UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105-3901

February 18, 2009

Mr. Robert D. Williams
Field Supervisor
U.S. Fish and Wildlife Service
Nevada Fish and Wildlife Office
1340 Financial Boulevard, Suite 234
Reno, Nevada 89502

Subject: Draft Environmental Impact Statement for the Southeastern Lincoln County Habitat Conservation Plan, Lincoln County, Nevada

Dear Mr. Williams:

The U.S. Environmental Protection Agency (EPA) has reviewed the U.S. Fish and Wildlife Service (Service) Draft Environmental Impact Statement (DEIS) for the Southeastern Lincoln County Habitat Conservation Plan (HCP) pursuant to the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and Section 309 of the Clean Air Act. These comments were also prepared under the authority of, and in accordance with, the provisions of the Federal Guidelines (Guidelines) promulgated at 40 CFR 230 under Section 404(b)(1) of the Clean Water Act (CWA). Our detailed comments are enclosed.

The EPA appreciates the efforts of the Service, along with Lincoln County, The City of Caliente, and Union Pacific Railroad (Applicants), to develop a Habitat Conservation Plan to avoid, minimize, and mitigate take of desert tortoise and southwestern willow flycatcher (Covered Species) and their habitats within 1,780,140 acres of southeastern Lincoln County Nevada (Covered Area). We recognize the importance of a coordinated approach to protecting and preserving the Covered Species and their habitats from development and maintenance of land, utilities and infrastructure; flood control; roadway and railroad construction and maintenance; and land conversion activities (Covered Activities), over the 30-year permit term. However, based on review of the DEIS we have rated the document EC-2, Environmental Concerns – Insufficient Information (see enclosed EPA Rating Definitions).

Impacts to Covered Species

We are concerned that the DEIS does not sufficiently demonstrate how the conservation measures will protect, conserve and enhance the Covered Species populations and their habitats from impacts resulting from the Covered Activities. The DEIS does describe take of acres of Covered Species habitat but does not provide

baseline population data for the Covered Species. We recommend the Final Environmental Impact Statement (FEIS) include this information as well as estimates of take of Covered Species individuals. Information on baseline populations and take of individuals would help clarify impacts of activities covered under the HCP and provide important information for determining the effectiveness of the conservation measures on Covered Species populations.

Desert Tortoise

As discussed in the DEIS, Conservation measures for desert tortoise are based on the expertise and experience of the Service's Desert Tortoise Recovery Office with this species, but the EPA remains concerned with the proposed translocation program, habitat restoration, and other proposed measures. We refer to the Fort Irwin, California case study where translocation efforts resulted in substantial take that has resulted in the U.S. Army suspending the program, pending further evaluation. We recommend the FEIS discuss the proposed translocation program in light of the challenges faced at Fort Irwin and clarify how these challenges will be addressed in the Covered Area. We are also concerned with potential failure of the proposed native vegetation restoration program to provide the intended mitigation for loss of desert tortoise habitat from development. We note that the reseeding methods are considered experimental and recommend that the FEIS describe how the Service will ensure the mitigation measure will be successful, and describe how non-native vegetation seed contamination will be prevented. In the enclosed comments, we also recommend clarifying information regarding the handling of desert tortoise and including a commitment to identify priority locations, in the Covered Area, where desert tortoise-proof fencing should be implemented to prevent vehicle impacts on roadways.

Southwestern Willow Flycatcher

To mitigate for impacts to 84.3 acres of southwestern willow flycatcher habitat, we recommend the Service and Applicants commit to creating a riparian mitigation/conservation bank as soon as possible. The DEIS only suggests this as one possible option but the EPA considers a mitigation/conservation bank to be a desirable commitment because it would create larger, contiguous habitat in permanent conservation, that would be monitored and maintained to meet success criteria. We suggest the Service and Applicants consider using the $1.1 million from UPRR to create a mitigation/conservation bank as early as possible. The FEIS should include a figure that clearly illustrates UPRR impacts to riparian habitat and the Service should commit to not approving UPRR Covered Activities that would impact riparian mitigation areas in Meadow Valley Wash that are required by the pending EPA enforcement case against UPRR. We also recommend revising the conservation measure for avoiding impacts to southwestern willow flycatcher, during UPRR activities, to provide better protection during non-emergency activities.

Conservation Measures

The EPA also recommends the FEIS consider additional measures such as commitments, in the Lincoln County Development Agreement, to adequate conservation buffers along ephemeral drainages, and stronger water conservation measures.

Additional information should be provided in the FEIS to describe how Section 7 consultations would be streamlined for U.S. Army Corps of Engineers 404 permits, why an alternative that conserves additional lands for habitats was not considered, and how the conservation measures will address impacts to the Covered Species in the context of future climate change. Finally, we do not provide a detailed comment to address this but because the DEIS refers to information in the HCP, and because the HCP was not provided with the DEIS, we recommend including this information within the FEIS or, at minimum, including a CD copy of the HCP with the FEIS.

We appreciate the opportunity to review this DEIS. When the FEIS is published, please send two copies to us at the address above (Mail Code: CED-2). If you have any questions, please contact me at 415-972-3521, or contact Paul Amato, the lead reviewer for this project. Paul can be reached at 415-972-3847 or amato.paul@epa.gov.

Sincerely,

For Connell Dunning

Kathleen M. Goforth, Manager
Environmental Review Office

Enclosures: Summary of EPA Rating System
EPA's Detailed Comments

cc: Mary Grimm, U.S. Fish & Wildlife Service
Mr. David Castanon, U.S. Army Corps of Engineers
Mr. Brad Hardenbrook, Nevada Department of Wildlife
Mr. Clint Wertz, Planning Director, Lincoln County

U.S. Environmental Protection Agency Rating System for Draft Environmental Impact Statements Definitions and Follow-Up Action*

Environmental Impact of the Action

LO – Lack of Objections

The U.S. Environmental Protection Agency (EPA) review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC – Environmental Concerns

EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce these impacts.

EO – Environmental Objections

EPA review has identified significant environmental impacts that should be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no-action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU – Environmentally Unsatisfactory

EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the Council on Environmental Quality (CEQ).

Adequacy of the Impact Statement

Category 1 – Adequate

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis of data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2 – Insufficient Information

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses or discussion should be included in the final EIS.

Category 3 – Inadequate

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the National Environmental Policy Act and or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

* From EPA Manual 1640 Policy and Procedures for the Review of Federal Actions Impacting the Environment. February, 1987.

ENVIRONMENTAL PROTECTION AGENCY'S DETAILED COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE SOUTHEASTERN LINCOLN COUNTY HABITAT CONSERVATION PLAN, FEBRUARY 18, 2009

Biological Resources

The EPA is concerned that the DEIS does not clearly demonstrate how the HCP will accomplish the elements of the purpose and need that are intended to ensure the long-term survival of the desert tortoise and southwestern willow flycatcher (Covered Species). We are particularly concerned with the lack of discussion of current population estimates of the Covered Species, the estimated level of take, and the effectiveness of the proposed conservation measures.

The DEIS describes the amount of Covered Species habitat that would be affected by Covered Activities but there is no information on the current estimated populations that occur in the Covered Area. According to the Federal Section 10 Regulations (50CFR17), in making his or her decision, the Field Office Director shall consider "...the probable direct and indirect effect which issuing the permit would have on the wild populations of the wildlife sought to be covered by the permit" and, "...the degree to which listed species and their habitats are affected." These regulations also state that number, age, and sex of covered species should be provided, if known. We recognize that accurate population data for the Covered Area may be difficult to provide with complete accuracy; but, based on these regulations, it seems reasonable for the U.S. Fish and Wildlife Service (Service) and the Applicants to provide baseline population estimates and estimated levels of take for the Covered Species in the FEIS.

> *Recommendation:*
> Include, in the FEIS, population estimates of the Covered Species, in addition to habitat acreage in the Covered Area already provided, in order to provide a better understanding of the baseline conditions against which the effects of issuing the permit can be assessed.

The level of take of species populations should be provided in the FEIS, based on population estimates for the Covered Species. The Federal Section 10 Regulations state that the Director, in considering whether to issue an incidental take permit, shall consider several factors, including the effect of issuing the permit on populations of the covered species. The DEIS currently provides information on impacts to habitat acreage only and does not report the estimated take of the Covered Species populations that would occur as a result of the Covered Activities. This information should be disclosed for public comment and to inform the decision making process.

> *Recommendation:*
> Estimates of take for the Covered Species should be provided in the FEIS, in addition to impacts to habitat.

The FEIS should further describe how the HCP conservation measures will "protect, conserve and enhance the Covered Species and their habitat..." as stated in the

purpose and need for the HCP. EPA supports the conservation measures described in the DEIS; however, it is not clear to what extent they will be effective. We acknowledge the development of the Adaptive Management Program (AMP) and the importance of the Effectiveness Monitoring element to demonstrate whether measures are successful or not, and where adjustments should be made to the conservation strategy. Currently, the AMP management actions focus on the preservation and restoration of Covered Species habitats; but, lack a population-based monitoring element designed to clarify whether the conservation measures are successfully ensuring the long-term conservation of both the Covered Species habitats and populations. Such an element would also help to determine whether the specific biological goal of the HCP, to maintain stable or increasing populations of desert tortoise, is being met (p. 2-2).

> *Recommendation:*
> Estimate benefits of conservation measures to covered species populations and habitats, and add a population-based monitoring element to the AMP. Disclose the estimated benefits and the new monitoring element in the FEIS.

Conservation Measures for Desert Tortoise

The EPA appreciates the expertise of the Service in developing and implementing conservation measures for desert tortoise and southwestern willow flycatcher. We acknowledge the importance of the Head Start Program, habitat restoration, and applied research for desert tortoise, as well as habitat restoration for southwestern willow flycatcher; however we have concerns over (1) the ability of the conservation measures to adequately mitigate impacts to the Covered Species, as well as (2) potential impacts of some elements of these measures.

Desert Tortoise Translocation Program

The HCP conservation measures include a translocation program that would move desert tortoise from development areas to prevent impact, augment populations, and repatriate uninhabited areas; but there is no information on the potential impacts of the proposed translocation program on desert tortoise populations. The Fort Irwin, California desert tortoise translocation plan[1] resulted in accelerated mortality due to severe predation from coyotes during drought conditions, presence of an infectious respiratory disease in the resident population where relocations occurred, and increased susceptibility to predation due to wandering in search of pre-translocation habitats. The potential effects of such conditions on the conduct and success of the translocation plan are not discussed. The DEIS mentions coyote as an important predator and describes current and projected drought conditions in the Southwest into the next century (p. 5-62). The DEIS also describes the potential for upper respiratory tract disease from illegal capture and release. The FEIS should describe how the HCP translocation program would prevent these impacts. The nature and magnitude of potential impacts should be estimated, and disclosed, and preventive measures described. The FEIS should discuss

[1] *Army grants a stay to desert tortoises.* October 11, 2008 Los Angeles Times article on the challenges facing the Fort Irwin desert tortoise translocation program.

the Fort Irwin experience and what the Service has learned that will prevent similar impacts under this proposed translocation program.

> *Recommendation:*
> Include an analysis of the desert tortoise translocation program, including the potential impacts to the species, and measures that will prevent adverse impacts such as those seen in the Fort Irwin translocation program.

Desert Tortoise Habitat Restoration

It remains unclear from the DEIS that the desert tortoise habitat restoration will adequately mitigate for the loss of habitat from development. The Service has included a habitat restoration element to the HCP that would broadcast native seed to at least 5,120 acres of burned desert tortoise habitat over the 30-year HCP permit term. Restoring native vegetation to 5,120 acres of desert tortoise habitat would help mitigate for the loss of 19,840 acres from development. The DEIS states that reseeding is currently the preferred method for restoring burned Mojave Desert scrublands, but also explains that current methods are mostly experimental. The EPA is concerned that any failed attempts to restore habitat in a timely manner will result in insufficient mitigation for desert tortoise. The FEIS should describe how the HCP will ensure that at least 5,120 acres of burned area will be successfully restored as a result of the restoration program. The discussion should also describe how the introduction of non-native, invasive vegetation will be prevented during seed broadcasting implementation.

> *Recommendation:*
> Discuss measures to ensure effectiveness of the desert tortoise habitat restoration program, including preventing distribution of non-native, invasive vegetation.

Avoidance and Minimization for Desert Tortoise

The DEIS contains conflicting site measures pertaining to construction personnel handling tortoise. One measure says personnel will be notified that they are not to handle or move federally-listed species, but that they may move and temporarily hold desert tortoise in already cleared and fenced areas (p. 3-26). Another measure says all personnel will be trained to handle and transport desert tortoise (p. 3-27). Other measures state that only a qualified biologist will be allowed to handle and relocate desert tortoise and desert tortoise eggs. The FEIS and any construction personnel training and guidelines should be explicit regarding who can handle and/or transport desert tortoise individuals and eggs, and under what circumstances this is appropriate.

> *Recommendation:*
> Clarify when it is appropriate for personnel to handle and transport desert tortoise and their eggs.

The DEIS describes the construction of tortoise-proof fencing as a commonly recommended method to prevent injury or fatality to desert tortoise due to vehicle strikes but does not commit to evaluating this method at high priority areas. Covered Actions, including residential, commercial, and industrial development, will result in

thousands more vehicle trips on Lincoln County roads during the 30-year permit term and beyond, compared to current traffic levels. To address inevitable impacts from vehicle strikes, the Service should commit to a conservation measure that (1) identifies high priority areas for tortoise-proof fencing; and (2) funding for construction of such fencing in those areas.

> *Recommendation:*
> Commit to a conservation measure that prioritizes locations for the implementation of desert-proof fencing along roadways.

Conservation Measures for Southwestern Willow Flycatcher

Southwestern Willow Flycatcher Habitat Restoration

The HCP FEIS should commit to a southwestern willow flycatcher (flycatcher) habitat mitigation/conservation bank to help mitigate for impacts approved by the incidental take permit. The HCP would approve the take of 84.3 acres of flycatcher habitat due to Union Pacific Railroad (UPRR) and land conversion activities in and along the Meadow Valley Wash. Mitigation fees of $12,000 per acre would be paid towards the creation, enhancement, monitoring, maintenance, and protection of riparian habitat in appropriate reaches of Meadow Valley Wash (p. 3-38). With funds collected, a Lincoln County Mitigation/Conservation Bank is presented as one option to offset impacts to riparian habitat. The EPA encourages the Service to commit, in the FEIS, to creating a mitigation bank that would establish large, contiguous habitat areas in permanent conservation that could be vegetated in advance of existing habitat degradation from the Covered Activities. Advanced riparian creation would help offset temporal impacts that would occur if mitigation were implemented following riparian impacts. The Service should incorporate the commitment to establish a Lincoln County Mitigation/Conservation Bank into the Meadow Valley Wash Riparian Restoration and Management Plan described in the DEIS. The approximately $1.1 million to be paid by UPRR upon issuance of the incidental take permit could be a potential funding source to initiate this mitigation as early as possible.

> *Recommendation:*
> Commit in the FEIS to establishing a Lincoln County Mitigation/Conservation Bank for flycatcher habitat mitigation.

The FEIS should clarify impacts to flycatcher habitat from UPRR Covered Activities and commit to avoiding mitigation areas required by the pending EPA enforcement case. According to the DEIS, UPRR Covered Activities would result in impacts to 54 acres of suitable flycatcher habitat along Meadow Valley Wash, within their right of way. This information is not illustrated in the DEIS. Instead, the DEIS refers to Figure 5-4 in the HCP which was not included with the DEIS. This information should be included in the FEIS to provide an accurate description of the UPRR impact area. This information is especially important given the pending EPA enforcement case against UPRR for impacts to Meadow Valley Wash, including riparian habitat. The Service should ensure

that the HCP will not permit UPRR Covered Activities that impact mitigation in Meadow Valley Wash, required of UPRR as a result of the pending EPA enforcement case.

> *Recommendation:*
> Provide a figure in the FEIS that clearly illustrates the 54 acres of flycatcher habitat impacts within the UPRR right of way along Meadow Valley Wash. Commit in the FEIS that the HCP will not permit UPRR Covered Activities to impact riparian mitigation areas in Meadow Valley Wash resulting from EPA's pending enforcement case.

The FEIS should revise the flycatcher avoidance measure for UPRR activities. The DEIS states that, if flycatcher individuals and/or their nests are identified during pre-disturbance surveys and clearances, they will be avoided to the extent possible, but their presence will not preclude or suspend Covered Activities (p. 3-41). The EPA recognizes the safety mandate of UPRR in regard to the maintenance and upkeep of their railroad, but recommends the Service build greater protection for the flycatcher into this conservation measure. For example, when individuals and/or their nests are found present and in danger from the Covered Activity, an assessment should be conducted to determine whether the Covered Activity can be safely postponed until the individual is no longer present or the nest has been vacated.

> *Recommendation:*
> Build greater protection for the flycatcher into the flycatcher avoidance measure along UPRR facilities, to the extent possible, given UPRR's safety mandate.

Waters of the U.S

The FEIS should include additional information on how the HCP would streamline future Section 7 consultations. According to the DEIS, any future actions by the HCP applicants that would require a Clean Water Act Section 404 permit from the U.S. Army Corps of Engineers (Corps) would also require a separate Section 7 consultation with the U.S. Fish and Wildlife Service (Service). Separate consultation would be required, but the HCP is intended to provide a mechanism to streamline this process for actions and impacts that are within the scope of the HCP. The EPA recognizes the intent to improve permitting and mitigation efficiency for activities that require take authorizations in the Covered Area; but, based on the DEIS, it is not clear how this process would work and how adequate mitigation for impacts to the Covered Species would be guaranteed. It would be useful to the reader if the FEIS included an example of a potential 404 activity that could be expected to occur in the Covered Area, how the HCP might streamline the Section 7 Consultation, and how mitigation measures would be assured.

> *Recommendation:*
> Provide information in the FEIS to clarify how the HCP would streamline Section 7 consultation for Corps Section 404 permits. Include an example for illustration.

Conservation buffers along ephemeral drainages should be considered for inclusion as a requirement of the Lincoln County Development Agreement, in order to protect waters of the U.S. and riparian resources to the maximum extent practicable. The EPA supports the commitment that the Development Agreements required by Lincoln County will "provide, to the maximum extent possible, for keeping the major washes... as open, natural areas" (p. 3-38); however, this language is not reflected in the Development Agreement provided in Appendix B of the DEIS. Section 4, Agreement Principles, could be amended to include a requirement that all ephemeral drainages are avoided and adequate buffers are placed in conservation, unless a Corps Section 404 permit has been issued or a determination has been documented that the drainage in question is not jurisdictional under the Clean Water Act. Language could also be included that provides guidance on adequate buffer widths. The EPA encourages the Service and Lincoln County to refer to the buffers established for the Pahranagat Wash and its tributary drainages as part of the Coyote Springs Investment Project in Lincoln County.

> *Recommendation:*
> Add a requirement to the Lincoln County Development Agreement that ensures adequate conservation buffers will be established along ephemeral drainages in the development areas.

Groundwater

The EPA is concerned with the lack of strong water conservation language in the DEIS and we *recommend the Lincoln County Development Agreement be revised to include stronger language to address this issue.* Section 3, Master Planned Community Concept, states that "a minimum of one golf course shall be available for play to the general public" yet Section 4, Agreement Principles, only "encourages" water conservation in the Master Planned Community, and states that developers "may be required" to irrigate golf courses with treated effluent. Given the potential demands on groundwater from the carbonate aquifer that could occur from the addition of 44,500 homes, industrial, commercial, and recreational uses, the FEIS and the Development Agreement should require stronger water conservation measures. Additional measures to reduce impacts on groundwater resources could help prevent future impacts to groundwater/surface water interactions and the wetland and riparian habitat resources they support.

> *Recommendation:*
> Add stronger water conservation language to the Lincoln County Development Agreement, to reduce demands on groundwater supplies. Such language could include, for example; requirements that treated effluent be used for irrigation of golf courses, public/commercial landscaping, industrial processes, and toilet flushing; and the installation of water-efficient toilets and appliances.

Purpose and Need

The FEIS should clarify how the HCP will not conflict with internal Service consultation requirements. Section 2 of the DEIS describes the purpose and need of the proposed action, including questions that the Service must answer prior to issuing an incidental take permit for the Covered Species. According to the DEIS, the Service must conduct an internal consultation that includes, in part, a determination that the permit will not result in the destruction or adverse modification of designated critical habitat. This is confusing given that the covered activities include development on private lands that would result in the loss of 19,840 acres of designated Areas of Critical Environmental Concern (ACEC) for desert tortoise established for protecting the desert tortoise and its critical habitat (p. 4-2). This would account for approximately 10 percent of the desert tortoise ACEC in the Covered Area (p. 5-6). The FEIS should explain how the federal action would be consistent with this requirement.

> *Recommendation:*
> Clarify in the FEIS how the HCP will not conflict with internal Service consultation requirements related to destruction or modification of critical habitat.

Alternatives

The FEIS should explain why the DEIS did not consider an alternative that creates new conservation areas for the Covered Species. The DEIS considers a No Action Alternative, Preferred Alternative, and Alternative A (Additional Lands for Development) and discusses other alternatives that were considered but dismissed. None of these alternatives considered land acquisition as a conservation measure. Common conservation actions are avoidance and minimization, land acquisition, habitat enhancement, and species-specific measures.[2] The Preferred Alternative and Alternative A both include all of these actions with the exception of land acquisition. Considering that approximately 19,840 acres of desert tortoise habitat and 84.3 acres of flycatcher habitat would be lost, it would be reasonable for the Service and Applicants to consider land acquisition as part of the conservation strategy.

> *Recommendation:*
> Add a discussion to the FEIS that considers land acquisition alternative, and explain why this was not considered in the development of the DEIS.

Climate Change

The FEIS should include an expanded discussion of anticipated impacts of climate change on the Covered Species, how these impacts will be identified and managed, and how the Adaptive Management Plan will ensure that conservation measures are designed to help offset these impacts. The DEIS does discuss some of the projected climate-induced changes to the Covered Area and the potential impacts to the Covered Species that could result. The FEIS should build upon this discussion and qualitatively

[2] Habitat Conservation Planning Training, taught by the Service through the UC Davis Extension, 2007.

assess how the projected impacts from the Covered Activities could be exacerbated by climate change, and the anticipated effectiveness of the conservation measures in this context. The Service recently hosted a workshop called *Climate Change, Natural Resources and Coastal Management* to focus on managing coastal resources for climate change. Though the Covered Area is not in a coastal area, it may be of value to the Service to consider information presented at the workshop on species distribution modeling, to predict future distributions of the Covered Species and appropriate conservation measures to offset impacts of the Covered Actions in the context of climate change scenarios.[3]

> *Recommendation:*
> Expand the discussion of potential impacts of climate change on the Covered Species, and how the Adaptive Management Plan will manage for these effects. Consider a species distribution model as a tool to better understand how to manage for climate change.

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[3] Presentation by Diana Stralberg, Conservation Scientist with the Point Reyes Bird Observatory, titled *Predicting Effects of Climate Change on Bird Distributions Across Scales and Ecosystems: How Species-based Modeling can Inform Management and Decision Making.*