under all priority vegetation management. See action alternative in row 173 of the Alternatives Matrix (section 2.6): "Protect breeding habitats of migratory birds by managing for priority vegetation type objectives." By providing for healthy native vegetation, habitat for migratory birds and other wildlife will be available.

5. The Final EIS includes a shorter seasonal restriction with additional seasonal restrictions when necessary.

Best Available Information

Total Number of Submissions: 5

Total Number of Comments: 12

Summary

These comments 1) asked the BLM to clearly define the health of priority species and add the prairie dog as an attribute in the PPSV matrix; 2) stated that there were errors or missing data in the Draft RMP for some special status species (burrowing owl, white-tailed prairie dog, bald eagle), and that better vegetation inventory data were needed (ponderosa pine) in order to better monitor dependent species (northern goshawk); 3) stated that sagebrush rehabilitation is necessary to bring GUSG back to the D-E NCA, that the BLM's sage-grouse and sagebrush data do not show adequate justification for road closures, or that the east side of the Gunnison River by Escalante Creek Road needs special ACEC designation to protect it.

Response

1. As described in Appendix A of the Proposed RMP, "…a list of attributes and indicators for assessing the health of these species or vegetative communities was identified. Attributes are general characteristics that are used to measure the health of a priority species or habitat type." Attributes and Indicators for the health of desert bighorn and Colorado hookless cactus are described in Appendix A, as is their current condition. With respect to the addition of prairie dogs as an attribute for the desert shrub/saltbush vegetation community, as stated in the EIS, white-tailed prairie dogs are a keystone species nested under desert shrub/saltbush priority vegetation, and thus the health of these species is tied to health of this vegetation/habitat type. Prairie dogs are an implicit indicator of the health of this vegetation type. See section 3.2.2.2, Special Status Species and Natural Communities.

2. The BLM used the most up-to-date information it had at the time the Draft RMP was written. There were small, unintentional errors or omissions in the Draft that have been corrected in the Proposed RMP. The reference to the Rocky Mountain Bird Observatory 2008 survey report (Beason 2008) was used incorrectly. This survey effort was done in the GJFO but not within the D-E NCA. The wording in this Proposed RMP has been modified to express that there have been adjacent field office survey efforts (Beason 2008; Boyle 2012), but these were not conducted within the D-E NCA. There is potential for the species to occur in the NCA, but there are no known locations at this time. To the BLM's knowledge, no data regarding more recent prairie dog colony inventories were provided by commenters to the Draft RMP.

3. The Proposed RMP contains management actions that would allow restorative vegetation treatments. See section 2.6, Alternatives Matrix, row 56. Seasonal limitations and road closure criteria are to support sage-grouse and other wildlife species that are dependent on sagebrush habitats. See section 4.4.5 for a discussion of impacts of roads on wildlife. GUSG use of the adjacent Forest Service land in the D-E NCA area has been documented by CPW as recently as January 2014. Given the limited occurrences of GUSG and the "Potential" categorization of proposed critical habitat within the D-E NCA by the U.S.

Fish and Wildlife Service, ACEC designations for the areas mentioned were not included in the Proposed Plan Alternative.

Impact Analysis

Total Number of Submissions: 3

Total Number of Comments: 7

Summary

These commenters 1) wanted better protection for white-tailed prairie dogs, because supporting prairie dog colonies supports burrowing owls; 2) requested later seasonal restrictions to protect migratory birds, and greater protections for GUSG; 3) stated that recreational activities do not have a significant adverse effect on GUSG when compared to the effect from development on adjacent private lands; 4) stated that restrictions for protecting GUSG habitat are in excess of what is necessary; 5) stated that overgrazing is the primary reason for decline in sagebrush health; and 6) stated that restrictions could result in negative economic impacts and conflicts between agency staff and members of the public.

Response

1. Section 2.6, Alternatives Matrix, row 166, states that under all action alternatives, maintaining healthy white-tailed prairie dog populations by working with CPW would be a management action as part of healthy salt desert/sagebrush communities. The impact analysis in section 4.3.2.1 under "Impacts from Management of Special Status Species and Natural Communities and Non–Special Status Fish and Wildlife" indicates that the collective management actions in the Proposed Plan Alternative would improve suitable habitat for prairie dogs as well or better than other alternatives.

2. The Proposed Plan Alternative has been changed from the Draft Preferred Alternative to include modification of surface-disturbing or disruptive activity prohibitions based upon existing conditions and current science (section 2.6, Alternatives Matrix, row 174). This flexibility was added to ensure protections are implemented during a biologically meaningful period rather than a static date range. Similar wording to add flexibility and base conservation measures for GUSG on best available science and the most up-to-date conservation plan has been added to row 169 of the Alternatives Matrix.

3. The BLM has no control over development or other activities on adjacent private lands. The analysis in section 4.3.2.2 uses recreation as in indicator of adverse impacts to GUSG.

4. Surface-disturbing restrictions for GUSG are based on best available science, and the BLM will continue to be flexible in its management actions, based on the newest science and conservation plans (section 2.6, Alternatives Matrix, row 169). The impact analysis in section 4.3.2.2 indicates these measures are effective in protecting sage-grouse and its associated habitats.

5. The BLM identified grazing as one component that has impacts to sagebrush health. Natural processes, climate change, impacts from recreation, and many others can also affect the health of sagebrush ecosystems. See section 4.3.2.1 for a full discussion of impacts that resource uses have on sagebrush health.

6. An analysis of potential impacts of management actions on economic and social conditions is found in section 4.6 of this Proposed RMP.

U.3.9.5. Special Status Species and Natural Communities—Desert Bighorn Sheep

Impact Analysis

Total Number of Submissions: 19

Total Number of Comments: 30

Summary

These commenters 1) expressed favor for one alternative over another and asked the BLM to protect and restore bighorn sheep habitat, particularly by guarding against disease transmission between wild and domestic herds, and by reducing impacts from recreation; 2) took issue with the required number of domestic marker sheep as unrealistic and unnecessary, as well as with other stipulations regarding domestic yearlings, band size, herders, herd accounting, and trucking and confinement of livestock; 3) stated that the special recreation management area (SRMA) designation for Cactus Park, which overlaps with bighorn sheep production areas, would have adverse effects on sheep and that the overlap should be removed; and 4) stated that route construction, motorized vehicle use, and larger recreational group sizes would have adverse effects on bighorn sheep.

Response

1. Management actions that would reduce wild/domestic sheep interactions under each alternative are found in section 2.6, Alternatives Matrix, rows 123–130. Sections 4.3.2.2 and 4.4.4 discuss impacts of different management actions on bighorn sheep and suggest that some alternatives provide more protection for bighorn sheep than others. Alternatives B and C would provide the highest level of protection for bighorn sheep, while Alternative D would provide the least protection. Based on the analysis in Chapter 4, the BLM has found that the Proposed Plan Alternative prescriptions for the management of disease transmission and recreational issues within the planning area, while providing for other important resource uses, is adequate.

2. The list of management prescriptions for management of domestic sheep in areas associated with bighorn sheep and potential risk of disease transmission were developed by BLM wildlife biologists and rangeland management specialists with input from sheep permittees within the D-E NCA and the Uncompahgre Field Office, and in cooperation with wildlife biologists from CPW. In March 2012, draft management prescriptions were reviewed with permittees and discussed. Items that posed significant hardship were modified to make them more feasible, and permittees generally agreed that they could abide by the modified prescriptions for “high,” “moderate,” and “low” probability of interaction. The Draft RMP mistakenly contained an older version of management prescriptions related to bighorn/domestic sheep interactions. However, the Proposed RMP has been updated to reflect the final changes made in collaboration with permittees and CPW in March 2012 as well as changes made as a result of public comments heard at the D-E NCA Advisory

Council meeting in November 2014. See section 2.6, Alternative Matrix, rows 123-130, for updated management prescriptions.

3. Analysis of management alternatives in section 4.3.2.2 under "Impacts from Management of Recreation" state that SRMA designation, particularly SRMA designation for Cactus Park under Alternative D, could have an increased likelihood for injury or mortality of bighorn sheep, habitat avoidance or displacement, and impacts on reproduction and survival. The Proposed Plan Alternative does not allow new motorized route construction in bighorn sheep production areas, which provides less disturbance and greater protection to the bighorn sheep area in Cactus Park (section 2.6, Alternatives Matrix, row 403).

4. Sections 4.3.2.2, 4.4.1, and 4.4.5 suggest management actions under different alternatives in critical bighorn sheep habitat can have adverse impacts to the species. The Proposed Plan Alternative includes management actions that would reduce these impacts. These actions include limits on trail construction to protect production areas; the requirement that domestic, non-working dogs would have to be on leash in the Dominguez Canyon Wilderness (the Wilderness), Zone 1, to reduce bighorn stress in bighorn summer range; and the requirement that domestic non-working dogs would have to be either on leash or under voice command within bighorn sheep summer range. See section 2.6, Alternatives Matrix, rows 117–138 for all management actions related to bighorn sheep, for all alternatives. An analysis of these management actions can be found in sections 4.3.2.2, 4.4.1, and 4.4.5 and indicates that these restrictions and limitations will reduce impacts to bighorn sheep from recreational use.

U.3.9.6. Non–Special Status Fish and Wildlife

Range of Alternatives

Total Number of Submissions: 12

Total Number of Comments: 18

Summary

These commenters 1) stated that mitigation of sagebrush fragmentation could not truly replace lost habitat, and fragmentation of previously unfragmented shrublands should be avoided; 2) asked that the BLM clarify the term "big game"; 3) requested that more travel management goals and objectives for big game habitat areas be included in the Proposed Plan Alternative; 4) asked that more areas be managed for their wilderness characteristics to reduce the impacts of motorized and mechanized travel on wildlife corridors; 5) asked that the BLM leave wildlife management to CPW and leave roads open, or base closures on soil conditions; and 6) recommended less restrictive or more restrictive seasonal restrictions for big game winter range, and made specific recommendations regarding pronghorn closures.

Response

1. The Proposed Plan Alternative management actions for sagebrush have been modified to emphasize retention of intact areas. See Alternatives Matrix, section 2.6, rows 58 and 58a. The impact analysis in section 4.3.2.1 shows that these measures will prevent further fragmentation of habitat, and while they may not truly replace habitat already lost, they will have beneficial impacts on restoring and retaining habitat over the longer term. The

BLM included a route density analysis in section 4.3.2.3 (Table 4.28) to better capture the impacts of route designations on fragmentation from the proposed travel management plan in comparison to other management alternatives. Please see sections 4.3.2.1, 4.3.2.2, and 4.3.2.3 for the impact analysis.

2. For the purposes of the RMP, "big game" is limited to ungulates. "Bison" has been removed from the definition in the glossary, as bison are not present or expected ever to be present in the D-E NCA.

3. Section 2.6, Alternatives Matrix, row 537, proposes seasonal closures for big game winter concentration areas under all alternatives. Lines 58 and 58a contain surface disturbance restrictions for sagebrush vegetation, which overlaps with big game winter habitat closure areas. The analysis in section 4.3.2.3 shows that seasonal closure, when combined with surface disturbance restrictions, is effective in protecting big game habitat and production. Alternatives with more restrictive surface disturbance regulations combined with seasonal closure, such as Alternative B, would be the most effective.

4. Lands with wilderness characteristics may provide ancillary benefit to wildlife movement, but the BLM bases decisions to manage areas for wilderness characteristics on the inventoried characteristics of an area, and not all areas used as wildlife corridors possess wilderness characteristics. However, the Wilderness, Dry Fork, and Cottonwood Canyon (areas proposed for management for their wilderness characteristics under some alternatives) are areas that currently provide wildlife corridors across much of the NCA, connecting the Gunnison River to higher elevation lands managed by the U.S. Forest Service. Managing these areas as in the Proposed Plan Alternative may minimize disturbance to these corridors, as indicated in section 4.3.2.1 under "Impacts from Management of Special Status Species and Natural Communities, Non–Special Status Fish and Wildlife, and Soils and Water Quality." The BLM considered each of the measures that commenters recommended in the range of alternatives, and the Proposed Plan Alternative includes protective measures for each of the species identified by commenters.

5. The BLM is responsible for managing the land and biological resources that create wildlife habitat; CPW manages wildlife populations. See response No. 6 below. Basing closures on soil conditions does not meet biological objectives for big game in section 2.6, Alternatives Matrix, row 178.

6. Areas considered for seasonal restrictions are within mapped CPW critical winter range, and the lengths of proposed closures correspond to the time period that CPW considers the critical winter season. CPW is a cooperating agency for this RMP (Chapter 5), and their recommendations are based on best available science.

Best Available Information

Total Number of Submissions: 6

Total Number of Comments: 9

Summary

These commenters 1) questioned the BLM's timing and justification for big game winter seasonal closures to motorized recreation, and 2) asked why recreational shooting was "singled out as the

only activity disruptive to wildlife" in the BLM's justification for closing wildlife habitat to recreational shooting.

Response

1. December 1 to April 30 are the dates CPW considers the critical winter season for wildlife in the areas identified in the Proposed RMP. The BLM did consider a shorter closure (December 1–March 31) in Alternative D. In response to public comment, in the Proposed Plan Alternative, the BLM proposes to leave Farmer's Canyon Road (which goes through big game winter concentration habitat) open year-round, until a re-route can be established. The impact analysis in section 4.3.2.3 discloses the consequences of leaving the Farmer's Canyon route open. BLM has concluded that this management proposal best balances protection of wildlife with other resource uses.

2. The Proposed RMP does not use recreational shooting as a reason for closing wildlife habitat to recreational shooting opportunities. Areas are closed to recreational shooting under the Proposed Plan Alternative for the purposes of public safety. Although section 4.2.3.2 identifies recreational shooting (along with other land uses such as recreational travel) as having adverse impacts on wildlife, it is not the reason for closures.

Impact Analysis

Total Number of Submissions: 9

Total Number of Comments: 9

Summary

These commenters 1) asked BLM to restrict motorized recreation to protect habitat, vegetation, migratory birds, and big game; 2) said that routes were open prior to NCA designation and didn't affect wildlife, so there's no need to close them now; 3) asked the BLM to base closure dates on road conditions; 4) said closing roads will limit hunting, increase predator population, and negatively affect big game; and 5) asked the BLM to look at smaller areas when considering closure, as the area in the current approach is too large.

Response

1. See section N.2.2 for information on criteria used in the process of developing travel management alternatives. When the BLM developed travel management alternatives, it evaluated environmental concerns and resource uses for routes and considered route-specific comments from the public (section U.3.20). Habitat objectives and migratory birds were also considered.

2. Chapter 3, Affected Environment, section 3.2.2.3, Non–Special Status Fish and Wildlife, states that on the basis of CPW regional data, winter range deer populations have been declining since 2007, and pronghorn populations have been declining since 2009, due to poor habitat conditions. In section 4.3.2.3, the likelihood of habitat avoidance due to human habitat alteration is used as an indicator of adverse impacts on wildlife, and the analysis shows that roads do have adverse impacts on wildlife.

3. Closure dates based on soil conditions were removed from the Draft RMP in response to comments from BLM cooperating agencies that seasonal closures are primarily for the benefit of, and necessary for, big game.

4. The BLM has no authority to regulate hunting on public land, and the entire D-E NCA is open for hunting. Some areas where roads are limited can still be accessed by trails, on horse or on foot. See section 2.6, Alternatives Matrix, rows 531–534.

5. Seasonal closures to protect big game winter concentration areas were modified in the Proposed Plan Alternative in response to public comments, and in response to consultation with CPW and the D-E NCA Advisory Council (section 2.6, Alternatives Matrix, row 537). Section 4.3.2.3, under "Impacts from Management of Transportation and Travel," shows that the resulting closure achieves a balance between protecting effective habitat for big game, measured through route densities of open routes, and providing at least one loop opportunity for motorized recreation in an area.

U.3.9.7. Noxious and Invasive Weeds

Range of Alternatives

Total Number of Submissions: 6

Total Number of Comments: 8

Summary

These commenters 1) emphasized the risk of tamarisk establishment and/or spread when developing new stock ponds; 2) specified the need for monitoring and management of additional weeds currently present in D-E NCA but not included on the A or B lists, such as poison ivy, with emphasis placed on high-use recreational areas; 3) requested that the BMPs from Appendix J be added to section 2.6 as management actions; 4) recommended implementation-level actions such as signage and incorporating weed rules into special use permit language; and 5) stated that there is a lack of discussion in the RMP regarding managing activities that are known to spread weeds, and recommended that multiple preventive measures be applied to uses like livestock grazing and aquatic or land-based recreation, such as requiring permitted outfitters to use pelletized feed.

Response

1. A section on guidelines for livestock grazing management has been added to Appendix D, Colorado Standards for Public Land Health, and these are a part of all action alternatives. These guidelines state that grazing management will occur in a manner that does not encourage the establishment or spread of noxious and invasive weeds. In addition to mechanical, chemical, and biological methods of weed control, livestock may be used where feasible as a tool to inhibit or stop the spread of noxious and invasive weeds. This includes prevention and treatment of tamarisk at stock ponds. It is impractical and outside the scope of this RMP to address every specific weed at specific locations; therefore, the Proposed RMP outlines general management for weed prevention and weed spread for all weeds at all locations.

2. The BLM focuses weed management on the List A and B weeds in Appendix F. List A weeds are designated by the Colorado Department of Agriculture as those species targeted

for eradication. Management plans for List B weeds are aimed at stopping their continued spread. Some weeds, such as poison ivy, while not desirable, are not considered noxious by the State of Colorado and therefore have lower priority for treatment. The BLM must focus its resources on those weeds identified by the Colorado Department of Agriculture as posing the greatest threat to native vegetation, which are those species found on Lists A and B in Appendix F. Other species not on the State noxious lists could be considered for treatment if resources are available.

3. The BMPs contained in section J.6 for weed management are not described in detail in section 2.6, Alternatives Matrix; however, they are referred to and therefore incorporated as management actions in the Proposed RMP.

4. Specific details about sign placement or permit language are outside the scope of this RMP and have not been included. Section J.6 contains BMPs and standard operating procedures for a variety of practices and land uses and is designed to allow managers to pick and choose those practices that are most applicable and feasible for individual situations. These practices would be included, where applicable, in permits issued by the BLM.

5. Section 4.3.2.4 discusses the impact of many management activities that are known to cause weed spread, such as travel management, livestock grazing, and recreational use. The BLM acknowledges that management actions under all alternatives have some potential to establish and/or promote the spread of noxious and invasive weeds. The BMPs and standard operating procedures in section J.6, which are referred to and therefore incorporated as management actions, are designed to reduce these impacts. The impact analysis in section 4.3.2.4 shows that these measures are adequate to control establishment and spread of weeds, and additional measures, such as requiring the use of pelletized feed, are not necessary.

Best Available Information

Total Number of Submissions: 1

Total Number of Comments: 1

Summary

This commenter 1) requested an updated weed inventory and 2) requested the BLM take an adaptive management approach to weed management.

Response

1. A complete weed inventory from 2008 is the BLM's best available information for the D-E NCA; a more recent inventory would not significantly alter the impact analysis or the management actions proposed. Targeted monitoring using the PPSV process will be conducted for as long as the RMP is in effect to identify and manage those areas where weed infestations pose a risk to biological resource health.

2. The BLM incorporates new science and methods of preventing and treating weeds, monitors the success of weed treatments, and makes changes to management approaches when appropriate. The BMPs in section J.6 contain a broad and flexible “toolbox” that the BLM may use to manage weeds.

U.3.9.8. Fire and Fuels

Range of Alternatives

Total Number of Submissions: 1

Total Number of Comments: 1

Summary

This commenter expressed concern that wildfires might damage cultural resources, and supported vegetation treatments to reduce this risk.

Response

Wildfires are an integral part of the D-E NCA's ecosystem. The BLM's response to wildfire will be guided by a fire management plan, which will address many of the concerns expressed in this comment, as well as by this RMP. Factors such as the presence of threatened and endangered plants and animals or cultural resources may affect the design, type, and location of vegetation treatments, and before these treatments occur, the BLM will conduct a site-specific NEPA analysis. Both fire management plans and vegetation EAs constitute implementation-level management that will be guided by the RMP, and the BLM will also review those issues again at the time of implementation. Much of the High Park Heritage Area has already had vegetation treatments; however, a particular vegetation treatment or fuel break is no guarantee that a fire will not burn into or start within the area.

Best Available Information

Total Number of Submissions: 1

Total Number of Comments: 1

Summary

This commenter expressed surprise that an area with many downed, dead trees could be classified as Fire Regime Condition Class (FRCC) 1.

Response

FRCC is based not only on the conditions on the ground but also on the departure from the normal range of variability of that vegetation type and on the effect of fire exclusion, which is based on the fire return interval for that vegetation type. For example, areas with pinyon and juniper may have dead and downed trees and standing dead trees but will still be considered FRCC 1, because that is within the natural range of variability for pinyon-juniper woodlands. Pinyon-juniper can also have fire return intervals that are hundreds of years between wildfire events. The FRCC is based on LANDFIRE satellite data with a resolution of 30- by 30-meter pixels, thus it is based on the best available information for this RMP, but the FRCC may vary in very site-specific areas.

U.3.9.9. Soils and Water Quality

Range of Alternatives

Total Number of Submissions: 7

Total Number of Comments: 8

Summary

These commenters 1) asked the BLM to minimize recreational impacts in sensitive areas such as riparian wetland communities and drainage features; 2) asked the BLM to construct a bridge over Big Dominguez Creek near the campground to mitigate water quality impacts at this location; 3) opposed seasonal timing limitations identified for wildlife security and ancillary soil protections and stated that timing limitations are excessive and interfere with recreational opportunities; and 4) stated that stream flow is sufficient, all past stream modification efforts were necessary to prevent property damage, any effort to remove or modify past efforts is a misuse of public money, and benefits would not outweigh costs.

Response

1. Seasonal timing limitations in the Proposed Plan Alternative were developed based on wildlife concerns (see section 4.3.2.3). Section 4.3.2.6 outlines impacts from recreation trails. These impacts show that seasonal timing limitations aimed at protecting wildlife do provide ancillary benefits to soils and water quality, as intensity of use during seasonally wet periods is reduced. Soil and water resources would also receive protection from recreational impacts through the route designation process under the assumptions in the Proposed Plan Alternative that transportation facilities would be properly designed and maintained to BLM minimum standards and that the BLM would follow BMPs outlined in Appendix L to protect resource values. The Proposed RMP, under all action alternatives, includes targeted monitoring using the PPSV process during the life of the RMP (see Appendix A) to ensure impacts to sensitive vegetation are minimized by current management.

2. In Chapter 3, Table 3.22 identifies water quality stream segments meeting or not meeting State water quality standards. Table 3.22 shows Stream Segment 6, which includes Big Dominguez Creek, as meeting State water quality standards. Similarly, water quality data collected in Big Dominguez Creek by the BLM (available upon request from the GJFO) also indicate that water quality impairments do not exist. However, Chapter 3 of the Final EIS was reviewed and revised to clarify that while water quality in affected stream segments within the planning area may be meeting water quality standards at the watershed or segment scale, local deviations may occur that could result in water quality impairments at a local scale. In accordance with BMP Nos. 13, 18, and 33 outlined in section J.3, Water Resources, the BLM would consider bridge construction over Big Dominguez Creek near the campground, following all applicable laws and regulations.

3. Seasonal timing limitations in the Proposed Plan Alternative were developed based on wildlife concerns (see section 4.3.2.3) and have dates that are slightly amended from dates in the Draft Preferred Alternative to accommodate recreational uses in the planning area that were not in conflict with wildlife objectives.

4. Data from USGS stream gage No. 09152500 (Gunnison River near Grand Junction, CO) were used to developed PPSV ratings for Gunnison River stream flows based on percentile rankings when compared to stream flow during the pre-dam period of record (e.g., monthly average of average daily flows represented by “natural” conditions or the pre-dam period of record versus monthly average of average daily flows represented in the current flow

regime). The BLM recognizes that its management actions alone will not alter the current rating, as stream flow is affected by upstream and downstream water rights. Section 3.2.2.1, Priority Species and Vegetation, of the Proposed RMP was reviewed and revised to include this language as well as graphical interpretation of data used to develop PPSV ratings and management objectives.

Best Available Information

Total Number of Submissions: 3

Total Number of Comments: 5

Summary

These commenters asked the BLM to 1) Manage and protect surface and groundwater resources, including domestic water supplies, by better characterizing them in order to adequately address impacts, identify public water reserves, and specify how domestic water sources would be protected; and 2) update the reference to USDA Natural Resources Conservation Service (NRCS) soil data.

Response

1. Data on domestic water sources were requested from the State of Colorado but never received. A review of Colorado's Decision Support Systems water rights database (http://cdss.state.co.us/onlineTools/Pages/WaterRights.aspx) was conducted to highlight existing water rights and beneficial uses. No public supply wells or municipal watersheds exist on public lands within the planning area (see Table 3.25).

2. The reference to the NRCS Soil Data Mart has been replaced in Chapter 3 with an updated web address to the NRCS Web Soil Survey: http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm.

Impact Analysis

Total Number of Submissions: 3

Total Number of Comments: 6

Summary

These commenters 1) Recommended a discussion of potential impacts to groundwater resources, including analysis of impacts from recreation and grazing; 2) stated that modeling for sediment production by alternative is necessary to quantify impacts and assign appropriate mitigation; 3) expressed a desire for more, or less, restrictive management of travel on stream crossings and saturated road beds.

Response

1. Section 4.3.2.6 discusses impacts to groundwater, including impacts from recreation and grazing management.

2. Quantification of sedimentation from BLM lands is typically done on a project-by-project basis, as erosion and sedimentation can be more accurately estimated at this scale. The Water Erosion Prediction Project (WEPP) model is used by the GJFO (most recently for erosion estimates of the Bookcliff Restoration Project), and different WEPP modules are used for different disturbance types (e.g., wildfire, grazing, roads). Additionally, BLM continues to work with the USGS to parameterize the Rangeland Hydrology Erosion Model (RHEM), specifically for calculating erosion of soils derived from the Mancos Shale. Defining areas of specific concern such as "fragile soils," slump areas, Mancos shale soils, saline soils, and steep slopes, and applying stipulations and/or additional mitigation and BMPs to land use actions, will help reduce the contribution of non-point source pollutants to area streams and protect soils in these areas. Quantification of sedimentation rates is important, but it is more accurate and meaningful at the project level when considering the specific proposed action and features that are specifically designed to minimize erosion associated with the action. No change has been made to the Proposed RMP.

3. Analysis and subsequent management of stream crossings and road conditions are site-specific, implementation-level decisions that are outside the scope of this RMP.

U.3.9.10. Climate and Climate Change

Range of Alternatives

Total Number of Submissions: 1

Total Number of Comments: 3

Summary

This commenter cited a legal mandate that the BLM and the RMP must address climate change.

Response

The Proposed RMP contains many measures that, although not identified specifically as climate change management, will be appropriate for addressing climate change. It includes mechanisms for management flexibility in response to changing conditions, high levels of protection for large areas of the landscape, and an emphasis on attaining multiple biological goals through managing for well-defined habitat parameters, as described in section 4.3.2.1, Priority Species and Vegetation. These measures can be found in the resource subsections in section 2.6, Alternatives Matrix. Actions within the Proposed RMP are consistent with recommended approaches to addressing climate change. Specific actions contained in management alternatives (section 2.6) are included that help to promote connected landscapes, facilitate migration, maintain genetic diversity, and promote species diversity. Additional language was added to section 2.4 addressing climate change. The potential impacts of climate change on specific resources within the D-E NCA are described in the cumulative impact sections for those resources: section 4.3.2.1 (vegetation), section 4.3.2.4 (noxious and invasive weeds), sections 4.3.2.2 and 4.3.2.3 (wildlife), section 4.3.2.5 (fire and fuels), section 4.3.2.6 (water and soil), and section 4.3.3 (cultural resources).

Best Available Information

Total Number of Submissions: 1

Total Number of Comments: 1

Summary

This commenter asked the BLM to incorporate and consider information from the Colorado Plateau Rapid Ecoregional Assessment (CPREA).

Response

Information on climate change from the CPREA and from other sources has been added to Chapter 3.

Impact Analysis

Total Number of Submissions: 2

Total Number of Comments: 2

Summary

These commenters claim the Chapter 4 analysis of climate change impacts is inadequate or flawed, because it does not contain baseline data, specifically data from the CPREA, or because it uses the number of new range improvements as a measurable cause of greenhouse gas emissions.

Response

Baseline data from the CPREA have been included; see section 1.8, Related Land Use Plans and Assessments. An assessment of greenhouse gas emissions from the various alternatives is in section 4.3.7, Air Resources, Including Climate Change, of this document. This analysis has been expanded to include additional likely sources of greenhouse gases. Analyses of impacts from climate change are included in the cumulative impact sections for vegetation, noxious and invasive weeds, wildlife, fire and fuels, water and soil, and cultural resources (see "Range of Alternatives" above). A broader description of anticipated climate change impacts to other resources is also included in section 4.3.7. Furthermore, the impact of livestock grazing on greenhouse gas emissions that is examined in the Proposed RMP is based upon the differing numbers of AUMs and the associated methane emissions from cattle. It is not based upon the construction of range improvements.

U.3.9.11. Cultural Resources

Range of Alternatives

Total Number of Submissions: 12

Total Number of Comments: 20

Summary

These commenters asked the BLM to 1) manage cultural resources similarly to Canyons of the Ancients National Monument (CANM); 2) carry out the proposed designation of the

High Park Heritage Area, manage it as Visual Resource Management (VRM) Class I, protect it from recreational use and livestock grazing, and apply such protections "holistically" or more broadly to other heritage areas in the NCA; 3) use, or don't use, interpretive signs at all cultural sites; 4) make the BLM's cultural site steward volunteer program a management action item in the RMP; 5) go forward with the BLM's proposals for cultural site surveys and apply them to areas with new and existing routes; 6) restrict target shooting more than currently proposed to protect cultural resources; 7) have management actions to raise public awareness of cultural sites; 8) consider the economic importance of heritage tourism; and 9) increase educational interpretation of the Old Spanish National Historic Trail.

Response

1. Cultural resources in the D-E NCA are managed similarly to those in CANM. The most notable difference is that CANM was designated as a national monument with cultural resources being the focal reason for the designation, and CANM's enabling directives prioritize cultural resources over nearly all other uses. The D-E NCA was created by Congress as a "multiple use" NCA, where cultural resources are no more or less important than other listed resource values. Thus, cultural resources in the CANM are, by law, the highest priority, whereas in D-E NCA, they are but one of the multiple-use priorities. The treatment of cultural resources is the same in both areas, as the law requires.

2. This action has been considered within the range of alternatives for the RMP—see section 2.6, Alternatives Matrix, row 243. A "holistic" approach to management is being considered in the Proposed RMP—see section 2.6, Alternatives Matrix, row 231.

3. Interpretive signs at any location are implementation-level decisions and outside the scope of this RMP.

4. The site steward program is an implementation-level activity and is outside the scope of this RMP.

5. Section 2.6, Alternatives Matrix, row 248, proposes management objectives under all alternatives to conduct National Historic Preservation Act Section 110 surveys. Site surveys for new and existing routes would be conducted according to Section 106 of the NHPA.

6. Restriction of target shooting at all locations is within the range of alternatives and has been analyzed for its impact to cultural resources in the Proposed RMP—see section 2.6, Alternatives Matrix, row 334, and section 4.4.1, Recreational Use.

7. Promotion of public awareness of cultural resources is an objective under all action alternatives—see section 2.6, Alternatives Matrix, row 238.

8. The BLM has analyzed the economic impacts of heritage tourism in section 4.6.3.

9. This is being considered under the Proposed Plan Alternative in section 2.6, Alternatives Matrix, row 467.

Best Available Information

Total Number of Submissions: 2

Total Number of Comments: 2

Summary

These commenters stated that 1) the BLM should prioritize and conduct Section 106 cultural inventories along proposed motorized routes before designating them, and 2) the term "RMPPA" in the table on page 244 in Chapter 3 of the Draft RMP was not defined.

Response

1. The BLM completed Section 106 consultation with the State Historic Preservation Office in 2006 for the designation of routes during land use planning. The 2006 agreement allows for the phased identification of designated routes during plan implementation. Section 106 inventories of designated routes will be prioritized and completed in phases in consultation with the SHPO.

2. The term "RMPPA" has been removed for clarity.

Impact Analysis

Total Number of Submissions: 1

Total Number of Comments: 1

Summary

This commenter stated that easy vehicular access will cause damage to cultural sites.

Response

1. Motorized access to cultural sites can have negative impacts on cultural resources. Section 4.3.3 discusses these impacts. Although some alternatives provide less motorized access to cultural sites and provide greater protection, the Proposed Plan Alternative provides more protection than no action, and balances the needs of the community with cultural resource preservation.

U.3.9.12. Wilderness

Range of Alternatives

Total Number of Submissions: 8

Total Number of Comments: 10

Summary

These commenters stated that 1) the BLM should use the principles of wilderness management found in *Wilderness Management: Stewardship and Protection of Resources and Values*, 4th edition, 2009, by Chad P. Dawson and John C. Hendee, pages 179–194, when developing a wilderness management plan; 2) the BLM should include a monitoring plan for the Wilderness consistent with BLM policy (Manual 6340); 3) there is an inconsistency between the wilderness section and the Big Dominguez Canyon ACEC section, and Zone 1 restrictions for the Wilderness in the wilderness section should be included in the Big Dominguez ACEC section; 4) livestock use of Big Dominguez Canyon should be limited to trailing only; 5) Table 4.31 in the Draft

RMP (Table 4.35 in this Proposed RMP) suggests the Wilderness would be open to oil and gas activities or does not discuss oil and gas activity; 6) Big Dominguez Canyon appeared overgrazed on one visit, and ought to be closed to livestock use; and 7) closing routes outside the Wilderness that go to the Wilderness boundary would be the best way to protect wilderness values.

Response

1. As required by law, in the Proposed Plan Alternative, the Wilderness will be managed consistent with the 1964 Wilderness Act, Appendices A and B of House Report No. 101-405, and BLM Manual 6340. Although specific textbooks may be useful when consistent with law, the BLM uses law as its primary guidance for management.

2. Appendix C of the BLM Manual 6340 outlines a wilderness monitoring protocol. This monitoring protocol was used to gather baseline data for the Wilderness and is summarized in section 3.2.4 of the Proposed RMP. The BLM will continue to use that protocol to monitor trends inside the Wilderness, unless or until that protocol is replaced by newer and best available science.

3. Wilderness designation is not the same as ACEC designation. The Big Dominguez ACEC is not proposed for designation in the Proposed Plan Alternative, therefore there are no management actions related to its management (including Zone 1 restrictions) under the Proposed Plan Alternative. It is designated as wilderness under all alternatives, and Zone 1 restrictions would be implemented in the Proposed Plan Alternative. No changes to the document were made.

4. Livestock use in Big and Little Dominguez Canyons will be limited to active movement (trailing) between grazing areas under the Proposed Plan Alternative. See section 2.6, Alternatives Matrix, row 510.

5. Table 4.35 does not discuss oil and gas activity; the D-E NCA has been withdrawn from oil and gas activity under the 2009 Public Land Management Act, which designated the NCA.

6. Land health assessments for allotments in Big Dominguez Canyon show that most acres are meeting land health standards (Table 3.41). However, under the Proposed Plan Alternative, livestock use in Big Dominguez Canyon will be limited to active movement (trailing) only (section 2.6, Alternatives Matrix, row 510).

7. In accordance with BLM Manual 6340, the BLM did not use the criteria of closing routes outside the Wilderness to better protect wilderness values. The manual states, "In general, the BLM does not prohibit uses outside a wilderness on public lands solely to protect the wilderness character of the designated lands."

Soundscape

Total Number of Submissions: 1

Total Number of Comments: 1

Summary

This commenter suggested the BLM should use the SPreAD-GIS model to analyze and preserve the natural soundscape to protect outstanding opportunities for solitude.

Response

The BLM did not use SPreAD-GIS to analyze impacts to soundscapes in the Wilderness as part of protecting outstanding opportunities for solitude; it determined that other data were sufficient. In the Proposed Plan Alternative, Zone 2 of the Wilderness would be managed with an emphasis on protecting opportunities for solitude. The objective for the zone defines solitude as when the average number of contacts per visits is 4 or fewer (section 2.6, Alternatives Matrix, row 287). the analysis of wilderness management alternatives in sections 4.3.7 and 4.4.5 shows that impacts to wilderness from sound would be reduced under the Proposed Plan Alternative.

Climbing

Total Number of Submissions: 1

Total Number of Comments: 2

Summary

This commenter suggested developing a permit system to establish new climbing routes and asserted that through permitting, impacts to the undeveloped value of wilderness can be reduced. The commenter further stated that managing a permit system for climbing could enhance opportunities for solitude and primitive and unconfined recreation.

Response

In the Proposed Plan Alternative, permanent climbing anchors would be authorized through a permitting process, except in areas where outstanding geological features could be damaged (section 2.6, Alternatives Matrix, rows 6 and 289a). The permitting process would be developed and implemented in cooperation with partners (climbing clubs, local business, and other interested parties). The information in row 289a was mistakenly excluded from the Draft EIS but was added to the Final EIS.

Routes

Total Number of Submissions: 8

Total Number of Comments: 11

Summary

These commenters 1) suggested providing more motorized access to the Wilderness boundary to disperse wilderness users, stating that the more access points people can drive to, the more they will disperse; 2) suggested that constructing new trails in Zone 2 would provide other opportunities outside of Big Dominguez Canyon; 3) asserted that designating more of the old two-track routes in the Wilderness as part of the system trails would help disperse users, especially around Triangle Mesa; 4) stated that if horse and foot travel is limited to designated routes only in Zone 1, more routes need to be designated and/or constructed, or buffers need to be designated along trails, to allow users to access the creek, waterfalls, and side canyons; 5) suggested building a bridge over Big Dominguez Creek at the Dominguez Campground to protect water quality, as the creek enters the Wilderness; 6) suggested that limiting Zone 1 to designated trails will concentrate users not disperse them, and that this will affect opportunities for solitude; 7) suggested that managing Zones 2 and 3 as limited to existing trails might be better

management, because without signs, visitors will have trouble knowing which zone they are in and may inadvertently enter Zone 1 off trail.

Response

1. The BLM can implement building new trails or roads to the Wilderness boundary on a site-specific basis, following all laws and regulations, under this RMP. Analysis of new routes is outside the scope of this plan.

2. A management action to construct new routes in Zone 2, if necessary, was carried over from the Draft Preferred Alternative to the Proposed Plan Alternative. See section 2.6, Alternatives Matrix, row 290. Also, in the Proposed Plan Alternative, foot travel would not be restricted to designated routes anywhere in the D-E NCA (section 2.6, Alternatives Matrix, row 534), including all wilderness zones, which would provide for dispersal of use. The analysis in section 4.3.4 under "Impacts from Transportation and Travel Management" shows that the Proposed Plan Alternative would spread out visitors and provide opportunities for solitude, eliminating the need to propose new trails at this time.

3. Additional routes within Zone 2 were carried over from the Draft Preferred Alternative to the Proposed Plan Alternative. See section N.4.2, Route-by-Route Designation.

4. In the Proposed Plan Alternative, horse travel would be limited to existing trails in Zone 1 (section 2.6, Alternatives Matrix, row 280). Many existing routes that horseback riders may use access waterfalls and side canyons. Like the rest of the D-E NCA, there will be no limitations on foot travel anywhere in the Wilderness (section 2.6, Alternatives Matrix, row 534).

5. Building a bridge over Big Dominguez Creek would be an implementation-level activity and is outside the scope of this plan.

6. Limiting foot and horse travel to designated routes in Zone 1 of the Wilderness was proposed for Alternative C. The Proposed Plan Alternative would leave Zone 1 open to foot travel off designated routes. The analysis in section 4.3.4 under "Impacts from Transportation and Travel Management" shows that this would provide opportunities for solitude.

7. Limiting travel to designated routes in Zones 2 and 3 of the Wilderness was not considered under any alternative, because it does not meet wilderness objectives under any alternative. See section 2.6, Alternatives Matrix, row 266, for wilderness objectives under all alternatives.

Group Size

Total Number of Submissions: 4

Total Number of Comments: 7

Summary

These commenters 1) questioned how group size limitations would be implemented, 2) expressed concern over differing group size limits for the Gunnison River Recreation Management Area (RMA) and Zone 2 of the Wilderness in all action alternatives, stating that boating groups might have to split into two groups if they hike into the Wilderness past Zone 1 from the mouth of Dominguez Canyon; 3) suggested that the BLM set a minimum distance between groups to ensure separation; 4) suggested that additional language be added to the SRP section stating

that no exceptions in group size in the Wilderness would be made; and 4) suggested allowing exceptions to group size to accommodate educational or other groups.

Response

1. How group size requirements would be managed and enforced is an implementation-level decision and outside the scope of this RMP.

2. Under the Proposed Plan Alternative, it is possible that groups hiking past Zone 1 and into Zones 2 or 3 would have to split into two groups. The impact analysis in section 4.3.4 under "Impacts from Management of Recreation" shows that the Proposed Plan Alternative best protects opportunities for primitive and unconfined recreation, and/or solitude, which are attributes that wilderness must be managed for by law.

3. The BLM did not consider setting spatial distance requirements for groups in the Wilderness under any alternative. Alternatives C, D, and the Proposed Plan Alternative contain restrictions that would provide for solitude, according to the impact analysis in section 4.3.4, making other types of restrictions unnecessary.

4. Section 2.6, Alternatives Matrix, row 292, shows that the BLM considered setting exceptions to group size for wilderness SRPs under Alternative C.

Livestock Ponds

Total Number of Submissions: 2

Total Number of Comments: 2

Summary

These commenters 1) said the BLM should have appropriate stipulations and conditions during implementation that include requirements that routes built for construction be reclaimed and said that gates should be placed at the Wilderness boundary until restoration of the construction route is complete; 2) suggested motorized access to maintain facilities be kept to a minimum; and 3) said proposed construction of new livestock water facilities is not consistent with congressional grazing guidelines and that BLM's rationale for needing new water facilities is flawed.

Response

1. Stipulations for new construction are implementation-level actions and are outside the scope of this RMP. Requirements for new construction will be determined as part of the EA associated with any site-specific new developments inside the Wilderness.

2. The BLM is obligated by the Wilderness Act to allow livestock operators motorized access to rangeland improvements inside the Wilderness that were built prior to the Wilderness Act.

3. Congressional grazing guidelines state, "The construction of new improvements should be primarily for the purpose of resource protection and the more effective management of these resources rather than to accommodate increased numbers of livestock" (Appendix A of House Report No. 101-405). The BLM wilderness manual states, "New facilities will be permitted by the BLM only for the purpose of enhancing the protection of wilderness character" (BLM 2012d). The BLM is currently in the process of collecting data associated with vegetation, rainfall, and rangeland health conditions in the Wilderness.

The BLM currently does not have enough information to decide whether construction of livestock watering facilities in the Wilderness would enhance its wilderness character. Therefore, management action in the Proposed Plan Alternative has been modified from the Draft Preferred Alternative to address public comments and ensure the BLM is compliant with all applicable laws and regulations. Any new water developments in the Wilderness would require site-specific NEPA analysis and would be subject to the criteria in section 2.6, Alternatives Matrix, row 513.

Prohibited Uses

Total Number of Submissions: 2

Total Number of Comments: 2

Summary

These commenters 1) stated a need for State wildlife agency staff to use motorized equipment in the Wilderness for monitoring and management of wildlife; 2) said that using the Minimum Requirements Decision Guide (MRDG) to determine when a prohibited use might be authorized to protect or restore naturalness is not consistent with the Wilderness Act and that the final RMP should include direction for management to refrain from authorizing prohibited uses.

Response

1. In the Proposed RMP, under all alternatives, prohibited uses in the Wilderness would be evaluated using the MRDG to determine if they are necessary to protect wilderness values, including naturalness. See section 2.6, Alternatives Matrix, row 268, and Appendix H.

2. In the Proposed RMP, under all alternatives, trammeling would only be allowed as needed to meet wilderness objectives, comply with other law, or for public health and safety (section 2.6, Alternatives Matrix, row 267). The MRDG is a tool that uses the direction of the Wilderness Act as a foundation for helping managers make decisions about motorized use in the Wilderness. It has not been found to legally contradict the Wilderness Act.

Trammeling

Total Number of Submissions: 2

Total Number of Comments: 5

Summary

These commenters 1) suggested authorization of vegetation treatments be broadened to allow for more restoration activities, especially in Zone 1, and rather than "Authorize the minimum number of vegetation treatments necessary," the final plan should include management actions that "improve the natural habitat of the Wilderness"; 2) asserted that the BLM did not follow the Wilderness Act or the intent of the Wilderness Act by emphasizing one wilderness value over another, arguing that there is no statutory authority to improve the ecological condition in a wilderness; 3) suggested that if monitoring indicates conditions are being degraded by uses in the Wilderness, the management response should be to restrict the uses, not to manipulate the natural environment through active management; 4) stated that the BLM misinterprets the intent of the Act by assuming its purpose is to maintain a specific vegetation community inside the Wilderness, because its untrammeled nature is the key value of wilderness and that value—not

vegetation conditions—should guide future management; and 5) said that if there is a problem with weeds in the Wilderness, uses should be restricted, modified, or prohibited, and suggested a number of non-chemical weed-control strategies.

Response

1. The BLM considered but decided not to make the suggested change to the management action in section 2.6, Alternatives Matrix, row 270, for Alternatives C and D. The commenter restates the corresponding objectives for Alternatives C and D found in row 270, which says, "Enhance or maintain the condition of attributes for priority species vegetation." Vegetation treatments, as described in row 270, would be the means to improve natural habitats and naturalness in the Wilderness.

2. The BLM has attempted to find a balanced plan that equally emphasizes all important wilderness and land use values. This includes federally listed species and their habitats, cultural and paleontological resources, naturalness, untrammeled nature, solitude, and primitive and unconfined recreation. The management objectives in row 266 of section 2.6, Alternatives Matrix, have captured the BLM's efforts to manage wilderness in a manner that takes all values under consideration.

3. In response to this comment, the BLM has added a management action in section 2.6, Alternatives Matrix, row 269a, under the Proposed Plan Alternative, which states that if monitoring indicates wilderness uses are contributing to fair or poor conditions, use restrictions would be made part of any management strategy to improve conditions.

4. In response to this comment, the management action found under the Proposed Plan Alternative in row 270 of section 2.6, Alternatives Matrix, was changed to limit management responses and actions to ensure protection of the untrammeled nature of wilderness. Under the Proposed Plan Alternative, the BLM would conduct the minimum necessary vegetation treatments in the Wilderness in response to "poor" or "fair" PPSV vegetation indictors. Row 271 states the BLM will use minimum impact suppression tactics in the case of wildfire, and row 272 states that post-fire rehabilitation would be limited to "poor" or "fair" vegetation conditions to protect untrammeled wilderness values. These tools would be limited in use to the stated conditions, and would only be used to meet the naturalness objectives found in row 266.

5. In response to this comment, the BLM has added a management action in section 2.6, Alternatives Matrix, row 269a, under the Proposed Plan Alternative, which states that if monitoring indicates wilderness uses are contributing to fair or poor conditions, use restrictions would be made part of any management strategy to improve conditions. This applies to weed management. Weed management strategies suggested by the commenter are implementation-level activities and are outside the scope of this RMP.

U.3.9.13. Lands with Wilderness Characteristics

Range of Alternatives

Total Number of Submissions: 20

Total Number of Comments: 26

Summary

These commenters 1) questioned the BLM's objectives for managing lands with wilderness characteristics, stating that the BLM's policy on lands with wilderness characteristics has evolved over time and makng the case that the BLM should not set objectives in this RMP based on current policy, because the policy may change; 2) asked the BLM not to manage any lands to protect wilderness characteristics and questioned the BLM's authority to manage for wilderness characteristics; 3) requested that BLM manage other areas, in addition to Cottonwood Creek and Dry Fork, for wilderness characteristics, questioned the adequacy of information on impacts to wilderness character, or provided additional information for analyzing management impacts on wilderness character; and 4) asked the BLM to establish a group size limit for lands managed for wilderness characteristics.

Response

1. In the Proposed Plan Alternative, management actions and allowable use restrictions are included for the areas in Cottonwood Creek and the Dry Fork of Escalante Creek to protect inventoried wilderness characteristics. Law, regulation, or policy can change for any resource or use, including but not limited to lands with wilderness characteristics, throughout the life of the plan. The BLM is required to follow current policy, and where necessary, the BLM will amend or maintain the plan to conform to new laws and policies.

2. Section 201 of FLPMA requires the BLM to maintain on a continuing basis an inventory of all public lands and their resources and other values. This inventory includes wilderness characteristics. Section 202 of FLPMA requires BLM to rely on resource inventories in the development and revision of land use plans, including inventory information regarding wilderness characteristics. The BLM has complied with both of these provisions in FLPMA.

3. The Proposed RMP considered a number of areas for management of wilderness characteristics. Alternative B proposed a total of four areas that would be managed for wilderness characteristics. See section 2.6, Alternatives Matrix, row 296, of this document. The impacts of decisions to manage areas with wilderness characteristics are found in section 4.3.5. Impacts from other management decision on lands with wilderness characteristics outside wilderness and wilderness study areas (WSAs) are also found in that section. Impacts to other resources from decisions to manage to protect or not to protect wilderness characteristics are found in the other resource sections; e.g., impacts on wildlife from decisions to protect lands with wilderness characteristics outside wilderness and WSAs are found in the wildlife section.

4. Through analysis of the alternatives, the BLM determined group size limits were not necessary to protect solitude and unconfined recreation in areas managed to protect wilderness characteristics (see section 4.4.1, Recreational Use, of this document). If future monitoring shows degradation of opportunities for solitude, the BLM can conduct a site-specific environmental review to determine a full range of alternatives to respond to threats to wilderness characteristics.

Best Available Information

Total Number of Submissions: 3

Total Number of Comments: 4

Summary

These commenters disagreed with inventory findings regarding the Escalante Slopes unit and provided information that they said is evidence that the unit possesses wilderness characteristics.

Response

The BLM reviewed these comments and determined that this information does not indicate a significant change in actions, circumstances, or information relative to the conditions present when BLM updated its wilderness inventory in 2012. As such, the information in these comments represent a disagreement with BLM's findings rather than new information warranting re-evaluation of the BLM's inventory analysis and conclusions.

Impact Analysis

Total Number of Submissions: 2

Total Number of Comments: 3

Summary

Commenters 1) stated that in the Draft RMP, the BLM did not sufficiently document its rationale for not proposing to manage Gunnison Slopes for wilderness characteristics; 2) stated that wilderness characteristics in the Dominguez Addition unit would be adversely affected by the Draft Preferred Alternative and recommended certain travel route changes to protect resources; and 3) questioned the adequacy of information on impacts to wilderness characteristics and recommended using I 2011-154 and BLM Manual 6320 as the basis for analyzing management impacts on wilderness characteristics.

Response

1. Changes were made to the Draft Preferred Alternative and incorporated in the Proposed Plan Alternative to provide rationale for management actions regarding lands with wilderness characteristics. The Proposed Plan Alternative does not propose managing Gunnison Slopes as lands with wilderness characteristics, because this area overlaps with an RMA designation that aims to protect wilderness-like recreation (i.e., primitive recreation and solitude). The BLM determined through the analysis in section 4.3.5 under "Impacts from Management of Recreation" that impacts from the RMA designation on Gunnison Slopes and managing for wilderness characteristics would be similar.

2. The impact analysis in section 4.3.5 under "Impacts from Management of Recreation" shows that Alternative B would best protect wilderness characteristics in the area known as the Dominguez Addition. Please see section U.3.20.2, Route-Specific Travel Management Comments, and the *Dominguez-Escalante NCA Travel Management Plan Route Comment Report*, available online: http://1.usa.gov/1qKkMVi, for the BLM's responses to these comments.

3. The BLM is required to follow the direction in I 2011-154 and BLM Manual 6320, and has done so in the development of alternatives and in the section 4.3.5 analysis of lands with wilderness characteristics.

U.3.9.14. Scenic Resources

Total Number of Submissions: 6

Total Number of Comments: 7

Summary

Commenters 1) requested that the BLM manage heritage areas, lands with wilderness characteristics, the Old Spanish NHT, and the Ninemile Hill extensive recreation management area (ERMA) as Visual Resource Management Class I; 2) stated that managing the Old Spanish NHT and the Ninemile Hill ERMA as VRM Class II would be best for resources; 3) requested that BLM clarify in the final RMP/EIS that the Grand Junction-Montrose transmission lines are located outside the D-E NCA area and that the VRM requirements would not apply to them in the future; and 4) expressed concern that the Draft Preferred Alternative to reduce visual impacts of vegetation treatments would unduly restrict the BLM's flexibility to appropriately manage and improve habitat.

Response

1. In the Proposed Plan Alternative, the Wilderness, Cottonwood Canyon, and the Dry Fork lands with wilderness characteristics outside wilderness and WSAs would be managed with VRM Class I objectives. All other BLM-managed lands within the D-E NCA boundary would be managed with VRM Class II objectives. VRM Class I objectives direct the BLM to preserve the existing character of the landscape, and the level of change to the landscape should be very low. VRM Class II objectives direct the BLM to retain the existing character of the landscape, and the level of change should be low. Both management classes provide a high level of protection to scenic resources. VRM Class I only allows for minor changes to the landscape, which would restrict management action to the point other programs would likely not be able to meet RMP objectives. See section 4.3.6 for a discussion of impacts on scenic resources.

2. In the Proposed Plan Alternative, the Ninemile Hill ERMA and the Old Spanish National Historic Trail corridor would be managed with VRM Class II objectives (see Chapter 2, Alternatives Matrix, rows 305–314).

3. Decisions made in the D-E NCA Proposed Plan Alternative only affect resources within the NCA boundary (see section 1.2, Description of the Planning Area).

4. With proper design features, vegetation treatments proposed in the future would meet VRM Class II objectives. As noted in section 4.3.6, vegetation treatments might create visual contrast in the short term but could result in improved visual quality in the long term.

U.3.9.15. Air Resources

Total Number of Submissions: 3

Total Number of Comments: 6

Summary

Commenters 1) suggested several management actions the BLM could undertake to limit impacts to air quality, including implementing monitoring for air quality at campsites, travel speed monitoring on open routes (county or otherwise) within the D-E NCA, rehabbing closed routes to reduce potential fugitive dust emissions, implementing fire pan use at campsites to control waste ash, and educating the public on trash burning restrictions; 2) suggested that the BLM regulate the use of portable generators; and 3) inferred that the BLM did not adequately analyze air impacts, because no speed limits for public routes were listed within the Draft RMP.

Response

1. Emissions from generators and campfires are not expected to produce measurable impacts to air quality given their inherent infrequent and spatially dispersed use—see section 4.3.7 of this Proposed RMP. The burning of refuse is already regulated by the State of Colorado and is strictly forbidden on all public lands. The use of fire pans would have limited impacts to air quality. Finally, speed monitoring may produce data useful for analyzing air quality, but it would not address the practical enforcement measures necessary to produce meaningful air quality impact reductions.

2. With respect to regulating generators, the BLM does not regulate air quality, nor does it have any authority to do so in Colorado. The portable generators the commenter refers to are not even regulated by the State, which has the authority to propose and adopt specific rules for maintaining Colorado's air quality. These units are explicitly regulated by the EPA. The EPA imposes specific standards on manufacturers to ensure that engines meet targets for limits on emissions. The use of these engines is not unlawful in Colorado, and the BLM does not have data to suggest that the infrequent use of these units within the D-E NCA has any significant impact on air quality, nor would such impact be expected.

3. For the air analysis in the RMP for on- and off-road vehicle use (see Appendix P), emission data were calculated assuming that vehicles traveled at an average speed and varying the number and lengths of routes available to on- and off-road vehicles. These vehicles often travel at various speeds throughout the D-E NCA depending on terrain, road, and weather conditions. It would have been impractical to estimate emissions otherwise given all the spatial variables that would have to be estimated or accounted for, thus an average speed applied across all of the routes for the estimated vehicle miles traveled is appropriate and reasonable. Average vehicle speeds are listed in the tables in Appendix P.

U.3.10. Comments on Chapters 2–4: Resource Uses

U.3.10.1. Recreation

Range of Alternatives—NCA-Wide

General Comments

Total Number of Submissions: 10

Total Number of Comments: 16

Summary

Commenters suggested that 1) if an area is closed to camping, it should also be closed to campfires; i.e., campfires should be included along with camping when designating areas as open, closed, or limited to camping; 2) the BLM adopt a more "people friendly" management mix that provides opportunities for all recreational uses close to population centers; 3) Alternative A is best, because it keeps the most miles of routes open, and the BLM could not reasonably assess the need for management changes additional to those made and implemented by the Omnibus Act; 4) FLPMA, the Omnibus Act, and the Wilderness Act were sufficient to manage the area without an RMP; 5) the use of a survey, as described under recreation management in section 2.6 (Alternatives Matrix), that reports satisfaction at an average rate of 4.0 on a scale of 1 to 5 for recreation outcome objectives does not belong in the RMP; 6) the Draft Preferred Alternative is best, because it closes routes that create scars on the landscape; 7) designating RMAs that allow motorized use is inconsistent with Colorado BLM guidelines for recreation and land health standards; 8) not every place in the NCA should be accessible by the public—there should be areas for wildlife only; 9) some roads in the NCA should be maintained to sedan clearance to allow access to non-motorized recreation, all roads should be maintained to this level, or some roads should be rough and require vehicles with four-wheel drive; 10) paintball activities should be banned in the NCA; 11) the RMP should require the development of management actions to address new activities and recreational uses when they are observed; and 12) the BLM should ban glass containers in the NCA, because regulations that prohibit littering are not effective, and glass containers are a public health hazard, as evidenced by the amount of broken glass in the NCA.

Response

1. Closure of campfires in areas where camping is closed has been added to the Proposed Plan Alternative (section 2.6, Alternatives Matrix, row 332).

2. The Proposed RMP includes a mix of motorized and non-motorized recreation areas, designated as specific RMAs, close to Grand Junction and Delta. See section 2.6, Alternatives Matrix, rows 362–484 for descriptions of RMAs under all alternatives. See section 4.4.1 under "Impacts from Management of Recreation" for an analysis of the impacts each alternative would have on recreational opportunities.

3. The BLM considered Alternative A in the Proposed RMP. The analysis of management alternatives in section 4.4.1 under "Impacts from Management of Recreation" shows that Alternative A results in a loss of recreational opportunities where conflicting interactions displace certain types of recreational users (e.g., non-motorized users avoiding an area where there is motorized use).

4. See section 1.1, Purpose of and Need for the Plan, for a discussion of the overarching guidance and legislation for this RMP. See also section 1.6, Planning Criteria and Legislative Constraints, which discusses the specific direction in FLPMA, the Omnibus Act, and the Wilderness Act that this plan complies with.

5. Specific survey standards for recreation management objectives in each RMA have been removed from the Proposed Plan Alternative (see section 2.6, Alternatives Matrix, under the headings for individual RMAs).

6. The Proposed RMP, under different management alternatives, proposes the closure and rehabilitation of some routes throughout the NCA for a variety of resource concerns that are outlined in section N.4.1. Transportation and travel management decisions affect other resources and resource uses, and these impacts are discussed in Chapter 4.

7. An objective under the Proposed Plan Alternative for each PPSV habitat type includes meeting Colorado land health standards, and under that objective are management actions that correspond to how the BLM intends to achieve those objectives. See section 2.6, Alternatives Matrix, under the headings for each PPSV habitat type. Row 30 of the Alternatives Matrix, under the Proposed Plan Alternative, would restrict, adjust, or intensively manage allowable uses when they prevent attainment of biological objectives. The analysis of impacts to PPSV in section 4.3.2.1 under Impacts from Management of Transportation and Travel indicates that travel management can have varying impacts to land health under each alternative (Table 4.13). Surface disturbance limitations and SSR requirements found in sections B.1 and B.3, which are applied throughout the Alternatives Matrix under different alternatives, minimize impacts. The BMPs in Appendix J further reduce impacts to land health.

8. Not all areas of the D-E NCA are open to motorized travel; the Wilderness is a sizeable area where there is no motorized travel. The Proposed Plan Alternative would implement additional travel-related restrictions for the benefit of wildlife. Additionally, the Proposed RMP prohibits new trail construction in sensitive wildlife areas under several alternatives (see Alternatives Matrix, row 136). Under several alternatives, including the Proposed Plan Alternative, the BLM would implement seasonal closures to motorized travel in big-game critical winter habitat (row 537). An analysis of these management alternatives in section 4.3.2.2 indicates that these measures, combined with limits to surface-disturbing activities (Table 4.24) would be effective in reducing impacts to wildlife.

9. Under different alternatives, including the Proposed Plan Alternative, the BLM designated some routes as roads (sedan clearance) and some routes as primitive roads (high clearance) in the travel management plan (section N.4.2, Table N.4)

10. The Proposed Plan Alternative and Alternatives B and C would prohibit paintball activities throughout the NCA. Alternatives A and D would only limit them to certain areas (section 2.6, Alternatives Matrix, row 336).

11. New uses and activities would be evaluated based on the RMA objectives found in the recreational use section of the Alternatives Matrix, beginning on row 323. The BLM would consider specific activities in specific locations when they meet the objectives and guidance in the RMP and comply with other laws and regulations.

12. Under the Proposed Plan Alternative, glass containers would be banned at the Escalante Potholes Recreation Site and in the Gunnison River RMA. In response to public comment, the BLM has added a management action that states if monitoring indicates an increase in broken glass is having a negative impact on scenic resources, the BLM would consider banning glass containers in the NCA (section 2.6, Alternatives Matrix, row 335). The analysis in section 4.4.1 under "Impacts from Management of Recreation" shows that these measures would reduce negative impacts.

Trails for Non-Motorized Use

Total Number of Submissions: 15

Total Number of Comments: 19

Summary

Several commenters suggested the final plan include guidance to manage non-motorized (foot, horse, and bicycle) trail opportunities with quiet settings outside the Wilderness. These comments asked the BLM to 1) designate existing routes for non-motorized use; 2) include management actions to direct future non-motorized trail development; 3) designate more non-motorized routes, because non-motorized use has a smaller impact on resources; and 4) designate long distance non-motorized routes for backpacking opportunities, or designate non-motorized trails within the Cactus Park RMA.

Response

1. The Proposed Plan Alternative includes an RMA specifically for non-motorized and non-mechanized use. The Ninemile Hill RMA would be managed for quiet use outside the Wilderness under this alternative (Alternatives Matrix, row 381).

2. The Proposed Plan Alternative includes management objectives for non-motorized activities in the Hunting Ground (Alternatives Matrix, row 348) and Sawmill Mesa (row 444) RMAs. Each RMA has guidance for managing these areas for hiking, horseback riding, mountain bike riding, dispersed camping, and other mixed uses.

3. Each management alternative in the Proposed RMP would designate different numbers of miles to motorized and non-motorized uses. See section N.4.2, Table N.4, for these alternatives. Impacts from each alternative are discussed in Chapter 4, under individual resource or resource use headings. The BLM is required to follow the multiple use mandate given by Congress, and accommodate the purposes for which the NCA was established. This includes recreation (both motorized and non-motorized) and other resource uses, as well as resource protection. The Proposed Plan Alternative balances the need to provide opportunities for all types of recreation by having a mix of motorized and non-motorized opportunities in various areas throughout the NCA.

4. The BLM considered managing Cactus Park for primarily non-motorized activities such as hiking, mountain biking, and horseback riding under Alternative C (Alternatives Matrix, row 398). Alternative A proposes managing Cactus Park for mixed uses. The analysis of management alternatives in section 4.4.1, under "Impacts from Management of Recreation," indicates that Alternative A would result in increased user conflicts, and Alternative C would result in lost opportunities for other land use activities historically associated with the area. The Proposed Plan Alternative would manage Cactus Park as an SRMA with primary focus on motorized routes (Alternatives Matrix, row 398), and would provide opportunities for long distance non-motorized backpacking opportunities in the Wilderness. It is not always possible for all recreational uses to take place in the same location. In the Proposed Plan Alternative, the BLM has sought to balance the public's desire for a broad spectrum of uses by providing both motorized and non-motorized recreation opportunities within the NCA, in the locations where they have the least adverse impacts.

Trails for Motorized Use

Total Number of Submissions: 17

Total Number of Comments: 30

Summary

Commenters stated that 1) the BLM did not give adequate consideration to motorcycle riding opportunities; 2) there will be an increase in future demand for motorized recreation, and the Draft Preferred Alternative did not adequately address that future demand; 3) motorized recreationists demonstrated an overwhelming demand for motorized opportunities during the planning process and there is an increasing demand statewide for motorized recreational opportunities, which should be met by providing for more such opportunities in the RMP; 4) currently 35 percent of the NCA provides non-motorized recreational opportunities (the Wilderness), and based on current use, the remainder of the NCA outside the Wilderness should be managed for motorized recreational opportunities; 5) the Colorado Mesa University Natural Resource and Land Policy Institute (NRLPI) study showed the importance of motorized recreation in the NCA, and the Draft Preferred Alternative does not reflect that importance; rather, route designations and seasonal closures reduce motorized opportunities; 6) the NCA has been used by full-sized vehicles (for the activity known as "jeeping") for generations, and the Draft Preferred Alternative does not recognize this historic use through RMA objectives and route designations; 7) the RMP should include management objectives to reduce the impacts of motorized use to lands with wilderness characteristics outside the Wilderness and WSAs, objectives to minimize conflicts between OHVs and other users, and objectives that set route densities for motorized trails; and 8) the final RMP should include processes to authorize and build trails faster.

Response

1. The Proposed RMP provides motorcycle riding experiences under a number of alternatives in several locations throughout the NCA. See section 2.6, Alternatives Matrix. Ninemile Hill, under Alternative D, would be managed primarily for motorcycle use (row 381). The Proposed Plan Alternative has been changed from the Draft Preferred Alternative to include motorcycle riding as a primary objective for the management of the Cactus Park RMA (row 396). Under any alternative in the recreation management discussion in section 2.6, there are options to manage some areas as ERMAs. Most ERMA designations would include management objectives for motorcycle use. All of these alternatives were considered in the analysis of impacts in section 4.4.1. The analysis indicates that some alternatives provide for more diversified use than others, and the Proposed Plan Alternative accommodates the need for both motorized and non-motorized use.

2. The BLM recognizes future demand for all types of recreational opportunities, not just motorized use, in the NCA. Section 2.6, Alternatives Matrix, under headings for each RMA, shows that the BLM developed a mix of recreation area objectives to address future demand for all recreation types, including motorized use. The analysis of management alternatives in section 4.4.1 shows what impacts each of the alternatives would have on recreation management. Other resources and resource use impacts from recreation management are also found in Chapter 4 under different resource headings. As required, the BLM took those impacts under consideration along with demand for recreational opportunities when it developed the Proposed Plan Alternative .

3. The BLM recognizes the contribution and involvement by the motorized community in the RMP planning process, and sections 5.8 and 5.9 provide a complete description of the BLM's efforts to involve the motorized community in the RMP planning effort. The Proposed Plan Alternative includes recreation management objectives that meet the demand for motorized recreation in the Hunting Ground and Sawmill Mesa RMAs and Cactus Park SRMA. The analysis of impacts from management alternatives in section 4.4.1 indicates

that the Proposed Plan Alternative provides opportunity for non-motorized recreation while taking into consideration the need for other resource uses.

4. The Wilderness is more than a non-motorized recreation area. Wilderness as defined by the Wilderness Act is an area where the natural processes of nature are encouraged, where there is little or no development, and where people can go to find solitude. Like other recreational users, non-motorized users seek opportunities close to home, that are more developed (with trail systems, facilities, etc.), and that do not include the rigors of wilderness travel. Public comments during the planning process suggested a need for areas outside the Wilderness to be managed for non-motorized and/or non-mechanized recreation. See sections 5.8 and 5.9, as well as elsewhere in this appendix, for more information regarding input from the non-motorized community.

5. Public scoping, including the Colorado Mesa University study, revealed a need for mixed uses in the D-E NCA. The different alternatives were designed to meet these needs to varying degrees. The analysis in section 4.4.1, under "Impacts from Management of Recreation" shows that the Proposed Plan Alternative satisfies the need for both motorized and non-motorized recreational opportunities while protecting biological and cultural resources.

6. The BLM identified historic and current uses of the D-E NCA through extensive public input. Scoping periods, open houses, travel management open houses, and work with the D-E NCA Advisory Council and other partners helped the BLM identify recreational uses as well as natural and biological resource needs in the NCA. The BLM used all this input to craft a Proposed Plan Alternative that would meet land use and resource needs. See Chapter 5 for a complete description of public involvement in developing the RMP.

7. The Proposed RMP has management objectives for WSAs and lands with wilderness characteristics (outside the Wilderness) that would reduce impacts from motorized travel under some alternatives, including the Proposed Plan—see section 2.6, Alternatives Matrix, rows 297 and 628. According to sections 4.5.4 and 4.3.5, the Proposed Plan Alternative (which is the same as Alternative B) would best reduce impacts from travel in WSAs and lands with wilderness characteristics. Recreation objectives to reduce conflicting interactions between motorized and non-motorized users for all alternatives are found in section 2.6, Alternatives Matrix, row 341. The Proposed Plan Alternative contains strategies to reduce conflicting user interactions. The BMPs in sections J.17 and J.19 also provide guidance regarding reducing conflicting user interactions.

8. The process of building trails and time lines for accomplishment are implementation-level matters and are outside the scope of this plan.

RMA Designations

Total Number of Submissions: 12

Total Number of Comments: 17

Summary

Commenters said 1) Cactus Park should be re-evaluated, because intensive motorized recreation would damage the resources the NCA was designed to protect; 2) Cactus Park RMA management should focus on all motorized recreation uses, including full-sized vehicle use; 3) too many recreation areas may have been proposed; the NCA is not a national recreation area, and

management objectives and actions should be in place to protect resources from recreation; 4) current demand for Ninemile Hill is for motorized recreation, and since 35 percent of the NCA is managed for non-motorized recreation by law (the Wilderness), Ninemile Hill should be managed as a motorized SRMA; 5) there is growing demand for motorized recreation, and this demand for motorized recreation requires the BLM to designate more motorized RMAs to meet demand; 6) they are concerned that recreation management in Cactus Park would have a higher priority than other resources identified in the purposes of the Omnibus Act; 7) the SRMA should have more SSR stipulations to protect NCA resources.

Response

1. Chapter 4, under headings for each resource, describes the impacts that different management alternatives would have. Biological resources in Cactus Park could be affected by SRMA designation under the Proposed Plan Alternative; however, the Proposed Plan Alternative includes a management action to monitor for current information on the condition of the unique and important values within the D-E NCA, and information on how authorized uses may be affecting those values (see section 2.4, Management Common to All Alternatives). Other management actions in the Proposed Plan Alternative, found under various resource headings in section 2.6, Alternatives Matrix (such as reducing route densities, SSR restrictions on surface disturbance, and limitations through the SRP process) would provide safeguards for biological and cultural values. The flexible management process described in section 2.4 provides for changes to management actions should they be inadequate to meet the objectives. The analysis in Chapter 4 shows the measures in the Proposed Plan Alternative would be effective in reducing impacts in Cactus Park and throughout the NCA.

2. For the Cactus Park RMA, the Proposed Plan Alternative has motorcycle and ATV-riding activities as the primary management objective (see section 2.6, Alternatives Matrix, row 396). Full-sized routes will likely not provide the high-quality recreation settings these OHV trail riders are seeking, so the Proposed Plan Alternative does not include full-sized vehicles in the Cactus Park management objective; however, the proposed travel management plan designates a number of full-sized vehicle routes as open in the Cactus Park area (see Appendix N) .

3. Alternative A (No Action) has been considered in the Proposed RMP. Under this Alternative, there would be no RMA designations. Analysis of this alternative in section 4.4.1 under "Impacts from Recreation Management" indicate that Alternative A would result in a loss of recreational opportunities over time and increase user conflicts between recreation and other land uses such as livestock grazing and lands and realty. Lack of guidance for recreational activities could increase use in locations where there are sensitive biological and/or cultural resources and cause damage to these resources. The analysis in Chapter 4 shows that RMA designation will help protect resources and resource uses.

4. Section 2.6, Alternatives Matrix, row 381, under Alternative D and the Proposed Plan Alternative, the Ninemile Hill area would be managed as a motorized SRMA.

5. The BLM recognizes future demand for all types of recreational opportunities, not just motorized-use, in the NCA. Section 2.6, Alternatives Matrix, under headings for each RMA, shows that the BLM developed a mix of recreation area objectives to address future demand for all recreation types, including alternatives that placed more emphasis on managing for RMA objectives. The analysis of management alternatives in section 4.4.1 shows what

impacts each of these alternatives would have on recreation management. Other resources and resource use impacts from recreation management are also found in Chapter 4 under different resource headings. As required, the BLM took those impacts under consideration along with demand for recreational opportunities when it developed the Proposed Plan Alternative.

6. In response to public comment, the Proposed Plan Alternative has been changed from the Draft Preferred Alternative, and it contains a management action to close motorized routes as needed to meet cultural or biological objectives (see section 2.6, Alternatives Matrix, row 399).

7. Section 2.6, Alternatives Matrix, under the Proposed Plan Alternative, includes an extensive list of where SSR restrictions apply. These restrictions protect cultural, geological and paleontological resources, PPSV habitats, endangered species, BLM sensitive species, and others, in both general and specific locations. See rows 4, 81, 94, 138, 151, 152, 154, 157, 158, 161, 162, 165, 212, 213, 217, 222, 253, 254, and others. The analysis in Chapter 4, under headings for each resource, indicates these restrictions will be useful in reducing impacts.

Soundscapes

Total Number of Submissions: 1

Total Number of Comments: 1

Summary

This commenter suggested the BLM 1) establish sound levels for RMAs and a threshold for background sounds of no more than 10 decibels; 2) include a noise attribute in the Recreation Setting Characteristics Matrix (Tables 3.39 and L.1) and include this attribute when monitoring visitor/community preferences for recreation; and 3) recommended the BLM use GIS-based acoustic modeling to determine impacts from sound within the NCA.

Response

1. The BLM considered a goal to protect air quality and the soundscape within the D-E NCA under Alternatives A through D (section 2.6, Alternatives Matrix, row 316), and an objective and associated management action to reduce noise impacts under Alternative C (row 321). No set decibel level was considered under any alternative, because section 4.3.5, under "Impacts from Management of Air Resources," found that Alternative C would adequately protect the perception of solitude through maintaining or restoring the natural quiet of lands with wilderness characteristics. The Proposed Plan Alternative does not have management actions to protect air quality or the soundscape due to lack of feasibility and the BLM's control over ambient air space.

2. Noise is included in the Recreation Setting Characteristics Matrix under the Social and Operational use attributes. See Appendix L, Table L.1. During implementation, the BLM will be monitoring visitor/community preferences for these two attributes.

3. In section 3.3.1, Recreational Use, the BLM recognizes that sound is an impact to the wilderness setting and is not the experience that wilderness visitors are seeking. The impact analysis throughout Chapter 4, in sections pertaining to individual resources, indicate that

sound can and does have an impact on recreation. No extensive modeling was required for this analysis.

Climbing

Total Number of Submissions: 1

Total Number of Comments: 2

Summary

This commenter suggested that climbing should be largely unrestricted throughout the NCA, and that climbing ought to be included as a protected activity in all RMAs.

Response

The BLM considered placing no restrictions on climbing activity under Alternative A. The Proposed Plan Alternative includes climbing as a specific management focus in the East Creek RMA. As such, climbing would be protected and/or enhanced through the life of the plan in that area. (section 2.6, Alternatives Matrix, rows 423–434) Additionally, the Proposed RMP contains management actions under the Proposed Plan Alternative that state that climbing will be allowed to continue in areas where it does not create conflict with targeted recreation use outcomes for RMAs or other resource objectives. In areas where climbing interferes with other management objectives, the BLM has proposed management actions in the Proposed Plan Alternative (section 2.6, Alternatives Matrix, rows 460–461) that might restrict climbing. Finally, the Proposed Plan Alternative includes guidance for climbing in the Dominguez Canyon Wilderness for the placement of permanent anchors. (section 2.6, Alternatives Matrix, row 389a).

Group Size

Total Number of Submissions: 4

Total Number of Comments: 6

Summary

Commenters said that 1) the proposed plan should set an NCA-wide group size limit of 12, because the NRLPI survey results suggest visitors prefer smaller group sizes; 2) the language in the wilderness section implies exceptions to the group size limit could be granted, and if there are exceptions, the group size should be no larger than 18 and the outing should occur on a weekend when visitors expect to see more people; 3) in the SRP section dealing with organized groups, the language about a group being “at a single location” should be removed; when determining the need for an organized group SRP, all groups larger than 12 should require a permit, except in Zone 2 of the Wilderness, where the limit should be 8; 4) the term “organized group” needs to be defined in the SRP section; 5) group size limits should be included in Chapter 2 as well as in the SRP section; 6) group size limits should be based on people not heartbeats.

Response

1. The BLM did not set NCA-wide group size limits, because there is a lack of definitive information about what an appropriate group size should be. As noted in section 3.3.1, Recreational Use, the BLM considered the information from the NRLPI studies to be

informative, but not definitive. More studies are needed before capacities are set that would restrict group sizes across the entire NCA.

2. The BLM considered smaller group sizes in the Wilderness under Alternative C (Limit group size in the Wilderness to 6 people or fewer). In the Proposed Plan Alternative, the group size limit for Zone 1 of the Wilderness would be 25. This number was selected because river users along the Gunnison River typically travel in groups of up to 25, and these groups make up many of the users in Wilderness Zone I. Enforcing a smaller group size limit in Zone 1 of the Wilderness and the Bridgeport area of the Gunnison river, which are used by recreationists as one area, would be confusing to visitors and difficult for the agency. Additionally, due to the close proximity of Wilderness Zone 1 to the Bridgeport trailhead, many educational and social groups hike into the area as larger groups. As noted above, the BLM does not have definitive information about what would be an appropriate group should be. Due to the easy access and high demand for use in the lower part of Dominguez Canyon and a lack of definitive information about appropriate group size, the BLM will rely upon future monitoring during implementation to determine whether different group size limits should be established. (see section 2.6, Alternatives Matrix, row 289.

3. In the Proposed Plan Alternative, the statement regarding organized groups being in a single location has been removed.

4. A definition of "organized group" has been added to the Glossary.

5. In the Proposed Plan Alternative, the recreation setting descriptions in Appendix L have been added to Chapter 2. Group size guidance can be found in SRMA actions where the BLM would manage for specific outcomes (experiences) (see Cactus Park RMA, Gunnison River RMA, and Escalante Canyon RMA). Additionally, group size capacity limits for the Wilderness have been set in section 2.6, Alternatives Matrix, row 288.

6. In the Proposed Plan Alternative, the term "heartbeats" has been removed. Group size would be determined by the number of people.

Supplementary Rules

Total Number of Submissions: 1

Total Number of Comments: 4

Summary

These comments addressed rules for the Dominguez campground, stating that 1) additional rules need to be added to prohibit cutting live trees and burning material containing nails, metal, or other hardware; 2) the rule about leaving unattended property needs to be changed from 72 hours to no more than 18 hours in a 24-hour period; and 3) asking that future rules be added to Chapter 3, Affected Environment.

Response

1. Rules of conduct for developed campgrounds and recreation sites are set through the Code of Federal Regulations. Amending these rules is outside the scope of this planning process.

2. If monitoring indicates there are such issues, during implementation of the plan, the BLM may develop supplementary rules in addition to those in the Code of Federal Regulations.

3. Chapter 3 only discusses current conditions in the planning area; adding future conditions or regulations would not be consistent with the format of the Proposed RMP.

Fees

Total Number of Submissions: 1

Total Number of Comments: 1

Summary

This commenter stated that there should be no recreation fees in the NCA, because fees could make the NCA less accessible to the poor.

Response

The BLM is authorized to charge recreation fees under the Federal Lands Recreation Enhancement Act (FLREA). In accordance with FLREA, the BLM is required to consider the following criteria before establishing new fees or changing existing fees:

- The amount of the recreation fee shall be commensurate with the benefits and services provided to the visitor.
- The Secretary shall consider the aggregate effect of recreation fees on recreation users and recreation service providers.
- The Secretary shall consider comparable fees charged elsewhere and by other public agencies and by nearby private sector operators.
- The Secretary shall consider the public policy or management objectives served by the recreation fee.
- The Secretary shall obtain input from the appropriate Recreation Resource Advisory Committee as provided in section 4(d).
- The Secretary shall consider such other factors or criteria as determined appropriate by the Secretary.

The analysis of the impacts of all alternatives on environmental justice in section 4.6, Social and Economic Concerns, indicates that the Proposed Plan Alternative would not have disproportionately adverse human health or environmental effects on low income populations.

Camping

Total Number of Submissions: 1

Total Number of Comments: 1

Summary

This commenter suggested camping and stock should be restricted in riparian areas to protect songbirds.

Response

In the Proposed Plan Alternative, camping in the Gunnison River riparian areas would be limited to designated sites. In other riparian areas in the NCA, camping would be restricted to designated sites when monitoring indicates camping activities are preventing attainment of resource values, which include wildlife values (section 2.6, Alternatives Matrix, rows 332 and 368).

Conflicting Uses

Total Number of Submissions: 3

Total Number of Comments: 7

Summary

Commenters said 1) the Proposed Plan Alternative should include management action that states some recreational activities may be restricted when those activities are incompatible with recreation outcome and setting objectives, similarly to the language to restrict target shooting in Alternatives C and D; 2) the BLM needs to analyze an alternative that does not include strategies to resolve use conflicts, because FLPMA and the Omnibus Act do not mandate the BLM to manage use conflict but mandates managing for multiple use and sustained yield, which is not the same thing; 3) the recreation objective in section 2.4, Management Common to All Alternatives, "to achieve a minimum level of conflict between recreation participants" is not well defined; 4) the recreation objective in section 2.4, Management Common to All Alternatives, "maintain a diversity of recreation activity participation" is not clear; 5) there is nothing in Chapter 3 that describes existing conflict and nothing in Chapter 4 that analyzes how the alternatives might impact these conflicts; 6) the BLM did not produce evidence of private land trespass conflicts, and it needs to produce that evidence or remove conflict objectives that refer to trespass in the recreation section; and 7) the BLM should not make reducing use conflicts a priority, because various users can solve their own conflicts.

Response

1. The Proposed Plan Alternative includes language similar to language in Alternatives C and D to restrict target shooting to protect other recreational opportunities. See section 2.6, Alternatives Matrix, row 344. Additionally, language was added to the Alternatives Matrix, row 341, to clarify guidance for managing conflicting use interactions.

2. Alternative A did not include strategies to resolve use conflicts (see section 2.6, Alternatives Matrix, row 341).

3. For clarity, section 2.4, Management Common to All Alternatives, was changed from the Draft RMP to say that the BLM would seek, "to achieve a minimum level of conflicting user interactions between recreation participants," and additional language was added to section 3.3.1, Recreational Use, and to section 2.6, Alternatives Matrix, row 341.

4. For clarity, section 2.4, Management Common to All Alternatives, was changed from the Draft RMP. The new language now states that the BLM would seek "to achieve a minimum level of conflicting user interactions between recreation participants in order to 1) allow other resources/programs to achieve their objectives; 2) curb illegal trespass and property damage; and 3) maintain a diversity of recreation opportunities."

5. Chapter 3 includes a discussion of what is currently known about recreational user interactions, including conflicting interactions. Section 4.4.1 under "Impacts from

Management of Recreation" includes an analysis of user interactions for each of the alternatives.

6. Public comment was submitted during the scoping process that identified trespass on private land as an issue. See the *Scoping Summary Report* (BLM 2011d), available on the D-E NCA website: http://1.usa.gov/1qKkMVi.

   Additionally, private property rights and trespass were identified as issues during work with focus groups conducted by the Natural Resource Land and Policy Institute.

7. This approach was considered under Alternative A, which did not include strategies to resolve use conflicts (section 2.6, Alternatives Matrix, row 341).

Special Recreation Permits

Total Number of Submissions: 1

Total Number of Comments: 1

Summary

This commenter said that not issuing SRPs for motorized events that include speed to determine results would protect resources.

Response

The Proposed Plan Alternative includes a restriction on SRPs for motorized events that include speed (section 2.6, Alternatives Matrix, row 329).

Range of Alternatives—Ninemile Hill

General Comments

Total Number of Submissions: 5

Total Number of Comments: 8

Summary

Comments that addressed the proposed Ninemile Hill RMA stated 1) that SRPs for mountain bicycling events and commercial activities should be issued; 2) the boundary of the RMA should include the entire bighorn sheep production area (and the portion of the Cactus Park RMA that is in bighorn sheep production area should be moved to the Ninemile Hill RMA); 3) the Proposed Plan should allow mountain biking in the Ninemile Hill ERMA; 4) the BLM should work with the county so that the main access to Ninemile Hill would not require a high clearance vehicle; and 5) designating the area would have positive social and economic benefits to the community.

Response

1. In the Proposed Plan Alternative, SRPs for non-motorized competitive events would be issued (section 2.6, Alternatives Matrix, row 389).

2. Making the boundary of the Ninemile ERMA coincide with the bighorn sheep production area was not considered. Section 4.3.2.2 under "Impacts from Management of Recreation"

shows that the boundary in the Proposed Plan Alternative would balance the demands of recreational use with protection of bighorn sheep and would be effective in reducing human avoidance and displacement of bighorn sheep, and that making boundaries coincide would not be necessary.

3. Mountain biking would be allowed on some routes in the Ninemile Hill ERMA, under the Proposed Plan Alternative. Routes open to mountain biking will connect to the Tabeguache Trail under this alternative. Other alternatives provide additional routes open for mountain bike use. See Appendix N for the complete travel management plan.

4. Road maintenance is an implementation-level activity and is outside the scope of this plan.

5. Section 4.6.3 contains a full discussion of the impacts of recreation on local economies and communities, and indicates that recreation in the D-E NCA plays an important role in community economics.

Other Alternatives

Total Number of Submissions: 30

Total Number of Comments: 40

Summary

These comments suggested the BLM adopt an alternative other than the Draft Preferred Alternative for Ninemile Hill in the Proposed RMP, because 1) the area is currently and has historically been primarily used for motorized recreation, and future management should continue that tradition; 2) the area offers unique opportunities not found on other BLM lands to support motorcycle trial riding; 3) motorized recreation does not have a substantial impact on non-motorized recreationists; 4) Ninemile Hill is an area that is useable year-round and provides opportunities close to home, and these opportunities should include all recreational uses; 5) Alternative D is a better mix of management, because it offers motorized recreation in the Ninemile Hill area and non-motorized recreation along the Gunnison Slopes area closer to the river; 6) motorized recreationists pay $25.00 per year for "the right to go off-roading," and non-motorized users pay nothing, so the economics alone should drive a decision to manage the area for motorized recreation; 7) in the future, the Tabeguache Trail could be connected between Bangs Canyon and Ninemile Hill for motorized use, and this will create conflicts between users and could create management problems; 8) Ninemile Hill is not suited for "muscle-powered" recreation, because it is too hot in the summer and too cold in the winter, and most of the existing routes are two-tracks, which do not provide quality hiking and horseback riding trails; 9) Ninemile Hill is particularly well suited for UTVs; 10) the BLM does not know how many hikers or equestrians use the area now, so they cannot do an adequate analysis of the impact of closing most of the area to motorized activities; 11) the BLM would not have to invest much money to manage the area similalyr to the way it is currently used; 12) the area provides great opportunities for short day trips with jeeps and other motorized vehicles; and 13) the area should be managed to allow people equal access to the outdoors.

Response

1. The BLM considered managing the Ninemile Hill RMA as a motorized recreation SRMA in Alternative D, and also considered managing the area as a part of the Cactus Park ERMA (with a focus on a variety of recreational activities, including motorized activities) in

Alternative B (See section 2.6, Alternatives Matrix, rows 381–383 and 397–398). The analysis of management alternatives is in section 4.4.1, under "Impacts from Management of Recreation."

2. Managing Ninemile Hill area as an SRMA with a focus on motorcycle use was considered under Alternative D (section 2.6, Alternatives Matrix, row 381). The impact analysis in section 4.4.1 under "Impacts from Management of Recreation" states that Alternative D would provide opportunities for motorized recreation, but could displace non-motorized users and affect associated service providers in local communities.

3. Information obtained from the public scoping process, work with partner agencies, and work with the D-E NCA Advisory Council (see Chapter 5, Consultation and Coordination) indicated that there is real user conflict between motorized users and visitors seeking a non-motorized, quiet experience. Chapter 3, Affected Environment, under "Recreational User Interaction" has a complete description of the types of conflict that were found to be present in the D-E NCA.

4. The Proposed Plan Alternative would manage Ninemile Hill for non-motorized and non-mechanized activities, and Cactus Park would be managed for motorized activities, primarily motorcycle and ATV riding (section 2.6, Alternatives Matrix, row 381). The analysis in section 4.4.1 under "Impacts from Management of Recreation" shows that the Proposed Plan Alternative provides both motorized and non-motorized recreational opportunities in areas that are relatively close and easily accessible to urban populations.

5. Section 4.4.1, under "Impacts From Management of Recreation," shows that Alternative D would provide motorized recreational opportunities in the Ninemile Hill area and opportunities for hiking and equestrian use in the Gunnison Slopes area. Either use would displace the other under Alternative D or the Proposed Plan Alternative.

6. The economic analysis in section 4.6.3 under "Impacts from Management of Recreation" shows that designation of a motorized SRMA could displace non-motorized users and that displacement would have impacts on local economies. Similarly, designation of a non-motorized SRMA would displace motorized users and affect local economies. The result is there would be no net change in annual visitation.

7. In the Proposed Plan Alternative, the Tabeguache Trail would remain open through the Ninemile Hill RMA, connecting Bangs Canyon to Cactus Park. The boundary between Cactus Park and Ninemile Hill was changed from the Draft RMP in response to public comment (section 2.6, Alternatives Matrix, row 383).

8. Ninemile Hill, under the Proposed Plan Alternative, would be designated as an ERMA, and designated to provide a broad spectrum of recreation activities which would include hiking and equestrian activities. ERMAs are not the same as SRMAs:, SRMAs place a higher value on recreational setting characteristics when compared to other areas, and ERMAs simply provide generalized opportunity to recreate in a number of ways. The Ninemile Hill ERMA in the Proposed Plan would not have objectives for the unique values or distinctiveness the commenter mentions. Please see Chapter 7, Glossary, for definitions of SRMA and ERMA.

9. The impact analysis in section 4.4.1 under" Impacts from Management of Recreation" indicates that the Ninemile Hill area is well suited for a variety of activities, including both motorized and non-motorized activities.

10. The economic and social analysis in section 4.6.3 shows that whether an area is managed as motorized or non-motorized, there will be impacts on the use that is limited, resulting in no net gain or loss.

11. Analyzing the cost of any alternative is an implementation-level issue and is outside the scope of this plan.

12. The impact analysis in section 4.4.1 under "Impacts from Management of Recreation" shows there are several areas in the D-E NCA that are well suited for motorized recreation, including both Ninemile Hill and Cactus Park. Designation of either area as an SRMA for motorized recreation would require trade-offs and would limit other uses.

13. In the Proposed Plan Alternative, the BLM would provide a spectrum of opportunities that would allow access to all types of recreation, including motorized and mechanized use, non-motorized and quiet use, and the wilderness experience.

Draft Preferred Alternative

Total Number of Submissions: 17

Total Number of Comments: 20

Summary

Comments addressing the Draft Preferred Alternative for Ninemile Hill stated 1) if Cactus Park is managed for motorized recreation, this RMA will provide an area close to Grand Junction for those seeking quiet recreational opportunities; 2) managing the area for non-motorized uses will provide protection for biological resources (wildlife and vegetation); 3) managing the area for non-motorized use close to Grand Junction would make it a good area for local school groups to enjoy outdoor activities and studies; 4) managing the area for non-motorized use would reduce pressure on other hiking areas like Devils Canyon; 5) if the area is managed for quiet recreation, it should be closed to target shooting; and 6) the BLM should designate specific campsites that people can drive to, and other sites for hike-in camping, and should develop multiple trailheads to separate users and create shuttle-supported hikes.

Response

1. The analysis of the Proposed Plan Alternative in section 4.4.1 under "Impacts from Management of Recreation" shows that the Ninemile Hill RMA and Cactus Park SRMA provide a variety of recreational settings for different uses near urban areas.

2. The analysis of management alternatives in sections 4.3.2.1 and 4.3.2.2 shows that special status species and priority species and vegetation would benefit most from Alternative B, with its emphasis on biological resource protection and fewer RMA designations. The Proposed Plan Alternative could have more impacts to wildlife and their habitats, but these impacts would be reduced through surface disturbance restrictions and other management actions, such as the implementation of BMPs.

3. The analysis in section 4.4.1 under "Impacts from Management of Educational Use" shows that the Proposed Plan Alternative would provide enhanced educational opportunities and improved learning experiences that are guided by clearly defined educational outcomes and services.

4. The analysis in section 4.4.1 under "Impacts from Management of Recreation" shows that by providing non-motorized recreational opportunities in the Ninemile Hill area, the Proposed Plan Alternative would prevent the displacement of hiking and equestrian activities to other areas or areas outside the D-E NCA.

5. Closing Ninemile Hill to target shooting was considered under Alternative D (section 2.6, Alternatives Matrix, row 344). The analysis in section 4.4.1 shows that closing an area to shooting enhances the recreational setting for those who do not appreciate shooting, but participants, service providers, and communities that are restricted would lose opportunities. The Proposed Plan Alternative does not close these areas to target shooting, to provide a broad spectrum of recreation opportunities in the NCA, and to avoid negative impacts to local communities and economies.

6. The recommended actions to develop campsites and trailheads are implementation-level actions and are therefore outside the scope of this plan.

Camping

Total Number of Submissions: 1

Total Number of Comments: 1

Summary

This commenter said that some designated campsites should be off routes (i.e., they should be non-vehicle camp sites).

Response

The Proposed Plan Alternative has been modified from the Draft Preferred Alternative to make clear that overnight camping is limited to designated sites within 200 meters of motorized routes, and there are no restrictions placed on dispersed camping outside that 200–meter buffer (section 2.6, Alternatives Matrix, row 385).

Range of Alternatives—Cactus Park

General Comments

Total Number of Submissions: 7

Total Number of Comments: 8

Summary

These commenters 1) requested that the final plan protect ponderosa pine from recreational uses; 2) stated that the proposed management of the mountain shrub community is inadequate, especially in the Cactus Park RMA, and that management targets should not allow this vegetation community to degrade; 3) wanted the BLM's management of Cactus Park to avoid attracting more visitors, and stated that the area currently provides opportunities for solitude and quiet; 4) asked that there be no new routes constructed in the Cactus Park area and that existing routes be designated and connected to create a trail system; and 5) stated that the recreation section and the travel management plan should be consistent about constructing a trail system in the Cactus

Park RMA and suggested that a column calling out the approximate proposed new mileage be added to Table N.4, that BMPs for the new trail construction be added to section J.18, and that a specific discussion of the new trails that will be constructed (both motorized and non-motorized) be added to Appendix N.

Response

1. The Proposed Plan Alternative considers ponderosa pine habitat to be a priority habitat, and the goal for this habitat is to conserve, protect, and enhance the vegetation and associated wildlife. The Proposed Plan Alternative management actions have been changed from the Draft Preferred Alternative to clarify intent and improve consistency between objectives and actions, and the BLM has added retention of larger snags and old-age trees as a management objective. See section 2.6, Alternatives Matrix, rows 63–67.

2. In response to public comment and recommendation by the D-E NCA Advisory Council, in the Proposed Plan Alternative, standards for indicators in the mountain shrub community have been changed to better meet overall objectives to enhance or maintain priority species and vegetation rankings. See section 2.6, Alternatives Matrix, row 71.

3. Alternative C of the Proposed RMP would manage Cactus Park as an SRMA with a focus on protection of biological resources, education and non-motorized recreation (section 2.6, Alternatives Matrix, row 398). As noted in section 4.4.1 under "Impacts from Management of Recreation," this alternative would limit recreational development and thus limit use in the area; The Proposed Plan Alternative would manage Cactus Park as an SRMA with a focus on motorized recreation and camping. The impact analysis in section 4.6.3 indicates that alternative C would result in a loss of opportunity for livestock grazing, recreation, and associated economic stability, for local communities.

4. Under the Proposed Plan Alternative, routes would be designated in Cactus Park to support opportunities for family-friendly ATV and motorcycle trail riding. Under Alternative B, the BLM considered a management strategy where routes would be connected or rerouted to create loop opportunities. Under Alternative C, routes would be closed to protect and enhance biological and cultural resources; see section 2.6, Alternatives Matrix, rows 399 and 403. To achieve outcomes associated with protection of biological and cultural resources, it is likely that minimal recreation development would occur under these alternatives. As such, visitors seeking outings supported by a wide variety of recreational facilities (e.g., trails, campsites, restrooms) would not be accommodated. See section 4.4.1 for impacts from these management alternatives.

5. Apart from setting the vision for a long distance connective trail between Delta and Whitewater, decisions to construct specific new routes are outside the scope of this planning process. Since travel management implementation decisions would be designed to support resource and resource use objectives in the RMP, guidance for new trail construction is included in the Cactus Park RMA discussion in section 2.6, Alternatives Matrix, row 403. BMPs for new route construction are included in Appendix K, Trail Design Criteria. In response to public comment, a section that outlines the process that would be used to develop new routes and trails has been added to Appendix N (see section N.6).

Other Alternatives

Total Number of Submissions: 40

Total Number of Comments: 44

Summary

Comments regarding other alternatives for Cactus Park stated that 1) motorized recreation is not consistent with conservation in the NCA; 2) more restrictions need to be included to protect sage-grouse and bighorn sheep; 3) motorized recreation (single-track motorcycle riding and jeeping) should be included in the objectives; 4) the travel inventory for the area is incomplete, and there is an unidentified single-track motorcycle trail that ought to be included in the management of the RMA; 5) Alternative C should be made into the Proposed Plan Alternative, because it would provide better protection for GUSG; 6) more routes should be left open in Cactus Park; 7) Gibbler Mountain should be left out of the RMA, because it is roadless and represents what the area was like historically; 8) the area should be protected by closing routes, not adding more; 9) Cactus Park should be managed for all uses; 10) it is not fair to reduce opportunities for full-sized four-wheel-drive vehicles and manage routes for other uses; 11) if the BLM closes routes in the RMA to full-sized jeeps, it would force the same number of vehicles on fewer routes and create more damage on those routes; 12) the area should be managed to continue traditional use (e.g., club and family outings); 13) non-motorized users do not need specific areas or trails, and all routes should be open to all uses; 14) the BLM did not designate enough area and/or time for motorized use in Cactus Park; and 15) Gibbler Mountain should be managed for non-motorized single-track trails.

Response

1. The D-E NCA was designated for the protection of resources and for multiple uses under the 2009 Omnibus Act, which includes recreation. Please see section 1.1, Purpose of and Need for the Plan; section 1.6, Planning Criteria and Legislative Constraints; and Appendix Q.

2. In section 2.6, Alternatives Matrix, the Proposed Plan Alternative was changed from the Draft Preferred Alternative in response to public comment and to better protect sensitive habitats and wildlife. Numerical percentages for what is considered "adequate" have been added to objectives (row 53). The Proposed Plan Alternative would prohibit new route construction in sagebrush patches larger than 60 acres and limit construction of new routes to sagebrush patches less than 60 acres to ensure functional disturbance is considered as well as physical fragmentation (row 57). In section 4.3.2.1 under "Impacts from Management of Priority Species and Vegetation," the BLM determined these management actions and allowable use restrictions would protect sage-grouse habitat. The Proposed Plan Alternative has added a flexible management approach in row 123 of the Alternatives Matrix to ensure that methods to prevent interaction between domestic and bighorn sheep can be changed if monitoring indicates it is necessary. Additional management actions have been included for livestock grazing (rows 125, 128–129, and 133). Area-specific management to reduce the number of miles of motorized and mechanized routes through bighorn production areas has also been added. The analysis in section 4.3.2.2 under "Impacts from Management of Special Status Species and Natural Communities and Non–Special Status Fish and Wildlife" shows that these measures would be effective in providing protection for bighorn sheep.

3. In response to public comments, the Proposed Plan Alternative has been changed to include motorcycle riding in management objectives (section 2.6, Alternatives Matrix, row 396).

4. The BLM asked for public comment on the route inventory as part of the planning process (section 5.8, Travel Management Outreach). After the public comment period, the BLM

conducted on-the-ground inspections to determine whether routes existed. After the on-the ground inspection, the BLM froze the inventory for planning purposes. Other route designations can be made during implementation, following all laws and regulations.

5. Analysis of the management alternatives in section 4.3.2.2 under "Impacts from Management of Priority Species and Vegetation" shows that Alternative C would promote achievement of desired trends in sagebrush habitats, and the Proposed Plan Alternative would have similar impacts as Alternative C.

6. In response to public comments, more routes were left open in the Cactus Park RMA in the Proposed Plan Alternative than in the Draft Preferred Alternative.

7. In the Proposed Plan Alternative, Gibbler Mountain would be managed as part of the Gibbler Mountain ACEC. See section 2.6, Alternatives Matrix, row 583. Management actions would reduce route densities in the ACEC to protect sensitive plant and paleontological resources. The impact analysis in section 4.5.1 shows that these resources would be protected by management under the Proposed Plan Alternative.

8. Alternative C would manage the Cactus Park area as an SRMA with a focus on protection of biological resources and non-motorized recreation. Route densities would be reduced through closing and restoring routes. The analysis in section 4.4.1 shows that this alternative would protect biological resources but does not provide for recreational opportunities and could affect local economies and communities.

9. In Alternative A, The BLM considered managing Cactus Park as an ERMA focused on providing a wide variety of recreational opportunities. The analysis in section 4.4.1 indicates that a high level of user conflict would result from management under this alternative.

10. The Proposed Plan Alternative does not include full-sized vehicles in the Cactus Park management objective, but there would be several full-sized vehicle routes open under this alternative in the Cactus Park area. In Alternative A, the BLM considered managing Cactus Park as an ERMA focused on providing a wide variety of recreational opportunities (including full-sized vehicle travel), but the analysis in section 4.4.1 indicates that a high level of user conflict would result from management under this alternative.

11. The BLM recognizes that closing routes can result in greater use on open routes, but the analysis in sections 4.3.2.1, 4.3.2.2, and 4.3.2.3 indicates that more routes will result in fragmentation of wildlife habitat and that higher route use has less impact than higher route density.

12. The targeted experiences and outcomes for the Cactus Park RMA under the Proposed Plan Alternative include providing opportunities for visitors to spend time with family and friends and develop community ties. See section 2.6, Alternatives Matrix, row 397.

13. Through the public scoping process and working with community partners and the D-E NCA Advisory Council, the BLM determined that not all visitors enjoy recreating with other types of recreational users (see Chapter 5, Consultation and Coordination). The discussion in section 3.3.1, Recreational Use, indicates that recreational conflict can and does influence how and where people recreate, and the analysis in section 4.4.1 shows that separating different types of recreational users results in better experiences and reduced conflict.

14. The BLM considered different sizes and management goals and objectives in Cactus Park (see Alternatives Matrix, row 398). The BLM was mandated through legislation to manage the D-E NCA as multiple-use, while protecting multiple resources. the analysis throughout all sections of Chapter 4 shows that some alternatives balance recreational use better than others, particularly those alternatives that limit uses in some areas while permitting them in others.

15. Section 2.6, Alternatives Matrix, row 583 shows the range of alternatives the BLM considered for the Gibbler Mountain area. The analysis in section 4.5.1 shows that, due to sensitive resources in the Gibbler Mountain area, reduction in route density, as proposed in the Proposed Plan Alternative, would best protect these resources through ACEC designation. ACEC designation would enhance quiet use recreation in the area.

Draft Preferred Alternative

Total Number of Submissions: 6

Total Number of Comments: 6

Summary

Commenters said 1) Cactus Park is large enough to accommodate long ATV rides and provides connectivity to the national forest; 2) more intensive management in the Draft Preferred Alternative might reduce impacts in the northern end of Cactus Park; 3) managing the area for motorized use might reduce conflicts between recreationists in the Grand Junction area; 4) Mesa County would like to actively partner with BLM to implement the Proposed Plan Alternative for Cactus Park; and 5) the Cactus Park area is popular with motorized users, and SRMA management would protect that use over the long term.

Response

1. The analysis of management alternatives in section 4.4.1 under "Impacts from Management of Recreation" shows that the Proposed Plan Alternative, which manages Cactus Park as an SRMA with a motorized recreation focus, would provide for quality motorized recreational experiences.

2. The Proposed Plan Alternative has been changed from the Draft Preferred Alternative to state that routes in Cactus Park would be closed as needed to meet resource objectives. This was added to reduce impacts and in response to public comment. Please see section 2.6, Alternatives Matrix, row 399.

3. Section 4.4.1, under "Impacts from Management of Recreation," states that the Proposed Plan Alternative would reduce motorized/non-motorized recreation conflicts.

4. The BLM will work with partners in the implementation process. A specific description of that process is outside the scope of this plan.

5. Please see answer 1 above.

Camping

Total Number of Submissions: 2

Total Number of Comments: 2

Summary

Commenters said 1) the BLM should not close routes to popular camping spots and 2) there is no need for "developed" camping in the area, and Cactus Park should not become a "revenue generating" area for a select few uses.

Response

1. The Proposed Plan Alternative has been changed from the Draft Preferred Alternative to include more routes (some to campsites) in Cactus Park. Please see Appendix N for the complete travel management plan.

2. The designation of campgrounds, whether free or fee sites, are implementation-level decisions and are outside the scope of this plan.

Range of Alternatives—Gunnison River

General Comments

Total Number of Submissions: 2

Total Number of Comments: 3

Summary

Commenters 1) suggested a ban on glass containers along the Gunnison River, 2) suggested a rule creating quiet hours along the river, and 3) asked that the river be protected for its wild and scenic values.

Response

1. In the Proposed Plan Alternative, glass containers would be prohibited in the Gunnison River RMA (section 2.6, Alternatives Matrix, row 335). This was changed from the Draft Preferred Alternative in response to public comments.

2. The analysis of impacts from recreation management in section 4.4.1 shows that under the Proposed Plan Alternative, there are an adequate number of campsites along the Gunnison River for campers to separate themselves from other visitors and that a "quiet rule" would not be necessary under any alternative.

3. As noted in the Wild and Scenic River Suitability Report (Appendix O), the BLM determined that wild and scenic river (WSR) values and tentative classification would be protected through administrative actions in the Proposed Plan Alternative. See section 4.5.3 for an analysis of management actions under each alternative.

Draft Preferred Alternative

Total Number of Submissions: 4

Total Number of Comments: 4

Summary

Commenters suggested the Draft Preferred Alternative for the Gunnison River RMA would best protect quiet river use, protect riparian resources, and resolve camping conflicts.

Response

The Proposed Plan Alternative would manage the Gunnison River as an SRMA that focuses on non-motorized float boating (section 2.6, Alternatives Matrix, row 362). The analysis in section 4.4.1 under "Impacts from Management of Recreation" shows that conflicts over campsites at the mouth of Dominguez Canyon would be reduced with a reservation system, managed by a permit system. Less conflict over campsites would result in lowered user conflicts.

Camping

Total Number of Submissions: 6

Total Number of Comments: 8

Summary

Commenters recommending solutions for camping issues along the Gunnison River suggested 1) adding the words "solid waste" to the requirements for the use of portable toilets and requiring that ash from fire pans be hauled out; 2) constructing shade structures at river campsites that did not have natural shade; and 3) changing the time the mouth of Dominguez Canyon would be closed to non-boater camping and motorized boats to September 1.

Response

1. The wording in row 340 of the Alternatives Matrix in section 2.6 has been changed to clarify intent.

2. Construction of shade structures along the river is an implementation-level activity and outside the scope of this RMP.

3. As part of the Proposed Plan Alternative, the mouth of Dominguez Canyon would be closed to non-boating overnight camping and motorized boating from May 1 through Labor Day weekend (section 2.6, Alternatives Matrix, row 369). This was changed from the Draft Preferred Alternative in response to public comments.

Permit System

Total Number of Submissions: 6

Total Number of Comments: 8

Summary

Comments regarding the proposed permit system along the Gunnison River suggested 1) developing more campsites away from the mouth of Dominguez Canyon, which would resolve congestion at that location, making a reservation system unnecessary; 2) using the model used on the Colorado River through Ruby Canyon at the mouth of Dominguez Canyon to reduce congestion and user conflict; 3) implementing a lottery system for commercial outfitters whereby they could gain preference in the lottery though volunteerism and contributing other resources; 4) instituting a two-night camping limit at any one campsite along the river; 5) eliminating any

reservation or permit system in the Proposed Plan Alternative, because there is little or no use on the weekdays; and 6) including the permit/reservation system in the Proposed Plan Alternative, because it would address increased use in the future, and starting the reservation system on the Friday before Memorial Day

Response

1. These suggestions were considered in Alternatives A and B, which would not require a permit reservation system and would both likely result in additional campsite development. Impacts from these alternatives are analyzed in section 4.4.1.

2. The BLM proposed a number of different options for controlling access to Dominguez Canyon, through management actions found in section 2.6, Alternatives Matrix, row 288. These types of restrictions are similar in nature to the "model" the commenter mentions.

3. Allocation of camping permits for commercial outfitters would be based on historic use under the Proposed Plan Alternative (section 2.6, Alternatives Matrix, row 372). Under Alternative C, permits would be issued by an annual lottery system. Section 4.4.1, under "Impacts from Management of Recreation," suggests that a lottery system would create too much uncertainty to operate a sustainable outfitter business. From year to year, outfitters would not know whether they could offer trips along the river, and this would have socioeconomic impacts.

4. The BLM considered a three-night camping limit within the Gunnison River RMA under Alternative B (section 2.6, Alternatives Matrix, row 374), which would have had results similar to the two-night minimum suggested by the commenter. See Chapter 4 for an analysis of impacts

5. Not developing a reservation or permit system for camping in the Gunnison River RMA was considered under Alternatives A and B (section 2.6, Alternatives Matrix, row 373). The impact analysis in section 4.4.1 under "Impacts from Management of Recreation" suggests this type of management would result in increased user conflict between commercial outfitters when compared to the Proposed Plan Alternative.

6. The Proposed Plan Alternative would implement a permit system for camping at the mouth of Dominguez Canyon. Camping in this area would be limited to designated campsites. Both commercial users and private users would be required to have a permit for overnight camping. The Proposed Plan Alternative has been changed from the Draft RMP, from developing a reservation system from Memorial Day to developing a reservation system from the start of Memorial Day weekend. (section 2.6, Alternatives Matrix, row 370). This change would ensure the entire Memorial Day weekend would be included in the reservation system

Motorized Versus Non-Motorized Use

Total Number of Submissions: 11

Total Number of Comments: 11

Summary

Commenters interested in restricting motorized use on the Gunnison River said 1) motorized closure in the Proposed Plan Alternative would better protect the riparian ecosystem and the quiet

setting enjoyed by other users 2) electric motors should be prohibited as well as gasoline powered motors; 3) motors should not be restricted, because they have been used historically for hunting and fishing, and/or that motorized users are helpful to the public and the BLM; and 4) motorized boats do not create more noise than the train running along the bank, and/or motorized impacts (noise) are short term and therefore inconsequential.

Response

1. The impact analysis in section 4.4.1, under "Impacts from Management of Recreation," suggests that enjoyment of the RMA would be enhanced for non-motorized users under the Proposed Plan Alternative. Section 4.3.2.1, under "Impacts from Management of Recreation," shows that the Proposed Plan Alternative would potentially reduce impacts to priority vegetation, such as riparian areas, through SRMA and ERMA designation.

2. Chapter 7, Glossary, defines an OHV as any motorized vehicle designed for travel on or immediately over land, water or natural terrain, including boats. The source of power (petroleum versus electric) is not relevant and is therefore included, by definition.

3. In response to public comment, the Proposed Plan Alternative has been changed from the Draft Preferred Alternative to narrow the intent of motorized boat restrictions. Motorized boat use would only be prohibited at BLM boat ramps and campsites, not on the entire river. The restriction would apply May 1 through Labor Day weekend (section 2.6, Alternatives Matrix, row 367). This takes traditional river uses into consideration.

4. The analysis in section 4.4.1, under "Impacts from Management of Recreation," suggests that noise, whether short term or long term, affects visitors and influences how they use BLM lands . The BLM is unable to establish management policy about sounds that are outside of BLM control, such as the noises made by planes or trains, so train noise has not been considered in the Proposed RMP.

Access

Total Number of Submissions: 1

Total Number of Comments: 1

Summary

This commenter suggested rebuilding the Bridgeport put-in to improve boat access and safety along the river.

Response

Rebuilding the Bridgeport put-in is an implementation-level action and is outside the scope of this plan.

Range of Alternatives—Hunting Ground

General Comments

Total Number of Submissions: 8

Total Number of Comments: 10

Summary

General comments about the Hunting Ground RMA 1) stated that the development of a connective trail between Whitewater and Delta should be mixed use; 2) most of the trail should be managed for non-motorized use; or 3) a connective trail would be consistent with Mesa County's trail planning; or 4) made suggestions to develop additional access points in the area; 5) stated that Bean Ranch Road should not be a primary access point, because that would interfere with adjacent private property owners; or 6) suggested the BLM work with private property owners to get public access easements across private property.

Response

1. In the Proposed Plan Alternative, the proposed connective trail would be designated, constructed, and managed for mixed uses (see section 2.6, Alternatives Matrix, row 352).

2. Under Alternative D, the BLM considered managing the connective trail between Whitewater and Delta as a non-motorized trail. In response to public comment, under the Proposed Plan Alternative, the connective trail between Whitewater and Delta would be managed as a mixed-use trail for motorized and non-motorized uses.

3. Under the Proposed Plan Alternative, the BLM would work with partners, including local governments, to develop and manage a connective trail between Whitewater and Delta.

4. Under the Proposed Plan Alternative, the BLM would continue to work with willing sellers to acquire non-Federal land within, and/or adjacent to, the Conservation Area boundary if the acquisition will contribute to achieving the goals and objectives for the purposes of the D-E NCA (see section 2.6, Alternatives Matrix, row 557).

5. Under the Proposed Plan Alternative, route-by-route designation criteria include the option to close and rehabilitate routes that dead-end at private land and that are not used as primary access for private landowners (see section 2.6, Alternatives Matrix, row 542).

6. See response No. 4.

Other Alternatives

Total Number of Submissions: 1

Total Number of Comments: 1

Summary

This comment suggested managing the Hunting Ground RMA for non-motorized use to protect Colorado hookless cactus, prairie dogs, burrowing owls, and soils.

Response

Managing the Hunting Ground as a non-motorized SRMA was considered in Alternative D. The Proposed Plan Alternative would designate the Hunting Ground as an ERMA and provide a variety of recreational experiences (see section 2.6, Alternatives Matrix, row 350). The Proposed Plan Alternative includes management actions to minimize disturbance of intact desert shrub/saltbush vegetation from authorized uses that are shown to cause substantial degradation (row 41). During travel management planning, the Proposed Plan Alternative would reduce

as much as practicable the density (miles/square mile) of routes within 200 meters of known Colorado hookless cactus occurrences throughout the D-E NCA (row 145). The Proposed Plan Alternative would prohibit surface-disturbing or disruptive activities from March 1 to June 15 within 50 meters (164 feet) of the edge of active (occupied within the last 10 years) white-tailed prairie dog towns (row 167). The Proposed Plan Alternative would have management actions to avoid and/or mitigate disturbance to biological soil crusts that are determined to be key in sustaining proper function and condition of upland soil health, and would apply SSR within a minimum of 25 meters (82 feet) of fragile soils (row 211). The analysis of the above management actions in section 4.4.1 indicates that, although Alternative D would manage for non-motorized recreation, the Proposed Plan Alternative contains protection measures that would have similar impacts on resources; the Proposed Plan Alternative provides for better recreational opportunities for a variety of user groups than Alternative D.

Draft Preferred Alternative

Total Number of Submissions: 8

Total Number of Comments: 8

Summary

Comments on the Draft Preferred Alternative for the Hunting Ground RMA 1) suggested that managing the area for mixed use (motorized and non-motorized) would help meet the demand for motorized opportunities, and 2) stated that the area lends itself to additional trail development (motorized and non-motorized) close to Grand Junction.

Response

1. The analysis of management alternatives in section 4.4.1, under "Impacts from Management of Recreation," shows that managing the Hunting Ground as a mixed-use ERMA, as in the Proposed Plan Alternative, would meet visitor, service provider, and community desires for a multitude of activities.

2. The Proposed Plan Alternative would enhance activity opportunities and likely lead to an increase in use over time, according to the impact analysis in section 4.4.1.

Range of Alternatives—Cottonwood-Dry Fork

General Comments

Total Number of Submissions: 1

Total Number of Comments: 2

Summary

This commenter said 1) a no-surface-disturbance stipulation would best protect lands with wilderness characteristics outside wilderness, and 2) the BLM should only issue Class I commercial and organized group SRPs in the RMA.

Response

1. In the Proposed Plan Alternative, an SSR restriction would be applied to Cottonwood Canyon and the Dry Fork of Escalante Creek lands with wilderness characteristics (section 2.6, Alternatives Matrix, row 301). The analysis in section 4.3.5, under "Impacts from Management of Priority Species and Vegetation," shows that specific relocation restrictions would give management more flexibility to protect other NCA purposes than a restriction that prohibits surface disturbance.

2. Class I SRPs were not considered in the range of alternatives, because the area was only considered as an RMA under one alternative. SRP Classes were not considered under alternatives where areas would not be managed as RMAs. Under the Proposed Plan Alternative, Cottonwood-Dry Fork would not be managed as a RMA. These areas would be managed to protect the inventoried wilderness characteristics. As such, SRPs would be issued on a case-by-case basis. In accordance with BLM SRP policy, only proposals that support management objectives would be issued. In this case, only proposals that would protect apparent naturalness, solitude, primitive and unconfined recreation, and/or the supplemental values would be issued. The Proposed Plan Alternative allows the BLM to issue Class II permits so that management will have the flexibility to support activities that provide primitive and unconfined recreational opportunities. The analysis in section 4.3.5 or section 4.4.1 describes impacts from these management actions.

Other Alternatives

Total Number of Submissions: 4

Total Number of Comments: 6

Summary

These comments called for different management from what was in the Draft Preferred Alternative, suggesting that 1) the management action in Alternative D for additional trail construction should be carried forward in the Proposed Plan Alternative, because without new trails, it would be hard to meet RMA objectives; 2) the BLM should manage the area for single-track motorcycle trails, which would create connectivity between BLM and national forest lands; or 3) the BLM should manage the area as an ERMA and not restrict recreation.

Response

1. The Proposed Plan Alternative has been changed from the Draft Preferred Alternative to improve consistency between management of lands with wilderness characteristics and management of RMAs. In the Proposed Plan Alternative, Cottonwood Canyon and Dry Fork would not be managed as a recreation area, but would be managed for their wilderness characteristics (section 2.6, Alternatives Matrix, rows 296–297, 475–477). The analysis of management alternatives in section 4.3.5, under "Impacts from Management of Recreation," show that the objectives found in Alternative D, which would target wilderness-like recreation, would have similar impacts as managing the area for lands with wilderness characteristics. However, the minimum new trail construction management action (row 478) in Alternative D is not compatible with managing for lands with wilderness characteristics and has been excluded from the Proposed Plan Alternative.

2. Under Alternative A, the BLM considered allowing motorcycles on trails in Cottonwood Canyon and Dry Fork. Managing Cottonwood Canyon and Dry Fork for single-track

motorized recreation was not considered under any alternative that manages those areas for their wilderness characteristics, because that fails to provide protection for inventoried lands with wilderness characteristics. See section 3.2.5, Lands with Wilderness Characteristics, for information on BLM direction in managing lands with wilderness characteristics. Motorized recreation is included in the Proposed Plan Alternative for the Sawmill Mesa/Wagon Park RMA, which is adjacent to Dry Fork and Cottonwood Canyon, providing connectivity between the D-E NCA and the National Forest (section 2.6, Alternatives Matrix, row 444).

3. The BLM considered Alternative A in the EIS. Although ERMAs and SRMAs were not designated in the current RMPs for Uncompahgre and Grand Junction Field Offices. Alternative A would manage the area similarly to an ERMA and includes few limits on recreation. The Proposed Plan Alternative would manage the area as an SRMA with a focus on motorized recreation and camping. The impact analysis in section 4.4.1 under "Impacts from Management of Recreation" indicate that this type of management is more effective reducing user conflict than ERMA management.

Draft Preferred Alternative

Total Number of Submissions: 9

Total Number of Comments: 9

Summary

Comments regarding the Draft Preferred Alternative for the Cottonwood/Dry Fork RMA stated that the RMA objectives in the Draft Preferred Alternative would be good management of the area, because they protect inventoried wilderness characteristics and quiet recreation opportunities, and would be beneficial to wildlife migration and habitat.

Response

The Draft Preferred Alternative has been changed to the Proposed Plan Alternative in the Proposed RMP, which would not manage Cottonwood Canyon and Dry Fork as an RMA with specific recreation objectives. The management focus of these areas would be to protect the inventoried wilderness characteristics. The analysis in section 4.4.1, under "Impacts from Management of Lands with Wilderness Characteristics" and "Impacts from Management of Recreation," indicates that the Proposed Plan Alternative would best provide opportunities for solitude and quiet recreation in Cottonwood Canyon and Dry Fork. The analysis in section 4.3.2.2 of impacts to special status species and wildlife indicates that quiet recreation, and the inclusion of Cottonwood Creek as suitable for WSR designation under the Proposed Plan Alternative, would have fewer impacts on special status species and their habitats, and on other non-special status species fish and wildlife, than other alternatives.

Range of Alternatives—Sawmill Mesa

General Comments

Total Number of Submissions: 2

Total Number of Comments: 2

Summary

These commenters 1) suggested more route closures in the Sawmill Mesa/Wagon Park ERMA, and 2) wanted the BLM to clarify the boundary of the inventory area for the Dry Fork of Escalante Creek lands with wilderness characteristics outside wilderness and WSAs.

Response

1. Different alternatives in the Proposed RMP propose more—or less—roads for the Sawmill Mesa area. See Appendix N, section U.3.20.2, Route-Specific Travel Management Comments, and the *Dominguez-Escalante NCA Travel Management Plan Route Comment Report*, available online: http://1.usa.gov/1qKkMVi, for more information on specific routes and their designation under all alternatives.

2. The boundary of the Dry Fork lands with wilderness characteristics outside wilderness and WSAs generally follows the southern rim of Dry Mesa. The majority of Dry Mesa is part of the Sawmill Mesa/Wagon Park RMA and is not part of the Dry Fork lands with wilderness characteristics. Please see Map 2–11p, which shows these boundaries under the Proposed Plan Alternative.

Other Alternatives

Total Number of Submissions: 2

Total Number of Comments: 2

Summary

These comments called for a different mix of management in the Sawmill Mesa/Wagon Park ERMA, suggesting that 1) the Draft Preferred Alternative be modified to include commenters' route-by-route recommendations, because managing for all the different uses proposed in the Draft Preferred Alternative would be difficult and lead to user conflict; and closing more motorized routes would protect non-motorized recreation and big-game hunting opportunities; and 2) Alternative D management for the lower part of Sawmill Mesa (SRMA with a mountain-bike emphasis) would complement mountain bicycling in the McInnis Canyons NCA and provide a high quality recreation area close to Delta.

Response

1. The Proposed RMP considered different alternatives with a range of general management goals and objectives that would provide overarching guidance to travel management. See section 2.6, Alternatives Matrix, rows 443 and 444 for details on management of this area. Alternative D would close more roads to motorized recreation with the creation of the Lower Sawmill Mesa SRMA (with a focus on high-quality mountain biking experiences) and Upper Sawmill Mesa ERMA (with a focus on providing a broad range of uses). The section 4.4.1 analysis of alternatives indicates that managing the Sawmill Mesa/Wagon Park area as an ERMA, as in the Proposed Plan Alternative, would best meet visitor and community desires for a multitude of activities, including big game hunting, but does create a higher risk of conflicting user interactions. Management actions such as trail design, construction, and maintenance, and providing access points, to protect and support recreational opportunities would help mitigate conflict with other resources and resource uses. Please see Appendix N for a complete travel management plan, including route-by-route designations under all alternatives, section U.3.20.2, and the *Dominguez-Escalante NCA Travel Management*

Plan Route Comment Report (available online: http://1.usa.gov/1qKkMVi) for responses to route-specific travel management comments.

2. In response to public comments, guidance has been added to the Proposed Plan Alternative for constructing mountain bicycle trails in the Sawmill Mesa RMA, which states that the BLM, when feasible with support of local community and partners (e.g., user groups, retail shops, service providers), will complete and implement an activity level plan to develop a non-motorized 'Loop' trail system north of the Escalante Rim Road and outside the River Rims ACEC (section 2.6, Alternatives Matrix, row 446). The analysis in section 4.4.1 indicates that the Proposed Plan Alternative provides a broad range of recreational opportunities for local communities.

Range of Alternatives—Escalante Canyon

Other Alternatives

Total Number of Submissions: 3

Total Number of Comments: 4

Summary

These comments suggested that 1) in the ACEC section of section 2.6, Alternatives Matrix, the BLM should limit SRPs in Escalante Canyon SRMA to Class I commercial and organized permits, and should not issue competitive SRPs in the area; 2) the BLM should manage Escalante Canyon as an ERMA so recreational use is not concentrated in one area; and 3) the BLM should manage Escalante Canyon in a way that does not attract visitors, because more visitors would create problems for private landowners.

Response

1. Management actions for commercial SRPs are found under the Escalante Canyon RMA discussion in section 2.6, Alternatives Matrix, row 472, rather than in the ACEC section. The BLM did not consider limiting commercial SRPs to Class I only, because this would conflict with education management goals found in row 499 of the Alternatives Matrix, which state that the BLM would provide public educational opportunities to increase awareness, understanding, and appreciation of resources in the D-E NCA under all alternatives. Limiting SRPs to Class I would restrict opportunities for targeted visitors (school groups and other educational groups).

2. The BLM analyzed an alternative for Escalante Canyon that would designate the area as an ERMA (section 2.6, Alternatives Matrix, row 457, and Alternative B). The analysis in section 4.4.1, under “Impacts from Management of Recreation” shows that management actions such as proper trail design, and dispersed access points, would help mitigate conflict between other resource uses.

3. The BLM considered a management alternative that would not designate Escalante Canyon as an RMA: Alternative C would leave the area undesignated, and management would be focused on lowering visitation through SRP restrictions (see section 2.6, Alternatives Matrix, rows 457 and 459. The analysis in section 4.4.1 does not indicate that any alternative would have fewer impacts on private land owners than the others.

Draft Preferred Alternative

Total Number of Submissions: 1

Total Number of Comments: 1

Summary

This commenter stated that the Draft Preferred Alternative management for Escalante Canyon would be best, because it focuses on heritage tourism and educational opportunities, the benefits of intensive recreation management, and protection of the area's resources.

Response

In the Proposed Plan Alternative, Escalante Canyon would be managed as an SRMA with a focus on opportunities to learn about heritage and ecological resources. The analysis in section 4.4.3, Educational Use, indicates that designating Escalante Canyon as an SRMA would provide the most opportunities for improving education in the D-E NCA compared to other alternatives. Section 4.4.1, under "Impacts from Management of Cultural Resources," states that the Proposed Plan Alternative would provide the most opportunities for visitor connection with heritage resources; section 4.3.2.1, under "Impacts from Management of Recreation," indicates that the Proposed Plan Alternative could reduce recreational impacts to priority vegetation and associated wildlife species through intensive management actions.

Camping

Total Number of Submissions: 1

Total Number of Comments: 1

Summary

This commenter 1) suggested leaving more spur routes open in Escalante Canyon to provide more undeveloped camping opportunities, and cited specific route numbers; and 2) said they did not want to see a fee campground in the canyon.

Response

1. Please see section N.4.2 for travel management route-by-route designations and section U.3.20.2 and the online *Dominguez-Escalante NCA Travel Management Plan Route Comment Report* (http://1.usa.gov/1qKkMVi) for responses to route-specific travel management comments. In the Proposed Plan Alternative, camping in Escalante Canyon would be limited to designated sites and developed campgrounds. In Alternative B, there would be no restrictions on camping opportunities.

2. Setting fees for recreation is an implementation-level decision and is outside the scope of this plan.

Range of Alternatives—East Creek

Total Number of Submissions: 4

Total Number of Comments: 6

Summary

These comments said 1) the BLM should add a management action to build more hiking trails in the East Creek ERMA, and connect those trails between the East Creek RMA and the Ninemile Hill RMA; 2) close East Creek to campfires along with camping; 3) there would be economic benefits to the local community from the climbing activity proposed in the East Creek ERMA; and 4) some of the problems between climbers and private property owners could be resolved through the management proposed in the Draft Preferred Alternative for the East Creek RMA, because it would provide parking areas and designated trails and climbing areas.

Response

1. Under Alternative B in the Proposed RMP, the BLM considered managing the East Creek area as an ERMA, with a focus on climbing and hiking. Management action in this alternative would include improvement of access trails (section 2.6, Alternatives Matrix, rows 424 and 426). New trails could be considered on a site-specific basis, subject to all laws and regulations. The Proposed Plan Alternative would manage the area in a similar manner to Alternative B, but with less management focus on trail building. The impact analysis in section 4.4.1 indicates that management under the Proposed Plan Alternative indicates this type of management reduces user conflict and provides a broad spectrum of opportunity for all types of recreation.

2. The Proposed Plan Alternative includes a management action to determine whether campfires would need to be restricted at specific locations (section 2.6, Alternatives Matrix, row 332). The analysis of this management action in section 4.4.1 shows that closing areas to campfires when conflicts arise with other resources or resource uses would improve recreation settings over time in any location, including East Creek ERMA.

3. Economic impacts of recreational activities are discussed in section 4.6.3 under "Impacts from Management of Recreation." The Proposed Plan Alternative would support more recreation-related spending, income, and local employment than Alternatives A–C, and only slightly less than Alternative D.

4. Section 4.4.1, under "Impacts from Management of Recreation," shows that the Proposed Plan Alternative, through ERMA designation and infrastructure development, would enhance recreational opportunities and could lead to increased use. There is, however, a higher risk of conflicting uses in areas that have ERMA designation.

Range of Alternatives—Geocaching

Total Number of Submissions: 11

Total Number of Comments: 12

Summary

These commenters suggested that 1) limiting geocaching to virtual caches would not be the best management, because virtual caches are not recognized by the geocaching community and the excitement and satisfaction of finding a physical cache provides a better user experience, and 2) placement of physical caches outside the Wilderness should require BLM authorization to allow

the BLM some level of control regarding where the caches are, and "earth" caches (also called "virtual" caches) should be allowed in the Wilderness without prior authorization.

Response

1. Different alternatives for management of geocaching are found in section 2.6, Alternatives Matrix, row 330. Under Alternative A, the BLM considered setting no limits on geocaching within the D-E NCA. The Proposed Plan Alternative has been modified from the Draft Preferred Alternative in response to public comments, and it now limits navigational recreational activities such as geocaching inside the Wilderness to virtual or earth caching only, with no restrictions on the type of caches outside the Wilderness. The impact analyses in section 4.3.1, Geological and Paleontological Resources, and section 4.3.3, Cultural Resources, indicate that Alternative A might result in increased damage to paleontological resources and outstanding geological features as well as cultural resources. The Proposed Plan Alternative, according to the analysis, would have minimal potential for impacts on resources in the Wilderness, and shows that requiring permits for geocaching outside the Wilderness would protect resources while continuing to offer high-quality geocaching experiences.

2. Section 2.6, Alternatives Matrix, row 330, has been modified from the Draft Preferred Alternative in response to public comments, and the Proposed Plan Alternative now requires a BLM permit for geocaching throughout the NCA. Section 4.3.1, Geological and Paleontological Resources, and section 4.3.3, Cultural Resources, show that requiring a permit for geocaching best allows the BLM to avoid damage to known paleontological, geological, and cultural resources, and that Alternative A would have a higher risk of damage to these resources.

Range of Alternatives—Seasonal Closures

Total Number of Submissions: 9

Total Number of Comments: 13

Summary

Comments regarding proposed seasonal closures stated that 1) closures are during the same times of the year that areas are most used for motorized recreation (fall, winter, spring); 2) seasonal closures protect past investments that have been made to improve winter range and ensure wildlife realize the benefits of those investments; 3) there is no need to base the closure dates on consultation with CPW, and the dates should coincide with "mud season"; and 4) seasonal closures would render 85 percent of the NCA closed to motorized recreation (seasonal closures plus the Wilderness), and this is not a balanced mix of management.

Response

1. The Proposed Plan Alternative has been changed from the Draft Preferred Alternative in response to public comments: In order to provide winter recreation in the area, the Farmers Canyon route in Cactus Park would remain open until a reroute is built through an area that is not big game winter habitat (section 2.6, Alternatives Matrix, row 538). The analysis of management alternatives in section 4.4.1 under "Impacts from Management of Priority Species and Vegetation, Special Status Species and Natural Communities, Non–Special

Status Fish and Wildlife, and Soils and Water Quality" shows that leaving the Farmers Canyon route open year-round provides a motorized loop opportunity, which improves winter seasonal recreational opportunities compared to other alternatives.

2. Section 4.3.2.3, under "Impacts from Management of Transportation and Travel," shows that the proposed seasonal closure in the Proposed Plan Alternative would improve habitat quality for big game by eliminating disturbance and related human avoidance by big game.

3. The BLM considered different seasonal closure dates for big game winter habitat, some of which are not the same as recommendations by CPW. See section 2.6, Alternatives Matrix, row 538, for different alternatives. The analysis in section 4.3.2.3 indicates that the seasonal closures in the Proposed Plan Alternative would be effective in protecting big game winter habitat, with the exception of the Farmers Canyon route, which would reduce the effectiveness of seasonal closure. An alternative that would base closures on "mud season" was not considered, because mud season varies from year to year and does not provide the protection necessary for big game.

4. Section 4.3.2.3, under "Impacts from Transportation and Travel Management" shows that the seasonal closure in the Proposed Plan Alternative would improve habitat quality for big game. Wildlife is one of the legislative purposes of the NCA. The seasonal closure balances protecting the legislative purpose of wildlife with the legislative purpose of recreation. By law, motorized travel is prohibited in designated wilderness areas. The BLM does not have the authority to allow motorized recreational use inside designated wilderness.

Range of Alternatives—Recreational Mining

Total Number of Submissions: 4

Total Number of Comments: 9

Summary

Comments regarding recreational gold mining stated that 1) recreational gold mining should be allowed in the NCA, because the Omnibus Act did not exclude the activity; Rattlesnake Gulch is already affected by the rail bed, and mining would not create further disturbance; and panning/mining is a historic use of the land; 2) there is no alternative that does not ban the activity, so the range of alternatives is not fair; 3) under Alternative A, limits to mining contained in the recreational section contradict the geological and paleontological discussion in section 2.6, Alternatives Matrix; and 4) prohibiting recreational mining is the right thing to do, because there is a conservation emphasis for management of the NCA.

Response

1. The Omnibus Act withdrew the D-E NCA from location, entry, and patent under mining laws, and from operation of mineral leasing, mineral materials, and geothermal leasing laws. This is subject to valid existing rights that predate the Act (see Appendix Q). There is one existing mining claim in the D-E NCA that the holder has legal right to access, explore, and mine if validity of the claim is proven. In order to comply with the Act, no other mining activity was considered in the management alternatives (see section 2.4, Management Common to All Alternatives). In response to public comment, the Proposed Plan Alternative has been changed from the Draft Preferred Alternative to allow recreational gold panning,

which would be restricted to collecting material with non-motorized and non-mechanized equipment, to protect NCA values (see section 2.6, Alternatives Matrix, row 337).

2. The BLM is required under the Omnibus Act to preclude the D-E NCA from location, entry, and patent under mining laws, and from operation of mineral leasing, mineral materials, and geothermal leasing laws. See Appendix Q.

3. The prohibition on collection of mineral materials under Alternative A in the geology section of section 2.6, Alternatives Matrix, row 10, applies to non-recreational activity, whereas the permitting of mineral collection in row 337, under Alternative A, applies to recreational activity.

Best Available Information

Total Number of Submissions: 28

Total Number of Comments: 34

Summary

These commenters stated that 1) the BLM's information about the current demand for recreation in the Ninemile Hill area says it has historically been used by motorized recreation, but the BLM did not note similar demand for non-motorized recreation in the Ninemile Hill area, so the Draft Preferred Alternative is not responsive to the current demand that the BLM outlined; 2) the BLM should use information regarding planning and managing for climbing found on a climbing website; ; 3) the BLM did very little planning in the travel management effort, because closing routes to motorized recreation suggests the demand for motorized recreation was not adequately taken into account; 4) the BLM is unaware of the extent to which BLM-managed lands are used for quiet observation of wildlife, and many areas of the NCA, specifically Cactus Park, are used for viewing wildlife; 5) there are railroad trestle timbers in the Gunnison River, and the creosote in the timbers may have adverse effects on the water quality; 6) spikes in railroad timbers are a safety hazard for boaters; 7) a jet boat on the Gunnison River has never caused a problem with rafters; 8) the BLM did not consider the Wilderness in its consideration of supply and demand for non-motorized recreational activities; the Wilderness provides 68,000 acres of non-motorized recreational opportunity (nearly 1/3 of the NCA), and there is no need to designate other areas outside the Wilderness for non-motorized recreation; 9) the information in the Draft RMP does not create a clear vision for what recreation would look like in the future, and the intent of the RMP is unclear with the exception of closing access; 10) users do not use roads when they are muddy, so there is no need to close routes when they are muddy; 11) the BLM does not have information about the impact of motorized vehicle activity on deer and elk winter range from the Omnibus Act. Under the Act, motorized use was restricted to designated trails, and nearly 30 percent of the NCA became off-limits to motorized use due to the Wilderness designation. There is no information that deer and elk range were threatened before the passage of the Act, and the BLM does not know what the impact of the restrictions in the Act are, so there is no need to do anything beyond what the Act requires; 12) there is no scientific evidence that conflict occurs between different types of recreational users, so the BLM had already made a decision when it developed alternatives that included guidance to resolve visitor conflicts; 13) the BLM did not fully understand the importance of the NCA for motorized recreational users, especially for those who use four-wheel-drive jeeps; 14) the NCA provides visitors with an opportunity to improve their mental health through experiencing wilderness areas close to home; 15) there are

very few single-track motorcycle trails within 1-1/2 hours of Grand Junction, and because of the limited number of motorcycle single-track trails, the BLM should develop a management plan to construct more such trails; and 16) the BLM should not allow the participation of the Quiet Use Coalition unless they change their name to "Anti-Motor."

Response

1. Scoping and other public comment during the planning process suggested that some areas outside the Wilderness ought to be managed for non-motorized, non-mechanized recreation. Section 3.3.1, Recreational Use, of this document notes that non-motorized recreation currently occurs in both Cactus Park and Ninemile Hill, stating that hikers, equestrians, and mountain bikers also use this zone and that hikers and equestrians commonly use the two-track routes within the zone for trail-based outings, or they use the zone to access the Dominguez Canyon Wilderness.

2. The BLM uses pertinent laws, regulations and policies to manage public land resources. Websites are useful and informative, and the BLM is always looking for the best available information when developing management strategies.

3. In the development of the Proposed Plan Alternative and the other alternatives, the BLM followed its recreation planning policy (BLM Manual 8320) and its land use planning policy (BLM Manual 1601). In accordance with these policies, the BLM sought public comment during scoping, during the travel management comment period, and on the Draft RMP. During these public comment periods, the BLM received a wide range of comments that asked the BLM to focus its management on a wide range of recreational opportunities, experiences, and activities (including motorized recreation). The BLM considered all public comments during the development of the Proposed Plan Alternative.

4. Section 3.3.1 of this Proposed RMP has been changed; it now notes that wildlife viewing is a valued activity in the Cactus Park area.

5. Section 3.3.1 has been changed and now notes the timbers along the river corridor.

6. Section 3.3.1 has been changed and now notes the timbers along the river corridor.

7. Section 3.3.1 has been changed and now notes jet boat activities along the Gunnison River.

8. Wilderness is more than a non-motorized recreation area. Wilderness is an area where the natural processes of nature are encouraged; where there is little or no development; and where people can go to find solitude. Like other recreationists, non-motorized recreationists seek not only wilderness experiences, but also opportunities that are close to home, more developed (trail systems, facilities, etc.), and do not include the rigors of wilderness travel.

9. In the development of the Proposed Plan Alternative and the other Alternatives, the BLM followed its recreation planning policy (BLM Manual 8320) and its land use planning policy (BLM Manual 1601). Chapter 2, Alternatives Matrix, rows 323–497; Appendix I, Special Recreation Permit Program Overview; Appendix J, Best Management Practices (section J.18, Recreation); and Appendix K, Trail Design Criteria, all provide guidance for future recreation management.

10. Section 3.3.1, Recreational Use, of this Proposed RMP has been changed to include information about when routes are used, noting that not all users use routes when they are muddy, but some do, especially during hunting season.

11. In the impact analysis in section 4.3.2.3, motorized vehicle use is a primary indicator of adverse impacts to wildlife, particularly big game ungulates. Increased motorized traffic in big game crucial winter habitat can increase animal stress and cause animal movement, which requires higher energy demands and results in decreased animal survival and reproduction.

12. The Proposed RMP has been changed to include a definition of recreation conflict in the Glossary. Chapter 3 contains a discussion of what is currently known about recreational user interactions, including conflicting interactions.

13. Section 3.3.1 has been changed to note that jeeping is an important activity in the different zones throughout the NCA outside the Wilderness.

14. As noted in section 3.3.1 of this document, under "Recreational Demand," the NRLPI's studies in the NCA show the importance of the NCA for providing mental health benefits to users.

15. New trails would be part of an implementation plan (a trail plan). These implementation plans support RMP objectives. In the Draft RMP, several recreation areas were proposed where motorcycle trails would be needed to support the RMA objectives. Under Alternative B, Cactus Park, Ninemile Hill, the Hunting Ground, and Sawmill Mesa would be managed for motorized recreation activities. Under Alternative D, Ninemile Hill, Cactus Park, and Upper Sawmill Mesa would be managed for motorized recreation. Under the Proposed Plan Alternative, Cactus Park, the Hunting Ground, and Sawmill Mesa would all be managed to include motorized recreation. In these areas, new trails would be developed to support the RMA objectives outlined in the Proposed RMP.

16. BLM-administered public lands are managed for the American public. In accordance with the D-E NCA designation legislation, the BLM worked with all interested members of the public to develop a Proposed Plan Alternative that protects the purposes of the NCA, including all types of recreational uses. See Chapter 5, Consultation and Coordination, for details on the public involvement process.

Cumulative Impact Analysis

Total Number of Submissions: 8

Total Number of Comments: 10

Summary

These commenters expressed ideas about the cumulative impacts of the alternatives, asserting that 1) over 5,000 miles of routes have been closed or proposed to be closed to motorized use over the past four years, and additional closures proposed in the D-E NCA RMP contribute to an incremental loss of motorized recreational opportunities in western Colorado; 2) the incremental loss of access due to public land closures and restrictions combined with private property consolidation by big money interests have reduced opportunities for hunting and fishing; 3) the incremental loss of motorized recreational opportunities over the past 20 years has made

the motorized community rebellious, and combined with the BLM's lack of law enforcement capability, the BLM will likely be unsuccessful in implementing this RMP; 4) considering the potential oil and gas development in other areas of the region, this plan would protect resources in the NCA; and 5) recreation in wilderness areas is declining at the same time motorized recreation is increasing, and the analysis should include a discussion about why other non-motorized recreational areas are needed.

Response

1. The cumulative impacts on recreation in the D-E NCA planning area from proposed management actions for other resources and uses, including those on surrounding BLM and Forest Service lands, are considered in section 4.4.1, Recreational Use, under "Cumulative Impacts." The analysis discloses impacts to recreation from resource decisions to close motorized routes. These impacts include the increased demand from local and regional markets for all types of recreation, planning decisions by other BLM offices and local forests that have restricted motorized opportunities, increased population in surrounding communities resulting in increased demand for recreation on nearby public lands, and technological changes resulting in increased recreation demand. This section also discloses the reasonably foreseeable trends that will likely continue for all recreational opportunities because of this pattern of increased use.

2. Potential future land use is considered in section 4.2.2, Past, Present and Reasonably Foreseeable Future Actions, Table 4.1. As stated in this table under Lands and Realty, the BLM is moving toward consolidation of public land and will seek land exchanges and acquisitions when to do so is in the public's interest. The BLM has no control over property consolidation by private land owners.

3. See response No. 1. Enforcement of the D-E NCA RMP is an implementation-level activity and is therefore outside the scope of this plan.

4. The cumulative impacts for individual resources are discussed at the end of each resource section in Chapter 4 and indicate that some alternatives protect a given resource better than other alternatives depending on the other anticipated activities described in Table 4.1.

5. During the impact analysis for this RMP, the BLM found no evidence that recreation in the Wilderness is declining. As stated in Table 4.1 in section 4.2.2, all types of recreation, both non-motorized and motorized, are expected to increase in the future.

Mitigation Measures

Total Number of Submissions: 1

Total Number of Comments: 1

Summary

This commenter suggested mitigation measures to restrict climbing activities when bald eagle nests are occupied in the adjacent area.

Response

The Proposed Plan Alternative has been modified from the Draft Preferred Alternative to include climbing closures during critical raptor nesting season, when active nests have been identified (section 2.6, Alternatives Matrix, row 429).

U.3.10.2. Recreational Target Shooting

Range of Alternatives

Total Number of Submissions: 3

Total Number of Comments: 8

Summary

These comments stated that 1) there are areas where shooting should be restricted to protect cultural and scenic resources and to reduce conflicts with adjacent landowners, and protection of other recreational opportunities should not be used to determine closures, because this standard is not applied to other uses or recreational activities; 2) shooting should be prohibited in white-tailed prairie dog colonies; if shooting and hunting cannot be restricted, then routes to colonies should be closed; 3) the BLM should have a more comprehensive definition of target shooting in the glossary; 4) where restrictions occur in Alternative A, they should also be included in the Draft Preferred Alternative, because it could be interpreted that the current restrictions in Alternative A may not apply in the Draft Preferred Alternative; 5) the NCA's enabling legislation authorizes the BLM to enhance recreational resources, including shooting access and infrastructure; 6) only four scoping comments addressed target shooting, which indicates that shooting is not an issue; and 7) Alternatives other than Alternative A are excessive compared to suggestions made during scoping comments.

Response

1. The BLM used a criteria-based approach in the planning process and created alternatives based on some or all of these criteria, which included public safety and protection of cultural and visual resources. As with all recreational activities, the BLM made decisions about which areas could and/or should provide certain kinds of recreational opportunities, based on criteria such as resource protection and management of conflicting recreational activities. Please see section 3.3.1, Recreational Use, under "Recreational User Interaction" for details on recreational use conflict. See section 4.4.1 under "Impacts from Management of Recreation" for information about impacts from management alternatives. Conflict mitigation is one of the criteria that was used to determine management actions.

2. The BLM has no jurisdiction over hunting in the D-E NCA; CPW regulates wildlife populations and hunting. It was determined through public scoping and comment responses that target shooting is an important recreational activity in the D-E NCA. Large-scale closures, such as closures in prairie dog habitat, would result in displacement of an important recreational use, as described in section 4.4.1 under "Impacts from Management of Recreation."

3. The definition of recreational target shooting has been expanded in the Glossary.

4. All of the areas proposed for target shooting restrictions in Alternative A appear in the Proposed Plan Alternative. See section 2.6, Alternatives Matrix, row 344.

5. The Omnibus Act listed 11 resources and 3 resource uses as purposes for designating the D-E NCA. One resource use is recreation. Target shooting is one recreational activity among many that take place in the planning area. The BLM is required to take into consideration all resources and resource uses in the planning process and is not directed to enhance one resource use over another. Developing infrastructure for any recreational activity would be an implementation-level activity and is outside the scope of this plan.

6. The BLM received substantially more than four comments about target shooting throughout the planning process, some of which are included in this appendix. The D-E NCA Advisory Council provided input on the issue of target shooting, and the BLM obtained information about the importance of target shooting in the community during open houses, scoping periods, and the public comment period for the Draft RMP.

7. The BLM used planning criteria for target shooting and matched target shooting restrictions to management alternatives such that the overall goals and objectives of a given management alternative would be supported by proposed target shooting restrictions. Public input from various outreach methods revealed that target shooting is both an important use and an issue of concern in the D-E NCA. See section 1.5, Scoping and Planning Issues, and Chapter 5 for information on public participation.

Alternative A

Total Number of Submissions: 7

Total Number of Comments: 7

Summary

Comments regarding Alternative A stated that 1) there have been no accidents associated with target shooting, so there is no need to change current management; 2) target shooting should be restricted in campgrounds and other areas with high concentrations of people, as in Alternative A; and 3) Alternative A should be the Proposed Plan Alternative, but it should also include the specific types of allowable targets found in the Draft Preferred Alternative.

Response

1. The impact analysis in section 4.6.2, Public Safety, under "Impacts from Management of Recreation," states that, in general, risks to public safety are reduced when target shooting is restricted in certain areas. The lack of recorded incidents involving target shooting in the D-E NCA does not mean there is no risk. Closures under the Proposed Plan Alternative would move target shooting activities away from areas with concentrated recreational use, thus reducing risks to visitor safety.

2. The impact analysis in section 4.6.2 indicates that Alternative A would reduce risk to public safety in only three recreation concentration areas, leaving other high-use areas open to risk. The Proposed Plan Alternative would protect public safety at more recreation concentration areas than Alternative A.

3. The BLM considered Alternative A and found that it does not protect public safety as well as the Proposed Plan Alternative. Including target restrictions found in the Proposed Plan Alternative in Alternative A would only provide additional protection at three recreation sites, leaving other high-use areas open to public safety risk.

Alternative B

Total Number of Submissions: 8

Total Number of Comments: 8

Summary

Comments addressing Alternative B for recreational target shooting stated that 1) Other NCAs are closed to target shooting, so all NCAs should be closed, because target shooting is not consistent with conservation; 2) if the Draft Preferred Alternative is selected rather than Alternative B, designated undeveloped campsites should be closed to shooting, and local shooters should be encouraged to clean up trash periodically; all developed campgrounds should be closed to shooting; 3) shooting affects other recreation visitor experiences, scares children, and spooks horses; 4) there are plenty of places outside the NCA to target shoot, so shooting in the NCA is not an important use; 5) if Alternative B is not chosen, the BLM should require shooters to do soil amendments where clay targets alter soil pH; 6) if Alternative B is not chosen, the BLM should require certain kinds of backstops that help with public safety; 7) if Alternative B is not chosen, the BLM should study the effects of lead from ammunition on wildlife; and 8) the BLM should add crossbows, BB guns, and pellet guns to the list of what is considered a firearm.

Response

1. The 2009 Omnibus Act, which designated the D-E NCA, directed the BLM to manage the NCA specifically to protect 11 resources and 3 resource uses, including recreation (see Appendix Q). Because target shooting is a recreational activity, the BLM is required to consider it among the management alternatives. The public scoping process indicated that target shooting is an important historical use of the NCA and valued by the local community. The analysis in section 4.4.1, Recreational Use, shows that closing the entire NCA to target shooting would result in a loss of opportunity for some recreational users. The Proposed Plan Alternative would close approximately 10,000 acres to recreational target shooting for public health and safety reasons.

2. The BLM considered a range of alternatives, from no restrictions on shooting to closing the entire NCA to recreational target shooting. The BLM did not consider closing undesignated campsites to target shooting, because the result would likely be the same as in Alternative D, which would close all designated SRMA and ERMA areas to shooting. This would close a large portion of the NCA to recreational target shooting, reducing the opportunity to engage in this recreational activity. Littering is illegal in the NCA and would continue to be illegal under any alternative. The enforcement of littering is an implementation-level issue and outside the scope of this plan.

3. The impact analysis in section 4.4.1 under "Impacts from Management of Recreation" shows that shooting can have negative impacts on visitor use, particularly when visitors are seeking a quiet or solitary experience.

4. Public scoping and public comment indicated that target shooting is an important use in the D-E NCA. See Table 1.4 for a list of comments by issue category. The BLM must consider target shooting, as it is a form of recreation, along with all other uses and resources identified in the legislation that created the NCA.

5. Establishing site-specific requirements for soil amendments would be an implementation-level activity and is outside the scope of this plan.

6. The Proposed Plan Alternative includes restrictions for the types of targets that may be used for recreational target shooting (section 2.6, Alternatives Matrix, row 344).

7. The impact analysis in section 4.3.2.2 under "Impacts from Management of Recreation" indicates that lead shot is a primary cause of lead poisoning in waterfowl and other birds. There is extensive literature on this subject, some of which has been included in the analysis of management alternatives for this RMP.

8. In response to public comment, these items have been added to the list of what is considered a tool for target shooting in section 2.6, Alternatives Matrix, row 344.

Draft Preferred Alternative

Total Number of Submissions: 3

Total Number of Comments: 3

Summary

These commenters stated that the BLM's reasons for target shooting closures in the Draft Preferred Alternative are well supported by the commenters' personal experiences.

Response

The impact analysis in section 4.6.2 indicates that target shooting can pose risks to public safety, especially in areas where recreation is concentrated.

No Restrictions

Total Number of Submissions: 8

Total Number of Comments: 9

Summary

Commenters against target shooting restrictions stated that 1) rather than restricting target shooting, the BLM should develop shooting ranges that meet NRA standards; 2) since there are no decent places to target shoot, the BLM should not close any areas; 3) users enter public lands at their own risk, and regulations are contrary to the freedom associated with their western U.S. heritage; 4) warning signage at entrances to the NCA, similar to "pack it in, pack it out" signs, would solve conflict problems and eliminate the need for restrictions; 5) shooting restrictions take away recreational rights, and shooting should be allowed everywhere; and 6) visitors expect to see target shooting, therefore the only regulation necessary is that areas be cleaned up after shooting.

Response

1. The development of target shooting ranges, like the development of campgrounds, is an implementation-level activity and is outside the scope of this plan. This type of development could be considered on a site-specific basis, following all applicable laws and regulations.

2. The BLM provides a number of developed target shooting sites outside the D-E NCA boundary, and provides many more non-developed target shooting opportunities both inside the D-E NCA and in other designated public lands (section 3.3.1, Recreational Use). The Proposed Plan Alternative would only restrict target shooting in locations where risks to public safety have been identified. Please see section 3.5.2, Public Safety, for a discussion of current public safety issues related to target shooting in the D-E NCA.

3. The BLM is obligated to balance various resource uses, even conflicting uses. Not all recreational activities are compatible in the same location, and restricting one activity sometimes necessarily precludes another activity. For some recreationists, the sights and sounds of gunfire are perceived as threats to personal safety. For others, seeing or hearing gunfire from target shooting is an expected, normal experience on public lands. See section 4.4.1 under "Impacts from Management of Recreation" for an analysis of target shooting use conflicts and the impact of restricting or not restricting target shooting.

4. Installing signage for target shooting is an implementation-level activity and is outside the scope of this plan.

5. Section 4.6.2 discusses the impacts of recreational target shooting on public safety, including the risks associated with discharge of firearms in areas where recreational use is concentrated. The BLM must balance personal freedoms with the need to protect public health and safety.

6. Section 4.6.2 describes the impacts of recreational target shooting on public health and safety. Cleaning up after shooting does not mitigate risk to the public from discharge of firearms in areas of concentrated recreational use.

Consider Recreational Setting

Total Number of Submissions: 13

Total Number of Comments: 15

Summary

These comments suggested that 1) Alternative C would best protect public health and safety; 2) target shooting be confined to the areas where it has historically occurred; 3) shooting be confined to developed areas to make it easier to clean up trash that is typically left behind by shooters; 4) the BLM use a criteria-based approach to determine where shooting can occur, similar to the model used in the Ironwood Forest RMP; 5) shooting has an impact on other recreational experiences and should be limited to protect those other experiences; 6) there should be a ban on glass in the NCA if target shooting is allowed, to reduce the amount of broken glass created by target shooters; 7) in order to protect other recreational visitors' experiences along the Gunnison River, the no-shooting area should be extended to 1/2 mile from the river; and 8) noise associated with shooting negatively affects wildlife.

Response

1. The impact analysis in section 4.6.2 under "Impacts from Management of Recreation" shows that Alternative C would result in a decrease in safety risks for areas where target shooting is closed. These closures could concentrate target shooting in other areas and increase risk in those areas.

2. Through the public scoping and public comment processes, the BLM determined that the recreational target shooting community considers the entire D-E NCA to be a historical target shooting location.

3. Installing developed shooting areas would be an implementation-level activity and is outside the scope of this plan.

4. The BLM used a criteria-based approach in the planning process, and the closures in the Proposed Plan Alternative are based on those criteria, which include areas of confined topography, and concentrations of people. These can lead to public safety risks when combined with the target shooting. Additionally, the BLM considered visual and cultural resources as criteria for shooting closures under some alternatives.

5. Section 4.4.1 under "Impacts from Management of Recreation" acknowledges that some activities negatively affect the experience of other users; e.g., motorized users may affect non-motorized users, and target shooting may affect users seeking a quiet experience. The BLM is responsible for finding management alternatives that balance the needs of all recreational users. See section 2.6, Alternatives Matrix, row 342, for the Proposed RMP objectives for recreational target shooting.

6. The Proposed Plan Alternative has been changed from the Draft Preferred Alternative in response to public comments. If monitoring indicates broken glass (created by anyone, not just target shooters) is having negative impacts to NCA resources, the BLM would consider prohibiting glass containers in the NCA.

7. Under Alternatives C, D, and the Proposed Plan Alternative, shooting would not be allowed anywhere in the Gunnison River RMA (section 2.6, Alternatives Matrix, row 344. The BLM did not consider extending the shooting closure to 1/2 mile from the Gunnison River, because the result would likely be similar to the entire RMA closure in other alternatives.

8. The impact analysis in section 4.3.2.2 under "Impacts from Management of Recreation" indicates that noisy human activities such as target shooting can have adverse impacts on wildlife.

Designated Areas

Total Number of Submissions: 4

Total Number of Comments: 4

Summary

These comments suggested that the best management for target shooting is limiting the activity to designated areas only, primarily for public safety reasons.

Response

The impact analysis in section 4.6.2 shows that alternatives that restrict or eliminate target shooting, such as Alternatives B and D, have the most beneficial impacts to public safety. Closing the NCA to target shooting was considered in Alternative B, and Alternative D would have closed 157,000 acres to recreational target shooting.

Impact Analysis

Total Number of Submissions: 18

Total Number of Comments: 19

Summary

Commenters addressing the BLM's impact analysis of target shooting said that 1) driving a short distance to teach a young person how to shoot a gun also taught them how to enjoy outdoor experiences, and this has impacts on education; 2) visitors will avoid the NCA because of Colorado's gun laws, and this will have economic impacts; 3) restricting shooting would concentrate shooting in certain areas and create conflict with other users and cause confusion, and there is a lack of law enforcement, which was not addressed in the impact analysis; and 4) leaving 95 percent of the NCA open to target shooting will affect other users looking for experiences that do not include the sound of gunfire.

Response

1. In response to public comment, a discussion of the educational components of target shooting has been added to section 4.4.3 under "Impacts from Management of Recreation."

2. The BLM has no control over Colorado gun law, so this issue is outside the scope of this plan.

3. The impact analysis in section 4.6.2 shows that restricting shooting in areas where there are high concentrations of people disperses shooting to other, safer areas and reduces conflict. Implementation-level issues such as public awareness and law enforcement are outside the scope of this plan.

4. This was considered in the analysis of the management alternatives in section 4.4.1 under "Impacts from Management of Recreation," which indicates that recreational activities that are in conflict with each other, such as seeking a quiet experience and target shooting, displace either one user or the other.

U.3.10.3. Scientific Use

Total Number of Submissions: 2

Total Number of Comments: 2

Summary

These comments suggested that 1) science strategies laid out in BLM NCL publications that specifically incorporate science into management and decision-making be included in this RMP, and 2) the BLM should take a more inclusive approach to socioeconomic research.

Response

1. Section 2.6, Alternatives Matrix, row 487, contains objectives that directly address encouraging, supporting, and conducting research to improve understanding of management and protection of resources from both internal and external sources, under the Proposed Plan Alternative.

2. In response to public comment, the Proposed Plan Alternative has been modified from the Draft Preferred Alternative to include a management action that states that the BLM would

use a variety of tools and techniques to determine social and economic benefits (both market and non-market) of the NCA, and engage with partners to accomplish goals (section 2.6, Alternatives Matrix, row 497).

U.3.10.4. Educational Use

Range of Alternatives

Total Number of Submissions: 6

Total Number of Comments: 7

Summary

These commenters suggested 1) other topics or issues to be included and/or emphasized for educational purposes, such as geology, livestock grazing, and wilderness; and 2) that Escalante Canyon and Cactus Park be used for educational interpretation and/or as outdoor classrooms.

Response

1. Educational opportunities within the NCA are meant to concentrate on the D-E NCA's resources and values, especially purposes for which the D-E NCA was designated. Under the Proposed Plan Alternative, education would be emphasized in education emphasis and outdoor classroom areas and include a broad variety of educational topics (section 2.6, Alternatives Matrix, rows 500–501). Although all resources may not be represented in the proposed outdoor classroom areas, the Proposed Plan Alternative is an inclusive approach to education and does not limit educational opportunities to these areas. In addition to the analysis of alternatives for education found in section 4.4.3, specific information regarding impacts to education from management alternatives can be found in the specific resource sections of the Proposed RMP. The analysis in section 4.4.3 shows that the Proposed Plan Alternative provides the most management direction for improving educational opportunities in the D-E NCA when compared to other alternatives. Mapping of outstanding geological features would be conducted in Escalante Canyon under the Proposed Plan Alternative (section 2.6, Alternatives Matrix, row 5). Education specifically aimed at better public understanding of livestock grazing is also a management action under the Proposed Plan Alternative (section 2.6, Alternatives Matrix, row 527).

2. The BLM chose education emphasis/outdoor classroom areas giving consideration to concentrating opportunities for education on resources relevant to D-E NCA, public access, and conflicts and/or opportunities with other resources. The BLM chose outdoor classrooms to balance interpretation with preservation and conservation. Escalante Canyon Watchable Wildlife Area and the Old Spanish National Historic Trail were chosen for the Proposed Plan Alternative from several areas considered under different alternatives. Escalante Canyon Watchable Wildlife Area, Hunting Ground RMA, Big Dominguez Canyon Heritage Area, Rambo/Little Dominguez Canyon Heritage Area, and Leonards Basin Heritage Area, were considered as outdoor classroom/education emphasis areas under Alternative D (section 2.6, Alternatives Matrix, row 502). Although the Proposed Plan Alternative lists Escalante Canyon Watchable Wildlife Area and Old Spanish National Historic Trail as outdoor classroom areas, other areas may be appropriate for more localized interpretation, and designation of outdoor classrooms in the Proposed RMP does not preclude educational

opportunities throughout the NCA on a case-by-case basis. Determining which individual sites are to be interpreted is an implementation-level decision and outside the scope of this planning document.

U.3.10.5. Livestock Grazing

Range of Alternatives

General Comments

Total Number of Submissions: 4

Total Number of Comments: 5

Summary

These commenters said that 1) the BLM should manage livestock grazing to protect cultural and natural resources, including wildlife riparian habitat, and the Draft RMP alternatives don't go far enough to reduce grazing impacts to vegetation, especially to allow for natural restoration; and 2) grazing management is already included in each grazing permittee's term grazing permits, so there's no need to include it in the D-E NCA RMP.

Response

1. On the basis of land health data, the BLM incorporated the adjustment of livestock use within an allotment or area into the alternatives to address specific issues identified in the planning process, giving consideration to a range of AUMs and acres available for grazing. See section 2.6, Alternatives Matrix, row 506, for the range of alternatives considered. The differences in acres open for livestock grazing are based upon the priority resource objective to achieve Colorado Public Land Health Standards. The analysis of grazing alternatives in section 4.4.4 indicates that the Proposed Plan Alternative would meet these resource objectives, due, in part, to the fact that if land health standards are not being met, and livestock use is identified as a causal factor, the BLM could adjust AUMs and acres available for grazing (section 2.6, Alternatives Matrix, rows 508, 510, 515).

2. The D-E NCA RMP is intended to provide broad guidance for activities occurring in the NCA. With respect to grazing, maximum acres and AUMs available to grazing have been set as overarching guidance. See section 2.6, Alternatives Matrix, row 506. The specific management of grazing allotments is an implementation-level action and would be identified during the permit renewal process. In response to public comment, maximum utilization standards have been removed from the Proposed RMP; the BLM will include utilization limits in term grazing permits rather than in the RMP (section 2.6, Alternatives Matrix, 521).

Limits

Total Number of Submissions: 7

Total Number of Comments: 14

Summary

These commenters stated that 1) closing or limiting areas currently open to grazing is in direct conflict with the Omnibus Act; 2) the BLM should adjust closure periods to better protect degraded vegetation; 3) the BLM should first justify grazing as the cause of degradation before closing areas to grazing; 4) the livestock section of the Alternatives Matrix places greater emphasis on recreation than on grazing and that livestock grazing restrictions will hurt the local economy; 5) 14,244 AUMs should be the minimum level of AUMs allowed, and the RMP should allow future AUM increases; 6) the Draft RMP does not adequately recognize and analyze the legal protection given to public land ranchers by the Taylor Grazing Act and the Omnibus Act. Any reduction or elimination of grazing requires a formal decision and a protest and appeal process, and the BLM should modify the Preferred Alternative to keep the status quo, as in Alternative A; and 7) the Draft Preferred Alternative doesn't need to try to resolve conflicts between recreational users and livestock producers, because these conflicts are "minimal or nonexistent," and any such conflicts should be resolved in favor of the livestock producers, who have a legal right that recreationists do not have.

Response

1. The Omnibus Act states that the Secretary shall issue and administer any grazing leases or permits in the D-E NCA in accordance with the laws and regulations applicable to the issuance and administration of such leases and permits on other land under the jurisdiction of the BLM (Appendix Q). These laws and regulations allow the BLM to modify grazing stipulations when conflicts occur with other resources or resource uses, or when areas are not meeting land health standards, and grazing is determined to be a causal factor.

2. Many of the goals, objectives, and management actions in section 2.6, Alternatives Matrix, for different resources, including special status species and priority species and habitats, identify the need to minimize disturbance from livestock trailing, livestock salt and water placement, and other livestock developments. See section 2.6, Alternatives Matrix, under headings for specific resources for specific management goals, objectives, and actions connected to those resources. Under the Proposed Plan Alternative, adjustments in livestock grazing, such as more intensive management or reductions in AUMs or acres available to grazing, would be made if livestock grazing is determined by monitoring or inventory to be a causal factor in the failure of an allotment to meet land health standards. The impact analysis in section 4.4.4 shows that such adjustments would minimize impacts to vegetation from livestock grazing.

3. In section 2.6, Alternatives Matrix, row 506 states that under the Proposed Plan Alternative, the BLM can make adjustments to acreages and AUMs based on the results of ongoing monitoring and site-specific analysis. The BLM must rely on monitoring and other specific data when considering adjustments in grazing under the Proposed Plan Alternative.

4. Section 2.6, Alternatives Matrix, row 523, has been modified from the Draft RMP to clarify the intent of the BLM. It states that grazing-recreation conflicts will be resolved on a case-by-case basis in accordance with BLM policy. Section 4.4.4, Livestock Grazing, under "Impacts from Management of Recreation," indicates that the impacts from recreation would best be reduced under the Proposed Plan Alternative.

5. Section 2.6, Alternatives Matrix, row 506, establishes 14,403 AUMs under the Proposed Plan Alternative as a base AUM number, and the BLM can make adjustments in the future based on ongoing rangeland monitoring and site-specific analysis.

6. There will be a formal protest and appeal period after the release of the Proposed RMP. Please see section 1.4, Planning Process, for details on the planning process. In addition, the BLM is required by the Omnibus Act to issue grazing permits in the D-E NCA in accordance with all applicable laws and regulations. Grazing laws and regulations include a mandatory protest and appeal period for any decisions that change permitted AUMs. Any future changes to AUMs that are implemented under this RMP will be subject to protest and appeal. The impact analysis of Alternative A, in section 4.4.4, indicates that this alternative would not provide the best protection for PPSV, special status species, cultural resources, and non-special status wildlife, and would be less effective at reducing other resource use conflicts than the Proposed Plan Alternative.

7. The BLM, as required by FLPMA, must address resource and resource use conflicts identified during public scoping and comment periods. FLPMA further directs the BLM to ensure resource uses and values "are utilized in the combination that will best meet the present and future needs of the American People; making the most judicious use of the land for some or all of these resources." Please see section 1.1, Purpose of and Need for the Plan. The public has shown a great deal of interest in reducing conflicts between livestock and recreational uses, and under FLPMA, the BLM is obligated to design an RMP with alternatives that would reduce these conflicts. The impact analysis in section 4.4.4 indicates that the Proposed Plan Alternative would best reduce livestock-recreation conflicts while ensuring livestock permittees keep their grazing privileges under the Taylor Grazing Act and Omnibus Act .

Education

Total Number of Submissions: 1

Total Number of Comments: 1

Summary

This commenter asked the BLM to tell the public that grazing can be "beneficial to the land."

Response

The Proposed Plan Alternative has been changed from the Draft Preferred Alternative to include a management action to educate the public that livestock grazing is a traditional and continuing, appropriate use of public lands (section 2.6, Alternatives Matrix, row 527). The impact analysis in section 4.4.4 indicates this could have beneficial impacts on the public's perception of grazing.

Stock Ponds

Total Number of Submissions: 6

Total Number of Comments: 13

Summary

Commenters said that 1) stored water should be slowly released from catchments back into the ground when not in use by livestock; 2) the BLM should further discuss West Nile virus (WNV) and management actions to prevent potential negative impacts of WNV on wildlife, horses, and humans ; 3) nonfunctional stock ponds should be added to the list of projects to be reclaimed; 4) livestock operators should be encouraged to use horses and pack animals rather than motorized vehicles when traveling to water developments in the Wilderness; 5) the BLM should emphasize

tamarisk removal from stock ponds to increase the number of properly functioning ponds and should require users of new ponds to agree to keep them free of tamarisk; 6) the storage ponds of catchments should be covered to prevent evaporation during warmer months; and 7) the BLM should not limit water developments but should manage them to sustain livestock operations as well as D-E NCA resources.

Response

1. Design of livestock ponds and other water developments are implementation-level decisions, so they are outside the scope of this plan.

2. Any actions taken to reduce or avoid WNV are implementation-level actions and will be addressed in site-specific project designs.

3. Section 2.6, Alternatives Matrix, row 95, states that, under the Proposed Plan Alternative, water developments would be reclaimed to achieve biological resource objectives where practicable.

4. In accordance with the legislation that designated the D-E NCA, domestic livestock grazing in the Wilderness will be managed in accordance with Appendix A of the report of the Committee on Interior and Insular Affairs of the House of Representatives accompanying H.R. 2570 of the 101st Congress (H. Rept. 101–405), commonly known as the "congressional grazing guidelines." The congressional grazing guidelines state that the "use of motorized equipment for emergency purposes such as rescuing sick animals or placement of feed in emergency situations is also permissible. This privilege is to be exercised only in true emergencies, and should not be abused by permittees." Under the Proposed Plan Alternative, the BLM will develop a motorized use agreement for allotments that include wilderness lands, allowing for emergency use and use that protects wilderness values.

5. Specific treatment for tamarisk has been added to the Proposed Plan Alternative and would be applicable at livestock watering ponds. See section 2.6, Alternatives Matrix, row 83b.

6. BMPs for livestock grazing (section J.17) include covering storage water catchments to prevent evaporative loss whenever practical.

7. The Omnibus Act states that the Secretary may allow construction of new livestock watering facilities. The Proposed Plan Alternative could allow for up to 11 new water developments within the Wilderness, and places no limitations on water developments in the D-E NCA outside of designated wilderness (section 2.6, Alternatives Matrix, row 513). Under the other alternatives, the BLM also considered from none up to 17 developments in the Wilderness. An alternative that would allow unlimited stock water developments was not considered, because this would be incompatible with other wilderness values and resource uses.

Rose Creek and Bean Allotments

Total Number of Submissions: 6

Total Number of Comments: 8

Summary

These comments stated that 1) closing the Rose Creek allotment may cause trespass problems and the need for additional facilities to prevent trespass; Rose Creek is part of an active allotment and

is inside the Wilderness, so grazing is already protected; 2) closing the Bean Ranch allotment would help with land health; and 3) the Bean Ranch allotment is part of the Kannah Creek allotment and should not be closed.

Response

1. In the Proposed Plan Alternative, Rose Creek is no longer identified for closure to livestock grazing, but would be limited to active movement (trailing) only in response to public comments (section 2.6, Alternatives Matrix, row 510).

2. Closing the Bean allotment was considered in Alternatives B, C, D, and Alternative E in the Draft RMP; the impacts of the Proposed Plan Alternative and other alternatives are analyzed in section 4.4.4.

3. The Bean allotment is not part of the Kannah Creek allotment; it is not currently allotted, and there is no fence between it and adjacent private property. The analysis of the management alternatives in section 4.4.4 under "Impacts from Livestock Grazing" indicates that closing the Bean allotment would reduce conflicts between private land use and permittee use .

Best Available Information

Total Number of Submissions: 4

Total Number of Comments: 4

Summary

These commenters said 1) invasive weed BMPs requiring that livestock use be avoided when seed spread is highest, that areas infested with weeds be closed, and that ground disturbance from grazing activities be reduced are unrealistic, misguided, or should be removed from the RMP; 2) the EIS does not provide a scientific or practicable reason or method to close 557 acres and the associated AUMs that would be eliminated from grazing by closing Rose Creek and requiring trailing only in specified areas; and 3) Map 3–32 showing existing grazing developments is incomplete.

Response

1. The BMPs in section J.5 are tools for reducing infestation and spread of weeds. These are implementation-level management actions that could be applied on a site-specific basis, when appropriate. These BMPs are not mandated by the Proposed Plan Alternative and would be used when practical and applicable.

2. Rose Creek is not closed to grazing under the Proposed Plan Alternative but is designated for active livestock movement only (section 2.6, Alternatives Matrix, row 510). The analysis in section 4.4.4 indicates that closing Rose Creek to grazing would be functionally redundant, because the rugged terrain of the canyon prevents livestock grazing.

3. The information in Map 3–32 is based on the BLM's Rangeland Improvement Database, which is currently the agency's best available information. Under the Proposed Plan Alternative, this database will be updated and corrected through ongoing inventory and monitoring of range improvements, throughout the life of the RMP.

Impact Analysis

Total Number of Submissions: 10

Total Number of Comments: 16

Summary

These commenters stated that 1) the BLM's protocol for livestock grazing fails to employ "true scientific monitoring" in rangeland study sites; 2) restrictions on use that occurs at the same time every year should exclude winter use; 3) the BLM should monitor and evaluate campsites for livestock waste, incorporate plans to continually minimize grazing impacts to resources, analyze the trade-offs of maintaining current grazing levels and costs of projects to do so, and clarify how maintaining current livestock levels could meet biological objectives in areas where resources are degraded; 4) the 35-percent utilization level guideline is not documented in range science literature and does not fit NCA winter grazing; and 5) the difference between trailing and drifting should be clarified.

Response

1. Monitoring methods are implementation-level activities and are outside the scope of this plan; specific monitoring methods would be determined at the time of implementation on the basis of best available science.

2. The BLM included site-specific determination of seasonal limitations (which means the restriction would be determined at the time of implementation and could include or exclude any season) in Alternative D. The impact analysis in section 4.4.4 shows that this alternative would have the least impact on grazing management but does not best meet biological objectives.

3. Under the Proposed Plan Alternative, adjustments in livestock grazing such as more intensive management or reductions in acres or permitted AUMs would be made if the BLM determines through monitoring or inventory that livestock grazing is causing resource degradation or negative impacts to other resources or resource uses (section 2.6, Alternatives Matrix, rows 506, 514-516). Row 512 of the Alternatives Matrix identifies the need to construct new livestock facilities as necessary to achieve biological resource objectives. The BMPs listed in section J.17 also identify management practices that would reduce impacts from livestock grazing. Section 4.4.4 analyzes impacts to recreation from livestock grazing and indicates that the management activities in the Proposed Plan Alternative would be effective in reducing impacts.

4. In response to public comment, section 2.6, Alternatives Matrix, row 521, under the Proposed Plan Alternative, has been modified from the Draft Preferred Alternative to remove specific utilization limits. Instead, the BLM commits to including utilization limits in all grazing permits, to be determined on a case-by-case basis in the permit renewal process.

5. In the Proposed RMP, the term "trailing" has been replaced with "active movement of livestock" to help clarify the difference between trailing and drifting. See section 7, Glossary, for updated definitions of "trailing" and "active movement."

Cumulative Impact Analysis

Total Number of Submissions: 2

Total Number of Comments: 2

Summary

These commenters asked that the trailing-only option be evaluated on an area-by-area basis.

Response

For most of the NCA, the BLM will monitor livestock grazing impacts to riparian areas, sensitive plants, and saline seeps, and make changes to livestock management on a case-by-case basis. The analysis of impacts to other resources from livestock grazing in section 4.4.4 indicates that limiting livestock movement in the areas identified in section 2.6, Alternatives Matrix, row 510, provides the best outcome for resource objectives for riparian vegetation, while continuing to maintain livestock grazing in the NCA.

U.3.10.6. Transportation and Travel Management

Range of Alternatives

General Comments

Total Number of Submissions: 5

Total Number of Comments: 6

Summary

These commenters stated that 1) there should be a management action to reroute routes that are close to potholes in sandstone; 2) closing routes within 200 meters of Colorado hookless cactus should be applied consistently across the entire NCA; 3) certain sign placement and language should be used when implementing the travel management plan; 4) Alternative A was included to show that current management was inadequate; and 5) keeping routes open, combined with new OHV technology, would result in more route proliferation in the future.

Response

1. Under the Proposed Plan Alternative, unsustainable and eroding routes would be rerouted and/or repaired, including routes through sandstone (section 2.6, Alternatives Matrix, row 351). Appendix K contains trail design criteria that include a recommendation to avoid sand as a trail surface.

2. In the Proposed Plan Alternative, route density near Colorado hookless cactus would be reduced throughout the NCA. During travel management planning, the BLM reduced as much as practicable the density (miles per square mile) of routes within 200 meters of known Colorado hookless cactus occurrences throughout the D-E NCA. If occurrences are identified in the future that conflict with route designations, the BLM would consider rerouting trails. See section 2.6, Alternatives Matrix, row 145.

3. Designing and placing signs are implementation-level actions and outside the scope of this plan.

4. The BLM is required by 43 CFR 1502.14(d) to consider the "no action alternative"; i.e., to evaluate whether current management is adequate for the future. It is the only alternative that must be analyzed in an EIS that does not respond to the purpose and need for the action.

5. The impact analysis in section 4.4.1 under "Impacts from Management of Transportation and Travel" does not indicate that keeping routes open to motorized travel results in the creation of more routes.

New Alternative

Total Number of Submissions: 1

Total Number of Comments: 4

Summary

This commenter questioned the validity of the range of alternatives analyzed in the EIS and sought adequate analysis of one or more alternatives providing for more new routes; said mileage figures for such expansion alternatives should be included, and each resource issue should analyze the alternatives in detail; and noted that the addition of such alternatives is required under multiple laws, regulations, and policies, including the Omnibus Act, CEQ regulations, and NLCS policy.

Response

Apart from being used to envision new trail systems, proposals for new routes are implementation-level planning decisions that require site-specific analysis and are outside the scope of this plan. Under any alternative, new routes would be evaluated on a case-by-case basis to ensure the new route proposal supports the objectives in the Proposed RMP.

Closures and Route Density

Total Number of Submissions: 10

Total Number of Comments: 12

Summary

These commenters stated that 1) a management action that would close routes until mitigation of resource concerns occurs could result in de facto permanent closures; 2) the BLM should only designate the minimum number of routes as open that were necessary to protect resources, ensure public safety, and further the purposes of the designation legislation; 3) the BLM should use redundancy as one of the criteria for closing travel routes; or 4) route density reductions and seasonal closures would best maintain a traditional rural western setting and quality recreational experiences, but the RMP should provide guidance based on fragmentation metrics and ecosystem health to more effectively identify route density targets.

Response

1. In response to public comment, the Proposed Plan Alternative has no routes with an interim closed designation. Instead, routes with resource concerns were either designated open with specific mitigation needs or designated closed. See Appendix N for the complete travel management plan.

2. During the designation process for the proposed travel plan, the BLM considered all the NCA resources and purposes outlined in the Omnibus Act. Routes were designated open to all uses, open to some uses, or closed to motorized and mechanized uses based on the planning objectives outlined in each alternative. See Appendix N for a comprehensive travel management plan under the Proposed Plan Alternative, including route-by-route designations, and section U.3.20.2 in this appendix for the BLM's responses to public comments regarding travel management.

3. In the Proposed Travel Plan, the BLM did not use redundancy as a criterion for designating routes. The BLM evaluated the use of the route, environmental concerns, and other factors such as trespass issues. Public scoping and public comments indicated that all routes in the NCA have a use and recreational value to some users, even redundant routes.

4. The Proposed Plan Alternative carries forward recommendations from the Draft RMP to reduce route density through travel management decisions in order to minimize habitat fragmentation and to meet PPSV objectives (section 2.6, Alternatives Matrix, row 35). Scientifically based information on route densities for vegetation types in the D-E NCA is currently unavailable to establish defensible numerical targets and was therefore not used as a criterion for route designations. See section N.4.1 for travel management design criteria.

Access

Total Number of Submissions: 22

Total Number of Comments: 24

Summary

These comments stated that 1) motorized access should remain open to accommodate those with limited physical capabilities, because older hunters will be pushed out of hunting if they can't drive cross-country for game retrieval; 2) disabled veterans cannot enjoy the NCA without motorized vehicles and motorized access; 3) the Draft RMP was not clear regarding the use of game carts for game retrieval; 4) the BLM should provide an adequate and efficient process for ensuring access to areas for administrative uses such as grazing and ROW maintenance; 5) there should be signage regarding administrative route access; 6) access should be ensured within the NCA for such uses as hunting, recreational travel, and overall enjoyment of public lands, with the primary focus areas being Ninemile Hill, Cactus Park, and the Escalante Watchable Wildlife Area; 7) the BLM should collaborate with local counties and Colorado Department of Transportation to ensure adequate vehicular access; and 8) routes should not be closed to make a "buffer" surrounding the Wilderness.

Response

1. Under the Proposed Plan Alternative, mechanized game carts would be permitted for game retrieval (section 2.6, Alternatives Matrix, row 533). Current management and all other action alternatives prohibit the use of motorized vehicles off designated routes. The Omnibus Act, which designated the D-E NCA specifically states that after the effective date of the RMP, motorized travel will be limited to routes designated in the plan; therefore the use of motorized equipment off-road or off-trail for the purposes of game retrieval is not legally possible.

2. When developing alternatives for the travel management plan, the BLM considered maintaining motorized access to and across public lands administered by the BLM. See Appendix N. In the Proposed Plan Alternative, where threats to biological and cultural resources were greatest, routes were closed to motorized and mechanized travel for the purposes of protecting those resources. Other routes were designated open or open with mitigation for use and enjoyment by the recreating public. The Proposed Plan Alternative would leave open the most routes to motorized access than any other alternative, and more routes would be open to motorized travel in the Proposed Plan Alternative than were open in any alternative in the Draft RMP.

3. The Proposed Plan Alternative (section 2.6, Alternatives Matrix, row 533) states that mechanized use in the Wilderness would not be permitted, including carts for game retrieval. Mechanized transport, including game carts, is prohibited by law in designated wilderness. Use of mechanized game carts would be permitted off designated routes for the purposes of game retrieval anywhere in the D-E NCA outside of designated wilderness.

4. Section N.4.4 of the proposed travel management plan provides guidance for implementation and management of administrative routes. Authorized uses that require administrative access will receive it under the process outlined in section N.4.4.

5. Developing signage for administrative access is an implementation-level activity and is outside the scope of this plan.

6. During the development of the Proposed Travel Plan, access to and across BLM-managed public land was considered for all routes (outside the Wilderness), not just specific routes in specific locations for specific activities. See section N.4.1 for route designation criteria.

7. Counties were invited to participate during the designation process to ensure access. See section 5.2, Cooperating Agencies.

8. Whether a route accessed the Wilderness boundary was not used as a criterion for determining route designations.

Wildlife Protection

Total Number of Submissions: 3

Total Number of Comments: 3

Summary

Comments that focused on route closures and wildlife stated that 1) the route closures in Alternative C would best protect wildlife, hunting, and quiet use; or 2) wildlife protection is being used an excuse to close routes.

Response

1. The BLM considered public comment, the analysis of impacts, and the range of alternatives in the Draft RMP (including Alternative C) during the designation process for the proposed travel plan. Please see the Chapter 4 impact analysis, under headings for individual resources, for detailed analyses of the impacts that each alternative travel management plan would have on that resource.

2. Wildlife is one of the important resources in the NCA and one of the purposes for which the D-E NCA was established, so the BLM had to consider important wildlife habitat and the impact of travel routes on wildlife populations as part of the designation process. Please see section 4.3.2.1 and 4.3.2.2 under "Impacts from Management of Transportation and Travel" for an analysis of impacts to wildlife under different travel management alternatives.

Best Available Information

Total Number of Submissions: 2

Total Number of Comments: 2

Summary

These comments 1) provided the BLM with updated information on county-maintained roads in the NCA; and 2) questioned whether the BLM adequately considered the human environment when developing plan alternatives and suggested that by closing routes to motorized use, the BLM was not including humans in the management mix for the NCA.

Response

1. The BLM has noted the updated routes.

2. The purposes for designating the D-E NCA outlined in the 2009 Omnibus Act included biological, cultural, and recreational resources. In the Proposed RMP, the BLM developed a mix of management alternatives that is responsive to the purposes of the designating legislation and the wide variety of recreational demand, which includes but is not limited to motorized recreation.

Cumulative Impact Analysis

Total Number of Submissions: 2

Total Number of Comments: 2

Summary

These commenters said the BLM did not adequately analyze the impacts of the growing demand for motorized recreation or the restrictions that wilderness designation, motorized route closures, and proposed non-motorized recreation areas cause.

Response

In section 4.4.1 under "Impacts from Management of Recreation," the BLM discloses the effects each of the management alternatives would have for different public land recreational users. It is recognized that use by one group can displace use by another group seeking a different experience, and conflicts can result from managing an area for many different types of use. Impacts to social and economic conditions are analyzed in section 4.6.3, which shows that recreational demand for all uses is growing throughout western Colorado, and all recreational activities, whether motorized or non-motorized, play an important role in the economy and social fabric of the communities surrounding the planning area. Restricting any recreational activity can have negative impacts on socioeconomic conditions.

U.3.10.7. Land Tenure and Land Use Authorizations

Range of Alternatives

Total Number of Submissions: 4

Total Number of Comments: 10

Summary

These comments stated that 1) greater cell phone coverage might be achieved if the BLM allowed a new cell phone tower along Highway 141; 2) "camouflaging" should be considered for any new communication towers within or surrounding the NCA; 3) the BLM should work with county governments to build bridges at creek crossings on county-maintained roads; 4) administrative access is needed for maintenance and operation of existing power transmission lines authorized by BLM ROWs, and either access roads authorized by BLM ROWs or other alternative routes should be designated as open for administrative use; 5) rights-of-way and utilities should not be allowed within the D-E NCA, and the BLM could buy or provide easements on private land instead; 6) the BLM should modify management of areas with "no ground disturbances" and "application of SSR to surface-disturbing activities" to allow ground-disturbing activities within existing power line and access road ROWs ; 7) serious impacts would occur if access routes to DMEA's power lines are designated as "closed" or "ATV"; 8) if river segments are determined as suitable for WSR designation, the BLM should insure that language is included in the RMP to provide DMEA with access to maintain their existing facilities; or 9) the action alternatives in the Draft RMP are not consistent with the RMP goal, as road classifications shown for each action alternative do not provide adequate access to all power lines and associated structures.

Response

1. New communication facilities have been proposed under different management alternatives. See section 2.6, Alternatives Matrix, row 551.

2. This is an implementation-level action and is outside the scope of this plan. Mitigation of visual impacts would be considered during ROW application processing.

3. These are site-specific, implementation-level activities and are outside the scope of this plan. If a bridge needs to be constructed on a county-maintained road, the BLM will work with the county and must take their existing county-maintained road ROW into consideration.

4. Administrative access is allowed on all permitted routes to all existing ROW facilities in all alternatives. See section 2.6, Alternatives Matrix, rows 547–549.

5. The Omnibus Act, Section 2405(f) states, "[the] Secretary shall continue to provide private landowners adequate access to inholdings in the Conservation Area." In Alternative B, the BLM considered managing the entire NCA as a ROW exclusion area, except for adequate access to non-Federal inholdings and existing ROWs as well as upgrades or modifications to existing facilities. See section 2.6, Alternatives Matrix, row 547.

6. In all alternatives, including the Proposed Plan Alternative, areas designated as "no ground disturbances" do not include areas with ROWs and their access routes. See section 2.6, Alternatives Matrix, rows 547.

7. In all alternatives, DMEA and all existing ROW holders are allowed administrative access to their facilities (section 2.6, Alternatives Matrix, row 547).

8. The Proposed Plan Alternative has removed WSR eligibility status from sections of the Gunnison River where there are existing ROWs. See section 2.6, Alternatives Matrix, row 620.

9. The Proposed Plan Alternative insures that all ROW holders have adequate administrative access to their facilities, consistent with their existing ROW agreements.

Best Available Information

Total Number of Submissions: 1

Total Number of Comments: 4

Summary

These comments 1) described DMEA operations and operational needs in detail, and 2) asked that the GPS shapefile data previously furnished to BLM be incorporated into the RMP in order to accurately reflect DMEA's existing facilities and access roads.

Response

1. This information has been noted, and the DMEA's needs have been considered in the alternatives. Please see section 2.6, Alternatives Matrix, row 547.

2. This shapefile was included in data analysis for travel management planning. No alternative in the Proposed RMP prohibits existing ROW access.

U.3.11. Comments on Chapters 2–4: Special Designations

U.3.11.1. Areas of Critical Environmental Concern

Range of Alternatives

General Comments

Total Number of Submissions: 15

Total Number of Comments: 16

Summary

These commenters stated that the River Rims, Escalante, and/or Gibbler ACECs would best protect PPSV, sensitive species, non-sensitive species, fish and wildlife, cultural, and geological resources.

Response

The Proposed Plan Alternative would designate River Rims, Gibbler Mountain, and Escalante Canyon as ACECs. The analysis in section 4.5.1 shows that the relevant and important values

for which each ACEC would be designated would be best protected by this alternative. There could also be ancillary benefits to other resources outside of the relevant and important values that are found in the ACEC.

Adequacy of Restrictions

Total Number of Submissions: 1

Total Number of Comments: 1

Summary

This comment expressed support for the Draft RMP's "proposed management prescriptions" for ACECs, because they comply with law and policy, and called for non-specific "additional measures" to protect values.

Response

Relevant and important values were determined through a process described in Appendix M. The alternatives describe additional management measures that were found to be necessary to protect the relevant and important values, beyond the general management being proposed for the rest of the NCA. The ACEC section of the Proposed Plan Alternative has added increased levels of protection for sensitive plants, paleontological, and geological values. See section 2.6, Alternatives Matrix, rows 568, 570, 574, 580a, 580b, and 595 for additional protections added to ACEC management in the Proposed Plan Alternative.

New or Additional ACECs

Total Number of Submissions: 4

Total Number of Comments: 8

Summary

These commenters said that 1) there should be an ACEC to protect GUSG habitat; 2) they support the River Rims ACEC as well as other ACECs to protect prairie dog colonies; and 3) there should be a new ACEC to protect WSRs in places where WSR suitability determination was not made in the Draft Preferred Alternative, ACEC status should be applied to the area known as the Dominguez Addition, or they support a new ACEC to protect the Escalante Slopes area.

Response

1. An ACEC for GUSG was not considered in the Proposed RMP. Although the species is considered an important value and is listed as threatened under the ESA, the status and distribution of sage-grouse use of the D-E NCA is not well understood. General management for the D-E NCA includes many protections for sagebrush habitat, which are consistent with the *Gunnison Sage-grouse Rangewide Conservation Plan* (Gunnison Sage-grouse Rangewide Steering Committee 2005). Chapter 2, Alternatives Matrix, rows 51–59, describes sagebrush protection measures under all alternatives. The impacts of these management alternatives are described in section 4.3.2.1, and indicate that the Proposed Plan Alternative provides protection of sage-grouse habitat while considering other resource uses and values.

2. Although ACECs are identified to protect relevant and important values that are specified at the time of designation, prescribed protective measures may also benefit other values in the same area. Prairie dog colonies were not identified as a relevant and important value for the River Rims ACEC, but the species could benefit from protection of vegetation resources in the ACEC. See Table 4.59.

3. The Dominguez Addition, Escalante Slopes area, or areas identified as eligible for wild and scenic river status were not found to meet the relevance and importance criteria described in 43 CFR 1610.7-2 and BLM Manual 1613 (BLM 1988) for ACEC designation,

Overlapping Designations

Total Number of Submissions: 2

Total Number of Comments: 2

Summary

These commenters suggested that overlapping designations, such as ACEC, RMA and lands with wilderness characteristics, is a good means to achieve multiple purposes such as providing recreational opportunities and conservation of cultural and natural values.

Response

The Proposed Plan Alternative contains several instances of layered (or "overlapping") designations where special management is considered necessary to protect relevant and important ACEC values. In developing the Proposed Plan Alternative, the BLM determined that both the Gibbler Mountain ACEC and the Gunnison Gravels ACEC were necessary and appropriate to ensure protection of sensitive resources within the Cactus Park SRMA. Within other SRMAs, the BLM determined through the analysis in sections 4.3.2.1, 4.4.1, and 4.5.1 that other proposed ACECs would not necessarily provide added resource benefit above and beyond proposed management actions for those resources. In one case, an overlapping designation in the Draft Preferred Alternative was removed from the Proposed Plan Alternative. The Proposed Plan Alternative would manage the Cottonwood Creek and Dry Fork areas for their wilderness characteristics, and the RMA designation has been removed, because the analysis showed that it would not provide added resource benefit.

Gibbler Mountain

Total Number of Submissions: 9

Total Number of Comments: 10

Summary

These commenters stated that 1) the boundary of Gibbler Mountain ACEC be expanded to include a wide swath around the mountain, not just the northern slopes; 2) they had concerns about the impacts of travel and trails in the Gibbler Mountain ACEC; or 3) there should be further motorized trail development in the Cactus Park/Gibbler Mountain area.

Response

1. Proposed ACEC boundaries were determined using the criteria in sections M.3.2 and M.3.3. Gibbler Mountain ACEC boundaries were drawn to support the identified relevance and importance criteria rather than the geographic location identified by its name. For this reason, the boundary proposed by the commenter was not considered. In order to make the boundary clear to the public, it has been changed slightly from the Draft Preferred Alternative. In the Proposed Plan Alternative, it follows two major roads, routes 18 and 495 (see Map 2–5p).

2. The Proposed Plan Alternative would designate the Gibbler Mountain ACEC. Management of the area includes reducing existing route densities as much as practicable within 200 meters of rare plant occurrences, prohibiting additional surface disturbance within 200 meters of the rare plants, and prohibiting surface disturbance within 100 meters of paleontological resources (section 2.6, Alternatives Matrix, rows 583 and 584). The analysis of management alternatives in section 4.5.1 indicates that these measures would be effective in protecting the unique values for which the ACEC would be designated and would meet priority species and vegetation objectives as well as cultural and paleontological resource objectives.

3. Additional trail development anywhere in the D-E NCA would be an implementation-level activity and is outside the scope of this plan. New trails may be built following a site-specific analysis, adhering to all applicable laws and regulations.

Escalante Canyon

Total Number of Submissions: 1

Total Number of Comments: 2

Summary

This commenter 1) expressed concern about the effects of organized groups on area resources and suggested competitive SRPs should be prohibited and all other SRPs should be limited to Class 1 permits, and 2) asked that the Escalante Canyon ACEC be expanded if suitable habitat for Montrose bladderpod is found.

Response

1. Recreation permit guidelines for Escalante Canyon SRMA (which includes the Escalante Canyon ACEC) for all alternatives are found in section 2.6, Alternatives Matrix, rows 451–453. The Proposed Plan Alternative would prohibit competitive SRPs in the Escalante SRMA, including Escalante Canyon ACEC. It would restrict organized group and commercial SRPs to Class I and Class II (low- and medium-impact events). Limiting SRPs to Class I only was not considered under any alternative, because to do so would be in conflict with the educational use goal found in row 499 of the Alternatives Matrix, which states that an important use of the NCA is to provide public education opportunities that increase awareness, stewardship, and understanding of the D-E NCA resources and resource uses. Class II SRPs would be needed for larger educational groups such as school classes. Impacts from larger groups could be limited through permit terms at the implementation level, consistent with ACEC objectives within the Escalante Canyon ACEC.

2. ACECs were identified through a systematic process outlined in section M.3. Expansion of the ACEC could be considered in the future if the criteria in Appendix M are met. This action would require an amendment to the D-E NCA RMP.

River Rims

Total Number of Submissions: 3

Total Number of Comments: 7

Summary

These commenters said that 1) the BLM should place limitations on SRPs within the River Rims ACEC and only issue Class 1 permits; 2) grazing is having negative impacts on the riparian area of the ACEC, but fencing to protect rare plants from grazing might look ugly; 3) the 200-meter protective buffer around Colorado hookless cactus will limit options for horse/hiking trails in River Rims ACEC, resulting in damage to sensitive plants; or 4) grazing in the River Rims ACEC should be limited to trailing only to protect rare plants.

Response

1. Recreation permit guidelines for the Hunting Ground ERMA (which includes the River Rims ACEC) for all alternatives are found in section 2.6, Alternatives Matrix, rows 358–360. The Proposed Plan Alternative would prohibit competitive SRPs in the Hunting Ground ERMA, including River Rims ACEC. It would restrict organized group and commercial SRPs to Class I and Class II (low- and medium-impact events). Limiting SRPs to Class I only was not considered under any alternative, because to do so would be in conflict with the educational use goal found in row 499 of the Alternatives Matrix, which states that an important use of the NCA is to provide public education opportunities that increase awareness, stewardship, and understanding of the D-E NCA resources and resource uses. Class II SRPs would be needed for larger educational groups such as school classes. Impacts from larger groups could be limited through permit terms at the implementation level, consistent with ACEC management objectives.

2. There are likely several grazing management strategies other than extensive fence construction that could be used to meet riparian objectives in the River Rims ACEC. Grazing strategies at the site-specific level are implementation-level issues and are outside the scope of this plan.

3. The surface disturbance limitations include exceptions that may allow for the construction of some routes within the 200–meter zone that do not adversely impact the protected resource (Appendix B), or that alleviate damage to or otherwise improve the protected resource. These trade-offs between resource protection and new recreational trail developments are discussed in Chapter 4 under headings for each individual resource.

4. Limiting grazing use to active livestock movement in the River Rims ACEC was not considered under any alternative. Section 4.5.1 under “Impacts from Management of Livestock Grazing” indicates that site-specific, implementation-level range management strategies, such as changes in stocking rates, season of use, or allowable use levels, would protect resources within the River Rims ACEC.

Gunnison Gravels

Total Number of Submissions: 1

Total Number of Comments: 1

Summary

This commenter expressed concern that without ACEC status, the Gunnison Gravels would not be adequately protected.

Response

The Proposed Plan Alternative carries forward the Gunnison Gravels ACEC , and it includes measures to prevent surface disturbance. The analysis in section 4.5.1 indicates this management would protect the relevant and important values for which the ACEC would be designated, and negative impacts could result from not designating the ACEC.

Best Available Information

Total Number of Submissions: 1

Total Number of Comments: 1

Summary

This comment stated that management restrictions for grazing under the Draft Preferred Alternative, as it pertains to the Escalante Canyon ACEC, are unnecessary, because the BLM does not say what specific plant species are present in the area and there is no evidence that grazing is harming any unique and sensitive plant resources in the area.

Response

Section M.4.2.2 describes the plant species and communities that the BLM is concerned about in this ACEC. Section 3.2.2.2, Special Status Species and Natural Communities, further identifies these resources, which include Colorado hookless cactus and salt meadows. The discussion in 3.2.2.2 identifies livestock trampling and grazing as a threat to the Colorado hookless cactus. Salt meadows, another primary resource in Escalante Canyon ACEC, are considered related to seeps and springs, which are affected by the spread of noxious and invasive weeds and trampling, as described in section 3.2.2.1, Priority Species and Vegetation. The analysis in sections 4.3.2.1 and 4.3.2.2 under "Impacts from Management of Livestock Grazing" discusses the impacts that management alternatives, including the Proposed Plan Alternative, would have on these resources.

U.3.11.2. National Trails

Range of Alternatives

Total Number of Submissions: 3

Total Number of Comments: 4

Summary

These comments 1) asked the BLM to protect the Old Spanish National Historic Trail as proposed in the Draft Preferred Alternative, and recommended the BLM add management prescriptions in Alternatives C and D for reduction of sights and sounds of motors; 2) suggested a partnership with

the Old Spanish Trail Association; and 3) requested off-site signage for the national historic trail to preserve the site and aid in interpretation.

Response

1. The Old Spanish National Historic Trail would be managed under VRM II in the Proposed Plan Alternative (section 2.6, Alternatives Matrix, row 313). The analysis of management alternatives in section 4.5.2 under "Impacts from Management of National Trails" indicates that the management actions intended to improve naturalness of the trail management corridor in Alternatives C and D would have beneficial impacts.

2. See section 2.6, Alternatives Matrix, row 616, which states that under the Proposed Plan Alternative, the Old Spanish National Historic Trail would be managed in cooperation with various partners and interested groups.

3. Interpretive signs for the Old Spanish National Historic Trail are implementation-level decisions outside the scope of this plan. Section 2.6, Alternatives Matrix, row 603, states that under the Proposed Plan Alternative, a goal for the Old Spanish National Historic Trail is to manage for auto touring and interpretive opportunities along the historic trail corridor.

U.3.11.3. Wild and Scenic Rivers

Range of Alternatives

General Comments

Total Number of Submissions: 17

Total Number of Comments: 18

Summary

These comments said 1) DMEA needs to be able to access, inspect, and maintain existing utility infrastructure and associated rights-of-way, regardless of the suitability determination; 2) the BLM should protect Cottonwood Creek riparian areas under WSR suitability determination; 3) the BLM should incorporate segments found suitable for WSR designation under other alternatives into the Proposed Plan Alternative; and 4) the BLM should defer an eligibility finding for Cottonwood Creek while working with the CWCB to develop sufficient instream flow protections.

Response

1. The Proposed RMP, under all alternatives, would allow reasonable access for utilities to non-Federal property and existing ROW facilities (see section 2.6, Alternatives Matrix, row 547). This would include any infrastructure or ROW in the same location as WSR suitability river segments; however, under the Proposed Plan Alternative, there are no proposed WSR suitability river segments in the same location as DMEA ROWs or infrastructure.

2. In the Proposed Plan Alternative, Cottonwood Creek would be determined suitable for inclusion in the National Wild and Scenic Rivers System (NWSRS). All other eligible segments would be determined not suitable and released from further WSR studies (section 2.6, Alternatives Matrix, row 620).

3. The Draft EIS analyzed alternatives that included a range of management options, from managing all segments as suitable for inclusion in the NWSRS to managing none of the segments as suitable. The analysis in section 4.5.3, Table 4.64, shows that surface disturbance restrictions, prohibitions, and limitations on the timing of surface disturbance overlap many of the segments proposed for WSR inclusion under different alternatives. This suggests that the limitation included in the Proposed Plan Alternative would be effective at protecting outstandingly remarkable values (ORVs) in the segments considered, and therefore a suitable finding is not necessary.

4. Section 2.6, Alternatives Matrix, row 620, under the Proposed Plan Alternative has been changed to address the comment regarding instream flow protection to protect vegetation ORVs on Cottonwood Creek: "If the BLM is able to obtain an alternative form of flow protection to support the vegetation [ORV], the BLM will recommend that action not be taken on the suitability determination and will change the determination to 'not suitable' during the next available land use plan amendment process."

Eligibility

Total Number of Submissions: 1

Total Number of Comments: 3

Summary

This commenter said that 1) a preponderance of private land along particular segments should, according to BLM policy, deem them ineligible in the WSR eligibility determination process; 2) private land along particular segments should, according to BLM policy, be left to the private landowners to ultimately determine eligibility; and 3)the presence of waterway modifications on a number of proposed segments should, according to the Wild and Scenic Rivers Act, deem them ineligible for WSR designation, and even if eligible, the presence of diversion structures on multiple proposed segments would automatically prevent congressional designation, as the segments are no longer free-flowing.

Response

1. BLM Manual 6400, *Wild and Scenic Rivers – Policy and Program Direction for Identification, Evaluation, Planning, and Management* (BLM 2012c), on pages 3-1 to 3-5, clearly directs the BLM that, "eligibility determinations should only consider the presence of values on BLM-administered lands and related waters." Further, the errata sheets for each of the field offices also expressly state, "[eligibility] determinations are not made on portions of rivers or streams on State or private lands." The BLM considered only wild and scenic values along stream segments on public lands, in accordance with the current policy direction.

2. See response No. 1.

3. BLM Manual 6400, under 3.1 (B.), expressly states under the definition of free-flowing, "existence of low dams, diversion works, or other minor structures does not automatically render a segment ineligible for designation." The BLM is aware of the existence of irrigation diversions on proposed stream segments.

Suitability

Total Number of Submissions: 6

Total Number of Comments: 8

Summary

These comments said that 1) the Gunnison River and Escalante Creek were not suitable for management as WSRs, as the BLM already has ample power and authority to manage and protect the ORVs that are located on public land; and 2) existing utility facilities, access and maintenance requirements, and future utility system requirements would render Escalante Creek—Segment 2, Gunnison River—Segment 2, Gunnison River –Segment 3, Roubideau Creek—Segment 2, Deep Creek, and West Fork Terror Creek unsuitable for the WSR designation.

Response

1. The Draft EIS analyzed alternatives that included a range of management options, from managing all segments as suitable for inclusion in the NWSRS to managing none of the segments as suitable. In the Proposed Plan Alternative, Cottonwood Creek is the only eligible WSR segment determined suitable for inclusion in the NWSRS (section 2.6, Alternatives Matrix, row 620). Under the Proposed Plan Alternative, all the other eligible segments would be determined not suitable and released from further WSR studies, including both segments of Escalante Creek and both segments of the Gunnison River.

Best Available Information

Total Number of Submissions: 1

Total Number of Comments: 1

Summary

This comment stated that 1) the WSR eligibility report lacked a variety of information regarding existing water diversions, waterway modifications, private land, and other infrastructure developments that could affect the findings of eligibility for particular segments; 2) there are existing utility facilities, access, and maintenance requirements along Escalante Creek, Segments 1 and 2; the Dry Fork of Escalante Creek; Gunnison River, Segments 2 and 3; Big Dominguez Creek, Segment 2; and Little Dominguez Creek, Segments 1 and 2, and these should have been part of the eligibility report; 3) substantial agricultural development and use along multiple segments would disqualify them for tentative classification as either “wild” or “scenic,” and active diversions of water would disqualify the Gunnison River, Escalante Creek, Dry Fork, Big Dominguez Creek, and Little Dominguez segments as “recreational.”

Response

1. The Draft RMP/EIS analyzed alternatives that included a range of management options, from managing all segments as suitable for inclusion in the NWSRS to managing none of the segments as suitable. In the Proposed Plan Alternative, Cottonwood Creek would be determined suitable for inclusion in the NWSRS. All other eligible segments would be determined not suitable for inclusion in the NWSRS and released from further WSR studies (section 2.6, Alternatives Matrix, row 620). In response to comments, the suitability report has been changed to include the facilities on Big Dominguez Creek Segment 2, Little Dominguez Creek Segment 2, and the Gunnison River Segment 1. The other developments,

land ownership, and uses mentioned in comments are included in the eligibility reports and/or the suitability report.

2. For several of the stream segments, the presence of large amounts of private land and comments from private land owners that they do not wish to commit to managing a WSR were very important factors in the "not suitable" determination. It is important to note that segments that are released from further studies are no longer eligible for inclusion in the NWSRS. This includes the Gunnison River Segments 1 and 2, Escalante Creek Segments 1 and 2, Little Dominguez Creek Segments 1 and 2, and Big Dominguez Creek Segment 2. See also response No. 1

3. BLM WSR Manual 6400, Section 3.1, states that the presence of low dams and diversion structures does not automatically bar eligibility, and in fact, Congress has designated rivers as wild and scenic that have low dams and diversions. In the segments BLM determined to be eligible, the presence of low dams and diversions was determined not to have a significant impact on the free-flowing condition. In addition, BLM WSR Manual 6400 specifies that there are no specific requirements for minimum flows in eligible segments, so the presence of diversions does not automatically disqualify a segment, provided that the flow rates are sufficient to support the identified ORVs. Finally, the BLM acknowledges that certain segments that were evaluated may have instances of channelization, rip-rap, and erosion control berms, but these do not occur along significant lengths of river, so they were determined to be minor structures. As noted in the suitability report (Appendix O), the Dry Fork of Escalante Creek was dropped from eligibility due to changes in the CNHP's classification of the Fremont cottonwood/skunkbush sumac riparian forest. For segments classified as "wild," BLM WSR Manual 6400, Illustration 2, specifies that domestic livestock grazing and trails are acceptable. For segments classified as "scenic," the manual specifies that the presence of dispersed dwellings, farm structures, grazing, crops, and roads is acceptable. For segments classified as "recreational," the manual specifies that existing impoundments or diversions are acceptable. Finally, access to private lands is not a factor in tentative classification decisions.

U.3.11.4. Wilderness Study Areas

Range of Alternatives

Total Number of Submissions: 3

Total Number of Comments: 3

Summary

These comments 1) questioned the authority of the BLM to manage or maintain WSAs and 2) recommended that WSAs, upon congressional release, be protected through travel management that limits motorized and mechanized travel.

Response

1. The BLM is required by Congress to manage each WSA consistently with the direction provided in Section 603(c) of FLPMA. In general, the BLM is required to maintain the wilderness characteristics of each WSA until Congress decides whether it should either be

designated as wilderness or should be released for other purposes. Congress did not release the entirety of the existing WSA within Dominguez-Escalante in the Omnibus Act that designated the NCA and the Dominguez Canyon Wilderness, and the BLM must manage the area consistently with Section 603(c) of FLPMA and BLM Manual 6330 (*Management of Wilderness Study Areas*). This mandate is commonly referred to as the "nonimpairment standard": The BLM is required to manage WSAs in a manner that does not impair future preservation as wilderness.

2. The BLM must manage any area that Congress releases from WSA status in accordance with general BLM management authorities found in FLPMA (43 U.S.C. 1701 et seq.) and associated regulations and policies. Travel management designations for the WSA at the time of the Proposed Dominguez-Escalante RMP, therefore, will not impair the suitability of the WSA for wilderness designation. Upon congressional release, the BLM may propose travel management decisions that are consistent with travel management in the surrounding non-Wilderness lands of the Dominguez-Escalante NCA.

U.3.11.5. Watchable Wildlife Areas

Range of Alternatives

Total Number of Submissions: 7

Total Number of Comments: 7

Summary

These comments 1) suggested the BLM establish the Escalante Watchable Wildlife Area for enhancement of educational opportunities; 2) voiced concerns that implementation of the action through additional infrastructure would not be feasible because of private property along the road; 3) stated that potentially increased traffic along the narrow county-maintained road would lead to safety problems if the watchable wildlife area is established, and this issue was not adequately addressed; and 4) suggested establishment of additional watchable wildlife areas along Highway 141 for watching bighorn sheep and in Cactus Park for birding, to better disperse associated human activity.

Response

1. The Proposed Plan Alternative would designate an area known as Escalante Watchable Wildlife Area, for public viewing and education regarding wildlife resources (section 2.6, Alternatives Matrix, row 361).

2. Any parking lots and interpretive signs for the watchable wildlife area would not be placed on private lands. Watchable wildlife area visitors would be directed to BLM lands for these activities.

3. The potential impacts to public safety in section 4.6.2 show that watchable wildlife areas would have no impact on public safety.

4. The BLM considered additional watchable wildlife areas during the planning process and determined that Escalante Canyon was the only area in the D-E NCA highly suited for such management, so no other areas were proposed under any other alternative.

U.3.12. Comments on Chapters 2–4: Social and Economic Concerns

U.3.12.1. Public Safety

Impact Analysis

Total Number of Submissions: 1

Total Number of Comments: 1

Summary

This comment noted that reduced motorized access within the D-E NCA could hamper emergency and fire efforts.

Response

Impacts from reduced travel on emergency and safety are discussed in section 4.6.2, Public Safety. The analysis indicates that Alternative B, with the most route closures, would have the greatest impact on motorized access for emergency purposes; Alternative A would have the lowest impact; and Alternatives B, C, and the Proposed Plan Alternative would have similar impacts as Alternative A (based on total acres of roads closed).

U.3.12.2. Social and Economic Conditions

Best Available Information

Total Number of Submissions: 10

Total Number of Comments: 20

Summary

These comments 1) disagreed with the BLM's conclusions regarding recreational spending in the D-E NCA and provided their own figures from various sources to counter those conclusions; 2) recommended the BLM use better data and re-evaluate economic impacts; 3) stated that the BLM did not include economic values of hunting in the economic analysis; and 4) disagreed with the BLM's conclusions regarding employment and labor income contributions from agriculture in the D-E NCA.

Response

1. Economic contributions and impacts associated with outdoor recreation in the D-E NCA were estimated using best available science and in accordance with Federal statutes. The BLM recognizes that there are numerous methods for analyzing economic impacts; however, a widely accepted method was chosen for this RMP. Appendix S has been added to the Proposed RMP to explain the source, data, and methodology used to estimate the economic contributions of current resource uses and the impact of changes in resource management under the alternatives.

2. The BLM used a widely accepted model called IMPLAN, which is commonly used for estimating regional economic contribution and analyzing economic impacts. This model provides a mathematical representation of the local economy and enables economic components to be tracked and reported in terms of regional jobs and income. See section S.2 for more information on the IMPLAN model.

3. The BLM did include income from hunting in the economic analysis. The average number of visits for both big game and waterfowl (using U.S. Forest Service visitor use data from the BLM's Recreation Management Information System) were incorporated into the valuation assessment of outdoor recreation in the D-E NCA. See section S.4 and Table S.5 for hunting data used in the valuation assessment, and details regarding the assessment methods.

4. An additional economic analysis of the contributions and impacts of livestock grazing in the planning area has been added to section 4.6.3, Social and Economic Conditions, in response to public comment. Appendix S has been added to the Proposed RMP to further explain the methodology used in the analysis.

Impact Analysis

Total Number of Submissions: 13

Total Number of Comments: 26

Summary

These comments 1) asked for a more thorough socioeconomic analysis of non-market values and natural amenities in the D-E NCA and 2) argued that the economic impact of reduced access for motorized recreational vehicle users in the D-E NCA would be greater than described in the Draft RMP.

Response

1. Recreation-related contributions and impacts were estimated according to the guidelines set forth in BLM Handbook 1790-1 (BLM 2008a), using best available science. Primary visitation data were collected by Mesa State University to provide a baseline of visitation by trip type. Spending profiles developed by the U.S. Forest Service were applied to visitation rates to quantify the direct effect of recreation-related spending associated with visits to the D-E NCA. Appendix S has been added to the Proposed RMP to provide further information on the data and methodologies used to model economic impacts associated with management actions under the alternatives, and additional economic analysis has been added to section 4.6.3, Social and Economic Conditions.

2. The BLM's analysis of recreation used spending profiles developed by the U.S. Forest Service for six distinct trip types. Appendix S has been added to the Proposed RMP to further explain the data and methodologies used to analyze economic contributions of current recreation use levels, and economic contributions associated with use levels anticipated under the alternatives. An additional economic analysis has also been added to section 4.6.3.

U.3.13. Comments on Chapter 5. Consultation and Coordination

Total Number of Submissions: 2

Total Number of Comments: 2

Summary

These commenters expressed concern that CPW's past participation as a cooperating agency (then the Division of Wildlife) for the Dominguez-Escalante RMP prior to CPW's merger with Colorado Parks may not have reflected its current and merged mission.

Response

The Colorado Department of Natural Resources (parent agency to CPW) has continued to serve in a cooperating agency role during the development of the Proposed RMP, and it has had the opportunity since the merger of the Division of Wildlife and Colorado Parks to participate in cooperating agency meetings. CPW has also had the opportunity to submit public comments that reflect its current position. See section 5.2, Cooperating Agencies.

U.3.14. Comments on Appendix A. Planning for Priority Vegetation/Habitats and Species

Total Number of Submissions: 1

Total Number of Comments: 2

Summary

This commenter 1) stated that PPSV sagebrush habitat restoration should be guided by the 2005 Gunnison Sage-grouse Rangewide Conservation Plan, and 2) questioned the legitimacy of the BLM's determination of population status for bighorn sheep with respect to the PPSV indicator.

Response

1. The Proposed Plan Alternative includes a management action to use vegetation treatments (e.g., mechanical treatments, chemical treatments, planned and unplanned wildfires, reseeding, and targeted grazing) to move toward meeting structural habitat guidelines found within the Gunnison Sage-grouse Rangewide Conservation Plan (Gunnison Sage-grouse Rangewide Steering Committee 2005) or comparable best available scientific guidance (section 2.6, Alternatives Matrix, row 54). In addition, a reference has been added to the Ecological Site Description and the Gunnison Sage-Grouse Rangewide Conservation Plan guidelines in the PPSV matrix in Appendix A for a definition of "adequate."

2. Changes were made to the Proposed RMP, section 2.6, Alternatives Matrix, row 131, to reflect that the population objectives have not yet been established, so there is no longer a current condition estimate for this indicator.

U.3.15. Comments on Appendix B. Description of Surface Disturbance Restrictions

Total Number of Submissions: 2

Total Number of Comments: 4

Summary

These comments stated 1) the prohibition of surface-disturbing activities during sensitive biological periods may unduly restrict the BLM's ability to implement habitat improvement treatments at the ideal time for vegetative response; 2) the definition of "disruptive" activities does not specify whether administrative activities are considered disruptive; and 3) the BLM should use common sense when managing the use of natural resources, instead of applying proposed restrictions and BMPs to such uses .

Response

1. Section B.1 of the Proposed RMP states that disturbances that may improve the resource that is the subject of the limitation (whether it be natural, cultural, geological, paleontological, etc.) is exempt, such as designated camp sites in areas where dispersed camping is damaging vegetation. Furthermore, an exception to the surface disturbance restriction may also be granted for actions intended to enhance the long term utility or availability of suitable habitat.

2. Section B.2 states that the prohibition of "disruptive activities" does not apply to regular background levels of activity (such as hiking or routine livestock management) to which the wildlife/subject of the limitation would be accustomed. Some administrative activities are routine, such as administrative access by livestock permittees; other administrative activities would not be and would meet the criteria of "disruptive" outlined in Appendix B, such as activities that consist of abnormally loud or sustained noise and road maintenance.

3. The allowable uses in the NCA were identified by Congress in the Omnibus Act. The Proposed RMP implements that legislation and specifies management of such uses while protecting the resources and values also identified in the Act. Applying appropriate spatial and timing restrictions while ensuring reasonable access for ROW holders and other permitted uses and activities is the role of the surface disturbance restrictions and BMPs in the Proposed RMP.

U.3.16. Comments on Appendix C. Bighorn/Domestic Sheep Probability of Interaction Model

Total Number of Submissions: 7

Total Number of Comments: 11

Summary

These comments 1) stated that using Western Association of Fish and Wildlife Agencies (WAFWA) recommendations is "not appropriate" or otherwise undesirable or misguided when making bighorn sheep management decisions; 2) questioned the assumptions used in the bighorn/domestic sheep probability of interaction (PoI) model; 3) suggested that a more standardized approach be used for modeling risk of interaction between bighorn and domestic sheep; 4) questioned why the U.S. Forest Service Bighorn sheep risk of contact (RoC) tool was not used; 5) and recommended that the Wells Gulch and Alkali Flats allotments be placed in the "high risk" disease transmission category.

Response

1. The Wild Sheep Working Group of the WAFWA is composed of members from the various State wildlife management agencies for the western U.S. and Canada, the U.S. Forest Service, and the Bureau of Land Management. The WAFWA *Recommendations for Domestic Sheep and Goat Management in Wild Sheep Habitat* (Wild Sheep Working Group 2012) summarizes current scientific knowledge about the risk of disease transmission from domestic sheep or goats to wild sheep and provides management recommendations to reduce risk based on current science and an understanding of habitat conditions. As recommended by the D-E NCA Advisory Council, the BLM met with grazing permittees and the Advisory Council to develop reasonable and feasible site-specific management actions, guided by the WAFWA recommendations. Modifications to the Proposed Plan Alternative have been made in response to Advisory Council input and recommendations. See section 2.6, Alternatives Matrix, rows 126 and 129.

2. When this model and the D-E NCA Draft RMP were developed, the available data on the D-E NCA population of desert bighorn were limited. A more detailed response regarding specific assumptions can be obtained from the BLM (request the computer file named "Response to Risks Dominguez-Escalante NCA Model Comments 09_2013.docx") . Both the model and the Draft RMP were developed using the best available science at the time, and new data that have become available throughout the planning process have been incorporated. Subsequent to the release of the Draft RMP, the BLM made an agreement with CPW to conduct a GPS transmitter study on the D-E NCA bighorn population. Once the RMP is finalized and mitigation measures implemented, new scientific information may trigger future management changes (section 2.6, Alternatives Matrix, row 122). See also Appendix C.

3. When the BLM began its development of the probability of interaction model in December 2011, no standardized approaches to modeling existed. The BLM completed the model, and with the assistance of the public and cooperators, it developed the RMP alternatives by 2012. The RoC model was first described in a Webinar in January 2013 conducted by Forest Service contractor Stefan Orehovec. The description of this model appeared to require data, such as local radio telemetry location and a suitable habitat map, that were not available for the D-E NCA population. CPW has completed a Rocky Mountain bighorn sheep suitable summer habitat model and is developing a desert bighorn model, but when this Proposed RMP was written, a desert bighorn model was not yet available. CPW biologist Brad Banulis provided the BLM with 3-year average population data for the D-E NCA bighorn populations. For the these populations, CPW did not have adequate telemetry data to conduct the core herd home range calculation, so the BLM used the CPW home range data provided by CPW's Natural Diversity Information Source (NDIS; http://ndis.nrel.colostate.edu/) for the BLM model. With the assistance of Banulis, the BLM conducted a Foray probability and contact analysis using data provided by CPW. Because the BLM did not have adequate telemetry data for this population, it used the model's default values for Foray probability (Ram 0.141, Ewe 0.015). As with the original BLM model, the BLM ran this model for all grazing allotments within the UFO and D-E NCA planning areas.

   Within the D-E NCA RMP planning area, results of the RoC and BLM model were very similar. In general, allotments that were "High" in the BLM model were labeled "This allotment intersects the home range polygon and is therefore not included in the analysis" in the RoC model, which is equivalent to "High" in the BLM model. Kannah Creek Common (cattle), Wells Gulch (sheep), Alkali Flats (sheep) allotments were labeled "This allotment intersects the home range polygon and is therefore not included in the analysis" in the RoC model, but were categorized as "Moderate" in the BLM model, most probably due to the

large number of acres of these allotments that are outside of the bighorn range. The Antelope (sheep) allotment was found to be "Moderate" in the BLM model, and resulted in a herd contact rate of 0.144 in the RoC model for the D-E NCA population. The average herd contact rate for all allotments analyzed in this model run was 0.038, with a maximum of 0.348 and a minimum of 0.000001. Given that the quality of the data used for this analysis is limited for home range and suitable habitat, the BLM did not conduct any further analysis.

4. In January 2014, in response to public comments, the BLM was able to access and use the U.S. Forest Service RoC ArcGIS model add-on. Results from the RoC model have been incorporated into the Chapter 4 impact analysis and are described in detail in Appendix C.

5. In the Proposed Plan Alternative, the Wells Gulch and Alkali Flats allotments would be split at the D-E NCA/UFO boundary to become the Dominguez Rim and Huff allotments, respectively, on the D-E NCA side. These, plus the Antelope allotment, are considered at high risk for wild/domestic sheep interactions, and they would be managed accordingly.

U.3.17. Comments on Appendix I. Special Recreation Permit Program Overview

Total Number of Submissions: 3

Total Number of Comments: 3

Summary

These comments 1) questioned the definition of organized groups; 2) recommended groups of more than 18 should be required to have an SRP; 3) questioned SRP stipulations relating to light restrictions and recommended the BLM use lumens rather than candles as a unit of light; 4) asked that the conflicts listed in section I.2 include recreational use conflicts with livestock watering areas.

Response

1. A definition of "organized group" has been added to the Glossary in response to public comment.

2. During the development of the Proposed Plan Alternative, the BLM reconsidered the 25–person maximum and determined that the difference between 18 and 25 people would not be noticeable to other visitors encountering the group.

3. The BLM did not use the lumen as a unit of light, because the lumen measures the amount of light put out by the source, rather than the amount of light as perceived by an individual, which is measured in units of candle power. In assessing the impact of light on recreational users, it is more important to measure it from the viewer's perspective, rather than as the amount of light emanating from the source.

4. A bullet point addressing recreational use conflicts with livestock watering areas was added to section I.2 in response to public comment.

U.3.18. Comments on Appendix J. Best Management Practices for Management Actions

U.3.18.1. Water Resources

Total Number of Submissions: 1

Total Number of Comments: 2

Summary

This commenter 1) asked the BLM to work toward meeting rangeland health standards and to include a list of measures to meet these standards in the RMP, made specific suggestions about what some of these measures could be, and suggested general features of an adaptive management plan to include in the final RMP/EIS; and 2) recommended updates to BMPs related to water resources that would protect water quality, and asked that BMP No. 32 in the RMP specify that livestock watering should be done in a manner to protect water quality.

Response

1. The BLM is required to work toward meeting rangeland health standards, and it has certain measures it uses to meet these standards. One BMP is to follow the Colorado standards for rangeland health. The suggestions made by the commenter are implementation-level actions and outside the scope of this RMP, or they are BMPs already outlined in Appendix J.

2. In response to public comment, section J.3, Water Resources, BMP No. 32, has been changed so that it now includes livestock watering; and BMP No. 35 now includes the spring run-off period. These measures would provide additional protection to water quality.

U.3.18.2. Noxious and Invasive Weed Prevention

Total Number of Submissions: 1

Total Number of Comments: 3

Summary

This commenter opposed the use of weed BMPs 3, 5, and 8 in section J.5 and requested they be removed from the list.

Response

The purpose of a catalog of BMPs is to provide guidance for the implementation phase of the RMP. BMPs are generally, though not always, good design features. There may be circumstances where a BMP would not achieve the desired resource effect or is not applicable. The BLM would determine whether that is the case by considering site- or activity-specific information. For example, when minimizing ground disturbance, if ground disturbance were required to facilitate native seed germination in a treatment area, the BLM would use the minimal disturbance required to achieve the desired resource effect, and no more.

U.3.18.3. Fish and Wildlife Management and Special Status Species

Total Number of Submissions: 2

Total Number of Comments: 2

Summary

These comments objected to section J.8, BMP No. 5, for fish and wildlife management, which provides protection for Colorado hookless cactus, and asserted that the limitation is not scientifically substantiated.

Response

The 200-meter buffer in section J.8, Fish and Wildlife Management and Special Status Species, No. 5, is supported by *Recommended Best Management Practices for Plants of Concern* (Elliot, Kurzel, and Spackman Panjabi 2011). The USFWS recommends a 200-meter buffer to avoid impacts to Colorado hookless cactus habitat and pollinators. Pollinator studies support a buffer of more than 200 meters. Additionally, this buffer is consistent with other scientifically based BLM guidance (BLM 2012j) . See Chapter 6 for literature cited.

U.3.19. Comments on Appendix K. Criteria for the Placement of Trails

Total Number of Submissions: 1

Total Number of Comments: 3

Summary

This commenter expressed concern that the placement of trails near washes or geological features might cause impacts to water quality, increase social trailing, and contribute to illegal collecting.

Response

In the Proposed RMP, the name of Appendix K has been changed from “Criteria for Placement of Trails” to “Trail Design Criteria” to clarify the BLM’s intent. Appendix K directs the BLM to consider soil type and stream crossings in a way that protects soil and water quality, when designing trails. The impact of using dry washes for trails, and other impacts to biological and physical resources, would be evaluated in compliance with all applicable laws and regulations on a case-by-case basis. During the site-specific evaluation, impacts to geological resources and water quality would be considered.

U.3.20. Comments on Appendix N. Comprehensive Travel and Transportation Management Plan

Note

A comprehensive report of the BLM's responses to route-specific comments on the D-E NCA Travel Management Plan can be found online: http://1.usa.gov/1qKkMVi.

U.3.20.1. Comments on the Travel Management Planning Process

General Comments

Total Number of Submissions: 6

Total Number of Comments: 6

Summary

These commenters stated that 1) the validity of the travel management process was in question, saying the BLM has bias toward closing motorized access; 2) the validity of the travel management process was in question, because the BLM did not consistently apply the criteria; 3) there was an overall lack of involvement of concerned parties; 4)the National Trails System Act is the guiding legislation for the NLCS, and the act directs the BLM to develop more motorized trails on public lands; 5) the BLM needs new signage as the commenter proposed; or 6) the criteria used by the planning team for designating routes were in question.

Response

1. In the development of the final travel plan, the BLM considered a variety of criteria to determine whether each route supported resource management objectives, including the wide variety of recreational opportunities in the NCA. The BLM recognizes that closing routes to some uses can result in fewer opportunities for some users, while providing new opportunities for other users. The range of alternatives in section 2.6, Alternatives Matrix, shows that the BLM considered a wide variety of uses, including motorized use, while protecting NCA resources, including recreational resources. The Proposed Plan Alternative meets resource objectives while providing the broad range of recreational uses determined by the BLM to be important through the public input process (see Chapter 5).

2. The BLM evenly applied the criteria in section N.4.1 to travel management planning. The Omnibus Act that created the D-E NCA gave 11 resources and 3 resource uses as purposes for which the NCA was designated, and this law required the BLM to consider those resources and resource uses as the basis for an RMP and travel management plan. Throughout the impact analysis described in Chapter 4, the BLM recognized that in certain cases, opportunities for some activities necessarily precluded other activities, and there would be trade-offs between resource use and resource protection. With the help of the public and cooperators, the BLM created four management alternatives to address and consider this broad spectrum of needs.

3. Throughout the planning process, the BLM sought public comment and input from any groups or individuals who expressed interest in the NCA. This included scoping comments,

public comments on the travel system and inventory, and public comments on the Draft RMP. In addition, the BLM took comments and recommendations from the D-E Advisory Council, 17 cooperating agencies, and three Indian tribes (see Chapter 5).

4. The NLCS, like the D-E NCA, was established as part of the 2009 Omnibus Public Land Management Act. The National Trails System is but one of the components of the NLCS, and consists only of designated national trails, trails that connect national trails, or trails that are spurs off national trails. The D-E NCA contains only one designated national trail: the Old Spanish National Historic Trail. The Omnibus Act directs the BLM to manage the NLCS "in accordance with any applicable law (including regulations) relating to any component of the system." This means the BLM must manage the Old Spanish National Historic Trail according to the National Trails System Act, but the National Trails System Act is not the primary legislation that established and guides either the NLCS or the D-E NCA.

5. Signs and sign placement are implementation-level decisions that are outside the scope of this plan. Decisions regarding signage will be made on a case-by-case basis.

6. The BLM developed criteria for the travel management plan based on regulations, BLM manuals, the designation legislation, and public comments received as part of the planning process. Travel system alternatives are designed to address the purposes of the D-E NCA, including recreation, and support the planning objectives under each alternative.

Route Inventory

Total Number of Submissions: 3

Total Number of Comments: 10

Summary

These commenters remarked on the route inventory for the Draft RMP, stating that 1) there are multiple routes not identified in the inventory that access private property; 2) there is a motorcycle single track at the Hunting Ground; some mapping data do not connect routes, where in reality those routes do connect; and route braiding was not inventoried in many places.

Response

1. In the Proposed Plan Alternative, routes that access private property that were not included in the initial inventory were added, evaluated, and designated.

2. During the planning process, the BLM sought public comment on the route inventory (see section 5.8, Travel Management Outreach). After the public comment period, the BLM conducted on-the-ground inspection of the missing routes identified by the public. The BLM recognizes that new routes appear as off-trail use occurs, and the inventory may never be fully complete, but for practical purposes, in order to define a route system to use during the planning process, the BLM froze the route inventory following the on-the-ground inspection.

Use of Route

Total Number of Submissions: 6

Total Number of Comments: 8

Summary

These commenters disagreed with the BLM's criteria for designating routes as closed, stating that 1) some routes proposed to be closed are of value to them, such as loop routes, and dead-end destination routes, and these have other values beyond what was represented by the BLM designation; and 2) called for more involvement of the motorized community in the designation process.

Response

1. In response to public comment, in the Proposed Plan Alternative, the BLM did not use the criteria of redundancy, leading to a dead end, or whether the BLM had determined that a route had a "use value" for designations. For the Proposed RMP, the BLM assumed that all routes had value for recreational use. See section N.4.1 for the criteria that were used for route designations in the Proposed RMP travel management plan.

2. Throughout the planning process, the BLM provided opportunities for the public to comment on the D-E NCA travel system, including during public scoping, development of the route inventory, and the public comment period for the Draft RMP. In addition, the BLM received comments and recommendations from the D-E Advisory Council, which held open public meetings throughout the planning process. Please see Chapter 5, Consultation and Coordination, for a full description of the public involvement process.

Administrative Use

Total Number of Submissions: 3

Total Number of Comments: 5

Summary

These commenters asked or suggested 1) how administrative use routes were defined and how they would be administered in the alternatives; 2) whether administrative routes would be open to the non-motorized public; 3) whether livestock operators could travel cross-country during emergency operations under a livestock crossing permit; 4) whether designated administrative routes were sufficient for ROW maintenance and emergency repair; or 5) that the BLM used administrative route designations as a means to close routes.

Response

1. In the Proposed RMP travel management plan, administrative routes are designated to ensure livestock grazing permittees and right-of-way holders have access for their authorized uses. Administrative routes are not open for public motorized or mechanized use; the routes would be used for the sole purpose associated with the authorization. Different administrative route uses may have different allowable uses or restrictions, depending on the individual authorizing permit or ROW agreement. See sections N.4.2 and N.4.4.

2. Foot travel is not restricted to designated routes throughout the D-E NCA. Under the Proposed RMP travel management plan, horse and foot travel would be allowed on and off all routes throughout the NCA (including administrative routes) with the exception of Zone 1 of the Wilderness, where horse travel would be limited to existing routes only.

3. Under the Proposed RMP travel management plan, in the case of sick or injured livestock, cross-country motorized travel could be permitted. The grazing permittee must notify the BLM following any such cross-country travel over BLM-managed public land. Emergency cross-country use will only be permitted during the authorized grazing dates defined on the permit for grazing on public land. Temporary use crossing permits would be issued on an as-needed basis, following all applicable laws and regulations.

4. Under the Proposed RMP travel management plan, access to right-of-way facilities for maintenance, inspection, upgrades, etc., would be defined in the ROW agreement. All existing ROWs will continue under the same agreement. See section N.4.4.

5. The BLM proposed routes as "administrative use only" because of resource concerns (e.g., wildlife, riparian). Otherwise, routes were designated to meet recreation objectives under different alternatives. See Appendix N, section N.4.1, of this Proposed RMP.

Priorities

Total Number of Submissions: 2

Total Number of Comments: 2

Summary

These commenters stated that 1) trail work implementation should be equitably distributed between SRMA and ERMA designations; 2) avoiding seeps, springs, and riparian habitat should be the BLM's priority for route designation; and 3) there are specific routes, as indicated, where rehabilitation of the route should be the BLM's priority for implementation.

Response

1. Under the Proposed RMP travel management plan, within areas of higher use and concentration of travel, the BLM's highest priorities would be areas or routes that have the greatest adverse effect on wildlife, soil, water, and riparian resources. The BLM's priorities for implementation of trail work in the RMAs, as described in section N.4.4, would be 1) Cactus Park RMA, 2) Ninemile Hill RMA, 3) Hunting Ground RMA, and 4) Sawmill Mesa/Wagon Park RMA.

2. The BLM was required by the Omnibus Act to consider a broad range of resources and resource uses in the RMP planning process, and was unable to place one value over another. Route designation criteria are found in section N.4.1.

3. Under the Proposed RMP travel management plan, rehabilitation of routes identified as causing resource damage would be a part of the implementation plan in section N.4.4. Specific route numbers for rehabilitation are implementation-level decisions and outside the scope of this plan.

U.3.20.2. Route-Specific Travel Management Comments

Introduction

The comments in this section are those that asked the BLM to designate specific routes as open, closed, or limited to some type of use (e.g., limited to vehicles less than 50 inches wide), identifying routes by name, description, or number. The IDT's recreation planner assigned corresponding route numbers to those routes identified only by name or description.

To respond to these comments, the BLM underwent a careful, exhaustive, route designation process, which took many weeks to complete, the results of which are summarized in Table N.4, Miles of Route Designations by Alternative, in Appendix N.

The BLM also developed a comprehensive route designation report during development of the D-E NCA Travel Management Plan and in response to comments on individual routes. This report is available online: http://1.usa.gov/1qKkMVi. In this searchable, online report, readers can locate the following information by route number (see also Figure U.1):

- Final designation for route
- Resource planning criteria that were considered during route designation
- Rationale for the route designation
- Minimization criteria from 43 CFR 8340[1] that were considered during route designation
- Range of alternatives that was considered for the route
- Public comments that were received for the route, along with their corresponding comment ID numbers and the names of the commenters

Note that some routes are divided into several segments, which are also numbered. Routes and segments for each alternative are shown in Maps N–1a, N–1b, N–1c, N–1d, and N–1p.

[1]43 CFR 8340 requires that the BLM designate OHV routes to 1) minimize damage to soil, watershed, vegetation, air, or other resources; 2) minimize harassment of wildlife or significant disruption of wildlife habitats; 3) minimize conflicts between off-road use and other existing or proposed recreational uses; and 4) ensure motorized trails are not located in officially designated wilderness or primitive areas.

Dominguez-Escalante NCA Travel Management Plan Route Comment Report

Route: 1110

Segment: 1913

Designation

Current Designation
Vehicles under 50" wide

Mitigation Criteria
- No Mitigation Criteria for this Route Segment

Planning Criteria
- RECREATION Recreation opportunities for access to and across federal lands
- RANGE Access to range improvement
- WILDLIFE Mule deer severe winter range
- CULTURAL Cultural Class I low
- DENSITY Route density high in Alt A
- DENSITY Route density medium in Alt E

Rationale

Designation Criteria
- **Recreation:** RMA objectives (387), Rec opportunities – general (445)
- **Minimize Conflicts:** Route was designated to minimize conflicts between recreation users.

Rationale for Decision
- Route was designated to support recreation area objectives and/or provide access to and across public lands.

Previous Alternatives Analyzed

Alternative A: Open (All modes of travel)

Alternative B: Closed (Not Rehabbed)

Alternative C: Closed (Rehab)

Alternative D: Closed, seek re-route or mitigation

Public Comments On Route: 1110

Organization, commenter: Western Slope ATV Association, Steve Chapel Comment ID: 000000089-13

Recommended: Vehicles under 50" wide

- The route with numbers 933, to 1105, to 1110, to 1017, to 998 had been an important route for ATV use. At the end of it a connection can be made without equipment to extend it over to route 52 and create a great loop. We know this because we have made the short walk between the two routes. This had been explained to BLM. The map shows it with a dotted line which indicates closed until mitigated. This is not acceptable nor necessary. It is also confusing because there is a bicycle emblem on the route.

Organization, commenter: Quiet Trails Group, Sherry Schenk Comment ID: 000000115-79

Recommended: Closed, seek re-route or mitigation

- [Re: Cactus Park SRMA] The QTG believes the shape of the SRMA should be adjusted on the east corner to avoid any overlap with the Bighorn sheep productive area. From page 69 we see that Alt E has no new motorized routes being created in Bighorn Sheep Productive area. The purpose behind the Cactus Park SRMA is to manage the creation of new ATV routes. So overlapping the 2 areas does not make sense. This concern has been shared with the Advisory Council. The proposed action on page 69 to deal with fragmentation and un-fragmentation of Bighorn Sheep summer concentration areas is too complex and will likely not be satisfactory given the habit-forming tendencies of Bighorn Sheep. Instead, Cactus Park SRMA should be reduced to not include the portion that overlaps the Winter/Summer range of Bighorn Sheep. In addition to simplifying the management, this will also address the concern that motorized recreation should not take priority over other resources in that area, which are not limited to Bighorn Sheep. BLM could consider incorporating this area into the Ninemile Hill ERMA with the caveat that the Alt E motorized routes in the area 847-848-830, 998-1017-1110-1108-993-995-1123-1129-1170-1169-1192-941 would be left as designated in Alt E (some full motorized, some ATV). The QTG is quite concerned about the SRMA status for this landscape. While we hope that a network of quality ATV routes will diminish the number of new user-created routes developing per year, we are very concerned about the prioritization of recreation over the myriad of other resources which are present in a high-density within this sensitive landscape. We think that Congress - in the Omnibus Act that created the NCA - had envisioned a balanced approach to "long-term conservation and protection of unique and important values" where recreation was supposed to have the same priority as other values. We would like to see more explicit protections of resources.

Figure U.1. Sample Page from the Online *D-E NCA Travel Management Plan Route Comment Report*

Responses to Route-Specific Comments[2]

Total Number of Submissions: 39

Total Number of Comments: 193

Summary

These commenters all gave specific route numbers or otherwise identified specific routes and said that the BLM 1) should designate the specified routes as open or closed for a certain use, designate all routes in a geographic area the same, or designate routes open for general access in and through the NCA; 2) did not have a complete inventory of all the routes in the NCA; 3) should

[2]See also the comprehensive report of the BLM's responses to individual, route-specific comments on the D-E NCA Travel Management Plan, available online: http://1.usa.gov/1qKkMVi.

develop new routes that connect existing routes, as specified; or 4) should keep more routes open to ensure that the recreational purpose of the designation legislation is implemented.

Response

1. The BLM manages travel over BLM-administered public lands by designating individual routes to create a travel network that supports resource goals and objectives and provides access in and through those lands. For this RMP, the BLM used the different resource goals and objectives for each alternative to develop a corresponding route system to protect resources while maintaining recreational access and trail opportunities.

   In response to public comments that asked for routes to be designated open or closed, the BLM developed a report that summarizes public comments by route number, what recommendations the public made for each route, which category the comment was assigned to (i.e., specific route, area-wide, or general access), and what designations were considered under the different alternatives. This report is available online: http://1.usa.gov/1qKkMVi.

   Under Alternative A, the BLM considered keeping all two-track routes outside the Wilderness open to all uses (motorized and non-motorized) and all single-track routes outside the Wilderness open to motorcycles as well as non-motorized uses. Additionally, the BLM considered a hierarchy of use: Routes designated as open to full-sized vehicles would also be open to all other uses (ATVs, motorcycles, bicycles, and horse and foot travel). If a comment asked the BLM to consider designating a route as open for bicycles, and the route was designated as open to all vehicles under one or more of the alternatives, then, according to the hierarchy of use, the route was designated as open to bicycles under those alternatives.

   Many comments asked the BLM to limit a certain route to specific uses (e.g., limited to bicycles and hiking only). In these cases, the BLM may or may not have specifically included that recommendation in the range of alternatives, but the recommendation was implicitly considered during the route-by-route designation process outlined in Appendix N. During the designation process, the BLM considered planning criteria and pertinent management objectives outlined in the RMP for each of the resource programs as well as BLM's legal obligations under various laws and regulations (see section N.2.3, Laws, Regulations, Policies, and Program Guidance).

   In accordance with BLM's travel and transportation management policy (see BLM Manual 1626), an interdisciplinary approach was used to designate individual routes. Planning criteria for each route for each resource provided guidance to the IDT regarding the current uses and resource risks associated with a route. With these planning criteria in mind, the team then used the pertinent management objectives from the RMP along with public comments to designate the route. Through this process, the BLM considered a full range of designation options that were informed by public comment, along with resource uses, resource concerns, and RMP planning objectives.

2. In the Proposed RMP, routes that access private property or provide access to or are along valid rights-of-way (e.g., power lines) that were not included in the initial inventory were added, evaluated, and designated. During the planning process, the BLM sought public comment on the route inventory (see section 5.8, Travel Management Outreach), then conducted on-the-ground inspection of the missing routes identified by the public. The BLM recognizes that new routes appear as a result of off-trail use. For practical purposes, in order

to define a route system to use during the planning process, the BLM "froze" the route inventory following the on-the-ground inspection.

3. Proposals for new routes in the NCA are outside the scope of this planning effort. New route proposals will be considered following site-specific analysis on a case-by-case basis, in accordance with all applicable laws and regulations, during implementation of the RMP.

4. As noted above, the BLM designated routes to create a range of alternatives for travel systems that support all resource and resource use goals and objectives. These goals and objectives are tied directly to the purposes of the NCA as established by law, including recreation.

Appendix V. BLM Manual 6220 – National Monuments, National Conservation Areas, and Similar Designations

Form 1221-2
(June 1969)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

MANUAL TRANSMITTAL SHEET

Release	Date
6-132	07/13/2012

Subject
BLM Manual 6220- National Monuments, National Conservation Areas, and Similar Designations (Public)

1. Explanation of Material Transmitted: This release is the first manual addressing the management of the BLM's National Monuments, National Conservation Areas, and Similar Designations. This manual provides the line manager and program staff professionals with general policies for the administration and management of these designations.

2. Reports Required: none

3. Material Superseded: none

4. Filing Instructions: File as directed below.

REMOVE	INSERT
	All of 6220 (Total 22 sheets)

/s/ Mike Pool
Acting Director,
Bureau of Land Management

BLM Manual 6220- National Monuments, National Conservation Areas, and Similar Designations

Table of Contents

1.1 Purpose. 1

1.2 Objectives. 1

1.3 Authority. 2

1.4 Responsibility. 2

1.5 References. 4

1.6 Policy. 5

A. General Principles for the Management of Monuments and NCAs. 5

B. Designating Legislation or Proclamation. 5

C. Compatibility of Uses. 6

D. Management of Newly Designated Monuments and NCAs. 7

E. Rights-of-Way and Transportation and Utility Corridors. 8

F. Facilities. 10

G. Land Use Planning. 11

H. Lands and Realty. 13

I. Livestock Grazing. 13

J. Partnerships. 14

K. Recreation 14

L. Supplementary Rules. 14

M. Science. 14

N. Travel and Transportation Management. 15

O. Withdrawals and Valid Existing Rights. 16

P. Wildland Fire Management. 16

1.7 File and Records Maintenance. 17

1.8 Data Standards. 17

BLM Manual 6220- National Monuments, National Conservation Areas, and Similar Designations

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BLM Manual 6220- National Monuments, National Conservation Areas, and Similar Designations

1-1

1.1 Purpose.

The purpose of this manual is to provide guidance to Bureau of Land Management (BLM) personnel on managing BLM public lands that are components of the BLM's National Landscape Conservation System (NLCS) and that have been designated by Congress or the President as National Monuments, National Conservation Areas, and similar designations (collectively "Monuments and NCAs" or "components"). Similar designations include Yaquina Head Outstanding Natural Area, Piedras Blancas Historic Light Station Outstanding Natural Area, Jupiter Inlet Lighthouse Outstanding Natural Area, Headwaters Forest Reserve, Steens Mountain Cooperative Management and Protection Area, and other areas established by Congress in the future pursuant to the Omnibus Public Land Management Act of 2009 (OPLMA) (16 U.S.C. 7202), Section 2002(b)(2)(E). According to OPLMA, the NLCS was established in order to "conserve, protect, and restore nationally significant landscapes that have outstanding cultural, ecological, and scientific values for the benefit of current and future generations."

National program policies that are generally applicable to BLM public lands apply to NLCS components to the extent that they are consistent with the designating proclamation or legislation, other applicable law, and BLM policy.

1.2 Objectives.

The BLM's objectives in implementing this policy are to:

A. Comply with designating Acts of Congress and presidential proclamations by conserving, protecting, and restoring the objects and values for which Monuments and NCAs were designated for the benefit of present and future generations.

B. Effectively manage valid existing rights and compatible uses within Monuments and NCAs.

C. Manage discretionary uses within Monuments and NCAs to ensure the protection of the objects and values for which the Monuments and NCAs were designated.

D. Utilize science, local knowledge, partnerships, and volunteers to effectively manage Monuments and NCAs.

E. Provide appropriate recreational opportunities, education, interpretation, and visitor services to enhance the public's understanding and enjoyment of the Monuments and NCAs.

1.3 Authority.

A. Omnibus Public Land Management Act of 2009 (16 U.S.C. 7202).

B. Federal Land Policy and Management Act of 1976 (43 U.S.C. 1701-1782).

C. Antiquities Act of 1906 (16 U.S.C. 433).

D. Alaska National Interest Lands Conservation Act of 1980, as amended (16 U.S.C. 3101 *et seq.*).

E. National Environmental Policy Act of 1969, as amended (43 U.S.C. 4321 *et seq.*).

F. Specific legislation and proclamations that designate individual Monuments and NCAs.

1.4 Responsibility.

A. Director, Bureau of Land Management, through the Assistant Director, National Landscape Conservation System and Community Partnerships, shall:

1. Establish policy and guidance to support the conservation, protection, and restoration of the values for which Monuments and NCAs were designated.

2. Coordinate Monument and NCA budget guidance with other BLM programs at the national level and provide priorities to state offices.

3. Develop and maintain relationships with other Federal agencies, tribal governments, state and local governments, national-level partnership organizations and non-profit groups, and the general public in order to effectively manage Monuments and NCAs in accordance with designating legislation and proclamations, other applicable law, and BLM Monument and NCA policy.

4. Review land use plans, revisions, and amendments affecting Monuments and NCAs and ensure that these plans, revisions, and amendments are consistent with the relevant designating legislation or proclamation and national Monument and NCA policy and guidance.

5. Provide training to State and Field Office employees on Monument and NCA policies and guidance.

B. State Directors shall:

1. Provide state-level policy and guidance reflecting national policy for Monuments and NCAs.

2. Provide statewide policy and budget coordination for Monuments and NCAs. Develop and maintain relationships with other Federal agencies, tribal governments, state and local governments, friends' groups and other non-profit organizations, and the general public in order to effectively manage Monuments and NCAs in accordance with designating legislation and proclamations, other applicable law, and BLM policy.
3. Approve land use plans, revisions, and amendments affecting Monuments and NCAs and ensure that these plans, revisions, and amendments are consistent with the relevant designating legislation or proclamation and national and state-level policies and guidance for Monuments and NCAs.
4. Ensure that guidance and direction articulates the relationship of Monument and NCA lands and resources to other aspects of the BLM's mission and programs, including the legal requirements of the legislation and proclamations that designate Monuments and NCAs.

C. District and Field Managers shall:

1. Ensure that all activities on Monument and NCA lands are consistent with the relevant designating legislation or proclamation, national and state office policies and guidance for Monuments and NCAs, and approved land use plan decisions.
2. As appropriate, implement program policy that applies generally to BLM public lands within Monuments and NCAs to the extent consistent with the designating legislation or proclamation, other applicable law, and policy and guidance.
3. Develop and maintain relationships with other Federal agencies, tribal governments, state and local governments, friends' groups and other non-profit organizations, and the general public in order to effectively manage Monuments and NCAs in accordance with designating legislation and proclamations, other applicable law, and BLM Monument and NCA policy.
4. Develop and implement resource management and activity-level plans that are consistent with the relevant designating legislation or proclamation and national and state office policies and guidance using an interdisciplinary and integrated approach.
5. Consistent with the designating legislation or proclamation, provide appropriate recreational opportunities, visitor services, and educational and interpretive

programs to enhance the public's understanding and enjoyment of Monuments and NCAs.

6. Highlight and promote the cultural, ecological, social, scenic, scientific, and economic values and benefits of Monuments and NCAs.

7. Prepare an Annual Manager's Report that describes the Monument or NCA's relevant public information; land use planning and implementation status; condition of objects, values, and other purposes for which the Monument or NCA was designated; and activities and pertinent data from the previous fiscal year, subject to an annual Instruction Memorandum with a year-specific data call and template.

1.5 References.

A. Secretarial Order 3308—Management of the National Landscape Conservation System

B. BLM Manual 1601—Land Use Planning

C. BLM Manual 1626—Travel and Transportation Management

D. BLM Manual 6100—National Landscape Conservation System (Reserved)

E. BLM Manual 6120—Congressionally Required Maps and Legal Boundary Descriptions for National Landscape Conservation System Designations

F. BLM Manual 6840—Special Status Species Management

G. BLM Manual 7250—Water Rights

H. BLM Manual Series 8100-8170—BLM Cultural Resources Management Series

I. BLM Manual 8270—Paleontological Resource Management

J. BLM Manual 8320—Planning for Recreation and Visitor Services

K. BLM Manual 8400—Visual Resource Management

L. BLM Manual 9130—Sign Manual

M. BLM Handbook 1601-1—Land Use Planning

N. BLM Handbook 1790-1—National Environmental Policy Act

O. BLM Handbook-8120 -1—Cultural Resources and Tribal Consultation

P. BLM Handbook 8342-1—Travel and Transportation Management

1.6 Policy.

A. General Principles for the Management of Monuments and NCAs and Similar Designations.

1. As required under the Omnibus Public Land Management Act of 2009 (OPLMA), the BLM will manage components of the NLCS to "conserve, protect, and restore nationally significant landscapes."

2. OPLMA also states that the Secretary, through the BLM, will manage the components of the NLCS "in accordance with any applicable law (including regulations) relating to any component of the system … and in a manner that protects the values for which the components of the system were designated." Accordingly, discretionary uses will be managed in a manner consistent with the protection of the component's values and may be prohibited when necessary and as documented in the NEPA analysis for the particular activity in question.

3. The BLM will inventory and monitor the objects and values for which Monuments and NCAs were designated.

4. To the greatest extent possible, and in accordance with applicable law, valid existing rights and other non-discretionary uses will be managed to mitigate impacts to the objects and values for which the Monuments and NCAs were designated.

5. The BLM will engage the public, with an emphasis on youth and veterans, on Monument and NCA lands through education, interpretation, partnerships, and volunteer and job opportunities.

6. The BLM will foster active volunteer programs for Monuments and NCAs in order to enhance a public sense of stewardship and to accomplish high-priority work.

7. The BLM will utilize the best available science to manage Monuments and NCAs.

B. Designating Legislation or Proclamation.

1. In accordance with the OPLMA, the BLM's NLCS was established "[i]n order to conserve, protect, and restore nationally significant landscapes that have

outstanding cultural, ecological, and scientific values for the benefit of current and future generations." In addition, BLM management of Monuments and NCAs is guided by the purposes for which the lands were designated, and the BLM will utilize science to further those purposes while providing opportunities for compatible public use and enjoyment. Further, Section 302 of FLPMA states that public lands are to be managed under the principles of multiple use and sustained yield "except that where a tract of such public land has been dedicated to specific uses according to any other provisions of law it shall be managed in accordance with such law." Therefore, as a general rule, if the Act of Congress or presidential proclamation that designates a Monument or NCA conflicts with FLPMA's multiple use mandate, the designating language will apply. Land use planning decisions for each Monument or NCA must be consistent with the purposes and objectives of the designating proclamation or Act of Congress.

2. Where multiple NLCS designations overlap, the BLM must comply with all applicable statutes. In order to do so, the more protective management requirements will likely apply. However, this will need to be evaluated on a case by case basis. For example, where designated wilderness overlaps with a Monument or NCA, no motorized vehicles or equipment may be used in the area of overlap unless they are the minimum necessary to administer the area under the Wilderness Act.

C. Compatibility of Uses.

1. Site-specific activities in Monuments and NCAs will be managed in a manner that is compatible with the protection of the objects and values for which these areas were designated. Multiple uses may be allowed to the extent they are consistent with the applicable designating authority, other applicable laws, and with the applicable land use plan.

2. Through the NEPA process, the manager with decision-making authority for a Monument or NCA will evaluate discretionary uses and will analyze whether the impacts of the proposed use in the Monument or NCA or similarly designated area are consistent with the protection of the area's objects and values. As part of this analysis, the manager will consider the severity, duration, timing, and direct and indirect and cumulative effects of the proposed use. If necessary and appropriate, the BLM may use the land use planning process to consider whether

to change discretionary use authorizations.

3. When approving a proposed action, the decision must document how the activity is consistent with the proclamation or designating legislation.

D. Management of Newly Designated Monuments and NCAs.

Upon designation of a new Monument or NCA or similar designation, or where the following actions have not been carried out for existing components, the BLM will:

1. Review policies and governing resource management plans for consistency with the designating legislation or proclamation.
2. Subject to valid existing rights, and in accordance with applicable law and regulation, consider suspending or modifying discretionary uses and activities incompatible with the designating legislation or proclamation pending completion or amendment of a land use plan.
3. Appoint a manager for each new area who has decision-making and supervisory authority and whose primary duty is to manage the Monument or NCA.
4. Assign a unique organizational code for each Monument/NCA. Offices must plan and report all spending and accomplishments within each Monument and NCA using these unique organizational codes.
5. Develop an outreach strategy designed to inform the public about and build a sense of local stewardship for the designation.
6. Develop and install entrance signs at key Monument or NCA access points. Major entrance signs must identify the area as part of the BLM and a unit of the NLCS. See Manual 9130 for additional guidance. Boundary signs must be located within one foot of the Monument or NCA boundary. It is prohibited to install boundary signs on an approximate or set back line.
7. Initiate inventories of the objects and values for which the Monument or NCA was designated.
8. If required by Congress, prepare maps and legal descriptions that accurately portray the boundaries of each Monument or NCA. See Manual Section 6120 for additional guidance.

9. Ensure that new Monuments and NCAs are entered into BLM databases and information systems, including LR2000, RMIS, FAMS, etc.

E. Rights-of-Way and Transportation and Utility Corridors.

1. The BLM will require that all prospective right-of-way (ROW) applicants schedule and participate in at least one pre-application meeting with the BLM before the BLM will accept applications for ROWs in Monuments and NCAs (43 CFR 2804.10(a); 43 CFR 2884.10(b)). At pre-application meetings, the BLM will notify prospective applicants of considerations relevant to Monuments and NCAs, including but not limited to:

   a. the special status of the Monument or NCA as an NLCS unit;

   b. the values for which the Monument or NCA was designated;

   c. the relationship between the designating authority and FLPMA;

   d. the BLM's mandate to conserve, protect, and restore the values for which the Monument or NCA was designated;

   e. the policy that to the greatest extent possible, subject to applicable law, through land use planning and project-level processes and decisions, the BLM should avoid siting ROWs in Monuments and NCAs; and

   f. best practices, stipulations, mitigation, terms, conditions, and other ways to manage compatible uses and minimize negative impacts to objects and values within the Monument or NCA.

2. When processing a new ROW application, to the greatest extent possible, through the NEPA process the BLM will:

   a. determine consistency of the ROW with the Monument or NCA's objects and values;

   b. consider routing or siting the ROW outside of the Monument or NCA;

   c. consider mitigation of the impacts from the ROW;

   d. when processing ROW applications that propose use of a designated transportation or utility corridor that exists at the time of release of this

manual, the BLM will consider relocating the transportation or utility corridor outside the Monument or NCA through a land use plan amendment.

3. Protection of the objects and values for which Monuments and NCAs were designated should be considered in the NEPA analysis for new ROW applications.

4. During the processing of applications for major ROW, such as high-voltage transmission lines and underground pipelines, and major site-type facilities, such as large communication sites, through a Monument or NCA, internal notification requirements are as follows:

   a. The State Office shall notify the NLCS Directorate (AD-400), Minerals and Realty Management Directorate (AD-300), and Renewable Resources and Planning Directorate (AD-200) if an application is received or if, at any time during the process, an alternative to route or site a ROW through or in a Monument or NCA is considered.

   b. The State Director shall brief the BLM Director prior to:

      i. the release of a Draft EIS or EA that includes a preferred alternative that proposes a ROW through a Monument or NCA;

      ii. the release of a Final EIS or EA that includes a preferred alternative that proposes to site a ROW through a Monument or NCA; and

      iii. approval of a Record of Decision or Decision Record authorizing a ROW through a Monument or NCA.

5. If new ROWs are authorized in Monuments and NCAs, consistent with 43 CFR Parts 2800 and 2880 and to the greatest extent possible:

   a. the ROW must share, parallel, or adjoin existing ROWs;

   b. the effects of projects from the grants of the ROW must be mitigated; and

   c. the ROW should include a stipulation that boundaries will be marked to federal boundary standards.

6. While processing ROW renewals, in accordance with all applicable law and policy, the BLM should work with holders of existing ROWs to consider new,

additional, or modified terms and conditions to minimize impacts to the Monument or NCA's values.

7. To the greatest extent possible, subject to applicable law, the BLM should through land use planning and project-level processes and decisions, avoid granting new ROWs in Monuments and NCAs and similar designations. In deciding whether to approve ROWs in these components of the NLCS, the BLM shall consider whether ROW proposals are consistent with the authority that designated the component. Subject to applicable law, the BLM shall exercise its discretion to deny ROW applications in Monuments and NCAs and similar designations if they are inconsistent with the component's designating authority.

8. To the greatest extent possible, subject to applicable law, the BLM should through land use planning and project-level processes and decisions, avoid designating or authorizing use of transportation or utility corridors within Monuments and NCAs. To that end, and consistent with applicable law, when developing or revising land use plans for Monuments and NCAs, the BLM will consider:

   a. designating the Monument or NCA as an exclusion or avoidance area;

   b. not designating any new transportation or utility corridors within the Monument or NCA if the BLM determines that the corridor would be incompatible with the designating authority or the purposes for which the Monument or NCA was designated;

   c. relocating any existing designated transportation and utility corridors outside the Monument or NCA;

F. Facilities.

1. The BLM will inventory existing facilities within Monuments and NCAs and determine whether to remove, maintain, restore, enhance, or allow natural disintegration of each facility. Subject to applicable law and valid existing rights, the BLM will consider removal of facilities on Monuments or NCAs that do not have administrative, public safety, recreational, cultural, or historic value. If removal will have a negative impact on the Monument or NCA's values, BLM will evaluate whether to allow natural disintegration.

2. When new administrative offices, visitor centers, contact stations, and similar facilities are needed for a Monument or NCA, the BLM will generally develop, or

encourage the development of, these facilities within nearby communities to enhance local economic vitality and quality of life and to minimize disturbance within the Monument or NCA.

3. The BLM will only develop new facilities, including structures and roads, within Monuments and NCAs where they are necessary for public health and safety, are required under law, are necessary for the exercise of valid existing rights or other non-discretionary uses, prevent impacts to fragile resources, or further the purposes for which an area was designated. When processing proposals for new facilities, or renewals or changes to existing, proponent-driven structures, BLM costs associated with describing, locating, mapping, or marking the right-of-way boundaries are appropriately considered direct costs and should be incorporated into cost recovery accounts, determinations, and agreements. See IM 2012-095.

4. The BLM will use a consistent approach to Monument and NCA boundary, portal, and road signs built and installed according to BLM standards.

5. Facilities within Monuments and NCAs, including utility, water, and electrical supply lines, will be designed and sited in a manner that minimizes impacts to the objects and values and the area's scenic characteristics; emphasizes energy efficiency and, where possible, the use of small-scale renewable energy installations; and conforms to best management practices for visual resources management and the BLM Guidelines for a Quality Built Environment.

6. The BLM will protect the night sky by avoiding light spill or light pollution when designing and installing lighting at facilities within Monuments and NCAs.

G. Land Use Planning.

1. Land use plan decisions for Monuments and NCAs and similar designations must be consistent with the legislation or proclamation that established the Monument, NCA, or similar designation.

2. The BLM will provide land use plan direction for Monuments and NCAs in one of four ways: by developing a new stand-alone land use plan for the particular component, by amending an existing land use plan, by integrating the component's planning process into the planning process for a new or revised land use plan, or by an implementation-level plan, if deemed appropriate by the State Director in consultation with AD-400. Each Monument or NCA will have an

independent Record of Decision or Decision Record that explicitly applies to that component.

3. Decisions regarding the planning approach for a Monument or NCA will be made in consultation with the BLM's Washington Office Division of the National Landscape Conservation System.

4. Land use plans must analyze and consider measures to ensure that objects and values are conserved, protected, and restored. Specifically, plans must:

   a. clearly identify Monument and NCA objects and values as described in the designating proclamation or legislation; where objects and values are described in the designating legislation or proclamation only in broad categories (e.g. scenic, ecological, etc.), identify the specific resources within the designating area that fall into those categories;

   b. identify specific and measurable goals and objectives for each object and value, as well as generally for the Monument or NCA;

   c. identify management actions, allowable uses, restrictions, management actions regarding any valid existing rights, and mitigation measures to ensure that the objects and values are protected;

   d. provide, to the extent possible, a thorough quantitative analysis of the effects of all plan alternatives on the objects and values;

   e. where a thorough quantitative analysis is not possible, provide a detailed qualitative analysis of the effects of all plan alternatives on the objects and values;

   f. consider designating Monuments and NCAs as ROW exclusion or avoidance areas;

   g. include a monitoring strategy that identifies indicators of change, methodologies, protocols, and time frames for determining whether desired outcomes are being achieved; and

   h. be evaluated at least every five years, consistent with and as required by BLM land use planning guidance.

5. If other NLCS designations occur within a Monument or NCA, planning requirements applicable to each overlapping designation must also be met.

6. Within six months of approving a Monument or NCA plan, subject to available staffing and funding, managers will begin preparing a plan implementation strategy. At a minimum, the implementation strategy must outline the work to implement the plan over its first three to five years and the priority and timing of this work. All approved Monuments and NCAs must also complete an implementation strategy.

H. Lands and Realty.

1. The BLM will establish priorities for acquisition of lands and other interests within or adjacent to Monument and NCA boundaries. In setting priorities, lands that will enhance the objects and values for which the area was designated and lands with significant at-risk resources will be emphasized. Consistent with BLM policy, the primary acquisition method will be to rely on willing sellers or donors (H-2100-1, chapter IV, C.4.).

2. Unless otherwise provided for in law, the BLM will strive to retain ownership of public land within Monuments and NCAs.

3. If boundary risks are identified, managers of Monuments and NCAs are encouraged to develop Management of Land Boundaries Plans. Such plans should contain:

   a. an inventory of the condition of the boundary;

   b. a Geographic Coordinate Data Base reliability diagram;

   c. identification of high-risk boundary segments with outdated or absent surveys; and

   d. a monitoring strategy.

4. The BLM may offer adjoining lands for transactions and commercial projects up to the Monument or NCA boundary. Prior to approval of a transaction or commercial project, if there is a concern about the proximity of the project to the Monument or NCA, a Standards for Boundary Evidence Certificate should be developed for the portion of the boundary of the adjacent Monument or NCA. See IM 2012-095 and IM-2011-122.

I. Livestock Grazing.

1. Where consistent with the designating legislation or proclamation, livestock grazing may occur within Monuments and NCAs.
2. Grazing management practices will be implemented in a manner that protects Monument and NCA objects and values unless otherwise provided for in law.
3. The BLM will use Monuments and NCAs as a laboratory for innovative grazing techniques designed to better conserve, protect, and restore NLCS values, where consistent with the designating legislation or proclamation.

J. Partnerships.

1. The BLM will develop and sustain diverse partnerships dedicated to conserving, protecting, restoring, and interpreting Monuments and NCAs.
2. The BLM will support formalized partnership agreements, such as Friends' Groups, for each Monument and NCA.

K. Recreation

1. Monuments and NCAs will be available for a variety of recreation opportunities, consistent with the purposes for which each area was designated. Where recreation values are identified in the designating legislation or proclamation, these values will be conserved, protected, and restored pursuant to the establishing authority.
2. Monuments and NCAs are available for hunting and fishing, consistent with the designating authority, subject to all applicable state and federal laws and regulations.

L. Supplementary Rules.

1. The BLM will issue supplementary rules, pursuant to 43 CFR 8365.1-6, as necessary to provide for the protection of persons, property, and public lands and resources as soon as practicable after the completion of a land use plan addressing a Monument or NCA, or as needed if the land use plan has not yet been completed.

M. Science.

1. Science and the scientific process will inform and guide management decisions concerning Monuments and NCAs in order to enhance the conservation, protection, and restoration of the values for which these lands were designated.
2. The BLM will promote Monuments and NCAs as sites for scientific research, including research incorporating youth and citizen scientists, so long as such research does not conflict with the conservation, protection, and restoration of these lands.
3. Each Monument and NCA must develop and regularly update a science plan in coordination with the Washington Office NLCS Science Program. Science plans must include sections on:
    a. the scientific mission of the unit;
    b. the scientific background of the unit;
    c. the identification and prioritization of management questions and science needs, including:
        1. investigations of the values for which the Monuments and NCAs were designated;
        2. assessment, inventory, and monitoring needs;
        3. science that addresses restoration needs; and
        4. landscape-level issues;
    d. the unit's plan to meet science needs, often in coordination with partners;
    e. the development and application of scientific protocols for the unit, including authorizing and tracking research projects;
    f. the organization of scientific reports in order to facilitate communication of scientific findings throughout the BLM, with partners, and with the public; this section of the plan must include:
        1. a bibliographic list of completed reports from science on the unit; and
        2. any syntheses of relevant scientific information; and
    g. the plan for integrating science into management.

N. <u>Travel and Transportation Management</u>.

1. The BLM will complete a travel management plan and route identification for each Monument and NCA. In general, use is to be restricted to identified roads, primitive roads, and trails, except for authorized and administrative use and specific exceptions identified in the designating legislation or proclamation.
2. To the extent practicable, a travel and transportation network should be identified during the development of the Monument or NCA land use plan. If this is not practicable, a map of the known existing travel network must be developed and a process must be established to designate a final travel and transportation network within five years of signing the Record of Decision.

O. Withdrawals and Valid Existing Rights.

1. The BLM State Office where a Monument or NCA is located will note any existing withdrawals, including withdrawals pursuant to the designating authority, on applicable Master Title Plats.
2. The land use plan for a Monument or NCA should consider closing the area to mineral leasing, mineral material sales, and vegetative sales, subject to valid existing rights, where that component's designating authority does not already do so.
3. The plan for the Monument or NCA can also be used to evaluate whether a withdrawal of the area from all forms of appropriation under public land laws, including the mining law, 30 U.S.C. 21 et seq., is necessary and warranted.
4. Pursuant to 43 CFR 3809.11(c), project proponents must submit a plan of operations for any operations causing surface disturbance greater than casual use in special status areas, including Monuments and NCAs.

P. Wildland Fire Management.

1. Each Monument or NCA with burnable vegetation must have a Fire Management Plan (FMP). Fire management activities may be covered by a stand-alone FMP or within an existing unit FMP.
2. Applicable planning documents, including RMPs and FMPs, will address the following with regard to wildland fire management:
   a. Identifying unit objectives that could be achieved through fire management activities, including but not limited to:
      i. fire suppression;

ii. use of wildfire to achieve resource objectives; and
iii. use of certain fuels treatments, such as prescribed fires or mechanical or biological treatments.

b. Any restrictions or constraints for fire management activities. Examples may include limiting or prohibiting, within a defined area, dozer use, mechanical vegetation disturbance, or prescribed burns, among others.

3. Monument or NCA staff must coordinate closely with fire management specialists to ensure that the above planning direction is incorporated into FMPs and operational systems, such as the Wildland Fire Decision Support System.
4. Monument or NCA staff must coordinate closely with local resource advisors in advance of and during wildland fire events to ensure that the objects and values for which the Monument or NCA was designated are clearly understood by incident management staff.
5. Each FMP must be consistent with the designating legislation or proclamation, national and state office policy, and the existing plan decisions.

1.7 File and Records Maintenance.

Offices must create and maintain maps and legal boundary descriptions for each Monument or NCA in accordance with BLM Manual Section 6120.

1.8 Data Standards.

All offices must utilize the NLCS data standards when developing, amending, or maintaining electronic Monument or NCA boundary datasets. NLCS data standards should be compatible with BLM corporate data standards, such as RMIS, LR2000, GCDB, and others.

Glossary of Terms

-C-

Cooperative Management and Protection Area. Area designated by Congress to conserve, protect, and manage the long-term ecological integrity of the area for future and present generations by way of maintaining the cultural, economic, ecological, and social health of the area; providing for and expanding cooperative management activities between public and private land managers; authorizing land tenure adjustments; and authorizing only such uses on Federal lands that are consistent with the designation. The BLM currently manages one CMPA: Steens Mountain, Oregon.

-D-

Discretionary Use. A use for which the BLM retains the discretion to authorize or decline to authorize.

-F-

Facility. Any building, structure, site improvement, element, pedestrian route, or vehicular way located on a site. The term facility generally refers to administrative offices, visitor centers, kiosks, restrooms, picnic tables, grills, etc.

Forest Reserve. Area designated by Congress to conserve and study the land, fish, wildlife, and forests occurring on such land, which providing public recreation and other management needs. The BLM currently manages one forest reserve: Headwaters, California.

-N-

National Conservation Area. Area designated by Congress, generally, to conserve, protect, enhance, and properly manage the resources and values for which it was designated for the benefit and enjoyment of present and future generations.

National Monument. Area designated by the president of the United States by proclamation pursuant to the Antiquities Act of 1906 for the protection of objects of historical or scientific interest, or by Congress for the conservation, protection, restoration, or enhancement of the resources, objects, and values for which it was designated.

-O-

Outstanding Natural Area. Area designated by Congress to protect, conserve, and enhance for the benefit and enjoyment of present and future generations the unique and nationally important values of certain public lands, while allowing certain recreational and research activities. All BLM ONAs are associated with light houses. The BLM currently manages three ONAs: Yaquina

Head, Oregon; Piedras Blancas Historic Light Station, California; and Jupiter Inlet Lighthouse, Florida.

-R-

Right-of-way. Public lands the BLM authorizes a holder to use or occupy under any authorization or instrument (e.g., grant, lease, temporary use permit) BLM issues under Title V of the Federal Land Policy and Management Act, 43 U.S.C. 1761 *et seq.,* under the Section 28 of the Mineral Leasing Act, as amended (30 U.S.C. 185) and those authorizations and instruments BLM and its predecessors issued for like purposes before October 21, 1976, under then-existing statutory authority. For National Scenic and Historic Trails, see National Trails System Act of 1968.

-V-

Valid Existing Rights. Existing rights are defined in Section 701 of FLPMA as any "valid lease, permit, patent, right-of-way, or other land use right or authorization" and must be in existence at the time of designation.

Dominguez-Escalante National Conservation Area
Bureau of Land Management
2815 H Road, Grand Junction, CO 81506
(970) 244-3000