

**Findings and Recommendations Pursuant to the Endangered Species Act
and Finding of No Significant Impact Pursuant
to the National Environmental Policy Act for the
Issuance of a Section 10(a)(1)(B) Incidental Take Permit (TE88630D-0)
Associated with Implementation of the Habitat Conservation Plan
for the Rooney Ranch Wind Repowering Project in Alameda County,
California**

This document includes the U.S. Fish and Wildlife Service (Service) Findings and Recommendations pursuant to the Endangered Species Act of 1973, as amended (ESA), which provide an administrative record of how the proposed *Habitat Conservation Plan for the Proposed Rooney Ranch Wind Repowering Project, Alameda County, California* (HCP) under review satisfies each of the permit issuance criteria under section 10(a)(2)(B) of the ESA and in the Service’s implementing regulations for the ESA (50 Code of Federal Regulations [CFR] 17.22(b)(2) and 17.32(b)(2)). These Findings and Recommendations also include our responses to public comments received and a recommendation for permit issuance or denial. Parts I–VI of this document are relevant to these Findings and Recommendations.

This document also includes a concise summary of the *Environmental Assessment for the Rooney Ranch Wind Repowering Project Habitat Conservation Plan* (EA) conducted pursuant to the regulations of the National Environmental Policy Act (NEPA) of 1969 (40 CFR 1506.6). It briefly presents why the EA (and other documents made available during the public comment period) supports our Finding of No Significant Impact (FONSI) and the reasons why the Proposed Action will not have a significant effect on the human environment. Parts I, II, and VII of this document are relevant to this FONSI. The proposed HCP and EA describe the project in detail, together with the conservation measures that would be implemented to avoid, minimize, and mitigate take of the Central California Distinct Population Segment of the California tiger salamander (*Ambystoma californiense*) (tiger salamander), the California red-legged frog (*Rana draytonii*) (red-legged frog), and the San Joaquin kit fox (*Vulpes macrotis mutica*) (kit fox) that is expected to occur as a result of the project.

I. DESCRIPTION OF THE PROPOSAL

The Service proposes to issue an incidental take permit (ITP or Permit) to the Rooney Ranch Wind Repowering Project, LCC (a subsidiary of sPower) (Applicant or Permittee) in Alameda County, California, under the authority of section 10(a)(1)(B) and section 10(a)(2) of the ESA. The Applicant seeks an ITP for tiger salamander, red-legged frog, and kit fox in connection with the development of the Rooney Ranch Wind Repowering Project (Proposed Action). The tiger salamander, the red-legged frog, and the kit fox are the only “covered species” under the Permit.

Upon the issuance of the ITP, the Applicant will receive incidental take authorization for the tiger salamander, the red-legged frog, and the kit fox on 47.7 acres as a result of certain activities identified in the HCP submitted by the Applicant as part of the permit application. The ITP

would authorize take of the tiger salamander, the red-legged frog, and the kit fox in association with covered activities for the remainder of the 36-year permit term, subject to renewal.

Alternatives Considered

The Service considered two alternatives in the EA: (1) the Proposed Action Alternative; and (2) the No-Action Alternative. Other alternatives were considered but eliminated from further consideration for reasons described in Section 2.3 of the EA.

Descriptions below use one or more of the following terms: *project permit area*, which is the approximately 582-acre area where the project would be constructed; *mitigation permit area*, which is a yet-to-be-defined site in Alameda County where conservation and land management activities may be undertaken; and the *plan area*, which is the combined area of the project permit area and the mitigation permit area.

No-Action Alternative

Under the No-Action Alternative, the HCP would not be implemented, the ITP would not be issued, and the covered activities identified in the proposed HCP would not occur. There would be no take of tiger salamander, red-legged frog, nor kit fox as a result of the project. Agricultural uses such as grazing would continue in the plan area, and this alternative assumes that currently planned wind production facilities in the Altamont Pass Wind Resource Area (APWRA) would continue in the vicinity of the plan area.

Proposed Action (Covered Activities)

The Service would issue an ITP to the Applicant to construct a maximum of seven wind turbines on 581.8 acres (project permit area) in Alameda County. The Rooney Ranch Wind Repowering Project is a repowering project to be developed in the APWRA adjacent to other existing and proposed wind turbine projects. The project would require the construction of access roads, wind turbine tower foundations, a meteorological tower, power poles, expansion of a substation, and other minor support facilities such as staging areas. The area of disturbance created by the construction would be 44.7 acres within the 581.8-acre project permit area. The HCP also includes conservation and land management activities that may be undertaken in a yet-to-be-identified mitigation permit area in eastern Alameda County. As noted above, the project permit area and mitigation permit area together constitute the project plan area.

The proposed permit would allow the incidental take of tiger salamander, red-legged frog, and kit fox as a result of the project during the construction phase and the operations and maintenance of the wind power production facility. As part of the permit application package, the Applicant submitted the HCP, which describes the proposed project and specifically addresses four sets of proposed activities (referred to as *covered activities* in the HCP): (1) construction, (2) operation and maintenance of facilities, (3) conservation, and (4) restoration

actions. Conservation and restoration actions are those activities proposed to conserve and protect tiger salamander, red-legged frog, and kit fox—i.e., covered species.

The Applicant holds a lease for the two parcels that constitute the project permit area. The permit would be valid for a 36-year period to allow for a potential lease renewal and decommissioning of the site. Decommissioning would include the removal of all hard facilities, including turbine foundations and wires at the substation, which would be removed to a depth of 3 feet during the dry season. Unless the landowner requests that they be retained, roads would be removed according to all local regulations and Alameda County permit terms. The Applicant understands that the ITP may need to be renewed if the lease is renewed beyond the 36-year permit.

The construction phase would result in the permanent loss of 1.8 acres of nonnative annual grassland from construction and placement of wind turbines, substation expansion, access roads, meteorological tower, and power poles. Temporary impacts on 42.9 acres on nonnative annual grassland would result from widening access roads; constructing turbines, a power collection system, a meteorological tower, and staging areas; and expanding a substation. No permanent habitat loss is expected from maintenance activities. Temporary disturbance of approximately 0.5 acre every 5 years would occur from maintenance activities, in the ground-disturbance footprint associated with project construction. All habitat temporarily disturbed during maintenance would be returned to pre-project conditions within 1 year of disturbance.

The Applicant proposes to avoid, minimize, and mitigate effects from covered activities on covered species by fully implementing the HCP, including the numerous avoidance and minimization measures, mitigation measures, and conservation actions. The HCP proposes compensatory mitigation to offset the permanent and temporary effects of the project on covered species; this mitigation would be provided by the Applicant through purchase of sufficient credits at a suitable mitigation or conservation bank, or the Applicant would develop its own mitigation by protecting and managing conservation lands in perpetuity for the covered species. If a bank or banker were used, the conservation actions would not need to be covered under the HCP, as the bank or banker would likely have take authorizations for its actions. If the Applicant developed its own mitigation, management actions in the mitigation permit area would be covered, and the Applicant would provide at least 51.3 acres of permanent mitigation lands (an amount equal to a 3:1 ratio for permanent impacts and a 1:1 ratio for temporary upland impacts) that meet the site selection criteria outlined in Section 5.2.2.1 of the HCP; final acreages would depend upon the location of the mitigation site and adhere to mitigation ratios for the listed species in the Eastern Alameda County Conservation Strategy (EACCS).

Impact Topic Areas

Based on both internal and external scoping of the proposed federal action of permit issuance, the following impact areas were analyzed in the EA: aesthetics, air quality and climate change; biological resources; cultural resources; geology, seismicity, soils and paleontological resources; hazardous materials and public safety hazards; hydrology and water quality; noise; traffic and transportation; and cumulative effects.

II. PUBLIC COMMENT

The Service published a Notice of Availability of EA, including the HCP as well as receipt of an application for the ITP by the Applicant for the Proposed Action, in the *Federal Register* on May 28, 2020. Publication of the notice initiated a 30-day comment period that ended on June 29, 2020. The notice and EA were available on the Regulations.gov website and announcements were posted to the Sacramento Fish and Wildlife Website. Email notices of availability were sent to tribal officials with interest in the Proposed Action. The Service received comment letters from two private individuals, one non-profit organization (East Bay Regional Parks), and three governmental agencies (the National Park Service, U.S. Army Corps of Engineers, Alameda County Flood Control and Water Conservation District). Comments were addressed in Attachment 1. Response to Comments and some minor, clarifying text was added to the EA and HCP. See Attachment 1 for the Service's response to comments received.

III. ESA DECISION: INCIDENTAL TAKE PERMIT CRITERIA—ANALYSIS AND FINDINGS

Analysis of Biological Effects on ESA-Listed, Proposed, and Candidates Species

The HCP defines measures to ensure that the elements of the HCP are properly implemented. Funding for the implementation of the HCP, including any revegetation during the permit term and purchase of compensatory mitigation, will be the responsibility of the Applicant. Construction-related surveys and biological monitoring will be included in the project construction budget. The Applicant will implement avoidance and minimization measures to protect these species. These include 17 general avoidance and minimization measures from the EACCS, 18 general avoidance and minimization measures from the EACCS Programmatic Biological Opinion, 2 species-specific avoidance and minimization measures for amphibians from the EACCS, 1 species-specific avoidance and minimization measure for mammals from the EACCS, and 8 species-specific avoidance and minimization measures from the EACCS Programmatic Biological Opinion. These measures are detailed in Sections 5.2.1.2 through 5.2.1.4 of the HCP. Ten additional conservation measures have been developed specifically for this HCP and are detailed in Section 5.2.1.5 of the HCP.

Central California Tiger Salamander and California Red-legged Frog

Construction activities associated with building a maximum of seven wind turbines as well as access roads, electrical facilities, and other associated infrastructure have the potential to result in take of tiger salamander and red-legged frog.

Loss of nonnative annual grasslands could affect tiger salamander and red-legged frog dispersal. Upland habitat provides foraging, cover, shelter, and dispersal opportunities for salamanders and frogs. Clearing, grading, and construction for wind turbines and associated facilities will permanently affect 1.8 acres and temporarily affect 42.9 acres of grasslands which may provide

upland habitat for tiger salamander and red-legged frog; maintenance activities will temporarily affect another 3 acres. Tiger salamander and red-legged frog in upland refugia within the project permit area could be injured or killed by earth-moving equipment or other project vehicles during construction. The probability of take will be reduced by limiting the amount of ground disturbance, by avoiding construction during rain events, by maintaining a minimum distance of 500 feet between construction activity and aquatic features, and by flagging or otherwise marking designated work areas.

In addition, uplands support the hydrologic functioning of aquatic habitats by maximizing inundation periods; they also help to preserve water quality by minimizing the entry of sediments and other contaminants into aquatic habitats. Upland impacts resulting from the Proposed Action could indirectly degrade nearby aquatic habitats by altering hydrology and water quality in the local watershed. However, it is expected that the minimization measures undertaken by the Applicant will minimize this impact to the maximum extent practicable by locating roads away from aquatic features, including ephemeral drainages; by limiting construction to the dry season; and by working with a professional hydrologist to ensure that runoff from construction sites does not alter natural flows in ephemeral drainages and other water features.. Standard erosion and sediment control measures are identified in a Storm Water Pollution Prevention Plan (SWPPP) to prevent impacts on water quality. Habitat degradation resulting from new roads is expected to be low because of the small area affected by roads and because of their infrequent use during the rainy season.

San Joaquin Kit Fox

Construction activities in the project permit area could result in adverse effects on kit fox or their grassland habitat. In addition to the permanent and temporary removal of habitat, other potential adverse effects include mortality or injury of individuals from construction vehicles or heavy equipment, direct mortality or injury of individuals from den collapse and subsequent suffocation, and temporary disturbance from noise and human presence associated with construction activities and personnel. Additionally, exposed pipes, large excavated holes, or trenches that are left open after construction has finished for the day could entrap kit fox. Behavioral alteration from disturbance during construction could alter movement, foraging, and sheltering behaviors such that survivability rates are decreased temporarily (6 months).

The Altamont Hills support a satellite population of kit fox, and the area is used mainly by dispersing individuals and not residents. While movement could be impeded through the project permit area, the surrounding landscape would still provide habitat for kit fox movement through the Altamont Hills. Construction of the project would not block movement of individuals through the Altamont Hills to adjacent areas. EACCS Mitigation Measure MAMM-1, *San Joaquin kit fox avoidance*, requires the identification of potential dens and avoids adverse effects on individuals through the application of an exclusion zone around occupied burrows if construction in the vicinity of the burrows could not be avoided otherwise. By implementing species-specific avoidance and minimization measures to protect den sites and denning individuals, injury or mortality to individuals will be minimized and likely avoided during construction and should not result in a reduction of any population whose individuals disperse through the project permit area. Because individuals are unlikely to be injured and because

movement through the Altamont Hills is not blocked during construction, temporary construction activities would not result in population-level effects.

Operation and maintenance activities, such as road repair, firebreak maintenance, or turbine foundation repair, may also result in adverse effects on kit fox or their grassland habitat and may cause injury or mortality to individuals similar to those described above for construction activities and should mainly result in temporary impacts. Behavioral alteration from disturbance during operation and maintenance activities is not likely to alter movement, foraging, and sheltering behaviors for large areas or timeframes because of the small area impacted annually (0.5 acre every 5 years); any behavioral alteration resulting from these facilities on the landscape is expected to be negligible and should not affect any population of individuals moving through the area.

All temporary impacts will be restored within 6 months and fully restored to original condition within 1 year following impact through activities such as grading to original contour and reseeded. In the long term, with the minimal presence of 1.8 acres of facilities for 36 years and temporary operation and maintenance effects of 0.5 acre every 5 years, kit foxes will use the landscape as they do currently for movement, foraging, and shelter; any behavioral alteration resulting from these facilities on the landscape is expected to be negligible and should not impact any population of individuals moving through the area.

Temporary effects on 45.9 acres of grassland habitat to movement, sheltering and foraging of kit fox, as well as permanent effects from removal of 1.8 acres of grassland habitat, are anticipated as part of the Proposed Action (construction and maintenance), but these effects would be reduced by implementing avoidance and minimization measures set forth in the HCP (using *Altamont Pass Wind Resource Area Programmatic Environmental Impact Report [PEIR]*, EACCS, and HCP specific measures) and would be offset through conservation of grassland habitat (approximately 51.3 acres) at a Service-approved conservation bank or Applicant-purchased mitigation lands. Applicant-purchased mitigation lands would have to be within the range of the kit fox and located in eastern Alameda County as required by the EACCS and at the appropriate ratio defined for the location of the mitigation site.

Conservation Strategy

Implementation of the HCP's conservation strategy will result in a beneficial effect on tiger salamander, red-legged frog, and kit fox as a result of the Applicant purchasing 51.3 mitigation credits (1 credit = 1 acre) at a Service-approved conservation bank, or by Applicant purchase and maintenance of mitigation lands within the range of the covered species.

Cumulative Effects

Cumulative effects under the ESA include the effects of future state, Tribal, local, or private actions that are reasonably certain to occur in the action area considered in the biological opinion. Future federal actions unrelated to the Proposed Action are not considered in this section because they require separate consultation pursuant to Section 7 of the ESA.

Cumulative effects related to temporary displacement of wildlife could result from concurrent construction of proposed wind power projects; however, these potential effects are not likely to

occur because the proposed and planned projects are not likely to occur simultaneously. However, even if more than one project were to be constructed at the same time, the disturbance effects would be widely dispersed over the 43,358-acre APWRA and would occur at only one or a few turbine sites at any one time. Potential cumulative effects on tiger salamander, red-legged frog and kit fox include continuing and future loss of suitable breeding, foraging, sheltering, and dispersal habitat resulting from construction and operation of the wind development projects. The Proposed Action's contribution to these terrestrial species effects is not expected to impede the survival or recovery of these species, when considered with other cumulative projects, because the mitigation measures outlined in the HCP would adequately minimize and compensate for any effects occurring in the project permit area, and measures outlined in the PEIR would adequately minimize and compensate for any effects occurring throughout the APWRA. In addition, the installation of wind turbines in the area effectively excludes other types of adverse effects, like urban development, that are potentially more harmful to these terrestrial species. The presence of wind farms also allows and supports continued ranching operations in the APWRA program area. Many of these ranches maintain high quality upland habitats and aquatic features, such as stock ponds which maintains suitable habitat for these listed species.

Findings for Permit Issuance Criteria

1. The taking will be incidental.

Any take of the tiger salamander, the red-legged frog, or the kit fox will be incidental to otherwise lawful construction and maintenance of wind turbines and associated infrastructures and the maintenance and monitoring activities of the mitigation site by the Permittee as specified in the HCP. To this end, the Permittee will obtain all permits and approvals from the appropriate federal, state, and local agencies and other necessary approvals prior to initiating activities covered in their HCP.

2. The Permittee will, to the maximum extent practicable, minimize and mitigate the impacts of taking listed species and other Covered Species.

The HCP contains measures intended to minimize and mitigate the impact of the take of tiger salamander, red-legged frog, and kit fox. The Permittee will implement all minimization and mitigation measures described in the HCP for the projected future incidental take of these species. The Permittee will acquire at least 51.3 credits of appropriate habitat at a conservation bank approved by the Service or purchase and maintain at least 51.3 acres of mitigation lands in suitable habitat in eastern Alameda County.

There are minimization measures that will be taken to protect tiger salamander, red-legged frog, and kit fox. Measures include maintaining a minimum distance of 500 feet from suitable tiger salamander and red-legged frog aquatic habitat, minimizing disturbance area, using exclusionary fencing, moving amphibians away from the project site if they are found, and conducting pre-

construction surveys for kit fox dens. Additional measures to protect water quality include the development of a SWPPP.

The minimization and mitigation measures proposed by the Permittee adequately mitigate the taking of the tiger salamander, red-legged frog, and kit fox. Although there is a permanent loss of 1.8 acres of nonnative annual grassland, this represents less than 1% of the overall amount of grassland in the project permit area and does not represent a significant loss of upland grassland habitat. The Applicant considered alternatives to the Proposed Action, but they were determined to be not feasible. For these reasons, the Service finds that the Permittee has minimized and mitigated the effects of the taking of tiger salamander, red-legged frog, and kit fox to the maximum extent practicable.

3. The Permittee will ensure that adequate funding for the HCP and procedures to deal with unforeseen circumstances will be provided.

The Service finds that the HCP includes adequate procedures for determining the occurrence of, and responses to, both changed and unforeseen circumstances. The Applicant has identified, described, and provided responses in the HCP for six changed circumstances (non-covered species listing; climate change; nonnative invasive species of disease; drought; earthquakes; and wildfire) that may affect the Covered Species or its habitats, and can reasonably be anticipated and planned for in the HCP. The Applicant has identified, described, and provided responses in the HCP for one changed circumstances (flooding). The HCP uses the adaptive management strategy and funding to respond to the specified changed circumstances and unforeseen circumstances.

The Applicant is responsible for funding full implementation of the HCP as described in Chapter 7 of the HCP. The estimated costs of implementation of the HCP during construction, operation and decommissioning are described in Tables 7-1 and endowment costs are described in Appendix E. The applicant will provide proof of recordation of a conservation easement (a template is provided in Appendix C) or acquisition of mitigation credits to the Service within 12 months after the initial ground disturbance date. To provide financial assurances, a letter of credit or a bond will be provided to the Service within 30 days of the issuance of the HCP permit to provide for the purchase of mitigation land and its endowment. If a letter of credit is used to provide financial assurances, CDFW (California Department of Wildlife) must be listed as the beneficiary. If a bond is used to provide financial assurances, the Service must be listed as the beneficiary. The letter of credit or a bond will note that the Service and CDFW will determine compliance with the terms and conditions of each agency's respective permits, prior to cancelling the letter of credit or bond. Mitigation credits will be purchased within the same timeline in the event the applicant cannot find mitigation lands. The letter of credit or bond will equal the amount of the estimated land price at the time of initial ground disturbance and the proposed endowment cost, as detailed in Appendix E, as required to support the long-term management plan (template in Appendix D). The applicant will provide at least 51.3 acres of permanent mitigation lands (an amount equal to a 3:1 ratio for permanent impacts and a 1:1 ratio for temporary upland impacts) that meet the site selection criteria outlined in Section 5.2.2.1 of the HCP, Site Selection Criteria. Impacts and compensation are enumerated in Table 6. The permanent mitigation will compensate for both temporary and permanent construction impacts

and temporary O&M impacts. By providing the O&M mitigation (3 acres) in advance of the impacts, the mitigation will also provide a temporal benefit for the species.

The Applicant is either buying credits in a Service-approved conservation bank or purchasing and maintaining mitigation lands in eastern Alameda County. The Management Plan and Habitat and Restoration Plan for an approved conservation bank and the HCP template Long-term Management Plan for the purchased lands will provide methods to address changed circumstances and unforeseen circumstances, success criteria, and an adaptive management approach.

In the event of Unforeseen Circumstances during the permit term, amendments to the HCP may be proposed by either the Applicant or the Service to address these circumstances. The Applicant and the Service will work together to identify opportunities to redirect resources to address Unforeseen Circumstances. However, consistent with the Service's "No Surprises" regulations at 50 CFR 17.22(b)(5) and 17.32(b)(5), in the event of an unforeseen circumstance, and assuming the Plan is being properly implemented, the Permittees may be required to make modifications within the HCP's conservation strategy, but only if such modification will not involve the commitment of additional land, water, or other natural resources beyond the level agreed to under the HCP, unless the Permittee consents to such additional mitigation.

Based on the information about available financial resources, we find the Applicant has ensured adequate funding for implementation of the HCP.

4. The taking will not appreciably reduce the likelihood that the species will survive and recover in the wild.

The ESA's legislative history establishes the intent of Congress that this issuance criterion be identical to a finding of "no likely jeopardy" under section 7(a)(2) [see 50 CFR 402.02]. As a result, approval of the Applicant's permit application has been reviewed by the Service under section 7 of the ESA. In the Intra-Service biological opinion (Service 2020), the Service reviewed the current status for the Covered Species; its environmental baseline in the action area; and, the direct, indirect and cumulative effects of the proposed action, including the adverse effects and all avoidance, minimization, and mitigation measures. As indicated in the Service's Intra-Service Biological Opinion, the Service concluded that issuance of an incidental take permit for the Covered Species associated with implementation of the proposed HCP is not likely to jeopardize the continued existence of the Central California tiger salamander, California red-legged frog, or kit fox. The conclusion was based on the following facts:

- a. An extremely small proportion of the range of the tiger salamander, the red-legged frog, and the kit fox that would be affected by the activity;
- b. The project proponent has proposed measures to minimize and mitigate the effects of the project on tiger salamander, red-legged frog, and kit fox during construction and operation and maintenance activities;

- c. Much of the disturbance to tiger salamander, red-legged frog, and kit fox habitat would be temporary in nature;
- d. No direct loss of tiger salamander or red-legged frog breeding habitat will occur;
- e. The Applicant has proposed to offset the effects of the take of tiger salamander, red-legged frog, and the kit fox through the conservation of upland habitat (51.3 acres) at a Service-approved conservation bank or Applicant-purchased mitigation lands, thereby protecting habitat in perpetuity.

5. Other measures, as required by the Service of the Applicants, have been met.

The HCP has incorporated all elements necessary for issuance of a section 10(a)(1)(B) permit and other elements otherwise required by the Service.

The Service’s EA predicted golden eagle mortality from operations activities of wind turbines. This ESA Section 10(a)(1)(B) Incidental Take Permit is valid only if the permittee is in compliance with the Bald and Golden Eagle Protection Act (Eagle Act) (16 U.S.C. 668–668d and 50 Code of Federal Regulations [CFR] 22.26). Any take of an eagle could result in the revocation of this Incidental Take Permit unless take has been authorized through the Eagle Act. As such, the applicant will need to be obtain an Eagle Take Permit from the Service for turbine operations to be lawful under the Eagle Act for any injury or mortality to eagles that may occur.

V. GENERAL CRITERIA AND DISQUALIFYING FACTORS – ANALYSIS AND FINDINGS

The Service has no evidence that the permit application should be denied on the basis of criteria and conditions set forth in 50 CFR 13.21(b)-(c).

VI. RECOMMENDATION ON ISSUANCE OF PERMIT

Based on these findings with respect to the permit application and the EA, including the HCP, for this project, I recommend issuance of a section 10(a)(1)(B) ITP to the Applicant for incidental take of the Central California Distinct Population Segment of the California tiger salamander, the California red-legged frog, and the San Joaquin kit fox in accordance with the *Rooney Ranch Wind Repowering Project Habitat Conservation Plan* in Alameda County, California.

Acting _____
Field Office Supervisor
Sacramento Field Office
Fish and Wildlife Service

Date

VII. FINDING OF NO SIGNIFICANT IMPACT—NEPA DECISION

Effects on the Human Environment

The attached EA was prepared to analyze and disclose potential environmental impacts pursuant to NEPA. The effects analysis in the EA was separated into the project permit area and the mitigation permit area. A summary of each permit area analysis is described below. Only the EA and those documents made available during the public comment period were used in this FONSI. The EA supports the following findings:

Project Permit Area

Aesthetics

The Proposed Action would result in the introduction to the project permit area of up to seven wind turbines, all with a maximum height of 502 feet. The project permit area is immediately adjacent to existing and planned wind farms and has historically been the site of a wind farm with many turbines. The visual character of the project permit area for local residents and persons passing along Interstate 580 and Altamont Pass Road would be minimally altered for both the short-term with construction and the long-term with the installation of seven turbines. Because of the presence of adjacent wind farms, the minimal number of turbines constructed, and the past use of the site as a wind farm, this project would minimally alter scenic resources and the existing visual character or quality of the project site. Because the project would only minimally alter the visual character of the site, the overall effect of the Proposed Action on visual character would not be significantly adverse.

Air Quality and Climate Change

Emissions

Project-related emissions were estimated using the CalEEMod and EMFAC2014 model emission factors and methodologies as described in the EA (p. 3-7). Based upon the results of these methodologies and models, construction emissions and operation and maintenance emissions are not expected to exceed the federal *de minimis* thresholds, violate an air quality standard, or conflict with implementation of an air quality plan. The applicant will implement standard emissions control measures required by the Bay Area Air Quality Management District. These impacts would not be significantly adverse.

Greenhouse Gas Emissions

Construction and operation of the proposed project would generate 58 metric tons of Carbon dioxide equivalent (CO₂e). While these emissions would be negligible relative to total statewide emissions, they would result in a short-term increase in greenhouse gas (GHG) emissions during construction relative to existing conditions.

The ultimate purpose of the Proposed Action is to deliver renewable energy to the Pacific Gas and Electric/CAISO power grid to meet California's Renewable Portfolio Standard goals. If

emissions associated with traditional energy sources (e.g., fossil fuels) remain constant at 2007 levels, implementation of the Proposed Action could offset production of 8,733 metric tons of CO₂e per year.

The proposed project is anticipated to result in a cumulative reduction in long-term GHG emissions. The 58 metric tons of CO₂e emitted during project construction, as well as any indirect GHG emissions associated with manufacturing and producing the wind turbines, are expected to be offset by the project's contribution to the ongoing production of renewable energy in place of traditional energy. Therefore, this impact would be beneficial.

Expose Sensitive Receptors to Substantial Amounts of Diesel Particulate Matter

A sensitive receptor is generally defined as a facility or land use that houses or attracts members of the population who are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Typical sensitive receptors are residences, hospitals, schools, and parks. Emissions generated during construction and operation may expose adjacent receptors to diesel particulate matter (DPM) and locally concentrated criteria pollutants such as carbon monoxide.

There are no sensitive receptors within 1,000 feet of Rooney Ranch project permit area (the nearest receptor, a single-family residence, is more than 1,500 feet away). Long-term operation of the proposed project would not result in a significant new source of DPM emissions because it would use minimal and infrequent diesel-powered equipment. Operational activities would also generate minimal traffic and result in negligible criteria pollutant emissions. Because of the distance of sensitive receptors to the site, minimal emissions, and minimal operational traffic, sensitive receptors would not be exposed to substantial pollutant concentrations during operations and the effect would not be significantly adverse.

Biological Resources

The HCP (Chapter 4), EA (Section 3.1.3), and Intra-Service Biological Opinion provide a detailed description and analysis of the direct, indirect, and cumulative impacts the Proposed Action would have on the Covered Species. The HCP includes design, avoidance and minimization measures to reduce these impacts.

The initial construction phase of the Proposed Action would result in the permanent loss of 1.8 acres of nonnative annual grassland from construction and placement of wind turbines, access roads, meteorological tower, power poles, and substation expansion. An additional 42.9 acres of nonnative annual grassland would be temporarily removed or degraded by construction of access roads, turbines, meteorological tower, staging areas, power poles, and substation expansion. Aquatic habitat features in the project permit area—including one stock pond, two ephemeral ponds, and three ephemeral drainages—would not be affected because of the location of construction and operation activities and numerous avoidance and minimization measures that are part of the HCP. Maintenance activities occurring periodically in the project permit area would temporarily remove up to 0.5 acre of nonnative annual grassland over a 5-year period. No permanent habitat loss would be expected from maintenance activities, and temporary

disturbance would occur primarily in the ground-disturbance footprint associated with project construction. All habitat temporarily disturbed during project construction and maintenance would be returned to pre-project conditions within 1 year of disturbance.

Special-Status Amphibians

Construction activities, operation and maintenance activities, and the creation of permanent features in the project permit area could result in adverse effects on tiger salamander and red-legged frog (collectively referred to as *special-status amphibians*) or their habitats (seasonal wetland, ponds, drainages, and surrounding upland areas) through injury or mortality of individuals and loss or degradation of habitat.

Construction activities, such as excavation, grading, or stockpiling of soil, would fill, remove, or otherwise alter habitat for special-status amphibians and could result in injury or mortality of individual amphibians. Potential direct effects include mortality or injury by equipment, entrapment in open trenches or other project facilities, and removal or disturbance of upland habitat that results in damage or elimination of suitable burrows potentially used by tiger salamander. Operation and maintenance activities may result in direct effects on special-status amphibians during similar activities. Injury or mortality to individuals from construction or operation and maintenance activities would be minimized by implementation of the numerous avoidance and minimization measures and compensatory mitigation contained in the HCP (see pages 5-1 through 5-13). As a result, injury or mortality of individuals would not result in population-level effects on these special-status amphibians, and the effect would not be significantly adverse.

San Joaquin Kit Fox

Construction and operation and maintenance activities in the project permit area could also result in adverse effects on San Joaquin kit fox or their grassland habitat. In addition to the permanent and temporary removal of habitat, other potential adverse effects include mortality or injury of individuals from construction vehicles or heavy equipment, direct mortality or injury of individuals from den collapse and subsequent suffocation, and temporary disturbance from noise and human presence associated with construction activities and personnel. Additionally, exposed pipes, large excavated holes, or trenches that are left open after construction has finished for the day could entrap kit foxes. Behavioral alteration from disturbance during construction could alter movement, foraging, and sheltering behaviors such that survivability rates are decreased temporarily (6 months). The Altamont Hills support the satellite population of kit fox, and the area is used mainly by dispersing individuals and not residents. While movement could be impeded through the project permit area, the surrounding landscape would still provide habitat for kit fox movement through the Altamont Hills. Construction of the project would not block movement of individuals through the Altamont Hills to adjacent areas. By implementing general and species-specific avoidance and minimization measures contained in the HCP, and by undertaking the compensatory mitigation plan in the HCP, injury or mortality to individual kit fox would be minimized and likely avoided during the 6-month construction period and the 36-year operation period. The Proposed Action should not result in a reduction of any population whose individuals disperse through the project permit area. Because individuals are unlikely to be injured and because movement through the Altamont Hills is not blocked during construction or operation, the Proposed Action would not result in population-level effects and would not be significantly adverse.

Avian and Bat Species

The operation of wind energy facilities has been shown to cause avian fatalities through collisions with wind turbines and powerlines and through electrocution on powerlines. Most collection lines in the project permit area would be underground, thereby reducing the risk of avian fatality from electrocution or collision with powerlines; however, due to inhospitable soil/ground characteristics for burial of lines, there may be some aboveground collection lines, and mortality through collision could result in these areas. Resident and migratory bats flying in and through the project permit area during operational periods may be killed by collision with wind turbine blades or other interactions with the wind turbines. Five bat species have been documented in fatality monitoring programs in the APWRA, of which two (western red bat and hoary bat) are special-status species.

Because eagles could be injured or killed as a result of operating turbine blades, the lawful operation of the Proposed Action requires an eagle take permit. The Applicant has applied for an eagle incidental take permit under the Bald and Golden Eagle Protection Act for operation of the turbines. The application has requested coverage for direct take (i.e., injury and mortality from wind turbine collisions) and would be subject to the eagle take permit conditions that will require design and operations measures to avoid and minimize injury or harm to eagles; these measures also minimize mortality for other avian species. As the Service processes this application, it will calculate the eagle take risk prediction using the Service's Collision Risk Model as required by its updated 2016 eagle permit regulations (81 Federal Register 91494) for incidental take permits using methods described in the Service's Eagle Conservation Plan Guidance. If necessary, conditions for operation and layout may be required through the permit to ensure that fatality rates of eagles do not exceed that which would cause unsustainable populations. Conditions for operation and layout may entail curtailment of wind turbine operation during high use times by eagles or micro-siting of turbines that would change their location on the landscape to reduce collision probability with eagles. Eagle take permit mitigation measures will ensure that any impact from the project does not result in a significant effect on the local area population (LAP), or regional population that would cause a decline and will provide for a stable and increasing golden eagle population within the project LAP.

A technical memorandum (EA Appendix H, *Avian and Bat Mortality Technical Memorandum*) was prepared to evaluate avian and bat mortality from the Proposed Action. The memorandum presents an analysis of estimated fatality rates likely to result from the Proposed Action for selected bird and bat species or species groups. Fatalities were estimated for avian species (American kestrel, barn owl, burrowing owl, golden eagle, loggerhead shrike, prairie falcon, red-tailed hawk, Swainson's hawk, and tricolored blackbird) and species groups (raptors and native non-raptors). Overall, the avian mortality analysis presented in EA Appendix H concludes that the Proposed Action would have little potential to alter avian populations or cause them to be unsustainable, including all raptor species and nonnative raptor species. The annual project-specific fatality rates for these species or groups (except golden eagle) were all calculated to impact less than 1% of the species-specific statewide population estimates. As a result of the eagle incidental take permit process and associated mitigation measures, the fatality rates of golden eagles should not cause local, regional, or statewide populations to be unsustainable. While the eagle permit process is not complete, draft estimates from the Service's Collision Risk Model have estimated a maximum of 3.5 golden eagle fatalities per year for this project. These estimates are consistent with the range of one to four fatalities per year given in EA Appendix H and would have a similar, negligible impact on the statewide population. Thus, the Service does

not expect the Proposed Action to alter the statewide population status or cause populations to be unsustainable for this species. For species that are exhibiting a statewide population decline (e.g. American kestrel and burrowing owl), the proposed project would not appreciably contribute to these declines.

Common raptor species and Birds of Conservation Concern (BCCs) were addressed as well. BCCs are species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the ESA. Most of the BCCs have not been recorded as fatalities in mortality studies used in the analysis (EA Appendix H), thus no mortality or very low mortality is expected for these birds. Given that the raptor species of concern and the BCC species in the APWRA had minor, statewide population impacts, the Service deduced that these more common raptors and native bird species would have less than or similar small percentage impacts on their populations.

The analysis of potential effects on bats is analogous to the analysis of potential effects on birds, but substantially less information is available, particularly about bat population status. Extrapolating from existing fatality data (EA Appendix H, Table H-4) and trends observed at other wind energy facilities where fourth-generation turbines are in operation, it appears likely that (1) fatalities would occur predominantly in the late-summer to mid-fall migration period; (2) fatalities would consist mostly of migratory bats, particularly Mexican free-tailed bat and hoary bat; (3) fatalities would occur sporadically at other times of year; and (4) fatalities of one or more other species would occur in smaller numbers. Due to their great abundance, and because fatalities would primarily occur during migration, when bats from numerous disparate populations may be in the vicinity of the proposed project site, the effects of the Proposed Action would affect only a small fraction of the Mexican free-tailed and hoary bat populations. Both species are assessed as “least concern” by the International Union for the Conservation of Nature due to their presumed large populations; Mexican free-tailed bats are likely in the tens of millions, but the hoary bat population in North America has been estimated at only 2.5 million. Although hoary bat mortalities in the APWRA do seem to be predominantly breeding age adults, the effects of the proposed project would accrue to what is assumed to be a very large bat population because it occurs mainly during migration and would thus affect potentially only a small fraction of the hoary bat population. As a result, in the absence of any evidence of low or declining population status in the project permit area, the fatality rates anticipated under the Proposed Action are unlikely to have any population-level effects upon these species (likely less than 1%). Incidental fatalities of other bat species would be expected to occur infrequently and have little potential to result in population-level effects upon the affected species.

As required by avoidance and minimization measures in the HCP, avian adaptive management programs will be implemented if avian fatality rates do not decrease after 3 years of project operations. Bat adaptive monitoring programs will be implemented if fatality monitoring results in a point estimate for the bat fatality rate that exceeds the 1.679 fatalities/megawatt/year threshold. The adaptive management actions would be aimed at collectively decreasing fatality rates of eagles and other avian and bat species. Post-construction monitoring once the turbines are in operation, will provide data to quantify the actual extent of avian and bat fatalities from the Proposed Action and will contribute to the body of knowledge supporting future analyses.

Implementation of avoidance and minimization measures contained in the HCP will reduce the rates and effects of avian and bat collision and mortality within the project permit area. All of these mitigation measures are required as part of the project’s approval through the City of Santa

Clara and the PEIR and its Mitigation Monitoring and Reporting Program. After mitigation, the effect would not be significantly adverse.

Cultural Resources

Historic and Archaeological Resources

A cultural resources study was conducted for the project permit area in compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 and its implementing regulations (36 CFR 800, as amended in 1999). In addition, efforts to identify cultural resources in the project permit area included a records search of previous cultural resource investigations and recorded sites; background research and a review of literature relevant to the prehistory, ethnography, and history of the project vicinity; consultation with Native American representatives, historical societies, and other interested parties; and site visits and pedestrian surveys of the project permit area.

No previously documented archaeological resources were identified in or directly adjacent to the project permit area, nor were previously undocumented archaeological resources identified during pedestrian surveys. However, based upon the area's general sensitivity for archaeological resources, the potential exists for encountering as-yet undiscovered buried archaeological resources in the project permit area during project implementation. The HCP includes measures that would avoid or minimize damage to (and thus a change of the significance of) resources during project construction. Therefore, there would be no significant adverse effects on potential buried archaeological resources.

Four potential historic resources were identified in or immediately adjacent to the Rooney Ranch project permit area, of which one could potentially be affected by a temporary laydown area. This resource was not formally evaluated for eligibility in either the National Register of Historic Places or the California Register of Historic Places, and, based upon initial survey results, it does not appear to be eligible for inclusion.

Implementation of avoidance and minimization measures contained in the HCP would avoid damage to (and thus change in significance of) resources during project construction. Therefore, there would be no significant adverse effects on historical resources.

Geology, Seismicity, Soils, and Paleontological Resources

Geology and Seismicity

If a turbine were constructed on or near a fault, rupture of that fault or seismic ground shaking could damage the turbine or cause it to collapse, possibly harming personnel or property in the immediate area. Three active faults are known to occur in the vicinity of the project permit area; however, none of the three active or potentially active faults identified within the APWRA intersect the Rooney Ranch project permit area. The Applicant would be required to conduct a site-specific geotechnical investigation and implement design recommendations in a subsequent geotechnical report. This requirement would minimize the risk of exposure of people or structures to potential harm as a result of rupture of a known earthquake fault and/or resulting from strong seismic ground shaking. Because the risk of damage to persons or property would be

low with appropriate project design and construction techniques, the effect would not be significantly adverse.

Turbine foundations or power collection systems that are not properly designed and sited for the earthquake-induced ground failure conditions present in the project permit area could fail and cause damage to or collapse of the turbine towers or collection system. This damage or collapse could cause harm to personnel or property in the immediate area. The potential for liquefaction is likely low because the depth to groundwater is generally greater than 60 feet throughout the Altamont Hills area (shallow groundwater creates the risk of liquefaction at the surface), and the geologic units in the project permit area are older (Tertiary and Cretaceous periods) than most units with a risk for liquefaction. The risk of lateral spread and differential settlement in the project permit area is unknown and, therefore, some damage to onsite facilities and risk of harm to workers onsite would exist. With implementation of avoidance and minimization measures contained in the HCP, the exposure of people or structures to the risk of loss, injury, or death resulting from seismic-related ground failure, including land sliding, lateral spread, differential settlement, and liquefaction would be low, and the effect would not be significantly adverse.

Paleontological Resources

If fossils are present in the project permit area, they could be damaged by earth-disturbing activities during construction, such as excavation for foundations, placement of fills, trenching for power collection systems, and grading for roads and staging areas. The more extensive and deeper the earth-disturbing activity, the greater the potential for damage to paleontological resources. Maximum depths of excavation and other forms of ground disturbance associated with the project would be expected to be 20–30 feet below the ground surface. Because most geologic units in the APWRA could contain paleontological resources, excavation in the project permit area has the potential to damage paleontological resources. Implementation of mitigation measures contained in the HCP, including retention of professional paleontological monitors, would minimize the effects of ground disturbance on paleontological resources. Accordingly, the project would have a low likelihood of substantial damage to undiscovered paleontological resources in the project permit area. Because any paleontological material uncovered in the construction process could be assessed and recovered prior to major damage, the effect of the project on significant paleontological resources would not be significantly adverse.

Hazardous Materials and Public Safety Hazards

Implementation of the Proposed Action would not likely result in encounters with hazardous materials during construction activities because limited hazardous materials sources are known to occur in the project permit area, and construction and operation of the planned facilities would not require treatment, transport, or disposal of large quantities of hazardous materials. There are no facilities within 0.5 mile of the project permit area known to store or have experienced unauthorized release of hazardous materials. A Phase 1 Environmental Site Assessment of the project permit area found that there was no evidence of hazardous materials or hazardous waste contamination. Because of the low risk of encountering hazardous materials or waste, the effect of construction would not be significantly adverse.

Implementation of the Proposed Action could result in the increased risk of wildfires during construction activities in vegetated areas. The project would implement the requirements of the Altamont Pass Windfarms Fire Requirements which limit activities when flammable vegetation exists. For example, welding and other spark-creating activities are prohibited during high and very high fire danger. Requirements also include setbacks from flammable vegetation, the availability of firefighting equipment such as shovels and backpack water pumps, and equipping exhausts of internal combustion engines with spark arresters. Access roads throughout the project permit area would reduce fire hazards because they act as firebreaks that could impede the spread of any fire, and they would enable firefighting equipment to access the property. The PEIR concluded that while wind turbines can cause fire ignitions, sufficient fire response providers are already in place and site-specific firebreak requirements limit the risk of a large wildfire. Moreover, the improved safety of newer turbine models would reduce the potential for fire ignitions. The Proposed Action has minimal potential to expose people or structures to loss, injury, or death from wildland fires; therefore, the effect would not be significantly adverse.

Implementation of the Proposed Action could result in turbine failure through such conditions as excess rotor speed or electrical system failure. Such failure could cause hazard or injury to project personnel or the general public due to blade or blade-fragment throw. However, Alameda County developed minimum turbine setback requirements from adjacent properties, and these would minimize the risk of contact of thrown blades with people and structures; therefore, risk to the public or the environment from thrown turbine blades would be low, and effects would not be significantly adverse.

The potential for the Proposed Action to affect aviation patterns and/or result in a hazard to air navigation is primarily dependent upon the height of the proposed structures. Livermore Municipal Airport is approximately 8.7 miles west-southwest of Rooney Ranch project permit area, and Tracy Municipal Airport is approximately 11 miles east-southeast of Rooney Ranch project permit area. The closest private airport is Meadowlark Airfield, 5 miles south-southwest of the project permit area. A review of airport influence area zones indicates that the project permit area is outside all influence area zones, including those of Byron Airport in Contra Costa County, 6 miles to the northeast of the project permit area. Because the project permit area is not within 2 miles of any public or private airport, the Proposed Action would not result in an air traffic safety hazard for people residing or working in the project permit area, and the effect on public safety would not be significantly adverse.

Hydrology and Water Quality

Construction-related earth-disturbing activities associated with the Proposed Action would introduce the potential for increased erosion and sedimentation, with subsequent effects on drainage and water quality. Trenching and site preparation create areas of bare soil that can increase sediment discharge to receiving waters. Implementation of avoidance and minimization measures contained in the HCP would minimize the covered activities' effects on drainage and water quality through the reduction of sedimentation and the avoidance of unintentional release of soils or substances into local drainages or waterways. Best management practices related to controlling erosion and sedimentation that could be implemented as part of a SWPPP include employing temporary erosion control measures (such as silt fences, staked straw bales/wattles);

using a dry detention basin (which is typically dry except after a major rainstorm, when it will temporarily fill with stormwater) designed to decrease runoff during storm events; and applying nontoxic soil stabilizers, such as hydromulch.

Through implementation of best management practices outlined in the project SWPPP, it is anticipated that there would be no noticeable change in the volume or intensity of surface water runoff within the project permit area as a result of construction or operation and maintenance activities. Any actual adverse effects on drainage or water quality from construction and operation of the Proposed Action is anticipated to be minor. Once construction activity is completed, temporarily disturbed areas that are currently unvegetated due to the removal of the previous turbine array would be revegetated, resulting in a beneficial effect through the reduction of erosion potential within the project permit area. Implementation of the SWPP and BMPs associated with County permits and HCP measures to reduce sedimentation or alteration of drainage patterns would minimize the potential effects of construction-related or O&M-related discharges, minimize sedimentation, and avoid unintentional release of soils or substances into local drainages or waterways. As such, construction is not anticipated to substantially degrade water quality. Therefore, there would be no violation of any federal or state water quality standards, and effects on water quality would not be significantly adverse.

Alterations to existing drainage patterns can change the direction and volume of overland flows that could adversely affect water quantity and volumes in nearby drainages or ponds. Effects on drainage patterns or surface runoff that intersects the three ephemeral drainages located within the project permit area are not anticipated due to the distance between drainages and proposed surface disturbance areas, existing soil types, and existing and anticipated post-construction flow patterns that would continue to carry intermittent storm event surface flows perpendicular to existing roads. Neither of the ephemeral pond features, nor the more perennial stock pond are anticipated to be directly affected by construction or operation and maintenance activities, due to the distances between each feature and proposed project components (225, 1,200, and 430 feet, respectively) and thus drainage patterns in these features should not be altered. The implementation of HCP avoidance and minimization measures prevent any alteration of drainage patterns from construction activities or facilities/roads. In addition, roads would not entail introduction of new impervious surfaces, the area of turbine impervious surface would be small (0.6 acre) and spread out over a large area (>2,000 acres), and the NPDES stormwater Construction General Permit would require that post-construction runoff management measures be implemented. Implementation of these mitigation measures would minimize the potential for water volumes or quantities in nearby drainages or ponds to be affected; accordingly, any increase in the rate or amount of surface runoff at the project site resulting from installation of permanent impervious surfaces, including the proposed 0.6 acre of turbines and turbine foundations, are expected to be minor, resulting in no significant adverse effects on onsite or offsite drainages or ponds.

Noise

Site preparation and construction activities would temporarily increase noise levels in and around the project permit area. Noise would result mainly from heavy-duty construction equipment (e.g., graders, bulldozers, backhoes, drill rigs). The PEIR concluded that some residences in the APWRA program area would be within distances of construction activities that could expose

them to noise levels in exceedance of Alameda County noise ordinance standards. The two receptors in the vicinity of the project permit area are within approximately 400 and 1,000 feet of Rooney Ranch project permit area access road construction, respectively. Although most project components are at much greater distances, the noise levels to which these receptors could be exposed during construction of project facilities and infrastructure could reach Alameda County's 55 A-weighted decibel threshold. Implementation of noise-reducing measures required in the HCP would minimize construction noise effects below this 55 A-weighted decibel threshold. Accordingly, construction noise associated with the Proposed Action would not expose persons to noise levels in excess of local noise ordinances, and the effect would not be significantly adverse.

The two sensitive receptors (single-family residences) are located within 2,000 feet of the nearest proposed turbine location, but they are not within the project permit area. According to the tables in the PEIR, and as confirmed by the Rooney Ranch Sound Technical Report, such a distance would preclude noise from turbines reaching Alameda County's 55 A-weighted decibel threshold. The Rooney Ranch Sound Technical Report calculated that the highest noise levels generated by the new wind turbines would be in the range of 47.7 to 48.3 decibels at the two nearest receptors. These levels would be reached during strong wind periods when all turbines might be operating and would not be a constant condition. Consequently, the Proposed Action's long-term operation would not expose persons to a substantial permanent increase in ambient noise levels or exceed Alameda County noise ordinance standards, and the effect would not be significantly adverse.

Traffic and Transportation

Implementation of the Proposed Action could result in temporary and short-term increases in local traffic due to construction-related workforce (i.e., employee travel to and from the site), heavy equipment delivery (e.g., cranes and bulldozers), and material deliveries (e.g., turbines, gravel, and concrete). These construction activities could cause a noticeable traffic increase on local county roads that provide direct access to the project construction site, including Altamont Pass, Mountain House, North Midway, Carroll, and West Grant Line Roads, because these roads generally have low to moderate traffic volumes. Altamont Pass Road, the local road that provides primary access to the project permit area, had average daily traffic (both directions) of 5,850 vehicles in 2011. This road also supports occasional recreational bicycle traffic, although it is not a designated bicycle route. The PEIR predicted that repowering of the Patterson Pass wind farm, 2.5 miles southeast of the Rooney Ranch project permit area, would generate 115 average daily construction trips on the adjacent access road (Patterson Pass Road). The Patterson Pass repowering project is similar in size to the Proposed Action. The 115 trips would represent a less than 2% increase in average daily traffic (5,850) on Altamont Pass Road near Rooney Ranch project permit area during project construction. Although they could degrade traffic operations, increases of this size would be of temporary duration. Temporary construction traffic would represent a minor, temporary increase in traffic in relation to existing traffic loads on the major access road to the project site; accordingly, the effect would not be significantly adverse. Project-related traffic would not substantially disrupt traffic or degrade the level of service on a congestion management program-designated roadway (i.e., Interstate 580) because it would contribute a small percentage of total traffic. Delivery of turbine components could impede

traffic flow (e.g., slow traffic down because delivery vehicles move slowly or require detours). Implementation of mitigation described in the HCP, which requires development and implementation of a construction traffic control plan, would minimize the effects of temporary construction-related traffic near the project permit area on automobile and bicycle traffic. Accordingly, the Proposed Action would result in a minor, temporary effect on traffic flow, and the effect would not be significantly adverse.

Existing roads used to access the project permit area could be damaged during construction by increased use and heavy equipment. There also exists the potential for tracking dust, soils, and other materials from graded construction sites onto public roads. Implementation of mitigation required in the PEIR, which requires development of a construction traffic control plan (including warnings of hazardous road conditions and control on vehicle weights and speeds) would reduce the effects of construction traffic on existing roads. In addition, any road repair that would be necessary following project construction would have to be completed in accordance with Alameda County road repair requirements under an encroachment permit. With proper implementation of Alameda County road repair specifications, the Proposed Action would not result in substantial deterioration of a roadway surface. Accordingly, no significant adverse effect would result.

The potential for the Proposed Action to affect aviation patterns and/or result in a hazard to air navigation primarily depends on the height of the proposed structures and their proximity to an airport, compatibility zone, or other protected surface. All seven turbines are expected to have a maximum height of 502 feet above the ground surface. The nearest airport, Meadowlark Field, is approximately 5 miles south-southwest of the project permit area; other airports are at a greater distance from the project permit area (Livermore Airport, 8.7 miles to the west; Tracy Airport, 11 miles to the east; Byron Airport, 6 miles to the northeast). The project permit area is not within an airport compatibility zone nor protected area which, to avoid public safety hazards associated with aviation activities, place restrictions on certain types of land use and structure heights in the vicinity of airports. The Proposed Action would not result in a change in air traffic patterns that could create a public safety risk because it is not within an airport compatibility zone or protected area. Accordingly, there would be no significant adverse effects on aviation patterns.

Mitigation Permit Area

As discussed in its conservation approach, the HCP proposes compensatory mitigation to offset the permanent and temporary effects of the project on covered species. This mitigation would be provided by the Applicant through purchase of sufficient credits at a suitable mitigation or conservation bank or through development of its own mitigation by protecting and managing conservation lands in perpetuity for the covered species. If the Applicant chooses to develop its own mitigation, management actions in the mitigation permit area would be covered. If this action is taken, the applicant would provide mitigation acreages equal to a 3:1 ratio for permanent effects and a 1:1 ratio for temporary upland effects consistent with the site selection criteria outlined in Section 5.2.2.1 of the HCP. Mitigation lands and credits purchased for mitigation will adhere to the species mitigation ratios in Tables 3-7, 3-8, and 3-11 in the EACCS; if mitigation lands are not in the same mitigation zone as the impact area, the ratios may differ from those shown in Table 6.

Although the mitigation site has yet to be identified by the Applicant, aspects of the potential mitigation site would likely be similar to the existing biological communities and conditions found within the project permit area. Land cover types would likely include annual grasslands, ephemeral drainages, and surface water features necessary to provide suitable habitat for the three species covered in the HCP. It is also likely that the mitigation site would be located in eastern Alameda County, due to the extent of urbanization and lack of open space currently available in the western portion of Alameda County. Areas of eastern Alameda County currently remain undeveloped and exhibit potential suitable habitat for the three species covered by the HCP.

The environmental effects of developing and managing conservation lands in an eastern Alameda County mitigation permit area have been considered, including effects on aesthetics, air quality and climate change, biological resources, cultural resources, geology, seismicity, soils, paleontological resources, hazardous materials and public safety hazards, hydrology and water quality, noise, and traffic and transportation. It has been concluded that the development and improvement of habitat for covered species in a mitigation permit area would not result in effects that would be significantly adverse, either directly or cumulatively. Effects on biological resources and water quality and hydrology would be beneficial.

NEPA Cumulative Impacts

Foreseeable actions that could result in cumulative impacts were analyzed in the EA, and it was determined that the Proposed Action would not significantly or appreciably contribute to cumulative impacts.

Conclusions

In accordance with NEPA, as amended, and the Council on Environmental Quality’s Regulations for Implementing the Procedural Provisions of NEPA (40 CFR Parts 1500-1508), the Service’s Pacific Southwest Region has found that based on the analysis in the Final EA, the Proposed Action would not result in significant effects on the physical and biological resources in the Rooney Ranch Wind Repowering Project plan area or in the surrounding area and would not significantly affect the quality of the human environment (40 CFR 1501.4 (e), 1508.13). Therefore, an Environmental Impact Statement is not required.

It is my determination that the Proposed Action is not a major Federal action significantly affecting the quality of the human environment under section 102(2)(c) of NEPA. Accordingly, an Environmental Impact Statement on the Proposed Action is not required. An EA has been prepared in support of this finding and is incorporated by reference and attached. The EA is also available from the Service’s Sacramento Fish and Wildlife Office.

Acting _____
Field Supervisor
Sacramento Fish and Wildlife Office
Fish and Wildlife Service

Date

Attachment 1.
Summary of Comments and U.S. Fish and
Wildlife Service Response

Summary of Comments and U.S. Fish and Wildlife Service Response

Notice of Availability and Request for Comments:
Draft Environmental Assessment Rooney Ranch Repowering Project Habitat
Conservation Plan for the
California Tiger Salamander, California Red-legged Frog, and San Joaquin Kit Fox
in California

85 FR 32044

October 2020

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Summary of Comments

The U.S. Fish and Wildlife Service (Service) received six comment letters during the comment period (starting May 28, 2020 and ending June 29, 2020) on the Draft Environmental Assessment (EA) and none on the Habitat Conservation Plan (HCP). The following agencies, organizations, and persons provided comments as shown in chronological order:

- June 2, 2020: Mike Vandeman (1 comment)
- June 24, 2020: Alameda County Flood Control and Water Conservation District, Zone 7 (1 comment)
- June 25, 2020: U. S. Army Corps of Engineers (1 comment)
- June 29, 2020: East Bay Regional Park District (EBRPD) (13 comments); and Victoria Lopez (1 comment)
- June 30, 2020: National Park Service; Pinnacles National Park (1 comment)

Responses to comments are presented below in the order in which they were received.

EA Comments

Mike Vandeman

Mike Vandeman Comment 1: Haven't we already destroyed far too much wildlife and habitat? Enough is enough! Approval should require the permanent conservation and protection of several times as much habitat as will be destroyed by this project! Do what's right, not what is economical! See <https://mjvande.info/india2.htm>

Service Response to Mike Vandeman, Comment 1: Thank you for your comment.

Alameda County Flood Control and Water Conservation District, Zone 7 (ACFWCD)

ACFWCD Comment 1: The Rooney Ranch Wind Repowering Project is in very close proximity to an area off Dyer Rd. in Livermore that Zone 7 secured several years ago from a private landowner to use as a conservation easement for project mitigation. Our project requiring mitigation was not built and is no longer planned for construction, and thus the conservation easement was never finalized as mitigation – but significant work was put in towards that end and likely could serve as mitigation for another party. With no current mitigation needs, Zone 7 is actively seeking to divest from this potential mitigation easement. Please contact me if the Rooney Ranch Wind Repowering Project (or other projects you might know of) needs additional environmental mitigation in the area, as this could be a good solution for all parties.

Service Response to Alameda County Flood Control and Water Conservation District, Zone 7, Comment 1: Thank you for your comment.

U.S. Army Corps of Engineers (USACE)

USACE Comment 1: We are responding to your May 28, 2020, request for comments on the Incidental Take Permit Application, the Habitat Conservation Plan and the environmental assessment under the National Environmental Policy Act for the proposed Rooney Ranch Wind Repowering Project. The U.S. Fish and Wildlife Service Docket No. is FWS–R8–ES–2019–0116. The approximately 580-acre project site is located in Altamont Pass Wind Resource Area (APWRA), between I-580 to the south and Altamont Pass Road to the north, at Latitude 37.741363°, Longitude -121.653222°, in eastern Alameda County, California.

The Corps of Engineers' jurisdiction within the study area is under the authority of Section 404 of the Clean Water Act for the discharge of dredged or fill material into waters of the United States (WOUS). WOUS include, but are not limited to, rivers, perennial or intermittent streams, lakes, ponds, wetlands, vernal pools, marshes, wet meadows, and seeps. Project features that result in the discharge of dredged or fill material into WOUS will require Department of the Army authorization prior to starting work.

We are interested in working with your office to designate you as the lead Federal agency for compliance with Section 7 of the Endangered Species Act, and Section 106 of the National Historic Preservation Act pursuant to 50 CFR Part 402.07, 50 CFR 600.920(b) and 36 CFR 800.2(a)(2). Please contact our office to discuss information we would need in order to facilitate this designation.

Service Response to Corps Comment 1: The Service's, Claudia Funari, and the Corps, Peck Ha, had a phone conversation on Friday, June 26, with regards to the Corps comment for the Rooney Ranch HCP EA. During this conversation, Peck Ha clarified that the Corps had not received a request for a Clean Water Act Section 404 permit for the HCP and the Corps' comment letter was only meant to clarify that if there is a future request for a 404 permit then the Corps would consult with the Service under Section 7 of the Endangered Species Act (ESA).

Please see Table 3-5 of the EA that shows aquatic feature distances from the construction and operation areas which indicate that no fill or water quality issues in jurisdiction waters or wetlands is expected from the project. Because the data show that it is unlikely that there will be any impact to jurisdictional waters or wetlands, the project applicant is not planning on applying for a 404 Clean Water Act permit and so the Corps would not consult with the Service under Section 7 of the Endangered Species Act (ESA). This is one reason why the applicant submitted a Habitat Conservation Plan and requested an ESA Section 10 permit.

East Bay Regional Park District (EBRPD)

EBRPD Comment 1: Appendix H, Bird and Bat Fatality Analysis Methods (pp. H-6 to H-21). Calculations of avian fatality rates (Tables H-2, H-3) are based on a subset of fatality monitoring studies at repowered projects (Brown et al. 2016, HT Harvey & Associates 2017, 2018). A more comprehensive approach would incorporate additional monitoring studies of repowered projects in the APWRA (HT Harvey & Associates 2020, H.T. Harvey & Associates and Great Basin Bird Observatory 2020, Smallwood and Karas 2009). In addition, it appears that the Project's estimated avian fatality rates appear to be averaged twice and in effect, weighted twice by number of monitoring years. The estimated Project's average weighted fatality rates are then used to calculate APWRA- wide fatality rates for the cumulative effects analysis. For such projections, and especially for the eventual Eagle Take Permit that the applicant is applying for, should incorporate results from the latest monitoring studies.

Service Response to EBRPD Comment 1: Although a variety of monitoring studies have been performed at repowered projects, the Service determined that some of these studies used have limited utility for environmental analysis (EA). Two of the cited studies, H.T. Harvey & Associates (2020) and H.T. Harvey & Associates and Great Basin Bird Observatory (2020), are examples of draft reports providing only preliminary analyses. However, we have reviewed these reports and find that they tend to confirm the results of the completed studies used in the EA analysis, without indicating a substantial change in the quantitative effects of turbine-related avian and bat mortality. The Commenter also cites Smallwood and Karas (2009), which we reviewed, but did not use, given the number of recent studies of newer, larger repowered projects. Although this paper did compare the old-generation turbines to the first repowered project in the Altamont, the size of that repowered project was substantially smaller than the newer repowered turbine projects. Our analysis cited more recent studies that used more comparable repowered turbine projects.

With respect to the weighting methodology used in the Appendix H analysis, studies were simply weighted according to the number of years in the analysis; e.g. a 2-year study received 2/3 the weight of a 3-year study. We rechecked our mathematical analysis and determined that the analysis methodology stated above was followed and was appropriate.

The comment regarding using recent monitoring studies for the Eagle Take Permit has been noted.

Smallwood, K. S., and B. Karas. 2009. Avian and bat fatality rates at old-generation and repowered wind turbines in California. *Journal of Wildlife Management* 73(7):1062–1071.

H.T. Harvey & Associates and Great Basin Bird Observatory. 2020. *Golden Hills North Wind Energy Center Post-construction Fatality Monitoring Report: Year 1*. Prepared for Golden Hills Wind, LLC, Livermore, California. DRAFT – January 15, 2020.

H.T. Harvey & Associates. 2020. *Golden Hills Wind Energy Center Post-construction Fatality Monitoring Project: Final 3-Year Report*. Prepared for Golden Hills Wind, LLC, Livermore, California. DRAFT – January 8, 2020.

EBRPD Comment 2: Golden Eagle (*Aquila chrysaetos*). The population of Golden Eagles in the Northern Diablo Range is subjected to many stressors. These can be direct, such as outright mortality through wind turbine blade strikes in the APWRA (Smallwood and Karas 2009) or indirect, such as through drought affecting productivity (Wiens et al. 2018). The United States Geological Survey (USGS) has produced several reports and papers on golden eagle territory occupancy and breeding success in the Diablo Range (Wiens et al. 2015, Wiens et al. 2018), including new information on golden eagle nesting territories within the APWRA (Kolar and Wiens, 2017). The direct and indirect impacts of repowering projects on nesting golden eagles within the APWRA has received little attention. Qualitative assessment of movement data of Golden Eagles outfitted with satellite transmitters suggests that pre-reproductive age classes (juveniles and subadults) from throughout the Diablo Range regularly use the APWRA, and that eagle use of the APWRA remains intense (Bell 2017a,b). Estimates on the extent to which the APWRA represents a population sink to the local golden eagle population have been revised (Hunt et al. 2017). Hunt et al. (2017) calculated that the reproductive output of 216-255 breeding pairs of Golden Eagles would be required to offset an estimated 55-65 wind turbine blade-strike mortalities in the APWRA each year to maintain population sustainability. The estimated, APWRA-wide annual number of golden eagle deaths in the Draft EA cumulative effects analysis is 58.45 (Table H-5). Given the trends of golden eagle fatalities presented in monitoring reports of repowered projects in the APWRA (e.g. H.T. Harvey & Associates, 2017, 2018, 2020, H.T. Harvey & Associates and Great Basin Bird Observatory, 2020), the APWRA is exceeding the level of mortality set for golden eagles in the PEIR (2014). In addition, the disturbing pattern of increased golden eagle mortalities with each new repowered wind project in the APWRA is evidence of macro-siting considerations and simply, too many wind turbines per unit area (See cumulative impacts below).

Service Response to EBRPD Comment 2: In a separate analysis, the Service is considering the studies that the Commenter references when determining whether to issue an eagle take permit for the proposed Project and, if so, how to ensure that the permit provides for stable or increasing populations. We agree that the area within the Altamont Pass Wind Resource Area (APWRA) constitutes a population sink within the Diablo Range golden eagle population study area.

However, we believe that the Diablo Range study area the Commenter recommends is not the appropriate spatial scale to reference for the golden eagle population. For example, the Service's eagle take permit analysis uses a Local Area Population (LAP) of 109 miles from the project site as a reference population, which would include a far larger area than just the APWRA. For the analyzed bird species, with the exception of golden eagle, the environmental analysis (EA) compares estimated project fatality rates with the statewide-scale population status. For the golden eagle, however, the EA analysis defers to the Service's Migratory Bird Program's eagle take permit analysis and future eagle take permit determinations of eagle allowable take, avoidance, minimization, and compensatory mitigation to prevent decline of populations within the Pacific Flyway

and provide for a stable and increasing golden eagle population within the project LAP. As stated in the EA, the Applicant has applied for a take permit, which will have its own NEPA analysis. Under the *2016 Eagle Take Permit Programmatic EIS* (USFWS 2016), the stable and increasing populations mitigation ratio is 1.2:1 and may take the form of power pole retrofits in the Pacific Flyway, etc. These eagle take permit mitigation measures will ensure that any impact from the project does not result in a significant effect on the LAP or regional population that would cause a decline.

We have updated Appendix H (pages H-12 and H-20) to add additional clarifying text regarding what mitigation will likely occur for eagles from the eagle take permit and how that mitigation will compensate for any adverse impacts from operations to the local golden eagle population and ensure a stable or increasing local population. We have similarly updated the EA (pages 3-26 and 3-51).

U.S. Fish and Wildlife Service. 2016. Final Programmatic Environmental Impact Statement for the Eagle Rule Revision. Prepared by the Division of Migratory Bird Management, U.S. Fish and Wildlife Service, Falls Church, VA.

EBRPD Comment 3: Other Focal Raptor Species. Red-tailed hawk (*Buteo jamaicensis*), Western burrowing owl (*Athene cunicularia*) and American kestrel (*Falco sparverius*), forage and potentially nest on the Project site. The Draft EA should compare regional population trends, such as may be gleaned from publications or eBird data, with existing APWRA mortality reports to highlight those species undergoing declining trends that may warrant additional mitigation measures or options. For example, American kestrel nest box occupancy in the eastern United States declined by 3% /year from 1984-2007 (Smallwood et al. 2009).

Service Response to EBRPD Comment 3: The Commenter notes that the environmental analysis (EA) should compare regional population trends with existing Altamont Pass Wind Resource Area (APWRA) mortality data to derive conclusions. The analysis in the EA and Appendix H was conducted at the statewide, rather than regional, scale. This was determined to be appropriate level of analysis to account for seasonal and annual immigration into and emigration out of the project area by focal species. However, we agree with the Commenter that population trend data are useful to inform our effects determinations.

Red-tailed hawk populations in the state are considered robust and North American Breeding Bird Survey (BBS) trends have shown an increase in the California population (USGS 2020a). However, statewide declines in American kestrel populations have been reported (USGS 2020a). Regional trends parallel statewide trends (an increase in red-tailed hawk in BCR 32 and a decrease in American kestrel in BCR 32) for both species (USGS 2020b).

Studies have shown declining trends for burrowing owls within the coastal Bay Area and its interior (Wilkerson and Siegel 2010). Although Altamont has been described as one area of the state with a potentially stable population, data are lacking on the number of

breeding pairs in the area, and local trend estimates are uncertain (Townsend and Lenihan 2007; Wilkerson and Siegel 2010). However, recent declines have also been reported in Imperial Valley, where the highest concentrations of burrowing owls in the state are located (AECOM 2012) and where effects on the species would be most impactful to the statewide population. As stated in Appendix H, the Alameda County avian monitoring team, with approval of the Scientific Review Committee, began a study of background fatality (ICF 2016) after the *Alameda County APWRA Repowering Program Environmental Impact Report (PEIR)* was published. The authors of the study noted that California was in its fourth year of a historic drought, and anecdotal information suggested that the burrowing owl population was rapidly declining. Owl movement and migration is irruptive by nature and makes trends difficult to determine. This may be one reason why BBS data for the species is insufficient to report a statewide trend (USGS 2020a). However, all available data indicate the possibility of a statewide decline for the species.

Red-tailed hawk population trends indicate that it is unlikely that any impacts from such a small project would affect known populations. Although we acknowledge declines in the kestrel statewide populations, the impacts from the Rooney Ranch project are small in that they would contribute 6 percent of the APWRA mortality which itself would only contribute <1 percent of the statewide population. Accordingly, and as stated in the EA, estimated annual mortality from the project will not appreciably contribute to cumulative impacts to known kestrel populations and therefore should not appreciably contribute to any declines that may be occurring.

During biological surveys for the proposed Project, three burrowing owl pairs were observed at the project site, so their use of the site can be assumed (ICF 2018), and, as we stated in Appendix H, it is likely that the proposed Project would generate fatality rates higher than the norm for the APWRA and likely more than the minimum two birds per year that was estimated (Table H-5). Although we acknowledge that there may be a decline in the burrowing owl statewide populations, the impacts from the Rooney Ranch project are small in that they would contribute 6 percent of the APWRA mortality. As stated in the EA, the maximum estimated APWRA mortality for burrowing owls would contribute less than 1 percent of mortality to the statewide population. Accordingly, and as stated in the EA analysis, estimated annual mortality from the project will not appreciably contribute to cumulative impacts to known burrowing owl populations and so should not appreciably contribute to any declines that may be occurring. Additionally, the PEIR provides Avoidance and Minimization Measures (adopted by the Applicant under the State CEQA Guidelines Appendix G Checklist for this project as stated in the Habitat Conservation Plan (HCP)) that would reduce the likelihood of injury or mortality to burrowing owls during construction of the proposed Project (BIO-1b, *Implement best management practices to avoid and minimize impacts on special-status species*; BIO-1e, *Retain a biological monitor during ground-disturbing activities in environmentally sensitive area*; BIO-3a, *Conduct preconstruction surveys for habitat for special-status*

wildlife species; and BIO-8b, *Implement measures to avoid and minimize potential impacts on western burrowing owl*). These measures would ensure that nesting or wintering burrowing owls are not present in burrows in the project footprint during construction and would not be crushed or killed in burrows. These measures also protect nesting owls found on the site protected from construction activities with appropriate non-disturbance buffers and monitoring. Measures would also be implemented during project operation (including BIO-11a, *Prepare a project-specific avian protection plan*; BIO-11b, *Site turbines to minimize potential mortality of birds*; BIO-11c, *Use turbine designs that reduce avian impacts*; BIO-11d, *Incorporate avian-safe practices into design of turbine related infrastructure*; BIO-11g, *Implement post-construction avian fatality monitoring for all repowering projects*; BIO-11i, *Implement an avian adaptive management program*), which would reduce injury or mortality of birds from potential collisions with wind turbines and other project-related features. PEIR Measures BIO-5c, *Restore disturbed annual grasslands*; BIO-9, *Compensate for the permanent loss of occupied habitat for western burrowing owl*; and BIO-11h, *Compensate for the loss of raptors, including golden eagles, by contributing to conservation efforts*, would also be implemented to compensate for injury, mortality, or habitat loss of burrowing owl from the construction and operation of the proposed Project.

Commenter notes “eBird data”, which we reviewed; the eBird sightings within the APWRA are marginally useful for confirming species’ presence, but inadequate to estimate trends, and eBird trend data for the state are in development, but not published. There is no apparent relevance between kestrel numbers in the eastern United States and population trends in the APWRA.

We have updated Appendix H to incorporate available population trend data (described above) under the “Analysis for Each Species or Species Group” [pages H-11 and H-12] and “Cumulative Effects” Sections [pages H-19 and H-20]. We have updated the EA on page 3-51 to add that these population trends were considered in making our effects determinations.

AECOM. 2012. 2012 Burrowing Owl Monitoring Results Imperial Irrigation District Rights of Way Imperial County, California. Report prepared for Imperial Irrigation District, CA. 48 pp.

ICF. 2016. *Final Report Altamont Pass Wind Resource Area Bird Fatality Study: Monitoring Years 2005–2013*. April. ICF J&S 00904.08. Sacramento, CA. Prepared for Alameda County Community Development Agency, Hayward, CA.

ICF. 2018. *Biological Resources Evaluation for the Rooney Ranch Wind Repowering Project*. July. ICF 00066.17. Sacramento, CA. Prepared for Rooney Ranch, Salt Lake City, UT.

- Partners in Flight. 2020. PIF Population Estimates Database. Available online at: <http://pif.birdconservancy.org/PopEstimates/Database.aspx#province>; last accessed January 28, 2020.
- Townsend, S. E., and C. Lenihan. 2007. Burrowing owl status in the greater San Francisco Bay Area, p. 60–69. In J. H. Barclay, K. W. Hunting, J. L. Lincer, J. Linthicum, and T. A. Roberts [Eds.], Proceedings of the California Burrowing Owl Symposium, November 2003. Bird Populations Monographs No. 1. The Institute for Bird Populations and Albion Environmental, Inc., Point Reyes Station, CA.
- U.S. Geological Survey (USGS) 2020a. Trend and Annual Index Information for California, USA. Available online at: <https://www.mbr-pwrc.usgs.gov/cgi-bin/atlas15.pl?CAL&2&15&csrfmiddlewaretoken=3YKakk7LxT2ki6NSpl4mstudYCqdW02C>
- U.S. Geological Survey (USGS) 2020b. Trend and Annual Index Information for Coastal California (BCR 32). Available online at: <https://www.mbr-pwrc.usgs.gov/cgi-bin/atlas15.pl?S32&2&15&csrfmiddlewaretoken=3YKakk7LxT2ki6NSpl4mstudYCqdW02C>
- Wilkerson, R. L., and R. B. Siegel. 2010. Assessing Changes in the Distribution and Abundance of Burrowing Owls in California, 1993–2007. Bird Populations 10: 1–36.

EBRPD Comment 4a: In another example about the relevance of population trends, Dr. Shawn Smallwood has been censusing random plots throughout the APRWA for burrowing owl since 2011 (see also Smallwood et al. 2006, 2013). Smallwood states “In my assessment, the Altamont’s population of burrowing owls is in trouble. Wind turbines can certainly contribute cumulatively to a decline of burrowing owls. The newer turbines are not killing burrowing owls at the same rates as had the old turbines, but even the fewer numbers killed going forward could contribute significantly to the species’ decline and eventual extirpation. Burrowing owls are close to extirpation throughout the Bay Area west of the Altamont, and last I checked there were only 3 recent eBird records between Solano and Yolo Counties (east and north of the Altamont). In short, burrowing owls are declining regionally, and not only in the Altamont” (Smallwood, personal communication).

Service Response to EBRPD Comment 4a: Comment noted. We reviewed the Smallwood articles referenced (2006 and 2013). Neither article contains the statements quoted in the comment, nor does it appear that these statements were based on the research found in these articles. Neither article provides research showing a declining regional population trend. See Comment #3 with respect to our review of published trend data for burrowing owls.

Our analysis (on page H-11 and H-12) identifies a number of issues relevant to the health of the local burrowing owl population, including turbines, predation, prey availability,

drought, and habitat degradation. To assess and address these potential concerns, our Migratory Bird Program staff coordinates with the state, county, and other partners on a regular basis.

See Comment #3 with respect to our response about the use of eBird data to confirm species presence, abundance, or trends.

The Service's Eagle Permit Coordinator, Heather Beeler, is a member of the Alameda County Technical Advisory Committee (TAC) for the Altamont Pass Wind Resource Area (APWRA). The TAC assists the County by evaluating the results of each repowered project's bird and bat mortality monitoring to determine the need for adaptive management measures based on County requirements under their Program Environmental Impact Report (PEIR) for repowering. Per the PEIR's Mitigation Measure BIO-11i, an avian adaptive management program will be implemented if fatality rates are above the baseline rates. The adaptive management actions would be aimed at decreasing fatality rates to burrowing owls and other species should those rates be greater than the county predicted. Because The city of Santa Clara adopted the Alameda County's PEIR for this project's approvals, those same commitments, requirements, and TAC process will be applied and the Service's Migratory Bird Program will continue to work with the counties, city of Santa Clara and the Project to minimize impacts to bird populations.

Smallwood, K.S., Thelander, C.G., Morrison, M. L. and L. M. Rukke. 2006. Burrowing owl mortality in the Altamont Pass Wind Resource Area. *Journal of Wildlife Management* 71:1513-1524. DOI: 10.2193/2006-307

Smallwood, K. S. 2013. First Year Estimates of Bird and Bat Fatality Rates at Old Wind Turbines, Forebay Areas of Altamont Pass Wind Resource Area. April. 24 pp.

EBRPD Comment 4b: In addition, burrowing owls are closely tied to California ground squirrel (*Otospermophilus beecheyi*) colonies, and according to Smallwood "The overall ground squirrel decline [in the APWRA] was 64%... from 2011 to 2019. I also found that where there are no squirrels, there are no nesting attempts by burrowing owls" (Smallwood, personal communication). These observations highlight possible mitigation options, such as measures that would promote coexistence of ground squirrel colonies in well-managed rangelands.

Service Response to EBRPD Comment 4b: Comment noted. The Service is aware of the ecological relationship between ground squirrels and burrowing owls. Your comment will be retained in our records. Additionally, our analysis (on page H-11 and H-12) identifies a number of issues relevant to the health of the local burrowing owl population, including turbines, predation, prey availability, drought, and habitat degradation.

EBRPD Comment 5: Prairie Falcon (*Falco mexicanus*). This species is on the California Department of Fish and Wildlife "Special Animals List" <https://www.dfg.ca.gov/wildlife/nongame/list.html>. The District remains concerned about the status of this species, which may be experiencing local declines in portions of the Diablo Range (Bell, unpublished data). Pairs that nest both within and outside of the APWRA forage within its

boundaries in overlapping home ranges (Solomon 2012). Although fatality estimates of prairie falcons in the APWRA are low relative to the four focal species of raptor listed in the PEIR (2014), they may represent a significant impact to the sparse, local breeding population of prairie falcons. Both breeding adults and locally-fledged prairie falcons have been recovered as fatalities in the APWRA (USGS Bird Banding Laboratory Reports, Patuxent Wildlife Research Center, MD). In 2019, a prairie falcon fatality was recorded at Golden Hills North (GHN) on 8 May (H.T. Harvey & Associates and Great Basin Bird Observatory 2020), on 23 May 2019 two dead prairie falcon chicks were recovered from the nearest nest site, and no adults were observed in the vicinity, suggesting that the fatality at GHN may have led to the nest failure. This raises a cumulative impact not previously considered in fatality estimates, namely, wind project fatalities of adult birds during the nesting season which impact nest productivity. Although estimating this impact requires detailed information on species-specific population dynamic parameters, an important research topic for any species impacted by the APWRA, it nonetheless illustrates that most avian fatality estimates are likely underestimates which in turn underestimate population-level impacts.

Service Response to EBRPD Comment 5: Comment noted. The Service will continue to address concerns to bird populations from operational wind turbines through our participation with the Alameda County Technical Advisory Committee (TAC) process and our eagle take permits

This Environmental Assessment (EA), as described in the Methodology section of Appendix H, considers species of concern as defined by the Service, within BCR 32. The prairie falcon is not a BCR 32 species of conservation concern, but was addressed in the EA due to local concerns about it, and due to its having been recorded as a fatality during wind turbine monitoring studies. Such mortalities have rarely been observed; only two prairie falcon fatalities are known to have occurred at any of the repowered projects, with one at Vasco Winds and one at Golden Hills. We acknowledge that there is a potential decline in the regional prairie falcon population; however, the data are not adequate to define a trend at the regional or statewide scale (USGS 2020a, 2020b). We agree with Commenter that death of a member of a mated pair during the nesting to fledging period is likely to result in nest failure and mortality of affected young. This effect has been recognized in studies of golden eagle mortality in the Altamont Pass Wind Resource Area (APWRA) (e.g., Wiens and Kolar 2019), but seemingly not for other species. However, it is not apparent that this effect is more prevalent now than previously, or at the proposed Project rather than others; thus, this bias cannot be shown to have any greater effect on population status now than it has had in the past.

U.S. Geological Survey (USGS) 2020a. Trend and Annual Index Information for California, USA. Available online at: <https://www.mbr-pwrc.usgs.gov/cgi-bin/atlasa15.pl?CAL&2&15&csrfmiddlewaretoken=3YKakk7LxT2ki6NSpl4mstudYCqdW02C>

U.S. Geological Survey (USGS) 2020b. Trend and Annual Index Information for Coastal California (BCR 32). Available online at: <https://www.mbr-pwrc.usgs.gov/cgi->

<bin/atlas15.pl?S32&2&15&csrfmiddlewaretoken=3YKakk7LxT2ki6NSpl4mstudYCqdW02C>

Wiens, J. D., and P. S. Kolar. 2019. Golden Eagle Population Monitoring in the Vicinity of the Altamont Pass Wind Resource Area, California. 2014–2018. Administrative Report.

EBRPD Comment 6: As an aside, the Draft HCP includes loggerhead shrike under the Prairie Falcon heading (p. H-19).

Service Response to EBRPD Comment 6: Thank you. We have updated page H-20 of Appendix H in the Final Environmental Assessment (EA) to correct this error. Please be aware that Appendix H is an appendix to the Environmental Assessment (EA) and not, as stated in this comment, an appendix to the Draft Habitat Conservation Plan (HCP).

EBRPD Comment 7: Small Birds and Bats. A recent assessment of avian guilds shows that 74% of grassland bird species in North America are in decline (Roseburg et al. 2019). This includes species such as Western Meadowlark (*Sturnella neglecta*) and horned lark (*Eremophila alpestris*), two species that are rising to the top of the list of passerine birds impacted by repowered projects in the APWRA (e.g. see H.T. Harvey & Associates and Great Basin Bird Observatory 2020). Recent use of dog search teams in fatality monitoring studies in the APWRA have shown that the mortality rates for small birds (e.g. passerines < 100g) and bats are several times to orders of magnitude higher, respectively, than previously assumed (Smallwood et al. 2020, H.T. Harvey & Associates, 2017, 2018, 2020, H.T. Harvey & Associates and Great Basin Bird Observatory, 2020).

Service Response to EBRPD Comment 7: Commented noted. We recognize that many bird taxa in North America are in decline and that different stressors have been linked to these declines. Wind power is one of those stressors. Our analysis is based on statewide population estimates and is not tiered to the North American population scale. As stated in the Environmental Assessment (EA), the impacts from the Rooney Ranch project are small and will not appreciably contribute to cumulative impacts to any of the regional populations of small birds and bats that might be in decline. However, we agree with the Commenter that recent studies (including the H.T. Harvey & Associates monitoring reports cited in Appendix H) clearly show that use of dogs in surveys produces far higher detection rates for small animal carcasses than were achieved using earlier survey methods. We note this fact repeatedly (pages H-6, H-9, and H-16) and use the high mortality estimates provided by H.T. Harvey & Associates' monitoring reports to support conclusions regarding project impacts on bats.

The Service will continue to address concerns to bird populations from operational wind turbines through our participation with the TAC process and through our eagle take permits. The Technical Advisory Committee (TAC) process is aimed at ensuring that the impacts to bird populations both at the individual project level and cumulatively within Alameda County portion of the Altamont Pass Wind Resource Area (APWRA) do not exceed impacts prior to repowering when annual take rates had been reduced through

settlement agreement requirements as required under the Program Environmental Impact Report (PEIR).

EBRPD Comment 8: Appendix H of the Draft HCP should compare regional trends of species groups with existing APWRA mortality reports to highlight those species undergoing declining trends that may warrant additional mitigation options. For example, Hoary Bat (*Aeorestes cinereus*), which registers the second highest fatality rate among bats in the APWRA (e.g. H.T. Harvey & Associates 2020), is experiencing regional population declines in the Pacific Northwest (Rodhouse et al. 2019).

Service Response to EBRPD Comment 8: See the response to Comment 3 regarding comparisons with regional species population trends. With regard to hoary bat in particular, the analysis on page H-17 of Appendix H cites the work of Rodhouse et al. (2019) and describes the abundant evidence that wind power in general is contributing to the deaths of very large numbers of this species and the decline in the Pacific Northwest population. Page H-17 through H-18 and page H-22 of Appendix H describes why we cannot determine that the proposed Project would directly or cumulatively result in a significant decline in hoary bat populations: there is no data that indicates that the migrating animals in the Altamont Pass Wind Resource Area (APWRA) contribute their numbers to the Pacific Northwest population. However, if we assumed a 2.5 million population status (as in Rodhouse et al. 2019) to some regional population, the contribution of annual mortality from the APWRA to this population would be 0.04 percent, which, with a assumed 1.5 percent growth rate per Rodhouse et al. (2019), should not affect the modeled population.

As stated in on page H-22 of Appendix H,

Although there is evidently potential for wind turbine mortality to cause appreciable population declines in the hoary bat population, the proposed Project makes an immeasurably small contribution to that decline. Therefore, the fatality rates anticipated under the proposed Project are unlikely to have any population-level effects upon the hoary bat.

We acknowledge that the project will cause a small amount of annual mortality in the APWRA (6 percent of the estimated annual mortality in the APWRA). However, the contribution to the APWRA mortality and, ultimately, to the regional population from the Rooney Ranch project, is small and thus unlikely to contribute appreciably to any of the regional declines that may be occurring.

Rodhouse, T. J., Rodriguez, R. M., Banner, K. M., Ormsbee, P. C., Barnett, J., and K. M. Irvine. 2019. Evidence of region-wide bat population decline from long-term monitoring and Bayesian occupancy models with empirically informed priors. *Ecology and Evolution* 00:1-11.

EBRPD Comment 9: Fortunately, for bats at least, it appears that increasing turbine cut-in speeds, and more importantly, curtailment of turbines during high risk periods such as peak bat

migration in fall and spring, may offer effective mitigation measures to reduce bat fatalities (Smallwood and Bell 2020a). More research on bat flight behavior in relation to turbine operations (e.g. Smallwood and Bell 2020b) would improve the development of operational mitigation strategies to reduce impacts with little effect on energy production. Furthermore, research on fatality monitoring that incorporates the use of dogs and optimizes search intervals would improve the precision of fatality estimates (Smallwood et al 2020, Smallwood 2020).

Service Response to EBRPD Comment 9: We recognize that there are promising mitigation options to substantially reduce hoary bat mortality, as is required under the Program Environmental Impact Report (PEIR). Our analysis is conservative in that it does not assume that the required mitigation would have any given level of effectiveness above that which was already being done at the sites used for our fatality estimate. We also recognize the importance of using dogs to improve carcass detections for songbirds and bats; please see response to Comment 7.

EBRPD Comment 10: Turbine Micro-siting and Mitigation Measures. Turbine micro-siting, referred to in Effect BIO-6 of the Draft EA (p. 3-27), should involve quantitative, predictive collision hazard models to inform turbine placement during project planning and design to reduce risk to the four focal raptor species: golden eagle, red-tailed hawk, American kestrel and Western burrowing owl (e.g. see Smallwood et al. 2009, 2017). So far, six versions of collision hazard models for each species have been developed, with latter versions of the models performing better at predicting collisions, especially for golden eagle, red-tailed hawk and America kestrel (Smallwood and Neher 2017). On-going research on raptor flight behavior, associated terrain elements, and satellite telemetry data from golden eagles has been instrumental for improving model performance. Serious consideration should be given to removing all high-risk turbine sites from the Project, as it is becoming abundantly clear from recent monitoring reports in the APWRA that the number of wind turbines and their relative density is likely defeating the gains achieved through micro-siting. In addition, Smallwood et al. (2008) showed that raptors tend to forage and use areas of turbine-free habitat more often than ridges with turbines. Thus, the most effective mitigation measure to reduce overall impacts to volant animals which are significant and unavoidable, would be to employ quantitative collision hazard modelling with micro-siting to identify high risk turbine sites and remove them from the Project's footprint. In addition to reducing collision hazards, this would provide "islands" of turbine free areas within a project. In effect, this could potentially save a project more costs than "after-the-fact" expensive mitigation options such as are now being employed at the Golden Hills Wind Project, e.g. IdentiFlight©, a mitigation measure whose effectiveness in the APWRA remains experimental.

Service Response to EBRPD Comment 10: Turbine micro-siting is a required component of the proposed Project, as part of its compliance with the Program Environmental Impact Report (PEIR). The Service is on the Technical Advisory Committee (TAC), and we will make our recommendations to the city of Santa Clara regarding micro-siting of turbines through that process. Our analysis is conservative in that it did not assume any beneficial effects of micro-siting in and of itself. However, the Golden Hills and Vasco Winds projects, which were used as data sources for estimates of mortality risk, were both micro-sited. We have no evidence that Rooney Ranch project micro-siting would be

more, or less, effective than the micro-siting used at the Golden Hills and Vasco Winds projects. We recognize that micro-siting is still a developing technology, one among several that may in the future help to minimize avian and bat deaths at wind turbines, but any such potential future benefits did not weigh into our determination whether the Rooney Ranch project, in and of itself or cumulatively, would cause decline of regional bird or bat populations.

EBRPD Comment 11: Other Mitigation Options. Other mitigation options not mentioned under Effect BIO-6 of the Draft EA should include landscape-level approaches, such as supporting ecosystem services through the East Bay Regional Conservation Investment Strategy (<https://scc.ca.gov/2019/03/25/east-bay-regional-conservation-investment-strategy-draft-released/>). Ecosystem services could include those provided by ground squirrel colonies in well-managed rangelands that in turn would provide revenue for private ranching operations. Being a keystone species, the California ground squirrel supports a host of rangeland species by providing burrow habitat and serving as a prey source.

Service Response to EBRPD Comment 11: Comment noted.

EBRPD Comment 12: Cumulative Impacts Future Projects, APWRA-wide. Effect BIO-6 of the Draft EA should address and evaluate the APWRA certified capacity of 450MW with the cumulative APWRA-wide impacts of existing, permitted and planned wind projects on the focal raptor species (golden eagle, red-tailed hawk, American kestrel, that will result in respective fatality levels that will exceed those set forth in the PEIR (2014). In addition, significant and unavoidable cumulative impacts to burrowing owls, other birds and bats need to be addressed moving forward. The APWRA is at a turning point. All evidence points to the likelihood that volant animal fatality rates caused by existing and planned repowering projects will rise to unsustainable levels for multiple species and reach or exceed pre-repowered conditions.

Service Response to EBRPD Comment 12: We recognize that the Altamont Pass Wind Resource Area (APWRA) may at some time exceed the 450-megawatt repowering “cap” considered in the 2014 PEIR. However, that has not yet occurred (Andrew Young pers. Comm.).

The Service will continue to address concerns to bird populations from operational wind turbines through our participation with the Technical Advisory Committee (TAC) process and through our eagle take permits. The TAC process is aimed at ensuring that the impacts to bird populations, both at the individual project level and cumulatively within Alameda County portion of the APWRA, do not exceed impacts prior to repowering when annual take rates had been reduced through settlement agreement requirements as required under the Program Environmental Impact Report (PEIR).

Young, Andrew. Planner. County of Alameda, Hayward, CA. June 30, 2020 —Email.

EBRPD Comment 13: Given the above comments, we disagree with the conclusion in Appendix H of the Draft HCP that “...project would not alter the known population status of affected bird or bat species” (p. H-1) and the statement in Draft EA that “However, the {Project’s} effect is

not expected to be significantly adverse because it will not reduce bird or bat populations to an unsustainable level” (p. 3-28).

Service Response to EBRPD Comment 13: Comment noted. Please be aware that Appendix H is an appendix to the Environmental Assessment (EA) and not, as stated in this comment, an appendix to the Draft Habitat Conservation Plan (HCP).

National Park Service (NPS)

NPS Comment 1: Pinnacles NP [*National Park*] recommends that the Final EA analyze potential impacts to federally endangered California condors. Pinnacles NP manages a California condor release site and continuously monitors condors released from that site to assist in their protection and survival. Based on data from GPS wing tags on some of the condors, Pinnacles NP-managed condors have flown within 8 miles of the proposed project (Figure 1). Condors regularly fly over 100 miles in a single day. Their range has expanded in all directions as their population has grown to nearly 100 birds in central California. Continued range expansion is expected as Pinnacles NP continues to release condors into the wild (Punzalan, 2020, unpubl data; Bakker et al., 2017). Condors may be injured or killed if struck by wind turbines or if they collide with associated power lines. The soaring flight behavior of condors puts them at risk of using areas also preferred by wind energy development (Poessel et al., 2018).

In addition to the proposed wind turbines, the project area also hosts grazing land. Condors forage over grazing lands on stillborn calves and full-size cattle carcasses. Based on condor foraging behavior and the range expansion over the past 25 years since condor releases began, condors will likely use the project site within the 36-year time span of the permit.

Service Response to NPS Comment 1: The Service thanks the NPS for the information that GPS data has shown that condors have expanded their range north of the Pinnacles NP within the last decade and collared condors have flown within 8 miles of the HCP Project Permit Area within the past few years. Recent habitat modeling has predicted that the area would likely provide foraging habitat for condors (D’Elia *et al* 2015) as indicated in your comments.

The Service, however, does not consider the Condor range to have expanded into Project Permit Area where potential impacts from collision with turbines might result in injury or mortality to individuals. Including analysis of such impacts to condor into the EA impact analysis would be speculative, because condors have not yet been observed flying in the Altamont Pass Wind Resource Area or within the Project Permit Area.

A recent discussion with condor experts (Condor Species Expert Call, pers. comm., 2020) confirm that range expansion location and rate is speculative and too uncertain to predict; condors have moved into areas that were not anticipated (e.g. Sierra Nevada) and have not moved into others areas that experts predicted. A recent, unpublished research project by Arianna Punzalan and Randall Boone used data from GPS collared condors from 2006-2017 to predict where condor’s were most likely to expand their range. The Altamont Pass Wind Resource Area was not located within the area of predicted range expansion (Punzalan, A., pers. comm., 2020). Based on these discussions with condor

experts, the Service will not include analysis of condor in the EA, because condors have not been observed within the HCP Project Permit Area and their expansion location and rate is uncertain.

Updates to the EA or HCP:

Table 3-6 in the EA has been updated with the above data to explain why Condor has not been included in the EA analysis.

Table 2 in the HCP has been updated with the above data to explain why Condor has not been included as a Covered Species.

NPS Comment 2: Pinnacles NP requests further coordination with the U.S. Fish and Wildlife Service (“the Service”) regarding condor impact avoidance and minimization at this project. We are aware of the Service’s ongoing work to protect condors in the Tehachapi Wind Resource Area and appreciate the opportunities to coordinate and minimize the risk of condor incidental take at this project.

Service Response to NPS Comment 2: The HCP has been amended to include a Section titled “Triggers for Amendment”. This section will include text that requires the Applicant to do an impact assessment if species experts consider a listed species range to have expanded into the Project Permit Area, or if a listed species, not analyzed by the HCP, is observed within the Project Permit Area. At that time, the Applicant and the Service will do an impact assessment and based on the assessment the Applicant will consider adding it as a Covered Species to the amendment or will apply for a new permit. During this process, the Service will update their Section 7 analysis appropriately by including the listed species whose range has expanded or who has been observed within the project permit area. If that species is condor, then the Service will discuss with the National Park Service, at that time, any potential impact avoidance and minimization measures that could be used to meet Section 7 obligations to minimize take of condors.

Victoria Lopez

Victoria Lopez Comment 1: No, please don’t allow the “take” of any of these animals. Please protect the San Joaquin kit fox, California tiger salamander, and the California red-legged frog from harm. Put their protection first in these things. I oppose them being killed and harmed.

Service Response to Victoria Lopez Comment 1: Thank you for your comment.