

Appendix E

Comments on the Draft Subsequent Environmental Impact Report and Responses to Comments

The Draft SEIR was circulated for review and comment by the public, other interested parties, and public agencies. Verbal comments provided during the September 12, 2019 public hearing and comment letters received are listed in Table E-1. Copies of verbal comments received at the September 12, 2019 public hearing are written comments received in response to the Draft SEIR are included in Appendix E-2.

State CEQA Guidelines Sections 15088(a) and 15088(b) require that comments raising environmental issues must receive reasoned, good faith, written responses in the Final EIR. This chapter contains all the comments received on the Draft SEIR and the Lead Agency's responses to these comments. In general, the responses provide explanation or amplification of information contained in the Draft SEIR.

CEQA is primarily focused on the potential significant environmental impacts that may result from a project. Comments that are outside the scope of CEQA review will be provided to the County for consideration as part of the project approval process. These comments are answered with a general response.

The comment letters have been numbered as shown in Table E-1. Within each letter, individual comments have been numbered consecutively. For example Comment 1-1 is the first comment in the comment letter received from Shawn Smallwood, PhD.

Revisions made to the Draft SEIR in response to comments are presented in the Final SEIR as text to be deleted (strikethrough) and text to be added (underline) and are referenced by page number in the response to comment. The Final SEIR incorporates these changes, as well as minor, clarifying revisions made by the Lead Agency.

Table E-1. Verbal Comments and Comment Letters Received on the Draft SEIR

ID#	Name	Date
PH-1	Adrian Dykzeul	September 12, 2019
1	Shawn Smallwood, PhD	September 18, 2019
2	California Department of Transportation, Mark Leong, District Branch Chief	September 20, 2019
3	Bay Area Air Quality Management District, Greg Nudd, Deputy Air Pollution Control Officer	September 23, 2019
4	California Department of Fish and Wildlife, Gregg Erickson, Regional Manager	October 3, 2019
5	State of California, Department of Justice, Tara L. Mueller, Deputy Attorney General	October 4, 2019
6	East Bay Regional Park District	October 4, 2019
7	Golden Gate Audubon Society, Pam Young, Executive Director	October 4, 2019
8	Shawn Smallwood, PhD	October 4, 2019
9	U.S. Fish and Wildlife Service	October 9, 2019

E.1 Master Responses

The following responses address important issues raised by multiple commenters. Master Responses were prepared to address these topics and provide a consistent response to these comments. Where specific comments raise the topics addressed in these Master Responses, the Master Responses are referenced by number (e.g., Master Response 1).

E.1.1 Master Response 1: Smaller Turbine–Pre-Micro-Sited Layout Alternative

Introduction

Several comments on the Draft Subsequent Environmental Impact Report (draft SEIR) focused on the proposed Smaller Turbine–Pre-Micro-Sited Layout Alternative (Micro-Sited Alternative), described in Chapter 4, *Alternatives*, of the draft SEIR. These comments addressed turbine siting decisions, rotor-swept area (RSA), blade-to-ground distance, the number of proposed turbines, and the analysis of avian and bat fatalities associated with these factors. This response provides background on the development of this alternative and describes the relationship of the micrositing process to the draft SEIR, describes information used in the development of the Micro-Sited Alternative, and describes the relationship of new information identified in comments on the draft SEIR to this alternative.

Background

As noted in Chapter 1, *Introduction*, of the draft SEIR, the draft SEIR was prepared pursuant to CEQA Guidelines Section 15162, as a project tiered from the Altamont Pass Wind Resource Area Repowering Program EIR (PEIR), which was certified in November 2014. In order to reduce the impacts of wind projects in wind turbine repowering projects in the Altamont Pass Resource Area, the PEIR calls for implementation of a variety of mitigation measures, one of which, Mitigation Measure BIO-11b, requires that turbines be sited to minimize potential bird mortality; similarly, Mitigation Measure BIO-14a requires that turbines be sited to minimize potential bat mortality. The process of making site-specific adjustments to individual turbine locations based on wind conditions, topography, and avian and bat behavior in order to reduce collision risks is known as “micrositing.”¹

The Project analyzed in the draft SEIR would be required to implement these and other measures recommended in the PEIR to avoid or minimize impacts on avian and bat species to the extent feasible. Because micrositing is required by a mitigation measure of the PEIR, the Lead Agency intended for it to be performed after a project’s CEQA review is complete, not before. Nevertheless, to address comments and to further consider potential means of reducing Project impacts on avian

¹ The micrositing process is further described in Mitigation Measure BIO-11b (described in the draft SEIR, page 3.4-75) and Mitigation Measure BIO-14a (described in the draft SEIR, page 3.4-88). Mitigation Measure BIO-11b specifies the content of a micrositing study and its incorporation into an Avian Protection Plan that the Altamont Pass Wind Resource Area Technical Advisory Committee (TAC) will review to ensure consistency with the PEIR, with approval required prior to Project commercial operation. Mitigation Measure BIO-14a requires turbine siting to minimize bat collision risk and requires that a bat habitat assessment and a roost survey, as specified in Mitigation Measure BIO-12a (draft SEIR, page 3.4-85), be performed prior to development of any repowering project.

and bat species, the applicant commissioned two separate project-specific micro-siting studies (Smallwood and Neher [2018] and Estep [2019]) and proposed a micro-sited layout in response to them. The draft SEIR (on pages ES-3 and 4-4) identifies this layout among the Project alternatives analyzed in the draft SEIR as the micro-sited alternative, which would relocate nearly half of the proposed turbines proposed as part of the Project, reduce the RSA² by 13%, and increase the average blade-to-ground distance of the proposed Project's 40 turbines by 75%. By reducing turbine sizes, the micro-sited alternative also reduces the Project's nameplate capacity by 24% from 144.5 megawatts (MW) down to 109.5 MW. As shown in Appendix E-3 Attachment 3, *Micro Siting Overview Tables*, hereto, this alternative follows an expert micro-siting recommendation at 24 turbine sites; uses a partial, modified, or secondary recommendation at five additional sites where the full recommendation could not be feasibly implemented; and reduces the turbine size at 10 of the 11 locations where turbines could not be relocated due to setback or other physical constraints.

Each of these steps is expected to reduce collision risks. Micro-siting will not eliminate collision risks, and has limitations (for more details, see the Response to Comment AG-26). Nevertheless, Estep (2019) notes that "Careful siting of new-generation turbines that included an assessment of avian collision potential . . . continues to be considered the most effective means of reducing fatality rates of targeted raptor species." In the Micro-Sited Alternative, nearly three quarters of the site's turbines are sited at or near the expert-recommended location. Furthermore, increasing blade-to-ground clearance to place the rotor-swept area of a wind turbine further from the ground likely reduces avian collisions. (PEIR on pages 2-3 to 2-4, 3.4-104, 3.4-105, 3.4-106; "The increased distance from rotors to the ground . . . [is a] positive development[] that could potentially reduce fatality rates." Estep [2019] page 2). Reducing the overall RSA of a project is also generally expected to reduce collision risks because it is reasonable to infer that a smaller RSA would result in fewer bird and bat strikes than a larger RSA.

Development of this alternative required that the Project applicant initiate the micro-siting process during CEQA review. Further micro-siting revisions may be performed prior to Project construction at the recommendation of the Altamont Pass Wind Resource Area Technical Advisory Committee (TAC) in its review of the Avian and Bat Protection Plan required of the Project.

Data Used to Develop the Smaller Turbine–Pre-Micro-Sited Layout Alternative

The Micro-Sited Alternative was developed by the applicant and is documented in the *Sand Hill Micro-siting Alternative Summary* prepared by the applicant and described in Appendix E-3 Attachment 1, *Summary of Micro-siting*; Attachment 2, *sPower Responses to California Office of the Attorney General: Smallwood and Estep Sand Hill Micro Siting Recommendations and Sand Hill Response: Pre-Micro Sited Layout Alternative (Proposed Layout 5)*; and Attachment 3, *Micro Siting Overview Tables*. Attachment 1, prepared by the applicant, replaces the table attached as Exhibit 1 to the *Sand Hill Micro-siting Alternative Summary*. Attachment 2, also prepared by the applicant, corrects and expands on a table attached as Exhibit A, *Pre-Micro-Sited-Layout Alternative*, included in comments submitted by the California Office of the Attorney General (Letter 5, Comment 22). Attachment 3, also prepared by the applicant, provides a concise summary of micro-siting efforts.

Development of the Micro-Sited Alternative was informed by recommendations by Smallwood and Neher (2018) and Estep (2019). *The Sand Hill Micro-siting Alternative Summary* prepared by the

² "Rotor-swept area" is the area through which the rotor blades of a wind turbine spin, as seen when directly facing the center of the rotor blades.

applicant cites the work by Smallwood and Neher (2018) and Estep (2019) in explaining that the Micro-Sited Alternative relocates roughly half of the proposed Project's turbines and employs the results of these micrositing reports to reduce the RSA and increase the minimum blade-to-ground distance of 35 of the proposed Project's 40 turbines. It explains that the work of Smallwood and Neher (2018) was used to develop a revised turbine layout to address "collision hazards for golden eagle, red-tailed hawk, American kestrel, and burrowing owl." Citing Smallwood and Neher's (2018) statement that "map-based collision hazard maps need to be interpreted carefully, meaning the hazards of specific terrain and wind situations . . . should always trump model predictions," the Project applicant interpreted that statement as warranting a second, more site-specific review, and accordingly commissioned a second Project-specific micrositing report: Estep (2019). The project applicant explained that "The Estep report was designed to refine Smallwood and Neher (2018) by reexamining each proposed turbine location in Layouts 1–4, and providing more specific relocation recommendations" (Anonymous 2019). These recommendations are summarized in Appendix E-3 Attachment 1. Estep (2019) made a micrositing recommendation for each potential turbine site, including an estimate of risk to birds at that site, and a determination of whether an alternative location would reduce potential mortality. The applicant then developed the Micro-Sited Alternative in response to the analyses provided in each of these reports (i.e., Smallwood and Neher [2018] and Estep [2019]). The *Sand Hill Micrositing Alternative Summary* also refers to "ongoing consultation with Estep" during preparation of the final alternative (Anonymous 2019).

While the Smallwood and Neher (2018) and Estep (2019) sources were considered in the design of the Micro-Sited Smaller Turbine Layout, some recommendations were not feasible to implement. For instance, some siting recommendations could not be implemented due to County setback requirements, while others could not be implemented because turbines would have to be placed so close together that wake turbulence effects (wake effect) would render them commercially infeasible. "Wake effect" is the phenomenon by which wind passing through a turbine is slowed down and disturbed, leaving behind a wake of slower-moving, more turbulent air that reduces production from, and increases stress on, downwind turbines. Wake effect must be taken into account when siting turbines to avoid production losses and turbine damage. The industry standard is to site turbines at least 10 rotor diameters apart front-to-back, and at least 3 rotor diameters shoulder-to-shoulder. If these distances are not observed, turbine manufacturers often require a wind sector management plan that shuts down turbines under certain wind conditions to avoid turbine damage, further diminishing productivity. The siting constraints caused by wake effect are such that some of the micrositing recommendations of Smallwood and Neher (2018) and Estep (2019) could not be adopted without severely diminishing the capacity of the Project and threatening significant damage to turbines. County setback requirements, such as requirements that turbines be located away from property boundaries, further limited the applicant's ability to follow certain micrositing recommendations. These siting constraints are further described in Appendix E-3 Attachment 4. Response to Comment 5-26 provides additional detail regarding the Project's contractual and financial constraints. The Micro-Sited Alternative balances these considerations, which are described on a site-by-site basis in Appendix E-3 Attachment 1.

For instances in which the above constraints would have rendered full implementation of turbine relocation recommendations infeasible, the recommendations were modified to preserve feasibility through one or more of the following changes.

- Turbine relocation to a site other than the ones recommended by Smallwood and Neher (2018) or Estep (2019), but agreed in subsequent consultations with Estep to yield reduced risks to raptors compared to the initially-proposed turbine location.

- Turbine relocation to a site where collision risk was lower and wake turbulence effects would increase, but not to the point that the turbine would be commercially infeasible.
- Turbine blade-to-ground clearance increased by using a different turbine, altering site grading profile, or both.
- Turbine capacity and RSA reduced.
- At some turbine locations, more than one of these modifications were made. Specific dispositions for each turbine are documented in Appendix E-3 Attachments 1, 2 and 3, which summarize, for each turbine in the proposed Project.
- Whether it was retained in the Smaller Turbine–Pre-Micro-Sited Layout Alternative.
- Whether the turbine capacity was changed.
- The risk rating assigned by Smallwood and Neher (2018).
- The recommendation made by Smallwood and Neher (2018).
- The action taken in response to Smallwood and Neher’s recommendation.
- The risk rating assigned by Estep (2019).
- The recommendation made by Estep (2019).
- The action taken in response to Estep’s recommendation.
- Whether the changes served to reduce collision mortality risk.

Site-specific considerations are noted in these attachments, as applicable.

E.1.2 Master Response 2: Avian and Bat Impacts

Section 1: Introduction

Several comments were provided on the draft SEIR that questioned the analysis of avian and bat impacts in the draft SEIR. Some comments suggested that the analysis was deficient, and others provided information that the commenters asserted should have been considered in the draft SEIR. This response describes CEQA requirements as they pertain to the emerging science of avian and bat impacts, describes the methods and data sources that were used in the draft SEIR, describes new information provided by commenters on the draft SEIR that was considered and incorporated into the Final SEIR, and describes the effect of this new information on the analysis and conclusions reached in the draft SEIR. Avian and bat impacts related to turbine micro-siting decisions are addressed earlier in Master Response: Smaller Turbine–Pre-Micro-Sited Layout Alternative.

This master response is organized as follows:

- Section 2: CEQA Requirements Regarding Use of Emerging Science
- Section 3: The Draft SEIR Methodology Updates the PEIR Methodology
- Section 4: Data Sources Used in the Draft SEIR
- Section 5: New Information Presented in Comments on the Draft SEIR
- Section 6: New Information Incorporated into the Final SEIR

- Section 7: Summary of Outcomes

Section 2: CEQA Requirements Regarding Use of Emerging Science

Given the range and complexity of the topics required for analysis under CEQA, the analysis of a project's environmental impacts must contend with how to incorporate information and methodologies arising from evolving scientific research. While preparation of an EIR requires that analysts consider multiple sources and perspectives, it is not the job of the preparers or the lead agency to resolve all uncertainties and unresolved issues surrounding the analysis of environmental impacts under CEQA. Rather, the methodology and analysis should incorporate sufficient technical data to establish a project's environmental setting and support the EIR's conclusions regarding its environmental impacts. All such conclusions must be supported by substantial evidence, include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts (CEQA Guidelines Section 15384(b)). Based on substantial evidence in light of the whole record, the lead agency shall determine whether a project may have a significant effect on the environment. As noted in Section 15151 of the CEQA Guidelines,

An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.

This is consistent with the California Supreme Court's recent holding that CEQA does not require an exhaustive discussion of a project's every possible environmental impact, but rather "a good-faith effort at full disclosure." *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 515. Thus, "[t]he ultimate inquiry . . . is whether the EIR includes enough detail to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project." *Id.* at 516; *id.* at 525 (holding that CEQA does not mandate a risk assessment be as in-depth as a Health Risk Assessment, but rather "requires that the EIR have made a reasonable effort to discuss relevant specifics" such that it "allow[s] the public to make an informed decision"); *see also North Coast Rivers Alliance v. Kawamura* (2015) 243 Cal.App.4th 647, 679 ("The level of specificity is determined by the nature of the project and the rule of reason.").

A good-faith effort does not mean every study referenced by a commenter must be addressed. As noted by the California Supreme Court's seminal *Laurel Heights* decision, "A project opponent or reviewing court can always imagine some additional study or analysis that might provide helpful information. It is not for them to design the EIR. That further study . . . might be helpful does not make it necessary" (*Laurel Heights Improvement Assoc. v. Regents of U.C.* [1988] 47 Cal.3d 376, 415).

Under CEQA, the lead agency's burden is to provide substantial evidence to support its findings. Per Public Resources Code Section 21080(e)(1), substantial evidence includes facts, reasonable assumptions predicated on fact, or expert opinion supported by fact. As noted above and cited throughout the draft SEIR, the SEIR's conclusions regarding the impacts of the proposed Project are supported by substantial evidence in a variety of forms, including information contained in the PEIR and updated information, including scientifically based studies and reports available since certification of the PEIR. Sources for all descriptions of the Project's environmental setting and conclusions regarding Project impacts are cited at the end of each chapter and section in the *References Cited* section.

Even where conclusions are explained and supported by substantial evidence, disagreement among experts may arise regarding what information should be considered and which methods should be used to assess the impacts of a project. CEQA case law allows for such disagreement, however, and supports the notion that disagreement among experts does not make an EIR inadequate. Evidence of disagreement with other agencies is not enough to show a lack of substantial evidence in support of the agency's determination (*Center for Biological Diversity v. Calif. Dept. of Forestry and Fire Protection* [Dec. 30, 2014] 232 Cal.App.4th 931, 947-48; *Town of Atherton v. California High-Speed Rail Authority* [2014] 228 Cal.App.4th 314, 355; *Save Panoche Valley v. San Benito County* [June 25, 2013] 217 Cal.App.4th 503, 527; *North Coast Rivers Alliance v. Marin Municipal Water District Board* [May 21, 2013] 216 Cal.App.4th 614, 642-43; *Save Cuyama Valley v. Santa Barbara County* [2013] 213 Cal.App.4th 1059, 1072; *Save Round Valley Alliance v. County of Inyo* [2007] 157 Cal.App.4th 1437, 1467-68; *Eureka Citizens for Responsible Government v. City of Eureka* [2007] 147 Cal.App.4th 357, 371-72; *Californians for Alternatives to Toxics v. California Department of Pesticide Regulation* [2006] 136 Cal.App.4th 1049, 1076).

Section 3: Methodology for Assessing Potential Avian and Bat Impacts

The PEIR and the draft SEIR use the same methods to determine the impacts of wind energy development on birds and bats. This methodology entails the following steps.

- Estimating bird and bat mortality rates in the Altamont Pass Wind Resource Area (APWRA) during a baseline period when “old style” wind turbines (i.e., large numbers of turbines with low per-turbine generating capacity) were in general use in the APWRA.
- Estimating bird and bat mortality rates in the APWRA at “repowered” sites (i.e., sites where the old-style turbines have been replaced with modern high-capacity turbines).
- Estimating the change in mortality rates between old-style and repowered eras, showing that the technological changes may have reduced avian mortality but have likely increased bat mortality, but, due to uncertainty in the data, mortality rates for both birds and bats are expected to continue to result in a significant and unavoidable adverse impact above baseline conditions.

With regard to avian and bat mortality, the SEIR makes use of data and scientific knowledge that have been acquired since the PEIR was prepared. These data include further monitoring of avian and bat fatalities at two projects, improved carcass recovery yielding more accurate mortality estimates, and a number of scientific publications that have improved understanding of how wind power affects birds and bats, both in general and specifically within the APWRA. This new information was incorporated into the SEIR to inform its calculation of mortality estimates for the Sand Hill project.

The SEIR shows this new information did not yield different conclusions than those reached in the PEIR. In particular, the additional information considered in the SEIR confirmed that average and weighted average avian and bat mortality estimates continued to indicate reductions below baseline levels generally in line with the mortality estimates of the PEIR. It also confirmed that uncertainties inherent in the data could result in higher mortality rates than estimated, that the mitigation measures identified in the PEIR were appropriate for the proposed Project, and that substantial unavoidable adverse impacts on avian and bat species would still remain (ICF 2019:39–41).

Section 4: Data Sources used in the Draft SEIR

The draft SEIR updated the PEIR analysis to identify impacts specific to the Sand Hill project based on the best available science. New information considered in the draft SEIR that was not available at the time of PEIR certification are detailed in Section 2.2, *Program-Level Updated Information*, of the draft SEIR as follows.

- Wind resource area capacity.
- Changes in wind turbine technology.
- Latest science and monitoring results regarding avian and bat fatalities.
- Updated raptor conservation mitigation measure.
- Setback requirements.
- Federal Aviation Administration lighting requirements.
- Site development review.
- Avian Protection Plan and annual reporting requirement changes.
- Changes in disturbance estimates.

The approach used in the draft SEIR for estimating potential impacts of the proposed Project is the same as the PEIR. It uses bird and bat fatality data collected during operations monitoring at other recent wind power projects in the APWRA and compares those results to the fatality rates recorded in the APWRA for wind power projects using old-generation turbines (i.e., the baseline condition). The draft SEIR incorporates into its quantitative analysis of avian and bat mortality impacts new monitoring data available from post-PEIR monitoring results from two wind power projects in the APWRA (Vasco Winds and Golden Hills). Use of these data is detailed in draft SEIR section, *Avian Fatality Analysis Methods*, (draft SEIR pages 3.4-37 to 3.4-40) and *Bat Fatality Analysis Methods* (draft SEIR pages 3.4-41 to 3.4-42).

Comparable data do not exist to enable alternative methods of analysis suggested by some commenters, such as a carrying capacity analysis or a population viability analysis. These alternative methods would also be unsatisfactory because they assume that the affected populations are resident in the APWRA, when many birds and bats are non-resident and use the area during their seasonal migrations. Factors such as available food, water, cover, prey, and predator species all affect a particular species' carrying capacity. Analysis of such numerous factors is both difficult to do and beyond the scope of what is required under CEQA. CEQA does not require an exhaustive discussion of a project's every possible environmental impact, but rather "a good-faith effort at full disclosure" (*Sierra Club v. County of Fresno* [2018] 6 Cal.5th 502, 515; *id.* at 525 [holding that CEQA "requires that the EIR have made a reasonable effort to discuss relevant specifics" such that it "allow[s] the public to make an informed decision"]; *see also* CEQA Guidelines Section 15151 ["An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible."]). Nonetheless, the Lead Agency has made a rough approximation of potential cumulative effects on focal species populations. Please refer to Response to Comment AG-16 for further details.

Section 5: New Information Presented in Comments on the Draft SEIR

Some new sources of information were presented by commenters, and were evaluated as to whether they represented substantial new information for the purposes of CEQA compliance. These new sources have been included in the analysis and cited in the Final SEIR where they provide a clearer, and to some degree more quantitative, understanding of the proposed Project's operational impacts on birds and bats, and how those impacts may best be mitigated. The principal new sources of information that have been identified by commenters include the following.

- Allison et al. (2019), published fall 2019, a review paper about *Impacts to wildlife of wind energy siting and operation in the United States*.
- Rodhouse et al. (2019), published August 2019, providing new information regarding potential population-level impacts of wind power and other stressors on little brown bat and hoary bat.
- Smallwood and Bell (2019), published July 2019, on "Relating bat and bird passage rates to wind turbine collision fatalities," results of a study performed in the APWRA.
- Smallwood et al. (2019), published July 2019, on "Skilled dog detections of bat and small bird carcasses in wind turbine fatality monitoring," also the results of a study performed in the APWRA.
- Wiens and Kolar (2019) regarding long-term adverse effects of APWRA development on the local area golden eagle population.

While the new information listed above has been incorporated into the Final SEIR, none of the comments received on the SEIR provided new information of substantial importance that could not have been known with the exercise of reasonable due diligence in 2014 that has since shown new or more significant impacts to avian and bat species outside the scope of the PEIR.

Section 6: New Information Incorporated into the Final SEIR

As noted, the new information cited above has been incorporated in the Final SEIR. This information addresses (a) causes and likely rates of bat mortality (page 3.4-17, page 3.4-88); (b) behavior and biology of one of the principal bat species affected, the hoary bat (page 3.4-17, page 3.4-92, page 5-6); (c) potential Project effects on hoary bat populations (page 3.4-18, page 3.4-93, page 5-7); and (d) efficacy, practicability, and potential further refinement of mitigation measures to minimize bat mortality (page 3.4-17, page 3.4-94). These revisions are further detailed in Section 7 of this master response, *Summary of Outcomes*. This information was used to more fully describe the types and magnitude of Project effects on birds and bats and to refine mitigation measures provided in the draft SEIR to improve their likely efficacy.

More specifically, the final SEIR has been updated in response to the following new information presented in comments on the draft SEIR.

- Commenters (comment letter received from Shawn Smallwood, PhD, dated October 4, 2019) presented information about the occurrence of burrowing owls in the Project area, indicating that the prior estimate likely underestimated owl abundance in the area. This information does not alter the conclusions of the DSEIR because the DSEIR observed on the basis of conclusions drawn by the Golden Hills mortality reports that predation may play a larger role in the higher rates of burrowing owl mortality than estimated in the PEIR. This information is incorporated in final SEIR page 3-4-24.

- Commenters presented information regarding the use of dogs in carcass detection (Smallwood et al. 2019). The information indicates that prior estimates of mortality among bats and small birds are likely underestimated; the final SEIR has been revised to reflect this finding, in the discussion of bat mortality and the importance of using dogs in carcass detection (pages 3.4-17, 3.4-92, 3.4-94 and 3.4-95). By inference, mortality rates calculated on the basis of past monitoring efforts in the APWRA have likely underestimated both the numbers of animals and the number of species affected. However, data are still insufficient to generate more than a very uncertain estimate of the magnitude of this underestimation. Also, Smallwood (2011, 2016) presented information addressing the topic of carcass detection. This information was known at the time of preparation of the draft SEIR through incorporation of the Golden Hills year 1 and year 2 post-construction bat and avian monitoring reports, which used carcass detection dogs. While the use of detection dogs has substantially increased detection of bat and small bird carcasses, this information was factored into the draft SEIR's estimated mortality rates for the Project as part of the first- and second-year monitoring results of the Golden Hills project. As shown in the mortality estimates of the draft SEIR, this new information does not change the determinations of the PEIR and SEIR that bat mortality rates are likely to increase under a repowering regime, nor does it change the conclusions of the PEIR and draft SEIR that rates of mortality under repowered conditions are too uncertain to assume impacts will be reduced below a level of significance.
- Commenters cite sources that enable a fuller explanation of the risks posed to bats by wind turbines. These include Allison et al. (2019) and Smallwood and Bell (2019). Work by Rodhouse et al. (2019) enables a better understanding of the potential consequences of turbine-caused mortality for populations of the hoary bat, one of the principal bats killed by wind turbines in the APWRA. This information suggests that the population-scale impacts are potentially more adverse than as described in the draft SEIR, and revisions have accordingly been made in the final SEIR (pages 3.4-17, 3.4-92, 3.4-93, 3.4-94, and 5-7). However, this information is not new information under Guidelines 15162 or 15088.5. As described in the Response to Comment 5-26, the PEIR concluded that repowering would result in substantial increases in bat fatalities, and the avian and bat assessment prepared for the draft SEIR confirmed this conclusion. The draft SEIR incorporates the most recent available data on bat mortality in APWRA – largely from Vasco Wind and Golden Hills – which confirm the original conclusion of the PEIR that repowering the APWRA likely would increase impacts on bat resources compared to old-generation turbines (draft SEIR at pages 3.4-9-11; see PEIR at pages 3.4-131 – 133. See also the Responses to Comments 1-16, 8-4, and 7-17).
- Rodhouse et al. (August 2019) provides new information regarding potential population-level impacts of wind power and other stressors on little brown bat and hoary bat, finding that declines in abundance with local extirpations of hoary bat populations in Washington and Oregon are possible if currently-observed mortality rates (due to wind energy and other factors, such as white-nose syndrome) are not reduced; the final SEIR has been revised on pages 3.4-17, 3.4-18, 3.4-92, and 5-7 to reflect this new information. This information adds to the analysis in the PEIR and draft SEIR, but does not substantially change those documents' analyses or conclusions that repowering would result in substantial increases in bat fatalities. As a result, Rodhouse (2019) does not constitute significant or substantial new information for purposes of CEQA Guidelines Sections 15162 or 15088.5.
- Smallwood and Bell (July 2019) in *Relating bat and bird passage rates to wind turbine collision fatalities*, provides the results of a study performed in the APWRA. This paper, published nearly

concurrently with the draft SEIR, finds that bat mortality estimates utilizing detection dogs may still underestimate bat fatalities. The final SEIR has been revised on pages 3.4-92 and 3.4-94 to reflect this new information. This does not substantially change the analysis or conclusions in the PEIR or draft SEIR, which find that bat mortality rates are likely to increase under a repowering regime. It also does not change the conclusions of the PEIR and draft SEIR that rates of mortality under repowered conditions are too uncertain to assume impacts will be reduced below a level of significance. As a result, recirculation is not required under CEQA Guidelines Section 15088.5.

- Smallwood et al. (July 2019) in “Skilled dog detections of bat and small bird carcasses in wind turbine fatality monitoring,” provides the results of a study performed in the APWRA underscoring the importance of the use of trained detection dogs in mortality detection surveys. The final SEIR has been revised on page 3.4-17 to reflect this new information. While the use of detection dogs has substantially increased detection of bat and small bird carcasses, this information was factored into SEIR’s estimated mortality rates for the Project as part of the first- and second-year monitoring results of the Golden Hills project. This does not substantially change the analysis or conclusions in the draft SEIR that bat mortality rates are likely to increase under a repowering regime, nor does it change the conclusions of the PEIR and draft SEIR that rates of mortality under repowered conditions are too uncertain to assume impacts will be reduced below a level of significance. As a result, recirculation is not required under CEQA Guidelines Section 15088.5.
- Wiens and Kolar (2019) and USFWS (2019) present information regarding golden eagle demographics in the Diablo Range. The final SEIR has been revised on pages 3.4-9, 3.4-13, 3.4-14, 3.4-72, 3.4-73, 3.4-76. and 5-9 to reflect this new information. This information does not substantially change the analysis or conclusions in the draft SEIR or PEIR. Instead, it provides additional support for the hypothesis, presented in the PEIR, that the APWRA may be a net sink for golden eagles (see PEIR at 3.4-38, 3.4-106). Consequently, this information does not constitute significant or substantial new information for purposes of CEQA Guidelines Sections 15162 or 15088.5.

Other new information provided by commenters was determined to not be substantial because the comment consisted of one or more of the following.

- Allegations of fact or conclusions of analysis unsupported by evidence in the form of data or reference to published sources.
- Statements of opinion or other rhetorical statements.
- Statements that would not result in any modification of the assessment of the Project’s effects upon bird or bat mortality, would not improve the methods used in the analysis, and would not improve the understanding or efficacy of the proposed mitigation, nor introduce substantial and feasible new mitigation.
- Statements that concern matters already covered by the PEIR and/or the draft SEIR.

Section 7: Summary of Outcomes

The draft SEIR tiers from the PEIR and complies with CEQA requirements. Methods used in the draft SEIR are consistent with those used in the PEIR, but information sources that have been updated since the PEIR was certified have been incorporated into the draft SEIR, to the extent they are relevant and provide reliable information, thus maintaining the “best available science”

performance standard. Details regarding clarifications to the Final SEIR resulting from this information are provided in specific comment responses. Here, the Lead Agency notes that several comments addressed cumulative and population-level impacts on birds and bats, as well as mitigation measures.

Certain comments allege that new information indicates that the PEIR's 450 MW "cap" will be exceeded, rendering the draft SEIR's discussion of cumulative impacts insufficient. New applications for wind energy development within the APWRA would result in exceedance of the 450 MW limit within the program area. Table 2-6, Approved, Operational, and Proposed Project in the APWRA, and related text in Chapter 2 of the final SEIR has been revised to indicate that including all of the operational, approved, and proposed projects within the APWRA, the total program potential would be increased to 479.3 MW. As noted in the revised SEIR Chapter 2, although this is more than the 450 MW of production capacity described in the PEIR as Alternative 2, the proposed project by itself would not result in the total capacity evaluated in the PEIR being exceeded, and subsequent projects that would result in wind development beyond the 450 MW capacity will be required to conduct subsequent environmental review to account for impacts not analyzed in the PEIR.

Further, a discussion of the 450 MW limit in Alameda County is only relevant to the extent that an exceedance of the 450 MW limit presents new or substantially more intense significant overall cumulative impacts outside the scope of the PEIR or SEIR, and the analysis of cumulative impacts in Chapter 5 of this SEIR has been revised to consider development of a total of 479.3 MW within the APWRA among the past, present and reasonably foreseeable projects contributing to cumulative impacts on various resources. As indicated in the revised Chapter 5 discussion, the cumulative impact discussion has been revised to account also for updated cumulative data, including recent data on the population status of all bird species evaluated in Section 3.4, Biological Resources, of the Final SEIR, using species population estimates for Bird Conservation Region (BCR) 32 derived from the Partners in Flight (2020) Population Estimates Database. BCR 32 encompasses the coastal slope and Coast Ranges of central and southern California and the Central Valley, and is the planning unit used by USFWS for most of their bird conservation assessments in California.

These revisions include the addition of Table 5-1 to page 5-7 of the Final SEIR, which shows the range of estimated bird fatalities for the APWRA using the cumulative effects analysis presented in the PEIR, as recalculated using more current monitoring data, consistent with the revisions to the impact analysis in Section 3.4. As shown in Table 5-1, the change in fatality rates matches the 6.4% capacity increase that would result from a 479.3 MW instead of a 450 MW capacity limit for repowering projects in the APWRA. Within BCR 32, the total fatalities would be a small fraction of the population, and thus would have negligible potential to affect population status for all species except the burrowing owl, golden eagle, and tricolored blackbird. All told, the updated analysis reaffirms the PEIR determination of significant and unavoidable impact on both birds and bats, to which the contribution of the proposed program would be cumulatively considerable, and confirms that there is no evidence of a substantial change in the magnitude of the cumulative impact, relative to the analysis in the PEIR.

Other comments asked the Lead Agency to provide quantitative estimates of avian and bat fatalities, taking into account factors such as data from other nearby wind resource areas (including Contra Costa County and the Montezuma Hills Wind Resource Area) and available data regarding local populations. As explained in more detail in the Response to Comment 5-16, although not required by CEQA, the Lead Agency performed this additional analysis to the extent feasible, the results of which are provided in Attachment 7, *Cumulative Fatality Rates*.

Several comments requested additional or revised mitigation measures to address impacts to avian and bat species. In many instances, these comments did not meet the CEQA threshold for modifying or adding to PEIR mitigation measures. The statute of limitations on the PEIR has concluded, such that the adequacy of its mitigation measures is no longer subject to review. “If the statute of limitations has run on [a] previous approval, any challenge to the determination to change the project is limited to the legality of the agency’s decision about whether to require a subsequent or supplemental EIR . . . and the underlying EIR or negative declaration may not be attacked” (*Temecula Band of Luiseno Mission Indians v. Rancho California Water District* [1996] 43 Cal.App.4th 425, 437). This limitation “applies even if the original [CEQA document] was invalid or in some way defective” (*Citizens for a Megaplex-Free Alameda v. City of Alameda* [2007] 149 Cal.App.4th 91, 110). Here, commenters may no longer challenge the adequacy of the PEIR. Further, unless commenters present substantial evidence of substantial changes to the Project, circumstances, or available information that demonstrate new significant environmental effects or increased severity of previously identified significant effects, it is inappropriate for the Lead Agency to add to or modify mitigation measures set forth in the PEIR. See CEQA Guidelines Section 15162. Nevertheless, the Lead Agency has, in limited instances, provided additional clarifications to mitigation measures in the Final SEIR in response to comments. Finally, as explained in the individual responses to comments, no comments recommended feasible mitigation measures considerably different from those of the PEIR and draft SEIR that would clearly lessen the significant effects of the Project. However, the final SEIR does propose modifications to certain PEIR mitigation measures, as follows.

- 2019 Updated PEIR Mitigation Measure BIO-5a: Modified to specify that a qualified biologist will conduct preconstruction surveys that consist of visual surveys of the ground surface and areas within burrows visible from the surface.
- 2019 Updated PEIR Mitigation Measure BIO-8a: Modified to specify survey buffer distances for tricolored blackbird and northern harrier.
- 2019 Updated PEIR Mitigation Measure BIO-11h: Changed the term “eagle take permit” to “eagle incidental take permit.”
- 2019 Updated PEIR Mitigation Measure BIO-14b: Modified to require performing postconstruction bat fatality monitoring using trained dogs with handlers.

This additional information incorporated into the final SEIR described above does not change the significance determinations relative to what was published in the draft SEIR, does not demonstrate a substantial increase in the severity of a significant impact, and does not result in the identification of new feasible mitigation to avoid or substantially reduce the severity of a significant impact identified in the draft SEIR. As a result, recirculation is not warranted under 14 CCR 15088.5. See Master Response 4: Draft SEIR Recirculation.

E.1.3 Master Response 3: Alternatives

Several comments were provided on the draft SEIR that questioned the range of alternatives evaluated in the draft SEIR. These comments suggest alternatives were improperly dismissed, suggest refinements to alternatives that were considered in the draft SEIR, and suggest additional alternatives that were not evaluated in the draft SEIR. This response describes CEQA requirements for the development and evaluation of alternatives and describes how the range of alternatives considered in the draft SEIR is appropriate and need not be expanded as commenters suggest.

The CEQA Guidelines and relevant case law support the notion that an EIR need not discuss every alternative to a project. Instead, an EIR should present “a reasonable range of potentially feasible alternatives.” CEQA grants the lead agency with discretion to determine what constitutes a reasonable range of alternatives that accomplish most or all of a project’s objectives. The alternatives discussion is governed by a rule of reason, with the ultimate objective being to foster informed decision-making and an informed public (*Save Our Residential Environment v. City of West Hollywood* [1992] 9 Cal.App.4th 1745; CEQA Guidelines Section 15126.6[a]). Case law also holds that an EIR need not include multiple variations on the alternatives it does consider, when the relative advantages and disadvantages of other, similar alternatives can be assessed from a review of the alternatives presented in the EIR (*Mira Mar Mobile Community v. City of Oceanside* [2004] 119 Cal.App.4th 477).

In determining the range of alternatives that are carried forward for full analysis in an EIR, the lead agency must consider the feasibility of potential project alternatives in terms of whether such alternatives are “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors” (State CEQA Guidelines Section 15364).

Here, the fundamental objectives of the Project are (1) to maximize wind energy production for power purchase agreements obtained for the Project and 2) maintain commercial viability. Please refer to Master Response: Smaller Turbine–Pre-Micro-Sited Layout Alternative for additional discussion about commercial viability of the Project.

As discussed in draft SEIR Chapter 4, *Alternatives*, a Reduced Footprint alternative was screened and eliminated from further consideration in the SEIR because it would not achieve a fundamental objective of the Project and would not avoid or substantially reduce any significant effects of the Project. Turbine placement at the site is already heavily constrained and compressed to the maximum extent feasible; and, as noted above, the County’s setback requirements create a developable area that is highly restricted (i.e., approximately 30% less than the total Project area) and limits the degree to which the Project can be further compressed. Additionally, it was found that the Reduced Footprint alternative would increase rather than substantially reduce avian and bat impacts by reducing the amount of unoccupied air space between turbines, thereby increasing the likelihood of bat and avian mortalities throughout the Project site.

Finally, several comments suggested that the Lead Agency consider an alternative employing fewer turbines or reducing the Project’s size below that presented in the Micro-Sited Alternative. For further explanation of why the Lead Agency deemed such alternatives infeasible, please see the Response to Comment 5-26.

E.1.4 Master Response 4: Draft SEIR Recirculation

Under CEQA, recirculation is only required when the lead agency adds “significant new information” to an EIR after the public comment period and prior to certification of the EIR. See *Laurel Heights Improvement Association v.*

Regents of the University of California (1993) 6 Cal.4th 1112, 1128. “Information” can include changes in the project or environmental setting, as well as additional data or other information. CEQA Guidelines Section 15088.5(a) further provides:

A lead agency is required to recirculate an EIR when significant new information is added to the EIR after public notice is given of the availability of the draft EIR for public review under Section 15087 but before certification. As used in this section, the term “information” can include changes in the project or environmental setting as well as additional data or other information. New information added to an EIR is not “significant” unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project’s proponents have declined to implement. “Significant new information” requiring recirculation include, for example, a disclosure showing that:

- (1) A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
- (2) A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
- (3) A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project’s proponents decline to adopt it.
- (4) The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

In *Laurel Heights Improvement Association v. Regents of the University of California* (1993) 6 Cal.4th 1112, the California Supreme Court interpreted this “significant new information” standard and explicitly rejected the proposition that “any new information” triggers recirculation. *See also Western Placer Citizens for an Agricultural and Rural Environment v. County of Placer* (2006) 144 Cal.App.4th 890, 903. Rather, recirculation is intended to be an exception, not the general rule. *Id.* at 1128-29 (CEQA does not “generally require that a final EIR be recirculated even though that document by definition contains information not found in the draft EIR in the form of public comments and responses thereto”).

CEQA Guidelines Section 15088.5(b) confirms: “Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR.”

Thus, recirculation is required only if changes are more than clarification or amplification and rise to the level of significant new information as outlined above. To the extent the draft SEIR did not incorporate relevant information or studies offered by commenters, the final SEIR has been revised to include that information (see Master Response: Avian and Bat Impacts, Section 6). However, none of that information alters the draft SEIR’s conclusions regarding impacts on avian or bat resources, which remain consistent with the projections of the PEIR and are recognized as significant and unavoidable. None of the information presented by commenters rises to level of significant new information and recirculation of the draft SEIR is, therefore, not required.

E.1.5 Master Response 5: Scope of Draft SEIR and Comments Relating to PEIR

A number of comments appear to challenge assumptions, conclusions, or methodologies of the PEIR. As noted in Chapter 1, *Introduction*, of the draft SEIR, the draft SEIR was prepared pursuant to CEQA Guidelines Section 15162, as a project tiered from the PEIR, because the Lead Agency considers the Project to be a wind repowering project within the program area defined for the PEIR, and as

generally described by the PEIR and within its scope. The Lead Agency notes that the statute of limitations on the PEIR has concluded, such that the PEIR is no longer subject to review.

Pursuant to CEQA Guidelines Section 15162, a subsequent EIR is appropriate only where (1) there have been substantial changes to the proposed project or its circumstances requiring major revisions to the underlying EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or (2) substantial new information that could not have been known at the time of the previous EIR with the exercise of reasonable diligence shows that (a) the project will have a new significant effect not discussed in the previous EIR, (b) significant effects will be substantially more severe than previously indicated, or (c) new or previously infeasible mitigation measures or alternatives, which the applicant declines to adopt, would substantially reduce significant impacts.

Thus, as the California Supreme Court stated in *Friends of the College of San Mateo Gardens v. San Mateo County Community College Dist.* (2016) 1 CA5th 937, 949, the purpose of CEQA's subsequent review provisions is "to explore environmental impacts not considered in the original environmental document. The event of a change in a project is not an occasion to revisit environmental concerns laid to rest in the original analysis."

Therefore, comments that do not identify new or substantially more severe impacts beyond those addressed in the previously certified PEIR, or identify any new or newly feasible and effective mitigation measures or alternatives, are beyond the scope of the current review.

E.2 Responses to Comments

E.2.1 Comments Received at September 12, 2019 Public Hearing

Response to Comment PH-1

The comment does not raise a specific issue on the substance of the draft SEIR.

E.2.2 Written Comment Letters

Letter 1—Shawn Smallwood, PhD, September 18, 2019

Response to Comment 1-1

The comment does not raise a specific issue on the substance of the draft SEIR.

Response to Comment 1-2

The comment cites a portion of Mitigation Measure BIO-11b presented on page 3.4-104 of the 2014 Draft Program Environmental Impact Report (PEIR); the specific text in question was revised in the PEIR as follows: “All project proponents will conduct a siting process and prepare a siting analysis to select turbine locations to minimize potential impacts on bird and bat species. Proponents will utilize existing data as well as collect new site-specific data as part of the siting analysis.” This mitigation measure was developed as part of the CEQA process for the PEIR, and is intended to be incorporated in project approvals that tier from that document; accordingly, Mitigation Measure BIO-11b has been incorporated into the draft SEIR.

Response to Comment 1-3

The comment provides general background information on the commenter’s historical involvement with and knowledge of the APWRA, but does not raise a specific issue on the substance of the draft SEIR.

Response to Comment 1-4

The comment claims that the draft SEIR mischaracterized and misunderstood prior work prepared by the commenter. Detailed responses to these concerns are provided in the following Responses to Comments 1-5, -6, -7, -8 and -9. The Lead Agency does not interpret the Estep report as competing with or differing substantially with commenter’s report.

Response to Comment 1-5

The comment states that the 2019 Estep report mischaracterizes the effectiveness of Smallwood’s efforts at developing a micrositing approach at Golden Hills and does not acknowledge the evidence of performance of the approach at Vasco Winds. Regardless of the extent to which there may be

disagreements between Smallwood and Estep, the Lead Agency takes into consideration the information provided by monitoring studies that are intended to evaluate the effectiveness of micrositing approaches to inform future micrositing decisions, as required by PEIR Mitigation Measure BIO-11b. As described on page 3.4-12 of the draft SEIR:

However, in general, the approach among all repowered projects, regardless of whether they were constructed, has been similar. Overall, the micrositing approach—and the studies completed to date—are consistent with and support the approach used in the PEIR (Mitigation Measure BIO-11b) that requires micrositing for each subsequent project to “... use the results of previous siting efforts to inform the analysis and siting methods as appropriate such that the science of siting continues to be advanced.” Recent results and new information, such as the influence that grading may have on micrositing, may be useful in subsequent micrositing efforts and will be addressed in future studies consistent with the direction of the PEIR. Moreover, site-specific information for the Sand Hills Project area collected by Smallwood and Neher (2016d) will provide information useful for micrositing efforts.

Response to Comment 1-6

The comment appears to criticize Estep’s characterization of the work produced by Smallwood. While the 2019 Estep report is a source that was used in the draft SEIR impact analysis, the comment does not appear to suggest that the 2019 Estep report is insufficient, inadequate, or otherwise invalid but instead claims that Estep’s methods and conclusions are different from the commenter’s. The reports authored by the commenter (Smallwood and Neher) and Estep generally agreed on which are high-risk turbines, which are lower-risk, which should be relocated, and where they should be relocated to. Accordingly, commenter’s dissatisfaction with Estep’s report does not constitute substantial new information for the purposes of CEQA review. Lastly, the Lead Agency notes that additional site-specific information regarding individual turbine locations and hazardous ratings, and how this information has been considered by the applicant, is provided as part of response to comment 5-22.

Response to Comment 1-7

As described in the Response to Comment 1-6, the commenter appears to criticize Estep’s characterization of the work produced by Smallwood and Neher. The comment does not appear to suggest that the 2019 Estep report is insufficient, inadequate, or otherwise invalid but demonstrates that Estep’s methods are different from the commenter’s. The Lead Agency notes that Estep’s conclusions may also differ from the commenter’s in some instances but appear to be generally consistent in most cases. Accordingly, the commenter’s dissatisfaction with Estep’s report does not constitute substantial new information for the purposes of CEQA review.

Response to Comment 1-8

The commenter states that a specific discussion in the micrositing study prepared by Estep (2019) is speculative. The quoted statement by Estep may be speculative opinion, but it did not influence the analysis in the draft SEIR. Additionally, the Lead Agency believes that expert opinion, considering available research and information, is necessary in the micrositing process because of the lack of precision and evolving nature of the science. The commenter has repeatedly noted that each micrositing study contributes information to the next and, therefore, the Lead Agency notes that consideration of new theories or information is at the heart of the micrositing process.

Response to Comment 1-9

See Response to Comment 1-6. Although the commenter notes that the micro-sited alternative would have greater project fatalities than the preferred alternative if it had greater capacity, the draft SEIR clearly states that the Micro-sited Alternative has substantially lower capacity, and overall smaller rotor swept area, than the proposed project, and thus has an expectation of lower project fatalities. Additionally, please see specific information regarding individual turbine locations and hazardous rates and how each of these have been considered by the applicant in Response to Comment 5-22.

Although commenter contends that smaller turbines (1.79 MW rather than 2.3 MW) kill more birds per megawatt capacity, this was not the conclusion of the PEIR, to which this analysis is tiered. Indeed, the commenter is correct that use of smaller capacity turbines would require more turbines to be used to meet the Project objectives; however, the PEIR and draft SEIR base Project estimates of fatalities on per MW fatality rates (see *Avian Fatality Analysis Methods* on page 3.4-37 of the draft SEIR), making the number of turbines irrelevant in the context of the methodology used to estimate fatality rates. The PEIR analysis found that fatalities are highly correlated with capacity of repowered projects. The commenter also provides no evidence supporting his claim. In any event, commenter will note that the Micro-Sited Alternative uses the same number of turbines as the proposed Project.

The commenter also misinterprets Anonymous (2019) by alleging that it states the commenter provided recommendations about rotor-to-ground clearance. No such statement appears in Anonymous (2019), which merely says that the commenter's input in the form of Smallwood and Neher (2018) helped to inform the Micro-sited Alternative, which would result in lower bird mortality relative to the proposed Project. Additionally, the commenter notes that the PEIR specifies a minimum rotor-to-ground clearance. This is incorrect: the PEIR discusses rotor height of the ground in several locations as a factor that may contribute to fatalities for some species; however, no specific standard is required in the PEIR. Please refer to Response to Comment 5-25 for further details regarding the commenter's assertion.

The commenter states that he disagrees with eight turbine relocations attributed to Smallwood and Neher's (2018) recommendations. The commenter does not specify the relocations to which he refers or his reasons for disagreement, and the Lead Agency has not been able to discern them. Attachments 1 through 3 in Appendix E-3 and the Response to Comment 5-22 specify the turbine relocations attributed to Smallwood and Neher (2018) and Estep (2019). Please also see the Response to Comment 5-22, which provides additional detail regarding individual turbine locations and hazardous rates and how they have been considered by the applicant.

Response to Comment 1-10

The commenter appears to provide additional criticism of Estep's characterization of the work produced by Smallwood and Neher. See response to comment 1-6. For example, the commenter states that he objects "to Estep's claim that Smallwood and Neher (2018) made no siting recommendation at Site 4. We recommended not pursuing this site." The commenter misreads Estep (2019). That report states simply that "Smallwood and Neher (2018) note the high-risk conditions at [Site 4], but do not make a recommendation *for relocation*." (emphasis added). This is entirely consistent with commenter's description of the Site 4 recommendation in Smallwood and Neher (2018).

In any event, the information provided by the commenter does not change the conclusions reached in the draft SEIR and does not result in the identification of new feasible mitigation to avoid or substantially reduce the severity of a significant impact identified in the draft SEIR.

Response to Comment 1-11

See response to comment 1-9. The commenter notes that the Micro-sited Alternative does not relocate some of the highest-risk turbines. This is true. The analysis in the draft SEIR concludes that the Micro-sited Alternative would “reduce bird and bat mortality based on input obtained from two micro-siting studies,” which is also true. We agree that if all micro-siting recommendations had been followed, impacts would have been further reduced, but other considerations such as setbacks, wake effects, and cost feasibility precluded the applicant from following all micro-siting recommendations. For additional information on other micro-siting factors considered, please see Response to Comment 5-22, which discusses specific recommendations for micro-siting and the applicant’s consideration of each site, relative to the studies produced by Estep (2019) and Smallwood and Neher (2019).

Response to Comment 1-12

The commenter misreads the micro-siting summary prepared by applicant (referred to as “Anonymous” by commenter). It states not that the minimum ground clearance of the Smaller Turbine Pre-Micro-Sited Alternative is 24.7 meters, but rather the average minimum ground clearance of the alternative is 24.7 meters. Please see Response to Comment 5-25 for further details. The Lead Agency further notes that micro-siting studies are for determining turbine location, not turbine type.

Response to Comment 1-13

The commenter incorrectly states that “the PEIR rates were of the wrong baseline for comparison to Golden Hills.” Golden Hills was assessed by the PEIR at the project level in part by applying per MW mortality rates from other repowers to determine what the potential mortality rates for Golden Hills may be. The statement quoted by the commenter merely observes that the adjusted, observed mortality rates of Golden Hills were higher than estimated in the PEIR, a result that the PEIR anticipated by concluding that mortality rates could be higher than estimated due to uncertainties in the limited data sets available during preparation of the PEIR. Additionally, the commenter questions what wetness of a given year has to do with fatality rates caused by wind turbines. The answer is in the Golden Hills first year report cited by the commenter (H. T. Harvey & Associates 2018a). H. T. Harvey & Associates explain in detail, on pages vi and 17, and 51, that the unusually high rainfall during the survey year may have confounded carcass search effort, but that it also may have “contributed to expanded populations of resident and seasonally resident smaller breeding birds that are able to quickly respond to improved breeding conditions, and thereby probably contributed to the higher than average fatality rates for common species....”

Response to Comment 1-14

The commenter cites that a higher reproduction rate was observed among burrowing owls and infers that it was the reason why a higher number of burrowing owl mortalities were detected at the Golden Hills project during its second year of monitoring. Although more burrowing owl mortalities were observed at Golden Hills during its second year of monitoring, the second-year monitoring

report itself observed that this may have been in part due to biases in its carcass detectability model (H.T. Harvey & Associates 2018a:60). The Lead Agency also refers the commenter to pages 3.4-70 and 3.4-71 of the draft SEIR, which notes that the second year Golden Hills study itself noted that the form and position of 84% of the detected burrowing owl carcasses were likely the result of predation rather than turbine interaction.

Response to Comment 1-15

The commenter cites potentially useful information but does not include it in this letter or provide a citation or a link to a publicly available study to support the information. In fact, the final monitoring report prepared by the monitoring team and reviewed by the Scientific Review Committee (ICF 2016) evaluated the effectiveness of seasonal shutdowns, (as well as other management actions) in detail. As summarized on pages 4-3 and 4-4 of the final monitoring report, the evidence supports a reduction in fatalities for all four focal species, with the possible exception of American kestrel. The monitoring report (ICF 2016) is already extensively cited in the draft SEIR. The Lead Agency notes that even an 8% reduction in fatality rates is substantial.

Response to Comment 1-16

With regard to Brown et al. (2013), the word “erroneously” has been removed. With regard to the commenter’s “warning the County,” the commenter presents a narrative statement unsupported by data or publications. The commenter seems to be saying we should disregard his published report and instead consider his subsequent undocumented, unrecorded remarks. This does not constitute substantial new information. However, as discussed in Master Response: Avian and Bat Impacts, the Lead Agency has already incorporated the correct fatality rate for bats from Vasco Winds into the draft SEIR (see Table 3.4-9). Additionally, the Lead Agency has also incorporated an estimate of bat fatalities using the recently available Golden Hills monitoring results, into the final SEIR in Table 3.4-9. Additional text has also been added on pages 3.4-95 – 3.4-98 of the final SEIR to amplify the existing analysis of potential impacts on bats. This information broadens the range of potential project bat fatalities but does not alter the findings or conclusions of the draft SEIR.

Response to Comment 1-17

The Lead Agency generally agrees with the commenter, however the comment does not provide substantial information to support the claim made. This information was later provided and has been incorporated into the final SEIR; see the response to Response to Comments 5-16, 5-29, 6-11, and 8-4. The final SEIR contains a modified mitigation measure mandating use of trained dogs in bat mortality detection surveys (see 2019 Updated PEIR Mitigation Measure BIO-14b on page 3.4-95 of the final SEIR). Furthermore, dogs were used in both Golden Hills mortality studies, and the mortality rates from those studies were factored into the draft SEIR (draft SEIR, 3.4-41 – 3.4-42, 3.4-87). The Lead Agency also notes that the BBCS (included as Appendix E-3 Attachment 9), subject to TAC approval, includes the use of scent-detection dogs for 7-day search intervals as part of its monitoring measures (BBCS, pgs 4-4 -5).

Response to Comment 1-18

The commenter presents a narrative statement unsupported by data or publications. The commenter’s inventory of projects does not present substantial new information, and the

commenter's broad reference to "multiple professional meetings" is too vague to determine whether it might refer to substantial information.

Response to Comment 1-19

The characterization of Smallwood (2018) has been revised in the final SEIR, and the micro-siting studies cited in analysis of the Micro-Sited Alternative took grading into consideration.

With respect to the concern raised regarding golden eagle populations, the draft SEIR text discussing the local area population of golden eagles cites work by the U.S. Fish and Wildlife Service, not the Lead Agency's consultant.

Response to Comment 1-20

As commenter notes, the SRC guidelines are to some extent applicable to all APWRA turbines, which is why the draft SEIR cited them.

Response to Comment 1-21

See ICF (2016) for discussion of historic avian monitoring data and the rationale for tracking monitoring data since 2005. As described there, the 2005 through 2013 period was chosen for the purpose of developing mortality estimates useful to assess progress towards meeting the 50% reduction target set in the 2007 settlement agreement, with reduction measured relative to a 1998 through 2003 baseline study period. Since mortality data collected prior to 2005 were collected under management inconsistent with that under which repowering has occurred, those data would not be useful in estimating potential avian fatalities under the proposed Project. The information suggested by commenter does not change the conclusions reached in the draft SEIR and does not result in the identification of new feasible mitigation to avoid or substantially reduce the severity of a significant impact identified in the draft SEIR.

Response to Comment 1-22

As discussed in Master Response 2: Avian and Bat Impacts, the analysis of bat mortality and operational mitigation for such mortality (i.e., Impact BIO-14 and Mitigation Measure BIO-14d, Measure ADMM-7) in the final SEIR has been revised, discussing evidence that such mortality may have population-level impacts. See the Master Response 2: Avian and Bat Impacts for a more detailed discussion of these changes.

Response to Comment 1-23

The draft SEIR does not state that bald eagles don't occur in the APWRA; in fact, it states that they are highly likely to occur in the project area, noting that this "species winters in the APWRA and may forage adjacent to the Project area at Bethany Reservoir; however, no suitable nesting or foraging habitat (large lakes, reservoirs, or rivers) is present in the Project area" (draft SEIR page 3.4-33). Various sources other than the commenter have also documented occasional use of the area by bald eagles, and conclusions of the draft SEIR analysis for "all raptors" are applicable to bald eagle. Please see Response to Comment 5-6 regarding the status of breeding bald eagles in the Project area, as well as a summary of the commenter's reported finding to the applicant.

Response to Comment 1-24

The draft SEIR does not state that Swainson's hawks do not occur in the APWRA; in fact, it states that they are highly likely to occur in the project area, noting that this "species is known to occur in the APWRA; limited nesting habitat (large trees) is present in the Project area but the species could forage in annual grassland throughout the Project area; documented nest sites within 1 mile north of the Project area (CNDDDB 2019)" (draft SEIR page 3.4-33). The draft SEIR also acknowledges that Swainson's hawk fatalities are extremely rare in the APWRA, and that no fatalities have been reported at repowering projects to date, making a fatality estimate difficult. The draft SEIR concludes that the Swainson's hawk fatality rate is likely to remain at or near to zero. However, the applicant has informed the Lead Agency that the applicant is seeking incidental take authorization for this California Endangered Species Act (CESA)-listed species.

Response to Comment 1-25

The commenter is making a statement about the known presence of badgers in the project area. The draft SEIR states that although no badger dens were observed during the field surveys, grasslands throughout the Project area provide suitable habitat, and there is a high potential for occurrence in the Project area. This is consistent with the commenter's statement and with the discussion of impacts in Impact BIO-10, which addresses potential Project impacts on American badger.

Response to Comment 1-26

The draft SEIR does not state that peregrine falcons do not occur in the APWRA; it states that they have a low likelihood of occurrence in the project area, noting that this species is a "potential winter migrant; foraging areas limited and no suitable nesting habitat is present" (draft SEIR page 3.4-34). Various sources other than the commenter have also documented occasional use of the area by peregrine falcons, and conclusions of the draft SEIR analysis for "all raptors" are applicable to peregrine falcons.

Response to Comment 1-27

The draft SEIR does not state that tricolored blackbirds do not occur in the APWRA; in fact, it states that they are highly likely to occur in the project area, noting that "perennial wetland drainage habitat in the Project area provides suitable nesting substrate; foraging habitat is present throughout the Project area. Two confirmed nesting colonies have been documented along Altamont Pass Road and the California Aqueduct adjacent to the Project area (CNDDDB 2019)" (draft SEIR page 3.4-35). The draft SEIR also estimates a relatively small number of potential fatalities that could occur from the proposed Project based on fatality monitoring results from previous repowering projects. Moreover, the applicant has informed the Lead Agency that the applicant is seeking incidental take authorization for this CESA-listed species.

Response to Comment 1-28

The commenter seems to be referring to the long-known fact that carcass detection rates decline as search intervals become less frequent. This is not new information. The commenter refers to surveys performed at Sand Hill, but not as a repowered project. The methodology used in the draft SEIR tiers from that used in the PEIR, which focused on changes in mortality rates attributable to repowering; the commenter's information is thus not relevant because mortality rates recorded at a

non-repowering project will not be useful in estimating mortality attributable to the proposed Project.

Response to Comment 1-29

Review of the monitoring data sources revealed several minor discrepancies in Table 3.4-8 of the draft SEIR. Nonrepowered facilities did not report fatalities of tricolored blackbird or white-tailed kite, so it is not possible to estimate a reduction in fatalities attributable to the proposed Project. A corrected version of the table, including citations to the source data, appears in the final SEIR on page 3.4-70. These changes have not altered the conclusions of the analysis.

Response to Comment 1-30

Draft SEIR page 3.4-91 does not have the text the commenter is referencing. The commenter is likely referring to the golden eagle discussion on draft SEIR page 3.4-71. Per the Response to Comment 1-29, Table 3.4-8 indicates golden eagle fatalities ranging from 1.4 per year (based on Diablo Winds data) to 21.7 per year (based on Golden Hills data), with a mean expectation of 8.825 per year (average of all four repowered projects). The final SEIR text has been revised accordingly.

The commenter also references the cumulative impacts to eagles. Additional detailed discussion of cumulative impacts can be found in Response to Comments 5-16 and 5-17.

Finally, commenter is incorrect when stating that the PEIR identified a not to exceed number for golden eagles in the APWRA. While the PEIR estimated potential mortalities, it expressly stated that such estimates are fraught with uncertainties, so much so that the PEIR concluded impacts would remain significant and unavoidable after mitigation because of the potential for impacts to exceed both the PEIR's estimates and the higher rates of non-repowered conditions.

Response to Comment 1-31

The commenter's attachment presents information that has been used to improve the effectiveness of the micrositing mitigation measure. The Lead Agency notes that the date of this study is September 16, 2019 and that the draft SEIR was published on August 9, 2019, making inclusion of this study in the draft SEIR impossible. However, the final SEIR cites this information in the analysis of the microsited alternative. Both micrositing studies prepared for the proposed Project took potential grading effects into consideration. The impact remains significant and unavoidable.

Letter 2—California Department of Transportation, Mark Leong, District Branch Chief, September 20, 2019

Response to Comment 2-1

The commenter identifies its authorities and responsibilities related to the proposed Project and summarizes Caltrans' understanding of the proposed Project. The comment does not raise a specific issue on the substance of the draft SEIR.

Response to Comment 2-2

As discussed on page 3.1-3 in Section 3.1, *Aesthetics*, of the draft SEIR, one state-designated scenic route, Interstate (I)-580, is located next to the Project area. Also noted on page 3.1-11 of the draft

SEIR, visual impacts during construction would be temporary, lasting approximately 8 months. Upon completion of construction, the proposed Project would implement PEIR Mitigation Measure AES-2b, which would, in part, require restoration and hydroseeding of abandoned roads.

Erosion control measures are discussed in Section 3.10, *Hydrology and Water Quality*, of the draft SEIR. Implementation of PEIR Mitigation Measure WQ-1 (pages 3.10-8 to 3.10-9 of the draft SEIR) requires development of erosion control best management practices (BMPs) and a stormwater pollution prevention plan (SWPPP) before construction. These measures would be implemented throughout the life of the proposed Project and would include appropriate erosion control devices (e.g., earth berm, silt fences, straw bales) to manage water runoff. In addition, graded lands would be restored in a manner to minimize erosion and runoff per development standards in the *Scenic Route Element* of the *County General Plan* (See page 3.1-5 of the draft SEIR for full description).

Turbine components, construction equipment, water tanks, office trailers, and other supplies would be kept in designated staging areas. As described on page 3.1-14 of the draft SEIR, implementation of PEIR Mitigation Measure AES-2c, would further reduce visual impacts by draping equipment to screen from view.

Light and glare-related visual impacts for motorists would be addressed through implementation of PEIR Mitigation Measure AES-1 (see page 3.1-3 of the draft SEIR) which would ensure no high wattage lighting would be used and that any nighttime work be confined to deliveries or special work required at night for safety reasons.

Response to Comment 2-3

Please see Response to Comment CALTRANS 2-2. Implementation of PEIR Mitigation Measure WQ-1, (see pages 3.10-8 to 3.10-9 of Section 3.10, *Hydrology and Water Quality* in the draft SEIR), would require development of erosion control BMPs and a SWPPP before construction and implementation throughout the life of the proposed Project. This will ensure that appropriate erosion control measures are employed.

Response to Comment 2-4

Construction-related transportation impacts were analyzed and discussed in Section 3.16, *Transportation*, of the draft SEIR. Specifically, construction-related impacts on the roadway network are discussed starting on page 3.16-6 of the draft SEIR. Implementation of PEIR Mitigation Measure TRA-1, would reduce construction-related traffic issues along with temporary lane closures required for movement of oversized vehicles (see page 3.16-9 of the draft SEIR for complete mitigation measure text). TRA-1 requires coordination with Caltrans, as well as compliance with any required permits. The comment also appears to suggest that temporary access points would be required; however, the draft SEIR did not identify a need for temporary access points beyond roads in the existing roadway network (e.g., I-580, Altamont Pass Road, Mountain House Road).

Noise impacts are discussed in Section 3.12, *Noise*, of the draft SEIR. Construction noise impacts are discussed starting on page 3.12-5 of the draft SEIR. The proposed Project would adhere to Federal Transportation Administration-suggested noise limits for construction noise to reduce noise impacts on nearby residences. In addition, implementation of PEIR Mitigation Measure NOI-2, would reduce construction-related noise impacts.

The commenter notes that the proposed Project will require a transportation permit for oversized vehicles as well as development of a transportation management plan (TMP). The Lead Agency will coordinate with Caltrans to develop a TMP and secure any required permits before construction as stipulated in Mitigation Measure TRA-1.

Response to Comment 2-5

The Lead Agency will bear the responsibility of ensuring that mitigation measures are implemented as prescribed in the draft SEIR. Details regarding the mitigation measure implementation, schedule, monitoring, and reporting, will be provided in the Mitigation Monitoring and Reporting Program that the Board of Zoning Administrators will consider along with certification of the final SEIR.

Response to Comment 2-6

Caltrans notes its requirements for encroachment permits for state highways. The comment does not raise a specific issue on the substance of the draft SEIR.

**Letter 3—Bay Area Air Quality Management District, Greg Nudd, Deputy Air
Pollution Control Officer, September 23, 2019****Response to Comment 3-1**

The comment notes the Project's proposal and that the draft SEIR's design features and mitigation measures will reduce air quality impacts from construction of the proposed Project. The comment does not raise a specific issue on the substance of the draft SEIR.

Response to Comment 3-2

The comment reiterates the conclusion in the draft SEIR that some air quality impacts would occur even with the application of project design features and on-site mitigation measures and notes that there is no fee program for offsetting emissions. As requested in the comment, the 2019 NEW Mitigation Measure AQ-2c, has been revised in the final SEIR to include other "governmental entity" to allow the project applicant to seek additional options if the Air District has no available projects at the time of project implementation (pages 3.3-19 to 3.3-20, Section 3.3, *Air Quality*).

Response to Comment 3-3

The commenter offers assistance and provides contact information. The comment does not raise a specific issue on the substance of the draft SEIR.

Letter 4—California Department of Fish and Wildlife, Gregg Erickson, Regional Manager, October 3, 2019

Response to Comment 4-1

The comment provides an introduction and does not raise a specific issue on the substance of the Draft SEIR.

Response to Comment 4-2

The comment notes that the Livermore tarplant is categorized incorrectly in the draft SEIR and makes recommendations for mitigation to be implemented if the species is found during surveys. Table 3.4-2 on page 3.4-27 of the final SEIR has been revised to reflect that Livermore tarplant is a state endangered species. Impact BIO-1 of the draft SEIR identifies a less-than-significant impact on special-status plants with implementation of Mitigation Measures BIO-1a through BIO-1e. With the changes to Section 3.4.1 (page 3.4-26) of the final SEIR, which lists 20 special-status plants, including Livermore tarplant, with a moderate to high potential to occur in the Project area, this impact discussion adequately covers potential impacts on this species. Both the PEIR and the draft SEIR include analysis and mitigation measures addressing the potential impacts of repowering on the Livermore tarplant. See e.g., PEIR, Table 3.4-4 and draft SEIR on pages 3.4-20, 3.4-27. The Lead Agency believes that implementation of Mitigation Measures BIO-1a through BIO-1e, which include a number of best practices for minimizing impacts on special-status species, establishment of activity exclusion zones, compensation for impacts on special status species, and construction monitoring would adequately mitigate impacts on special status species, including Livermore tarplant. Therefore, the conclusion has not changed with the revision to Table 3.4-2 in the final SEIR.

The Lead Agency understands that if take of a listed plant cannot be avoided, an incidental take permit would be required to comply with California Endangered Species Act (CESA). Mitigation Measure BIO-1a of the draft SEIR requires that appropriate botanical surveys be conducted and a report of results and avoidance recommendations be prepared and submitted to the Lead Agency. The mitigation measure states that this report will provide the basis for any applicable permit applications needed for where incidental take of listed species may occur.

It should also be noted that Mitigation Measures BIO-1a through BIO-1e originated from the PEIR and, therefore, are only subject to modification if it can be shown that changed information, circumstances or a change in the proposed Project result in new or more intense impacts beyond those assessed in the PEIR. The commenter makes no such showing. Further, even if these measures were subject to challenge, the requirement of surveys for special-status species and implementation of best management practices if special-status plants are found permissibly defers mitigation by expressly requiring surveys to be implemented pursuant to the performance standard of California Department of Fish and Wildlife's (CDFW) 2009 protocols for surveying and evaluating special-status plants.

Finally, the commenter presents two compensatory mitigation measures for Livermore tarplant. Compensatory mitigation for special-status plants described under Mitigation Measure BIO-1d of the draft SEIR would adequately compensate for Livermore tarplant if found during surveys conducted as part of Mitigation Measure BIO-1a by requiring compensatory mitigation for the species at a 2:1 ratio. The measure also requires the applicant to report its compensatory mitigation strategy to CDFW in detail, thereby comprehending the more detailed mitigation suggestions of the

commenter, including whether the applicant would need to file for an incidental take permit to comply with CESA. Nevertheless, Mitigation Measure BIO-1d has been refined in the Final SEIR in response to this comment.

Response to Comment 4-3

The comment notes that there are a number of inconsistencies and errors in the discussion of special-status wildlife species in the draft SEIR. More specifically, the commenter states that the draft SEIR provides a description of suitable habitat and likelihood of occurrence in the Project area for golden eagle, bald eagle, and northern harrier in Table 3.4-3 but does not discuss these species as promised on pages 3.4-20 to 3.4-23. Table 3.4-3 adequately describes suitable habitat and likelihood of occurrence for the golden eagle and bald eagle and has been revised in the final SEIR to include the northern harrier. The final SEIR also has been revised on page 3.4-23 and in the impact discussion for Impact BIO-8, on page 3.4-61 consistent with the PEIR. As discussed in the Response to Comment 5-6, eagle habitat and occurrences on site have been addressed extensively in the draft SEIR and the PEIR from which it tiers, and the final SEIR adds additional clarification. Master Response 2: Avian and Bat Impacts also describes new information incorporated into the final SEIR. Bald eagle is discussed in Table 3.4-3 and has been added to the discussion on page 3.4-19 of the final SEIR that includes a list of bird species that are not expected to nest in the Project area but could forage over the Project area. Potential construction related impact from noise for potential nearby nesting eagles is also discussed in Impact BIO-8 and Mitigation Measure BIO-8a. Operational impacts on golden eagles are discussed throughout the draft SEIR.

The commenter also states that certain draft SEIR tables contain errors regarding listing status. Tables 3.4-2 and 3.4-3 of the final SEIR have been updated to reflect the current listing status for Livermore tarplant, Delta smelt, and foothill yellow-legged frog. Table 3.4-3 has also been updated to include fully protected status for California black rail, bald eagle, and peregrine falcon. Page 3.4-36 of the final SEIR has been updated to indicate that Swainson's hawk is state threatened and white-tailed kite is fully protected.

The final SEIR has been updated to provide additional references to all the special-status wildlife species and their habitats that could be adversely affected by Project activities, as discussed in Master Response 2: Avian and Bat Impacts. All of the species mentioned by the commenter are addressed in the draft SEIR and PEIR; however, for additional clarity, specific mention of northern harrier was added to Table 3.4-3 and Impact BIO-8 of the final SEIR. Impact BIO-8 addresses all migratory birds; therefore, impacts on northern harrier are adequately addressed under this this discussion. 2019 Updated PEIR Mitigation Measure BIO-8a as revised on page 3.4-62 in the final SEIR is adequate to mitigate for potential impacts on northern harrier because it contains specific provisions for raptors, which apply to northern harrier.

Response to Comment 4-4

The comment notes the use of mammal burrows by special-status amphibians and recommends that if burrow excavation is proposed, an excavation and relocation plan should be prepared. The commenter refers to the 2019 Updated PEIR Mitigation Measure BIO-5a, which is part of the PEIR, and, therefore, is not subject to review unless grounds for supplementation under CEQA Guidelines 15162 apply. Mitigation measure BIO-5a does not require burrow excavation. However, it does note that additional conservation measures or conditions of approval may be required in applicable Project permits (e.g., ESA or CESA incidental take authorization). The applicant has applied for

incidental take authorization from CDFW knowing that there is the potential for take of California tiger salamander. Further, the measure has been revised on page 3.4-57 to clarify that preconstruction surveys would include visual surveys of ground surface areas within burrows visible from the surface.

Response to Comment 4-5

The comment recommends protecting suitable habitat for western pond turtle with a 400-foot buffer but does not provide any evidence supporting the extent of such a buffer or evidence that it would be effective and necessary in consideration of the measures already proposed to protect this species during construction of the proposed Project. PEIR Mitigation Measure BIO-6 already provides robust measures to protect western pond turtle in the event that they are encountered during construction of the proposed Project. These measures include preconstruction surveys, followed by active monitoring in the event that any individuals of this species are found, and removal and offsite relocation if individuals do not relocate on their own. These measures are sufficient to protect individuals of this species from harm during construction of the proposed Project; therefore, the text of PEIR Mitigation Measure BIO-6 remains unchanged.

Response to Comment 4-6

The comment notes the location of Swainson's hawk nests relative to the Project site, states that it considers the risk of take of this species to be high, and recommends avoidance measures. Updated PEIR Mitigation Measure BIO-8a in the draft SEIR includes preconstruction nesting bird surveys for all nesting birds including Swainson's hawk; this covers the commenter's recommendation to include preconstruction surveys for Swainson's hawk. The commenter recommends a 5-mile survey radius for Swainson's hawk, which the Lead Agency considers unnecessary in that this requirement would not inform any measures to avoid affecting nesting birds, particularly in light of the extensive avian monitoring data obtained for the Altamont Pass Wind resource Area (APWRA) over the past decade. Updated PEIR Mitigation Measure BIO-8a of the draft SEIR includes a survey radius of 1 mile for raptors, which is adequate to identify active Swainson's hawk nests that could be directly or indirectly affected by construction disturbances. The protocols recommended by commenter are for the Antelope Valley, a desert environment very different from the Altamont. In addition, on the focus of this comment, Mitigation Measure BIO-8a has been carried over from the PEIR, which, as mentioned previously, is no longer subject to challenge. Nonetheless, 2019 Updated PEIR Mitigation Measure BIO-8a has been revised on page 3.4-62 in the final SEIR to include a requirement to survey within 500 feet of work areas for suitable northern harrier nesting habitat. These changes do not alter the significance determinations in the draft SEIR or the PEIR from which it tiers. With respect to commenter's request that the Draft SEIR include "appropriate and effective avoidance measures with an adequate protective buffer, and on-site monitoring of any active nests, during all phases of Project construction," please refer to Mitigation Measure BIO-8a, which requires a qualified biologist to establish no-activity zones around active nests in coordination with USFWS and CDFW sufficient to avoid nest abandonment, and Mitigation Measure BIO-1e, which requires biological monitoring during ground-disturbing activities in environmentally sensitive areas, such as in the vicinity of special-status species.

Impacts on Swainson's hawk associated with proposed Project operations are discussed in Impact BIO-11 and PEIR Mitigation Measures BIO-11a through BIO-11i; these measures are designed to reduce and compensate for significant impacts on raptors, including Swainson's hawk.

The commenter also asks that the Lead Agency require the applicant to obtain incidental take permit coverage for Swainson's hawk. The applicant has informed the Lead Agency that it submitted a CESA incidental take permit application for the potential take of tricolored blackbird and Swainson's hawk.

Response to Comment 4-7

The commenter states that CDFW does not consider a 250-foot survey area as sufficient to detect tricolored blackbird nesting and establish an appropriate protective buffer. The 2019 Updated PEIR Mitigation Measure BIO-8a was revised on page 3.4-62 of the final SEIR to include a survey buffer of 1,300 feet from proposed work areas for tricolored blackbirds.

The commenter also noted that that if take of tricolored blackbird cannot be completely avoided, that the applicant should apply for take authorization under CESA. The Project proposes to avoid impacts on migratory birds during construction, with implementation of 2019 Updated PEIR Mitigation Measure BIO-8a and 2019 Updated PEIR Mitigation Measure BIO-8b. Operation of the proposed project may affect tricolored blackbird as stated in the draft SEIR. The applicant has informed the Lead Agency that they have already applied for take authorization under CESA with CDFW for tricolored blackbird.

The commenter states that the draft SEIR does not specify the location and extent of suitable nesting habitat for removal. In reference to nesting habitat within grasslands, Impact BIO-8 of the draft SEIR states that Project impacts on upland grassland habitat associated with construction and maintenance activities and decommissioning activities are summarized in Tables 3.4-6 and 3.4-7 of the draft SEIR (which provide acreages of habitat impacts). For trees and shrub-nesting habitat, Impact BIO-8 states that few, if any, trees or shrubs would be removed by the proposed Project. The location of Project components within annual grassland are depicted on Figures 3.4-1a, 3.4-1b, and 3.4-1c of the draft SEIR.

In reference to the 2019 Updated PEIR Mitigation Measure BIO-8a related to removing suitable nesting habitat during the non-breeding season, the commenter recommends that historic nest sites of Swainson's hawk, white-tailed kite, and golden eagles should be completely avoided. While there are no known historic nest sites for Swainson's hawk or white-tailed kite within the Project area, there have been several golden eagle nest sites within the Project area. For a discussion of golden eagle nesting in the vicinity of the Project area, see the Response to Comment 5-6. As explained there, golden eagles have alternated their selection of nest locations in this area, and the SEIR contains mitigation measures to address golden eagle nesting impacts. In addition, the draft SEIR and the September 2019 draft BBCS, attached to the final SEIR in Appendix E-3 as Attachment 9, impose aggressive compensatory mitigation requirements. See the Response to Comment 5-11 for additional discussion of draft SEIR and PEIR measures relating to nesting birds. Therefore, no additional compensatory mitigation is deemed necessary.

In reference to the 2019 Updated PEIR Mitigation Measure BIO-8a related to the preconstruction nesting bird survey effort, the commenter recommends that once construction work begins, surveys should continue to ensure that any nest starts established after work commences are identified. It is assumed that if a bird chooses to nest near construction work after work has begun than the birds are not likely to be adversely affected by these disturbances and, therefore, no additional monitoring is necessary. The commenter also recommends that any active bird nests identified during the preconstruction surveys be monitored frequently to detect signs of disturbance and behavioral changes as a result of the proposed Project. The 2019 Updated PEIR Mitigation Measure BIO-8a

includes the establishment of a no-activity zone to avoid disturbance of actively nesting birds identified during the preconstruction surveys. The measure states that the extent of the no-activity zone will be based on the distance of the activity to the nest, the type and extent of the proposed activity, the duration and timing of the activity, the sensitivity and habituation of the species, and the dissimilarity of the proposed activity to background activities. With implementation of the 2019 Updated PEIR Mitigation Measure BIO-8a, nest monitoring is deemed unnecessary as the measure is sufficient to protect nesting birds. No changes were made to the 2019 Updated PEIR Mitigation Measure BIO-8a as it relates to conducting surveys after the commencement of construction in a given area and monitoring nests within the no-activity zone.

Response to Comment 4-8

The commenter states that because of the proposed Project's proximity to Swainson's hawk nests, the take of Swainson's hawk is more likely higher than characterized in the draft SEIR. The comment does not express an opinion or provide evidence of how the SEIR should calculate Swainson's hawk mortality rates. Instead, the commenter recommends that the Lead Agency require the applicant to obtain take authorization for Swainson's hawk. Please refer to Response to Comments 5-11 and 5-23 for further details regarding the proposed Project's relation to Swainson's hawk nests. As noted in the Response to Comment 4-6, the applicant has informed the Lead Agency that they have already applied for take authorization under CESA with CDFW for Swainson's hawk. As the commenter recommends, the Lead Agency has been working with state and federal wildlife agencies, including USFWS, to develop feasible and effective methods to reduce avian fatalities within the APWRA. These methods would be implemented in accordance with the mitigation measures described in the PEIR.

Response to Comment 4-9

The comment recommends that a "robust adaptive management program for birds and bats" be prepared for the proposed Project, and recommends specific measures. PEIR Mitigation Measure BIO-11i requires that the applicant prepare an adaptive management plan as described in this comment. Under the PEIR, this adaptive management plan is required to be prepared following certification of a final EIR, and implemented if fatality monitoring results in estimates that exceed the preconstruction baseline fatality estimates. The applicant has advanced preparation of this Bird and Bat Conservation Strategy (BBCS), which includes an adaptive management plan for birds and bats, and has provided it to the Lead Agency for review and input by the technical advisory committee (TAC). A copy of the BBCS is included as Attachment 9 in Appendix E-3 of the final SEIR. The BBCS addresses the commenter's requests, as it includes provisions relating to turbine curtailment and cut-in speeds.

Response to Comment 4-10

The commenter suggests that Mitigation Measure BIO-11a, which requires the applicant to outline measures that will be taken to discourage prey for raptors, may have additional effects on other species that are dependent on existing burrows. The Lead Agency notes that in the applicant's proposed BBCS (Attachment 9 in Appendix E-3 of the final SEIR), the applicant focused prey reduction methods immediately around turbine bases using methods, such as avoiding rock piles and placing gravel around each tower foundation to discourage small mammal burrowing near turbines. This limited prey reduction strategy is generally consistent with the Lead Agency's

expectations and is unlikely to have any additional measurable effects on small mammal populations or the availability of burrows in the landscape surrounding the turbines.

Response to Comment 4-11

The comment states that CDFW does not consider the alternatives evaluated in the draft SEIR as sufficient to reduce the avian fatality rate to the fullest extent possible. The commenter suggests that further consideration should be given and presented in the Avian Protection Plan to other feasible alternatives to reduce avian and bat fatalities, including serious consideration of the No Project Alternative reduction in Project size, and various siting arrays to avoid and minimize impacts. The commenter does not provide any specific suggestions on what an alternative to reduce the “avian fatality rate to the fullest extent possible” might consist of, other than general references to a “reduction in project size” and “various turbine micro-siting arrays.”

The Lead Agency notes that Bird and Bat Conservation Strategies (formerly known as Avian Protection Plans) are not the appropriate vehicle for considering alternatives. Instead, as required by CEQA, that analysis should take place in the SEIR. As described in Master Response 3: Alternatives, an EIR need not discuss every possible alternative to the proposed Project, but must instead present a reasonable range of potentially feasible alternatives. The Lead Agency has already identified a reasonable range of feasible alternatives that it considers feasible in the draft SEIR, and screened out other alternatives, including a Reduced Footprint alternative, as described in Chapter 4, *Alternatives*, of the draft SEIR. For further explanation of why the Lead Agency deemed certain alternatives infeasible, particularly those that would remove turbines or reduce Project size below that presented in the Micro-Sited Alternative, please see the Response to Comment 5-26.

Furthermore, as described in Master Response 1: Smaller Turbine—Pre-Micro-Sited Layout Alternative and the Response to Comments 5-22 and 5-26, the Smallwood and Neher (2018) and Estep (2019) sources informed the design of the Micro-Sited Smaller Turbine Layout to minimize impacts on birds and bats. As further described in those responses, some recommendations in these reports were not feasible to implement. For instance, some siting recommendations could not be implemented due to County setback requirements, while others could not be implemented because turbines would have to be placed so close together that wake effects would render them commercially infeasible. Additionally, some turbine relocation recommendations were considered, but modified to maximize feasibility and minimize impacts through one or more changes. The Lead Agency also notes that to the extent the commenter takes issue with certain details in applicant’s micro-siting efforts (reflected in the Micro-Sited Alternative), under the framework adopted by the PEIR and carried over into the SEIR, such concerns are properly addressed in and resolved by the TAC, as prescribed by the mitigation measures in the PEIR and draft SEIR.

The County Board of Zoning Adjustments will have the option to approve the No Project—Repowering by Others Alternative, No Project—No Repowering Alternative, proposed Project, or the Smaller Turbine—Pre-Micro-Sited Layout Alternative when considering certification of the final SEIR.

Response to Comment 4-12

The comment suggests extending the post-construction monitoring program specified in PEIR Mitigation Measure BIO-11g from the current 3 years to 5 years on the basis that this could avoid distortions to the data due to drought, abnormally high rain events, or operational changes. The Lead Agency has found that the current 3-year monitoring period is sufficient to collect data on any

given project and has elected to retain the requirement as-is. The Lead Agency also notes that PEIR Mitigation Measure BIO-11g also requires additional monitoring of the proposed Project in year 10 as well as additional monitoring under PEIR Mitigation Measure BIO-11i (adaptive management), if triggered. Collectively, the Lead Agency believes there are ample requirements for monitoring the proposed Project. Furthermore, the results of the proposed Project's 3-year monitoring program will not occur in isolation, but instead will be contextualized and tempered by over a decade of mortality monitoring studies in the APWRA, including results from more recent repowerings. As evidenced by the mortality estimate methodology of the draft SEIR, combining and averaging the results of multiple repowering projects in the APWRA helps control for anomalies unique to a single project's data set.

Response to Comment 4-13

The Lead Agency has addressed CDFW's concerns as described in the responses to comments 5-1 through 5-12. In the event that the Board of Zoning Administrators certifies the final SEIR, the Lead Agency will submit payment for applicable CDFW fees upon filing of the Notice of Determination.

Letter 5—State of California, Department of Justice, Tara L. Mueller, Deputy Attorney General, October 4, 2019

Response to Comment 5-1

The commenter's introductory remarks, including SEIR and Project background, is noted. The comment does not raise a specific issue on the substance of the draft SEIR.

Response to Comment 5-2

This comment provides a summary of the issues raised in the letter, including the perceived draft SEIR deficiencies and the need to base the analysis of wind projects on current science and regulatory requirements. The Lead Agency does not agree that the draft SEIR is not compliant with CEQA or is deficient in its treatment of avian and bat impacts or cumulative impacts. The Lead Agency is satisfied that the draft SEIR does adequately and objectively analyze the full nature and extent of impacts on avian and bat species and habitats. The draft SEIR identifies an alternative and a suite of mitigation measures that would lessen the significant impacts of the Project to the extent feasible. Detailed responses to the issues raised in the letter, including the commenter's assertion that the draft SEIR should be revised and recirculated, are provided in Response to Comments 5-3 through 5-30. The comment's general summary of background law is noted.

Regarding footnote 2 in the comment, which notes the applicant's provision of a detailed mitigation plan to the Lead Agency, the plan, entitled *Bird and Bat Conservation Strategy for the Sand Hill Wind Repowering Project*, (BBCS) prepared by ICF and dated September 2019, as cited in the comment, is included as

Appendix 9 to the final SEIR. Although the BBCS was not available at the time that the draft SEIR was published, it provides the combined equivalents of an Avian Protection Plan and a Bat Protection Plan that would have been required after approval of the conditional use permit and which were not expected to have been prepared in advance of such approval. However, the BBCS was prepared in advance in order to define at a programmatic level how the general mitigation measures identified in the PEIR would be implemented for the Project itself. The BBCS provides for the most advanced level of mitigation that is considered feasible without compromising the fundamental objectives of the Project. See Response to Comment 5-3 for further discussion of why the Lead Agency believes that recirculation of the SEIR for public review is not required.

Response to Comment 5-3

The comment cites recent studies related to nationwide bird and bat fatalities due to wind turbine collisions, as well as recent monitoring data indicating that high golden eagle fatalities in the Altamont pass region, in particular, are due to collisions with wind turbines. The comment further emphasizes the importance of project-level regulatory efforts to reduce avian mortality at project sites. The sources referenced in the comment are consistent with the conclusions of the PEIR and the SEIR that cumulative impacts on avian and bat species would be significant and unavoidable and otherwise confirm the findings of the PEIR and SEIR. For example, the most recent U.S. Geological Survey (USGS) golden eagle survey data confirms the observation on page 3.4-37 of the PEIR that the Altamont Pass Wind Resource Area (APWRA) supports some of the highest known densities of golden eagles in the world. To further reflect the findings of the studies cited by the commenter, and

provide additional context for the analysis of impacts to avian and bat species, text has been added to Section 3.4, *Biological Resources*, of the final SEIR.

The following list provides the information sources identified by the commenter and briefly states why they do not warrant extensive discussion in the final SEIR, represent substantial new information providing evidence of a new significant impact, a substantial increase in the severity of an impact, or new Project alternative or mitigation measure.

- Allison et. al. 2019, *Impacts to Wildlife of Wind Energy Siting & Operations*.
This review is briefly mentioned in the final SEIR, in the discussion of bats on page 3.4-17. However, the information does not identify a new or more severe significant impact, or suggest a new Project alternative or mitigation measure.
- Arnett 2017, *Mitigating Bat Collision*.
This review does not provide new information relative to Arnett et al. (2016), cited in the draft and final SEIR.
- K.S. Smallwood et. al., *Effects of Wind Turbine Curtailment on Bird and Bat Fatalities*, Report for East Contra Costa County Habitat Conservancy, July 2019.
This paper provides new information regarding curtailment strategies for bats and generally supports the adaptive management approach described in Mitigation Measure BIO-14d of the Draft SEIR. However the information does not identify a new or more severe significant impact or suggest a new Project alternative or mitigation measure.
- K. V. Rosenberg et al., *Decline of the North American Avifauna*, Science 10.1126/science.aaw1313, 2019.
This very general survey article contains no information specific to the APWRA or the Project area, or with a focus on the effects of wind energy operations.
- PEIR, page 3.4-105 and E-36 [U.S. Fish and Wildlife Service (USFWS) comment letter on PEIR].
This is not new information; it was already considered in PEIR and draft SEIR.
- Rodhouse et al. 2019, *Evidence of region-wide bat population decline from long-term monitoring and Bayesian occupancy models with empirically informed priors*.
This paper provides new information regarding potential project and cumulative impacts on bats, discussed in the final SEIR on pages 3.4-17, 3.4-89, and 5-8. However, the information does not identify a new or more severe significant impact, or suggest a new Project alternative or mitigation measure.
- Smallwood and Bell 2019, *Relating bat and bird passage rates to wind turbine collision fatalities*.
This report provides new information and is cited in the final SEIR discussion of bat fatalities on page 3.4-92. The report notes that bat fatalities may be substantially underestimated. As described in the response to comment 5-16, the SEIR has been revised to acknowledge that estimated mortality rates determined using current methods are likely underestimates. However, quantification of the effects on the Project described in the draft SEIR remain unchanged in the final SEIR because quantification of the effects remains uncertain due to insufficient data. As stated in the PEIR estimates of bat mortality rates are low due to lack of data, and new turbines are expected to substantially increase bat impacts. See PEIR p. 3.4-133. Accordingly, because the information provided does not identify a new or more severe

significant impact or suggest a new Project alternative or mitigation measure, the he revised analysis in the final does not alter the finding in the PEIR and draft SEIR that effects on bat species were cumulatively significant and unavoidable, and that the Project would make a cumulatively considerable contribution to this cumulative impact. D. Wiens and P. Kolar, USGS, *Golden Eagle Population Monitoring in the Vicinity of the Altamont Pass Wind Resource Area, California, 2014–2018*, July 2019, pp. 7-8.

The survey work by Wiens and Kolar provide an important contribution to the understanding of golden eagle population dynamics in the Project vicinity, and is cited in the final SEIR on pages 3.4-9, 3.4-13, 3.4-14. and 5-9. However, the information does not identify a new or more severe significant impact, or suggest a new Project alternative or mitigation measure.

- P. Kolar, USGS, statement at Alameda County Technical Advisory Committee (TAC) Meeting, Sept. 19, 2019.

This work was cited in the draft SEIR, and further work by Dr. Kolar (Wiens and Kolar 2019) is cited in the final SEIR. This source confirms the observation of the PEIR that the APWRA supports some of the highest known densities of golden eagle nesting territories in the world. The source, therefore, does not present significant new information evidencing a new significant impact or a substantial increase in the severity of an impact, nor does it suggest a new Project alternative or mitigation measure.

See Sections 5 and 6 of Master Response 2: Avian and Bat Impacts regarding how the information cited by commenter was incorporated into the final SEIR. As described in Section 7 of Master Response 2: Avian and Bat Impacts, new information incorporated into the final SEIR was used to further inform the Lead Agency's understanding of potential project effects on birds and bats. This new information does not change the significance determinations relative to what was published in the draft SEIR, does not demonstrate a substantial increase in the severity of a significant impact, and does not result in the identification of new feasible mitigation to avoid or substantially reduce the severity of a significant impact identified in the draft SEIR. The comment, therefore, does not warrant the revision of the draft SEIR and its recirculation under CEQA Guidelines Section 15088.5.

Response to Comment 5-4

The comment recites applicable CEQA guidelines but does not raise a specific issue on the substance of the draft SEIR. The comment's statement of background CEQA law is noted.

Response to Comment 5-5

The Lead Agency agrees with the commenter's sentiment that evaluating a project's environmental effects with an appropriate baseline is required under CEQA. As such, the Lead Agency has employed an approach to determining the baseline for the SEIR analysis that reflect the predominant baseline conditions on the Project site rather than a misleading baseline condition reflective of a snapshot in time that is not reflective of decades of consistent wind generation operations on the Project site. Further, the SEIR baseline is aligned with that of the PEIR, which assumed that existing turbine facilities in the APWRA would continue to be operated consistent with the 2005 Conditional Use

Permits (CUPs)³ (and the 2007 CUP Amendments)⁴ until such time as each site is repowered or decommissioned. Regarding existing turbine removal, the PEIR assumed that all first and second generation turbines would be removed by 2018. The PEIR further notes that removal of existing turbines is typically undertaken concurrently with other repowering activities (PEIR page 2-17).

In accordance with Section 15152 or the CEQA Guidelines, the existing physical environmental conditions as they exist at the time the notice of preparation (NOP) is published, or at the time environmental analysis is commenced, generally constitutes the baseline for the environmental impact analysis. However, neither CEQA nor the CEQA Guidelines “mandates” a uniform, inflexible rule for defining the existing conditions baseline. Rather, an agency enjoys the discretion to decide, in the first instance, exactly how the existing physical conditions without the project can most realistically be measured, subject to review, as with all CEQA factual determinations, for support by substantial evidence.” See *Communities for a Better Environment v. South Coast Air Quality Management District* (2010) 48 Cal.4th 310, 328.

In exercising its discretion to select the appropriate environmental baseline, it is often appropriate for an agency to consider historic operations, not just a snapshot of existing conditions. Under the CEQA Guidelines, and as acknowledged by the commenter, “where existing conditions change or fluctuate over time, and where necessary to provide the most accurate picture practically possible of the project’s impacts, a lead agency may define existing conditions by referencing historic conditions” (CEQA Guidelines Section 15125(a)(1)). It is particularly appropriate to rely on historic conditions where “[a] temporary lull or spike in operations ... happens to occur at the time environmental review for a new project begins,” instead of allowing that spike or lull misleadingly to “depress or elevate the baseline.” See *Communities for a Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 328. California courts have regularly approved baselines relying on historic conditions. See *North County Advocates v. City of Carlsbad* (2015) 241 Cal.App.4th 94 (upholding baseline based on historic occupancy rates even though building in question had been vacant for years); *San Francisco Baykeeper, Inc. v. State Lands Comm’n* (2015) 242 Cal.App.4th 202 (upholding baseline premised on historical sand mining operations where amount of sand mined varied from year to year); *Cherry Valley Pass Acres & Neighbors v. City of Beaumont*, 190 Cal.App.4th 316, 336-40 (approving baseline for water use measured by historic operations rather than operations at time of initiation of environmental review).

The circumstances here present an example of a situation in which a baseline reflecting historic conditions will provide “the most accurate picture practically possible of the project’s impacts,” and in which a snapshot taken shortly after removal of legacy turbines from the Project site would be misleading (see 14 CEQA Guidelines Section 15125(a)(1)). As noted above, the Project site was home to operational old-generation wind turbines for decades prior to publication of the NOP. While no turbines had existed on the site for 2 months at the time of the Lead Agency’s issuance of the NOP for the SEIR (January 3, 2019), that condition reflects a short-term lull between the decommissioning of old turbines and the installation of new turbines caused by opposition to the permitting process, rather than predominant baseline conditions at the Project site.

³ Beginning in 2001, wind energy companies whose conditional use permits (CUPs) were set to expire sought approval to continue operating in the APWRA. (PEIR page 1-5). In 2005, the County approved an update and extension of the CUPs until September 22, 2018 that required preparation of an EIR evaluating an APWRA repowering program. (PEIR pages 1-5, 6). Several of these CUPs authorized operations—and expected eventual repowering—at the Project site.

⁴ Litigation surrounding the 2005 CUPs was resolved by a 2007 settlement agreement (the 2007 Settlement Agreement) (see PEIR page 1-6). That agreement reemphasized the eventual repowering of the APWRA.

Moreover, legacy turbines existed on the Project site when the Lead Agency initiated CEQA review of the Sand Hill project in September 2018 by noticing the public, which is consistent with the concept that a baseline generally should be tethered to conditions at the time CEQA review commenced. See CEQA Guidelines Section 15125(a)(1). In short, including “historic” site operations in the SEIR baseline reflects on-the-ground reality and, thus, presents a more accurate picture of environmental conditions at the Project site than a baseline measured as of the date of the NOP of the SEIR.

The commenter further argues that an “historic” baseline of old-generation turbines is inappropriate because roughly half of the Project site has not been improved with wind turbines for approximately two decades (draft SEIR, 2-2). However, the baseline of the draft SEIR assumed no legacy turbines on this central portion of the Project site: the 671 legacy turbines included in the baseline of the draft SEIR (see NOP in Appendix A of the final SEIR) were located on the other portions of the Project site that have been developed with legacy turbines up until CEQA review of the Project began in September 2018. The baseline does not include the additional 695 turbines removed from the center of the Project site before certification of the PEIR in 2014. The draft SEIR baseline assumes the half of the Project unoccupied by legacy turbines for two decades is essentially undeveloped (Draft SEIR page 2-2), with terrestrial impacts calculated accordingly.

Additionally, operational impacts on bat and avian species are primarily a function of the absolute number of turbines installed rather than their precise location (the effects of which are addressed by micrositing mitigation required by the PEIR). Therefore, what matters more than whether the 671 legacy turbines are replaced with new turbines on the same lands or in locations where turbines have not operated for decades are the calculations of avian/bat mortalities based on their effects per installed megawatts (MW), irrespective of location within the APWRA. This approach, which is embedded in the PEIR impact analysis and, therefore, in the draft SEIR as well, is appropriate in an environment where, as here, there are insufficient data and/or predictive models to quantitatively link precise turbine locations with mortality estimates. In short, the draft SEIR baseline already assumes half the Project site lacked legacy wind turbines, and the calculation of operational effects on avian and bat species would not differ based on whether the new turbines were located solely where the 671 legacy turbines were removed or spread across the entire Project site.

The commenter further asserts that a current conditions baseline, as opposed to a “historic” conditions baseline “is important to adequately assess the cumulative effects of the Project going forward.” However, the Lead Agency disagrees and believes this distinction is of no relevance to a cumulative effects analysis given that cumulative effects include the effects of the proposed Project “added to other closely related past, present, and reasonable foreseeable probable future projects” (CEQA Guidelines Section 15355(b)). Because CEQA’s definition of the cumulative impacts baseline is temporally indifferent—past, present *and* reasonably foreseeable projects—it comprehends the full spectrum of synergistic cumulative effects regardless of whether the SEIR’s project-specific baseline focuses on present or “historic” conditions. Indeed, the cumulative impacts analysis would be defective if it did not factor in the cumulative effects of decommissioned turbine installations. See responses to comments 5-15 through 5-20 for a more detailed discussion of the PEIR’s and draft SEIR’s cumulative impacts analysis.

It should also be noted that the draft SEIR includes two no project alternatives that provide context for the reader to understand impacts of the proposed Project relative to possible outcomes in the absence of the proposed Project: the No Project–Repowering by Others Alternative, and the No

Project–No Repowering Alternative. A detailed comparison of these no project alternatives to the proposed Project is provided in Chapter 4, *Alternatives*, of the draft SEIR.

The comment also includes specific questions regarding the historic conditions baseline employed in the PEIR and draft SEIR. The questions, many of which request information that is either unavailable or would go beyond CEQA’s requirements that the lead agency provide sufficient information in light of what is reasonably feasible, are listed below and addressed individually to the extent available information allows.

- Exactly how many old generation turbines (versus former potential turbine sites) were previously operating on the entire 2,600-acre Project site?

As noted by the commenter’s February 2019 letter in response to the NOP, the proposed Project will consist of replacing an estimated 671 existing or previously existing old-generation turbine sites with up to 40 new turbines. Also, as explained above, the 671 turbines do not include an additional 695 turbines removed from roughly half of the Project site approximately two decades ago.

- Where were each of these old turbines located in relation to the proposed new turbine sites?

While the specific location of old turbines relative to proposed new turbines is not the determinant of the significance of the impact on bat and avian species, Attachment 6 in Appendix E-3 has been added to the final SEIR to show the location of old versus new turbines. This appendix includes a map overlaying all 1,366 removed turbines against the proposed new turbine sites, with post-PEIR removals distinguished from pre-PEIR removals. It should be noted, however, that the overlay figure does not present significant new information evidencing a new significant impact or a substantial increase in the severity of an impact, nor does it suggest a new Project alternative or mitigation measure.

- What were the models, sizes and owners/operators of these old turbines?

Such a high level of detail is unnecessary for determining the relative bat and avian impacts of the proposed Project against legacy turbine conditions, as evidenced by the PEIR itself, which describes first- and second-generation turbine dimensions (PEIR page 2-4) and uses roughly a decade of APWRA avian mortality data to assess such impacts on a per MW basis, regardless of the model, size, owners, or operators of the legacy turbines. As the CEQA statute of limitations has long since passed on the PEIR, this methodology for impacts analysis is no longer subject to comment. Nonetheless, Attachment 5 has been added to Appendix E-3 of the final SEIR. It lists the models, sizes and owners/operators of the old turbines to the extent that information is available. This information which does not present significant new information evidencing a new significant impact or a substantial increase in the severity of an impact, nor does it suggest a new Project alternative or mitigation measure.

- Were any of these old turbines rated as very high, high, or moderately high-risk turbines by the former Alameda County Scientific Review Committee (SRC)?

These relative values are already embodied by the APWRA-wide mortality data used by the PEIR and the draft SEIR to estimate past and proposed rates avian and bat mortality rates. The more granular, site-specific approach recommended by the commenter would restrict the sample set of impact analysis by limiting data to a much smaller set of turbine-specific results that could be dependent on a variety of factors other than the SRC risk rating of the turbine in question (e.g., climactic conditions, fluctuating prey base, etc.). By applying APRWA-wide data from multiple

turbine locations and turbine types, the methodology employed by the PEIR gives a clearer perspective on the possible range of avian and bat impacts that may result from a project. Nevertheless, as noted in the County's final monitoring report (ICF 2016), between 2006 and 2012, high-risk turbines (defined by the SRC) as ranked 8-10) were removed from the APWRA, including from within the current Project area. A direct comparison to the "very high", "high," or "moderately high" risk rates by Estep (2019) is not possible; however, in general, old turbines within the Project site ranked by the SRC as "high risk" were previously removed. This information does not present significant new information evidencing a new significant impact or a substantial increase in the severity of an impact, nor does it suggest a new Project alternative or mitigation measure.

- What did the prior monitoring data show for the turbines in this area?

The PEIR first noted several issues confounding the comparison of avian fatality rates between old and new generation turbines. As noted on page 3.4-56 of the PEIR, the fatality rates from nonrepowered turbines were obtained while management actions were being implemented to reduce avian fatalities. These actions included the shutdown of turbines during the winter period, a time when winds are lowest but avian use of the area is highest for the four focal species. The removal of hazardous turbines during the period of data collection further confounded comparison of old and new generation turbines. In addition to these issues, data from prior monitoring was collected and analyzed at the "BLOB" level (base layer of operating group boundaries). Review of the BLOBs and associated analysis in the County's final monitoring report (ICF 2016) indicates that the BLOBs straddle project areas and/or are split when viewed in comparison with the current Project. Additionally, significant portions of the proposed Project did not have monitoring, further complicating a comparison. Consequently, a direct comparison of the prior monitoring data with the current project area is not possible because the legacy turbine data were altered by shut-down and removal actions and were collected and analyzed at a BLOB level. This information does not present significant new information evidencing a new significant impact or a substantial increase in the severity of an impact, nor does it suggest a new Project alternative or mitigation measure.

Lastly, the comment also includes specific questions regarding the current status of the old turbines. The questions are listed below and addressed individually.

- When were the old turbines shut down? When were the turbines and components removed?

All turbines were shut down before October 2018 as required by their CUPs. The last turbines and components were removed from the site in October 2018. This information does not present significant new information evidencing a new significant impact or a substantial increase in the severity of an impact, nor does it suggest a new Project alternative or mitigation measure.

- Do any old generation turbines remain on the Project site? If so, what turbines and where?

As stated above, all legacy turbines have been removed from the Project site.

- Are any of these turbines still operating and if so, which ones? If not operating, do any of these turbines provide raptor perching and nesting opportunities and if so, where?

As stated above, all legacy turbines have been removed from the Project site.

- Will all of the old turbines be shut down and removed as part of the Project?

All legacy turbines were shut down and have been removed from the Project site.

Response to Comment 5-6

The commenter claims that the SEIR inaccurately states that there are no known golden eagle or bald eagle nesting locations within the project site. Golden eagle nesting in the Project vicinity is discussed in the draft SEIR on page 3.4-13, which states “The USGS expressed concerns about the sensitivity of the nest locations and requested that the information not be distributed publicly. The applicant notes that those data indicate that between 2014 and 2019, USGS surveys have documented between 0–2 eagle nests each year within the APWRA.” Concern about information sensitivity is why specific eagle nest locations in and near the Project area are not reported in the draft SEIR.

However, the draft SEIR incorrectly stated that surveys have documented between zero and two eagle nests each year within the APWRA. Rather, USGS surveys have indicated zero to two active eagle nests *within 2 miles of the project site*, a distance which covers much of the Alameda County side of the APWRA. The Lead Agency has coordinated with the applicant further regarding golden eagle and bald eagle nests within the Project site and the results of ongoing surveys in the region. During this coordination, the applicant clarified that in June 2019, after 6 months of requests, they received information on golden eagle nests from USGS within the Project area and in an area extending out to 2 miles from the Project area. This nesting data covers multiple years between 2014 and 2019. The applicant also reiterated that they were and still are under agreement with USGS not to release the exact locations of nests; however, the applicant clarified that the data from USGS do indicate that there have been golden eagle nests in-use within the Project area in 2014, 2015, and 2019 (with different nest locations used each year of activity). These nests are part of a golden eagle territory referred to as the “Christensen Road” territory by USGS (Kolar and Wiens 2017). The territory has four recorded nest structures, with three of the structures located within the Project area, generally to the east of Bethany Reservoir. The fourth recorded nest structure is located just to the north of the Project area.

As documented by USGS (Kolar and Wiens 2019), between 9 and 11 territorial pairs of golden eagles have been documented within the APWRA between 2014 and 2018. Not all territorial pairs nest or attempt to nest. The number of sites within the APWRA with nesting attempts has ranged from three to four sites each year with zero to three successful nesting attempts during this period (Kolar and Wiens 2019). As also stated on page 3.4-13 of the draft SEIR, nest fidelity is low within the APWRA such that it is difficult to determine in advance whether a nest will be occupied during the next breeding season. As stated in the draft SEIR, this low nest fidelity supports the approach of the PEIR and draft EIR, which “requires surveys to be conducted during the nesting season prior to construction in order to determine nesting status and locations at the time of construction.” That requirement is implemented in the draft SEIR by Mitigation Measure BIO-11b, described on draft SEIR page 3.4-75, which states:

Project proponents will also collect and utilize additional field data as necessary to inform the siting analysis for golden eagle. As required in 2019 Updated Mitigation Measure BIO-8a, surveys will be conducted to locate golden eagle nests within 2 miles of proposed project areas. Siting of turbines within 2 miles of an active or alternative golden eagle nest or active golden eagle territory will be based on a site-specific analysis of risk based on the estimated eagle territories, conducted in consultation with USFWS.

With regard to bald eagles, their presence in the Project area is acknowledged on draft SEIR page 3.4-33, which identifies a high potential for their occurrence and notes that bald eagle “winters in

the APWRA and may forage adjacent to the Project area at Bethany Reservoir; however, no suitable nesting or foraging habitat (large lakes, reservoirs, or rivers) is present in the Project area.” Based on the commenter’s concerns, that text has been revised in the final EIR to acknowledge that foraging habitat is present in the Project area. The applicant received notification from Shawn Smallwood in May 2019 that he had observed “courtship behavior between two adult bald eagles” earlier in 2019, and had observed an “adult bald eagle training a fledgling to hunt amongst the empty wind turbine pads west of Bethany.” Mr. Smallwood stated that he did not know where the nest was but that he had observed adults regularly “foraging” west of Bethany and into the adjacent Golden Hills North project area. The Lead Agency notes that the primary diet for bald eagles is fish and other aquatic animals typically present in large lakes, reservoirs, or rivers, and “foraging” within upland areas is not typical. However, bald eagles are known to forage within upland areas, typically for animal carcasses (carrion). The Lead Agency has revised this description slightly on page 3.4-35 of the Final SEIR to note that bald eagle may forage or nest within the Project area. However, this does not change the conclusions reached in the draft SEIR and does not result in the identification of new feasible mitigation to avoid or substantially reduce the severity of a significant impact identified in the draft SEIR.

It should be noted that the PEIR from which the SEIR tiers concluded that suitable golden eagle nesting habitat could occur within the APWRA (which includes the Project site) and that the region surrounding the APWRA contains a higher density of golden eagles than anywhere else in the world (PEIR page 3.4-37). The PEIR also discusses at length the same USGS study (initiated in 2014) that later yielded the golden eagle nesting data received by the applicant in June 2019 (PEIR page 3.4-37, -38). The PEIR, pages 3.4-37 and 3.4-38, noted that suitable nesting habitat was present in the APWRA, focusing primarily on the northern areas, but also noting that suitable habitat was present within the Golden Hills project and within other areas. In fact, the PEIR further acknowledged this potential by including Mitigation Measure BIO-8a, which requires, among other measures for birds, surveys to locate eagle nests within 2 miles of construction areas and establishment of no-disturbance buffers during the breeding season to protect eagle nests from disturbance.

Response to Comment 5-7

The comment provides a summary statement regarding the specific issues raised regarding the historic conditions on the Project site. As described in Response to Comment 5-5 and 5-6, the Lead Agency has selected an appropriate baseline for evaluation of the proposed Project, and has incorporated updated information to the extent that it is available and is relevant to the impacts analysis in the draft SEIR.

Response to Comment 5-8

The comment cites applicable CEQA guidelines but does not raise a specific issue on the substance of the draft SEIR. The comment’s general summary of background law is noted.

Response to Comment 5-9

The commenter claims that the draft SEIR omits information regarding the Project’s potential impacts on avian and bat resources, or otherwise contains information that is incorrect and/or misleading. The Lead Agency disagrees.

The commenter first asserts that the draft SEIR misstates monitoring data from H. T. Harvey. This is incorrect. The Golden Hills monitoring results do indicate a higher level of mortality for some

species—golden eagle and red-tailed hawk—than other projects used to estimate baseline mortality rates in the PEIR. Although the report cited by commenter does document actual golden eagle fatalities, the number of actual fatalities documented is a smaller number than the number of potential fatalities. This is because, consistent with scientific best practices, the Golden Hills reports adjust the observed fatalities upwards to account for researchers' estimated rate of failure to observe and report all mortalities. The estimated mortality rates stated in the Golden Hills reports are actually higher than the observed, unadjusted mortality rates reported in the same documents. The fatality estimates of the draft SEIR are consequently based on a higher rate of mortality than the raw, unadjusted observations.

For example, the first-year Golden Hills survey observed 6 golden eagle fatalities (see Appendix C of the first year report [H. T. Harvey 2018a]), which resulted in an adjusted value of 11 fatalities when applying the primary estimator used in the report at a rate of 0.13 fatalities per MW (see Table 11 of the first year report). However, the same report also observed that this adjusted estimate ranked higher than estimates from previous pre- and post-repowering studies because it inflated the adjusted results by applying searcher efficiency and carcass persistence parameters for medium/large birds as a group rather than eagles specifically, which are larger and easier to detect (H. T. Harvey 2018a:50). The report concluded that mortality rates just above (0.09 per MW) and below (0.07 per MW) the baseline rate of 0.08 per MW were "closer to reality" such that golden eagle mortality results in the first year were consistent with baseline estimates. *Id.*

In addition, in the context of the larger APWRA, and when considering the application of this information to future repowering projects (including the proposed Project), the Golden Hills monitoring results can only be used to accurately describe the impacts of the Golden Hills project specifically. Numerous other factors may influence the actual fatality rates at other projects and a direct comparison between the Golden Hills project and the proposed Project is not valid. The Lead Agency does acknowledge however, as noted in Impact BIO-11 of the draft SEIR and associated Table 3.4-8, that the mortality rates observed at the Golden Hills project may be one of the potential results ultimately observed at the proposed Project. For this reason, the Golden Hills fatality rates have been applied to the proposed Project, and estimates of total fatalities are included in Table 3.4-8 of the draft SEIR.

The commenter next claims that the draft SEIR "inappropriately attempts to dismiss the significance of the new monitoring data for Golden Hills and the final three-year monitoring report for the Vasco Winds Project in Contra Costa County." In particular, the commenter notes that the Golden Hills monitoring reports indicate an increase in average annual fatality rates per MW for golden eagles in both the first and second years of monitoring. The draft SEIR does acknowledge this finding. On pages 3.4-9 through 3.4-11, the draft SEIR comprehensively summarizes the results of the first 2 years of Golden Hills mortality results, noting that both reports indicated higher golden eagle mortality rates than under non-repowered conditions. However, as noted above, the first year report stated that its estimate is inflated and actual rates are more likely consistent with the baseline estimate of the PEIR, which commenter fails to note but which the draft SEIR did (draft SEIR, 3.4-9, 3.4-10). The draft SEIR also states that the second-year golden eagle mortality rates were higher than the first-year rates and that both studies showed golden eagle mortality rates higher during both years compared to other recent APWRA studies (draft SEIR, 3.4-10). The draft SEIR also reflects that the second year of Golden Hills monitoring revealed a 60 percent reduction in red-tailed hawk mortalities compared to the first year of monitoring (H. T. Harvey & Associates 2018b:xii). Similarly, while burrowing owl mortalities were markedly higher during the second year of Golden Hills monitoring than during the first year, commenter fails to observe the second-year

monitoring report's observation that "... the fact that 84% of the Year 2 burrowing [owl] fatalities were found as feather spots or carcass remnants, mostly around burrows and along erosion-control wattles, suggests that predation [as opposed to wind turbines] was the primary cause of fatalities for this species" (Draft SEIR page 3.4-70; H.T. Harvey & Associates 2018b:xii).

The significance of these findings is acknowledged by the Lead Agency insofar these results were factored into the average fatality estimates of the draft SEIR (see, e.g., draft SEIR Table 3.4-4, applying average adjusted mortality rates from years 1 and 2 of the Golden Hills monitoring reports).

The comment also asserts that the draft SEIR is "somewhat misleading" when it states that results from "only two years of a single project during abnormally wet years within the larger APWRA cannot be extrapolated to conclude decisively that the proposed Project or repowered wind turbines overall would result in new significant effects or a substantial increase in the severity of effects." However, the comment fails to state specifically how that statement is misleading. The Golden Hills study itself notes that data gathered in atypical, short-term conditions cannot necessarily be extrapolated to assess accurately Project impacts:

Our per MW estimate for all raptors combined was higher than for the other three repowering projects, but notably lower than the pre-repowering average from the APWRA-wide avian monitoring study (Table 15). The higher rate compared to the other repowering studies may reflect the influence of recent, substantial annual variation in climate and landscape conditions, the attendant influence on wildlife populations, and the consequences of evaluating project impacts based on short-term studies that may inadvertently represent atypical conditions (ICF International 2016). (H. T. Harvey 2018a:51).

The draft SEIR reflects this position in stating that "monitoring result from a single project during abnormally wet years...cannot be extrapolated to conclude decisively that the proposed Project or repowered wind turbines overall would result in new significant effects or a substantial increase in the severity of effects."

In short, the Lead Agency disagrees that the Draft SEIR's description and analysis is misleading. As noted in the SEIR, PEIR acknowledged the potential biases in the avian fatality analysis in an attempt to disclose and illustrate the difficulties with definitively determining the effects of repowering projects, and in some cases, the challenges associated with monitoring and estimating fatalities at individual projects (draft SEIR page 3.4-41, 3.4-42). Because these potential biases and issues still exist, the Lead Agency determined it was prudent to acknowledge and describe them again, and to update the discussion as appropriate in the draft SEIR, considering the most recently available information. To that end, potential biases or issues with fatality estimation described in the recent monitoring reports were disclosed and discussed in the draft SEIR. As the commenter noted, one of these issues was the fact that monitoring during the first year at Golden Hills occurred during an abnormally wet year, which influenced the results (H. T. Harvey & Associates 2018b). As also noted by the commenter, CEQA requires the lead agency to make a reasoned, good-faith attempt to quantify *or qualify* project impacts in light of the most recent available information. To that end, the Lead Agency believes that omitting potential biases with the available information, or overstating the certainty of the information, would not be consistent with our responsibilities under CEQA.

The comment finally claims that the estimated ranges of potential avian mortality rates at the Project site, while applying the most recent data available, "does not sufficiently describe the 'nature and magnitude' of these impacts." However, the commenter does not state how the draft SEIR insufficiently describes the extent and magnitude of avian impacts, nor does commenter suggest

how the extent and magnitude of avian impacts should be assessed differently in the draft SEIR. The Lead Agency believes that the draft SEIR does, in fact, sufficiently describe the nature and magnitude of impacts on special-status bird species. Section 3.4.2, *Environmental Impacts of Biological Resources* of the draft SEIR, for example, calculates, and enumerates in detail, the high-, low-, average, and weighted average estimated mortality rates of 10 indicator avian species, as well as two separate all-raptor and all-native-non-raptor aggregate classes. The analysis then compares the rates against those of the PEIR and against non-repowered conditions to assess whether new information obtained since certification of the PEIR demonstrates a new or more intense impact beyond those disclosed in the PEIR, concluding that the latest estimates remain within the range of significant impacts disclosed within the PEIR. CEQA does not require an exhaustive discussion of a project's every possible environmental impact, but rather "a good-faith effort at full disclosure" (*Sierra Club v. County of Fresno* [2018] 6 Cal.5th 502, 515; *id.* at 525 [holding that CEQA does not mandate a risk assessment be as in-depth as a Health Risk Assessment, but rather "requires that the EIR have made a reasonable effort to discuss relevant specifics" such that it "allow[s] the public to make an informed decision"]; *see also* CEQA Guidelines Section 15151 ["An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible."]). The Draft SEIR makes the nature of the impact clear in its conclusion that fatalities among the focal species are expected to occur as a result of the proposed Project. The potential magnitude of impacts on the focal species is also clearly listed in Table 3.4-8 of the draft SEIR including the range of potential fatalities that could occur under the proposed Project. Most importantly, the draft SEIR updates estimates for each species based on mortality monitoring data obtained since certification of the PEIR.

Ultimately, the analysis contained in the SEIR represents a reasoned, good faith attempt to quantify project impacts despite scientific uncertainties and inconsistencies in monitoring data across individual projects. As described in Section 2 of Master Response 2: Avian and Bat Impacts, the Lead Agency need not resolve all uncertainties and unresolved issues surrounding the analysis of environmental impacts under CEQA, and for this reason also we do not agree that the Draft SEIR "attempts to dismiss the significance of the new monitoring data" or provides a "somewhat misleading analysis of the new monitoring data." Furthermore, on these points commenter provides no substantial new information. In fact, as described in Master Response 2: Avian and Bat Impacts, the Lead Agency has taken into consideration all the available new information provided since the PEIR as well as the information provided in response to the draft SEIR to inform the impacts analysis consistent with CEQA requirements to provide substantial evidence to support its findings.

Response to Comment 5-10

The commenter claims that the draft SEIR contains errors with respect to estimated annual golden eagle fatalities. The Lead Agency disagrees.

Projected avian fatalities for the proposed Project, as calculated based on monitoring results for other repowering projects in the APWRA, are presented in Table 3.4-8 on page 3.4-67 of the draft SEIR. As shown in Table 3.4-8, annual golden eagle fatalities range from a low of 1.5 per year (based on Diablo Winds adjusted fatality rates) to a high of as much as 21.7 per year (based on Golden Hills adjusted fatality rates); the four example projects give a mean expectation of 8.3 per year with a potential range of 1 to 22 fatalities per year. Commenter incorrectly states that the draft SEIR predicts one golden eagle fatality per year. Commenter also incorrectly states that the draft SEIR predicts 15 red-tailed hawk fatalities per year. Correct numbers are stated in Table 3.4-8 on page 3.4-67 of the draft SEIR.

The fatality estimate for the proposed Project using the Vasco Winds fatality rate is correctly listed as 7.2 eagles per year in table 3.4-8. This estimate is based on an average fatality rate of 0.05 eagles per MW per year as noted in the Vasco Winds final monitoring report (Brown et. al. 2016). The commenter's assertion that the average fatality rate for the Vasco winds project is 0.04 eagles per MW per year is incorrect, as is the assertion that the Draft SEIR reports one fatality using the Vasco Winds rates.

The commenter similarly claims that the number of red-tailed hawk fatalities, applying the first year monitoring Golden Hills fatality rates to the proposed project, is in error. In fact, the draft SEIR uses both Golden Hills monitoring years, as noted in the draft SEIR, to estimate potential fatalities for the proposed Project. Table 3.4-8 correctly reports the estimate of potential red-tailed hawk fatalities for the proposed Project, 92.5 birds annually, applying the Golden Hills fatality rate.

The Lead Agency has correctly estimated potential impacts on avian species in the draft SEIR considering currently available information.

Response to Comment 5-11

The commenter states that the SEIR does not, as the commenter had requested in response to the NOP, show the locations of nesting habitat for golden eagles and other special status species on the Project site. Golden eagle nesting in the Project vicinity is discussed in the draft SEIR on page 3.4-13, where it is noted, "The USGS expressed concerns about the sensitivity of the nest locations and requested that the information not be distributed publicly. The applicant notes that those data indicate that between 2014 and 2019, USGS surveys have documented between 0-2 eagle nests each year with the APWRA." This concern about information sensitivity is why specific eagle nest locations in and near the Project area are not reported in the SEIR.

Regarding the locations of nesting habitat for other special status bird species, such as tri-colored blackbird, Swainson's hawk, and burrowing owl, as well as bat roosting habitat, the applicant has prepared a figure depicting bat roosting habitat in the vicinity of the Project site. See Attachment 8 [Figure 1 from ICF bat memo] in Appendix E-3. As stated above, a nesting pair of golden eagles often nests near the northeastern boundary of the project near Christensen Road. The California Department of Fish and Wildlife (CDFW) has also indicated in personal communication to the Lead Agency on December 6, 2019 that a pair of Swainson's hawks recently nested in a CDFW conservation easement located south of Christensen Road. Finally, the draft SEIR observes that two confirmed nesting colonies of tricolored blackbirds have been documented along Altamont Pass Road and the California Aqueduct adjacent to the Project area and that perennial drainage habitat in the Project area (commensurate with bat foraging areas in Attachment 8 in Appendix E-3) provide suitable nesting substrate for the species (draft SEIR page 3.4-35).

The known locations of existing nesting habitat, whether explicitly shown in the draft SEIR or not, were considered as part of the existing conditions on the Project site in the assessment of potential Project impacts. However, the PEIR concludes that the repowering project could affect the nests of such species, and nests often change from season to season and year to year. Therefore, the mitigation measures of the PEIR, which had been applied to the proposed Project in the SEIR, require such specific information to be acquired through surveys performed after project approval and prior to construction, when such information is fresh enough to be of practical use.

Response to Comment 5-12

The comment states that the draft SEIR provides only a general analysis of the Project's impacts on bird and bat nesting, roosting, and foraging habitat.

As discussed below, the PEIR and draft SEIR describe the special-status birds and bats that may forage, nest, or roost in the project area and set forth project-specific calculations of the extent of the Project's temporary and permanent impacts to such habitat. This information is sufficient to inform the public and agency decision-makers of the potential site-specific nature and extent of the Project's anticipated impact on bird and bat foraging, nesting, and roosting habitat. As a result, the draft SEIR meets CEQA's requirements.

The PEIR, the conclusions from which the SEIR incorporates by reference, analyzes the impacts of repowering the APWRA on nesting, roosting, and foraging habitat for special status bird and bat species. It includes discussions of: potential construction-related disturbance or mortality of special status and non-special status migratory birds (Impact BIO-8a-1 through BIO-8c); permanent and temporary loss of occupied habitat for western burrowing owl and foraging habitat for tricolored blackbird and other special-status and non-special status and non-special status birds (Impacts BIO-9a-1 through BIO-9c); potential mortality or disturbance of bats from roost removal or disturbance (Impacts BIO-12a-1 through BIO-12c); potential for construction activities to temporarily remove or alter bat foraging habitat (Impacts BIO-13a-1 through BIO-13c); turbine-related fatalities of special-status and other bats (Impacts BIO-14a through BIO-14c); potential for road infrastructure upgrades to result in adverse effects on riparian habitat (Impacts BIO-16a-1 through BIO-16c); potential for ground-disturbing activities to result in direct adverse effects on common habitats (Impacts BIO-17a-1 through BIO-17c); and potential for road infrastructure upgrades to result in adverse effects on wetlands (Impacts BIO-18a-1 through BIO-18c). The PEIR also provides tables detailing the amount of specific habitat types that will be temporarily or permanently disturbed by APWRA repowering, and the species that use them (Tables 3.4-7 through 3.4-9; see also pages 3.4-10 to 3.4-11, describing annual grassland and common wildlife associations).

The PEIR requires numerous mitigation measures to address these effects, including: Mitigation Measure BIO-1b (implement best practices to avoid and minimize impacts on special-status species); Mitigation Measure BIO-1e (retain a biological monitor during ground-disturbing activities in environmentally sensitive areas); Mitigation Measure BIO-3a (preconstruction surveys for habitat for special-status wildlife species); Mitigation Measure BIO-5c (restore disturbed annual grasslands); Mitigation Measure BIO-8a (measures to avoid and minimize potential impacts on special-status and non-special-status nesting birds); Mitigation Measure BIO-8b (measures to avoid and minimize potential impacts on western burrowing owl, applicable where suitable habitat is within 500 feet of proposed work areas); Mitigation Measure BIO-11h (compensate for loss of raptors and other avian species, which includes contributing to regional conservation of raptor habitat); Mitigation Measure BIO-12a (conduct bat roost surveys); Mitigation Measure BIO-12b (avoid removing or disturbing bat roosts); and Mitigation Measure BIO-14a (site and select turbines to minimize potential mortality of bats, including by preparing bat habitat assessment and roost survey).

Insofar as "CEQA does not require additional site-specific environmental review" where, as here, "site-specific impacts were sufficiently addressed in the program EIR" (*North Coast Rivers Alliance v. Kawamura* [2015] 243 Cal.App.4th 647, 680 [citations and quotations omitted]), the SEIR is focused on differences in information and the specific distinctions of the Project compared with the

anticipated characteristics of repowering projects as described in the PEIR. Accordingly, the draft SEIR analyzes additional information regarding impacts on birds and bats in the APWRA that became available since preparation of the PEIR. See draft SEIR at 3.4-101, and confirms that the PEIR's conclusions with respect to the significance of impacts on avian and bat species continue to remain valid.

Nevertheless, the draft SEIR provides additional project-specific analysis of the Project's impacts on nesting, roosting, and foraging habitat for special-status bird and bat species. These include Project-specific discussions of each of the potential impacts on bird and bat species just discussed. The draft SEIR also includes project-specific tables depicting the amount and type of habitat that will be temporarily or permanently disturbed by the project (see Tables 3.4-5 and 3.4-6), as well as discussions of the species that are potentially present in this habitat within the project area (see draft SEIR pages 3.4-19 through 3.4-35 and Table 3.4-3).

The draft SEIR also updates certain PEIR mitigation measures related to avian and bat habitat impacts. These include: Mitigation Measure BIO-1b (best management practices to avoid and minimize impacts on special-status species); Mitigation Measure BIO-8a (measures to avoid and minimize potential impacts on special-status and non-special-status nesting birds, updated to note specific habitat requirements for nesting tricolored blackbirds); and Mitigation Measure BIO-11h (compensate for the loss of raptors and other avian species, including by contributing to regional conservation of raptor habitat).

Commenter notes specifically that the draft SEIR "concludes, without supporting facts and analysis, that the Draft SEIR's construction buffer zones will reduce impacts to protected bird species to a level of insignificance." This is incorrect. The page of the draft SEIR referenced by commenter states the following facts and analysis in support of the efficacy of construction buffer zones that are best practices routinely applied to development projects in California: "These measures would be effective in reducing impacts to a less than significant level because they include surveys to identify active bird or raptor nests within species-specific buffer zones from active construction and establishment of no-activity zones to protect active nests until the young have fledged" (draft SEIR, 3.4-59). Page 3.4-61 of the draft SEIR, also cited by commenter, contains similar substantiating language in its discussion of burrowing owl mitigation. This information is sufficient to inform the public and agency decision-makers of the potential site-specific nature and extent of the Project's anticipated impact. See CEQA Guidelines Section 15151 ("An EIR should be prepared with a sufficient degree of analysis to provide decision makers with information which enables them to make a decision which intelligently takes account of environmental consequences."); *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 515 ("The ultimate inquiry . . . is whether the EIR includes enough detail to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project."); *id.* at 525 (holding that CEQA does not mandate a risk assessment be as in-depth as a Health Risk Assessment, but rather "requires that the EIR have made a reasonable effort to discuss relevant specifics" such that it "allow[s] the public to make an informed decision"); *see also North Coast Rivers Alliance v. Kawamura* (2015) 243 Cal.App.4th 647, 679 ("The level of specificity is determined by the nature of the project and the rule of reason."). Further, the commenter has not provided new information showing any new or substantially more intense significant impacts, or that the draft SEIR is so vague as to preclude meaningful public review and comment, that would require recirculation pursuant to CEQA Guidelines Section 15088.5.

Response to Comment 5-13

The commenter claims that the nesting data in the SEIR is inaccurate. Regarding bald and golden eagle nesting, see Response to Comment 5-6. Regarding burrowing owls, K. S. Smallwood's September 2019 comment letter provided new information that informs the impact analysis, and the final SEIR has been revised as described in Master Response 2: Avian and Bat Impacts. This new information does not change the conclusions reached in the draft SEIR and does not result in the identification of new feasible mitigation to avoid or substantially reduce the severity of a significant impact identified in the draft SEIR.

However, the commenter's claim that the draft SEIR states that only one burrowing owl nest was found in 2017 is incorrect. Page 3.4-22 of the draft SEIR does state that one nest was found in 2017, but it also states that grassland throughout the Project area provides suitable nesting and wintering habitat for burrowing owls, noting that they were observed at six locations in the Project area during surveys in 2012 and 2017, as depicted in Figures 3.4-2a through 3.4-2c of the draft SEIR, and are presumed to be using the Project area for breeding and wintering. The draft SEIR further states, "There are also numerous reported occurrences of burrowing owls throughout grasslands surrounding the Project area." Furthermore, the SEIR tiers from the PEIR, which incorporated the results of the very 2011 study referenced by commenter to describe baseline conditions for burrowing owls (see PEIR page 3.4-40). Of particular note, that study observes, "burrowing owl distribution is dynamic in the APWRA, and it is also clustered." Thus, while the 2011 study results were considered, experts acknowledge that such results change from year to year. Although this was specifically referenced in the PEIR, it has also been added to page 3.4-24 of the final SEIR for clarification. This information is sufficient to inform the public and agency decision-makers of the potential site-specific nature and extent of the Project's anticipated impacts, including the potential for discovery of a high density of nests on the Project site during preconstruction surveys.

Response to Comment 5-14

See Responses to Comments 5-9 through 5-13. As noted in Response to Comment 5-13, some revisions have been incorporated into the final SEIR to reflect new information informing the impact analysis. However, this new information does not change the conclusions reached in the draft SEIR and does not result in the identification of new feasible mitigation to avoid or substantially reduce the severity of a significant impact identified in the draft SEIR.

Response to Comment 5-15

The comment cites CEQA guidelines but does not raise a specific issue on the substance of the draft SEIR. The comment's restatement of background CEQA law is noted.

Response to Comment 5-16

The comment states that the cumulative analysis in the draft SEIR is deficient because it does not consider all past, present, and reasonably foreseeable projects. The comment also states that the cumulative analysis in the draft SEIR addresses, in a cursory fashion, construction-related impacts, but it does not discuss or make an attempt to quantify or qualify the cumulative projected levels of annual avian and bat fatalities that are anticipated to be caused by the future *operation* of all past, present, and reasonably foreseeable projects.

To the first point regarding the consideration given to all past, present, and reasonably foreseeable projects, the commenter is referred to Section 7 in Master Response 2, which explains that Table 2-6 and related language in Chapter 2, Project Description, of the SEIR has been revised to include the total MW of wind development that would occur within the APWRA, including all past, present, and reasonably foreseeable projects. These additional projects are also considered in the revised cumulative analysis (see Chapter 5 of the Final SEIR), which has been revised to include consideration of a total capacity within the program area of 479.3 MW of development as well as the results of new information that has become available since publication of the SEIR regarding the status of species populations. As noted in Section 7 of Master Response 2 above, the revised analysis in Chapter 5 of the Final SEIR reaffirms the PEIR determination of significant and unavoidable impact on both birds and bats, to which the contribution of the proposed program would be cumulatively considerable, however there is no evidence of a substantial change in the magnitude of the cumulative impact, relative to the analysis in the PEIR.

Additionally it should be noted that the commenter is incorrect that the cumulative analysis does not consider wind installations in Contra Costa County. The commenter cites a series of Alameda County wind projects listed in the Chapter 2 of the SEIR to support the assertion that the cumulative impacts analysis should have considered projects in Contra Costa County. However, the referenced list on page 2-22 of the Draft SEIR was and is not the sole basis of the SEIR's cumulative analysis. Rather, the list is part of the Project description, and is included not to provide a complete list of cumulative projects considered, but to assess whether, after approval of the proposed Project, Alameda County would be within or above the identified production capacity described in the PEIR as Alternative 2. As noted above, the list of projects contributing to the production capacity within the APWRA has been revised in the final SEIR. Again, this list of projects that are within the APWRA repowering limit is only one component of the much larger cumulative geographic scope of the PEIR and draft SEIR, which encompass Contra Costa and Solano County wind projects in addition to those in Alameda County. As noted in Chapter 5 of the Final SEIR, "cumulative impacts associated with avian and bat fatalities through turbine collision were considered in the context of the entire APWRA (both Alameda and Contra Costa Counties) as well as the Montezuma Hills Wind Resource Area in Solano County" (draft SEIR page 5-3).

The commenter also claims that the draft SEIR "implicitly acknowledges that the 475.8 MW total of operating, approved, and proposed wind projects for Alameda County will exceed the 450 MW cap in the 2014 PEIR, but improperly defers discussion of this issue." This claim is irrelevant given the SEIR revisions discussed above and in Section 7 of Master Response 2.

The commenter's citations to *Laurel Heights* and *Joy Road* are not relevant. Those cases involved EIRs that failed altogether to incorporate reasonably foreseeable projects into the cumulative impact analyses. See *Laurel Heights Improvement Assoc. v. Regents of the Univ. of Cal.* (1988) 47 Cal. 3d 376 (failure to include occupation of an entire facility in cumulative impacts analysis where such occupation was contemplated in the EIR itself); *Joy Road Area Forest and Watershed Assoc. v. Cal. Dep't of Forestry & Fire Prot.* (2006) 142 Cal.App.4th 656 (failure to include housing development in cumulative impacts analysis where such development was the "primary impetus" for the project being evaluated). Here, the final SEIR properly contemplates all reasonably foreseeable projects, as explained above and in Section 7 of Master Response 2. Further, the cumulative analysis in the final SEIR takes into account all reasonably foreseeable projects and confirms that there is no evidence of a substantial change in the magnitude of the cumulative impact, relative to the analysis in the PEIR.

To the comment's second and third points regarding the scope of the cumulative analysis, the commenter is incorrect that the cumulative analysis of avian and bat mortality provided on page 5-6 of the draft SEIR only addresses construction-related impacts. The draft SEIR tiers from the PEIR and incorporates it by reference. The cumulative impacts analysis of the draft SEIR first summarizes the cumulative effects identified by the PEIR, which determined that biological resources impacts would not be significant after mitigation, *except* for avian and bat mortality associated with wind projects (draft SEIR pages 5-3 through 5-5). The Draft SEIR then concludes, "Construction of the Sand Hill Project would result in significant and unavoidable impacts related to avian and bat mortality. The Project would, therefore, make a cumulatively considerable contribution to the cumulative impact identified in the PEIR." (draft SEIR page 5-6). Cumulatively considerable contributions can only be made to significant cumulative impacts, and the only significant cumulative biological resources impact after mitigation under the PEIR is "avian and bat mortality" caused by wind turbines. It is upon this conclusion that the draft SEIR cumulative analysis quoted above builds. It is, therefore, incorrect to state that the draft SEIR's cumulative analysis only considered construction impacts.

Ultimately the commenter's cumulative analysis concerns appear to be rooted in the methodology of the PEIR, from which the draft SEIR tiers. The statute of limitations on the PEIR has since run, such that the method of its cumulative impacts analysis is no longer subject to review. As the draft SEIR tiers from and directly incorporates that analysis, commenter's scope of review is limited to the question of whether there are changes to the project or its circumstances or new information that result in a new or more intense cumulative impact than described in the PEIR and draft SEIR, Commenter makes no such showing. In addition, it should be noted that the PEIR estimated avian and bat fatalities as a consequence of repowering the entire 43,358-acre PEIR program area, with the proposed project occupying just 17 percent of the program area.

The revised cumulative impacts analysis presented on pages 5-6 to 5-8 of the Final SEIR presents estimated fatalities for a fully repowered APWRA, both for the 450 MW repowering scenario considered in the PEIR, and for a 479 MW repowering scenario. The estimates shown for the 450 MW scenario differs from those shown in the PEIR because these estimates, like the project impacts analysis, consider monitoring data from the Vasco Winds and Golden Hills projects that has been published since PEIR certification. The revised analysis also compares these repowering scenarios to estimated bird population sizes in Bird Conservation Region (BCR) 32, which includes the cumulative impacts study area, and evaluates the potential for a substantive effect upon bird and bat populations. As there shown, for those species for which population estimates exist, there is a negligible potential for a substantial effect on bird populations. For two species, golden eagle, and tricolored blackbird, BCR 32 population estimates are unavailable, and other sources were used for population estimates relevant to the cumulative impacts study area; these included a county-by-county survey of tricolored blackbird populations (Meese 2014) and a recent population status review concerning the Diablo Range golden eagle population (Hunt et al. 2017). For each of these species, the analysis confirms the PEIR determination of a significant and unavoidable cumulative impact, but also determines that this impact would not entail declining population status for any bird species; this finding indicates that no new or more severe impact would ensue, relative to the findings of the PEIR.

Because mortality rates were monitored in the Altamont for almost a decade with additional monitoring of repowering projects once they came online, the APWRA is the most appropriate unit for estimating avian impacts. However, at the commenter's suggestion, the Lead Agency has also reviewed estimated avian fatalities within other nearby wind resource areas including Contra Costa

County (technically part of the APWRA), and the Montezuma Hills Wind Resource Area (MHWRA) in Solano County, located to the north of the APWRA.

The Contra Costa projects (Buena Vista and Vasco Winds) are well documented and fatality rates are readily available. The MHWRA currently has 1,022 MW of operating projects divided among approximately 8 projects. Each project has conducted monitoring, however, over different durations (2-3 years) and using various methods (however, generally, the methods are similar). The results are generally reported inconsistently among the projects, with some projects providing individual species fatality rates and some not (choosing to summarize overall bird or bat mortality instead). A review of the information available indicates that fatality rates for the 4 Alameda focal species (American kestrel, burrowing owl, golden eagle, and red-tailed hawk) are available for the MHWRA, but not for other species. Consequently, the Lead Agency focused this additional cumulative review on the focal species, as provided. As requested by the commenter Attachment 7 in Appendix E-3 [estimated cumulative mortality rates and population level effects], estimates fatalities from 1) other operational projects for which monitoring results are not yet available; 2) projects approved but not yet constructed, and 3) other reasonably foreseeable future projects. This attachment compares these fatality rates to population estimates for Bird Conservation Region (BCR) 32 and for the "LAP", a region with a radius of 109 miles centered on the APWRA, which USFWS might hypothetically use in estimating population-level effects on golden eagles. As shown there, population level effects are very small (less than 0.25%) for American kestrel and golden eagle within BCR 32; such effects are too small to measure, let alone alter population status. Effects are greater on the burrowing owl, but, as discussed in the Final SEIR analysis of cumulative impacts to burrowing owl, a large fraction of that population loss appears to be due to predation rather than wind turbine mortality, so the direct effects of wind development are again very low with no potential to measurably affect populations. For golden eagles, the fatality rate is appreciable, amounting to 45 birds annually, or 6.33% of the BCR32 population estimate. See the discussion of this impact in the cumulative impacts analysis in the Final SEIR. As there noted, the Diablo Range eagle population is estimated to be able to support the loss of about 55 eagles per year, still higher than the combined APWRA plus MHWRA loss rate; and this estimate does not consider immigration from elsewhere in BCR 32, which is likely to be appreciable given the distance of the MHWRA from the Diablo Range. Here, too, the evidence does not support existence of a cumulative impact incremental to that discussed in the PEIR.

Although the Lead Agency has performed the above estimates at the request of the commenter, cumulative impact analyses do not require such a high level of detail. Rather, a "generalized" discussion of cumulative impacts is sufficient, especially where (as here) environmental impacts are discussed in greater detail elsewhere in the EIR. See *Cadiz Land Co. v Rail Cycle* (2000) 83 Cal.App.4th 74, 110; *Citizens for Open Gov't v City of Lodi* (2012) 205 Cal.App.4th 296, 320-22, 320 n.10 ("There is no requirement the information be presented in any particular format[.]"); *Al Larson Boat Shop, Inc. v Board of Harbor Comm'rs* (1993) 18 Cal.App.4th 729, 746-50 (upholding three-page cumulative impacts analysis even though it was "conclusory in some respects," since environmental impacts were assessed in greater detail elsewhere in the document); see also CEQA Guidelines 15130(b) ("[T]he discussion [of cumulative impacts] need not provide as great detail as is provided for the effects attributable to the project alone."). Importantly, "[n]othing in CEQA requires a quantitative analysis of cumulative impacts." *Yuba Grp. Against Garbage v. Yuba Cty. Bd. Of Sup'rs*, No. C037208, 2001 WL 1513868, at *11 (Cal. App. Nov. 28, 2001).

The commenter's citation to *San Joaquin Raptor* is not relevant. The EIR in *San Joaquin Raptor* failed altogether to include a cumulative impacts analysis. See *San Joaquin Raptor/Wildlife Rescue Ctr. v.*

Cty. of Stanislaus (1994) 27 Cal.App.4th 717, 740 (“Here, the FEIR does not comply with CEQA because it fails to contain a list of ‘past, present and reasonably anticipated future projects,’ or a summary of projections contained in an adopted general plan for a summary of cumulative development.”). Here, by contrast, the Draft SEIR and PEIR employed both a combined summary of cumulative development approach and a list approach to assess potential cumulative impacts.

The commenter’s attempt to calculate mortality estimates repeatedly overlooks the significance conclusions of the PEIR, the Environmental Analysis, and the DEIR, which determined estimation methods are highly uncertain due to inter-annual variability, variability across wind projects, and the relatively small sample set from which such estimates can be calculated.

With regard to bats, the final SEIR has been revised to note that since PEIR certification, new information has become available indicating that (1) even the rates determined using current monitoring methods (frequent surveys assisted by trained dogs) are likely underestimates, and (2) mortality of migratory hoary bats caused by wind energy development (among other factors such as low reproductive rates) potentially has population-level consequences for hoary bats in other parts of North America, although consequences for this region (specifically, the PEIR/SEIR cumulative effects analysis region) are still highly uncertain (the most serious potential impacts accrue to hoary bats because they are a migratory species, and bat fatalities in the APWRA primarily occur during the fall bat migration season). As a result, there is high confidence that cumulative bat fatalities would be higher than assessed in the PEIR, but there remains low confidence whether this difference in fatality rates would result in adverse effects on regional bat populations. The final SEIR also has been revised to acknowledge that estimated mortality rates determined using current methods are likely underestimates, and to include a modified modify a mitigation measure mandating use of trained dogs in bat mortality detection surveys (see 2019 Updated PEIR Mitigation Measure BIO-14b on page 3.4-95 of the final SEIR). The revised analysis in the final SEIR accordingly finds no reason to alter the finding in the PEIR and draft SEIR that effects on bat species were cumulatively significant and unavoidable, and that the Project would make a cumulatively considerable contribution to this cumulative impact. Note that Attachment 7 also includes an evaluation of the contribution of the MHWRA to cumulative bat fatalities; that contribution is substantial, amounting to slightly more bats per year than the APWRA fatalities. This, however, does not alter the foregoing conclusion, which is based not upon the magnitude of bat fatalities, but upon uncertainty regarding the size and stability of the bat population.

Response to Comment 5-17

The PEIR estimated 4.5 to 18 golden eagle mortalities per year under the 450 MW alternative, yielding average mortalities of 12.3 eagles. Revised estimates based on data acquired since 2014, and consideration of a revised repowering scenario of 479 MW, suggest a revised estimate of 24 to 29 golden eagle mortalities per year, an increase over the 2014 estimate, averaging 15 mortalities per year. Please see the revised cumulative impacts analysis of red-tailed hawk mortalities under the 479 MW program for similar results.

While cumulative golden eagle and red-tailed hawk mortality estimates have been revised upward, average and weighted average mortality estimates still fall below non-repowered levels. The commenter’s assertion that new data may indicate an exceedance in the mortality estimates of the PEIR overlooks the PEIR’s statement that while mortality estimates pointed to reductions in avian mortality rates against non-repowered conditions, the Lead Agency still determined that estimation methods were sufficiently uncertain to conclude impacts could nonetheless be significant and

unavoidable (i.e., above the mortality estimates and above even higher non-repowered mortality rates). The higher golden eagle and red-tailed hawk mortality rates of the Golden Hills project demonstrate the wisdom of this approach, even if mortality estimates are still below non-repowered rates on average. Please see Response to Comment 5-16 and the revised cumulative impacts analysis in Chapter 5 of the final SEIR, which outline estimates of cumulative fatalities both within the APWRA and within nearby wind resource areas.

Response to Comment 5-18

The May 2019 Avian and Bat Assessment prepared to support the draft SEIR determined that the calculated average and weighted average burrowing owl mortality rates across all repowering projects, applied to the 450 MW Program was 166.5 fatalities per year (a 35% decrease against non-repowered conditions) to 191.8 fatalities per year (a 24% decrease against non-repowered conditions), respectively. The PEIR stated that the overall program could decrease annual burrowing owl fatalities by 91% or could increase them by 48% compared to non-repowered rates at 329 MW of installed capacity. The potential reductions or increases in fatalities described in the PEIR are nearly identical to the results of this analysis. As shown in the burrowing owl analysis in Chapter 5 of the Final SEIR, revising the repowering scenario to 479 MW does not alter these conclusions. This information, when considered in the context of the additional information on background mortality, suggests that effects on burrowing owls may be similar to those described in the PEIR. As stated in Response to Comment 5-9, above, and in the draft SEIR (page 3.4-70), it is also important to observe that many of the burrowing owl mortalities observed in the APWRA are likely due to predation rather than turbine strike.

Response to Comment 5-19

The Lead Agency acknowledges the commenter's observation that data developed since certification of the PEIR confirms the PEIR's and draft SEIR's conclusions that repowering likely will increase bat impacts. Please see Response to Comment 5-16 and the revised cumulative impacts analysis in Chapter 5 of the final SEIR for bat mortality estimates under cumulative conditions.

Response to Comment 5-20

The Lead Agency has addressed the commenter's concerns in Responses to Comments 5-15 through 5-19.

Response to Comment 5-21

The comment cites CEQA guidelines but does not raise a specific issue on the substance of the Draft SEIR. The comment's statement of background CEQA law is noted.

Response to Comment 5-22

The comment claims that the Smaller Turbine - Pre-Micro-Sited Layout Alternative (Micro-Sited Alternative) analyzed in the SEIR involved a minimal degree of micrositing in response to the recommendations of two experts (Smallwood and Estep), and refers to a detailed accounting in Exhibit A of this letter of the Project site layout relative to micrositing said recommendations. Attachment 2 in Appendix E-3 identifies corrections to the information provided in Exhibit A of commenter's letter and referenced in this comment.

The comment (including the Exhibit A it attaches) contains several additional inaccuracies, and incorrectly represents the Micro-Sited Alternative. Attachment 2 in Appendix E-3 includes a markup of the Exhibit A referenced in this comment, prepared by the applicant. The Lead Agency finds that this document corrects the inaccuracies in the comment's Exhibit A and provides an accurate and representative picture of micrositing efforts at the Project site.

As explained in more detail in Attachment 2 in Appendix E-3, the comment highlights a subset of the Project's turbines to emphasize the few instances in which the Micro-Sited Alternative was unable to follow micrositing recommendations for the Project (which were made without regard to engineering, legal, or economic feasibility) while downplaying the fact that in all but one instance, this alternative uses an expert-recommended location, moves turbines closer to the recommended location, or reduces turbine sizes where relocation was not possible.

The comment also describes the turbine sites it discusses as "high" risk, "moderate" risk, or "moderate-high" risk. While these risk designations mirror those in the project-specific micrositing report Estep (2019), the comment fails to acknowledge a critical point emphasized in Estep (2019): that these are relative risk designations intended to compare potential turbine locations within a project site, not conclusions as to the absolute magnitude of risk a given turbine site presents. Relatedly, the comment also fails to acknowledge that Estep (2019) did not designate any of the Project's proposed turbine sites as "very high risk."

This comment also contains many simple, yet significant, errors and inaccuracies. For example, the comment classifies Site 18 as one at which the Micro-Sited Alternative did not follow the expert recommendation, when in fact it did. Smallwood and Neher (2018) evaluated and made micrositing recommendations for three alternative (and mutually exclusive) turbine layouts provided by the applicant. Estep (2019) evaluated and made recommendations for these three layouts, as well as a fourth layout prepared by the applicant in response to Smallwood and Neher (2018). The comment states that the Layout 2 alternative for Turbine 18 was Estep's recommended location, and although the Micro-Sited Alternative modified the Layout 1, 4 location per Estep's secondary recommendation, Estep cautioned that this would achieve "only [a] slight reduc[tion]" in risk, "and may result in add[itional] risk." This is incorrect. In fact, Estep did not select a preferred recommended site for Turbine 18, but instead offered alternative micro-siting recommendations for relocating the Layout 1,4 and Layout 2 locations. Estep (2019) also stated that "placement of the turbine pad in [the modified Layout 1, 4 location] may create a notch in the ridgeline, which would also create risk; however, it would be a somewhat safer location than the current site." The comment also ignores that Smallwood (2018) deemed the Layout 1,4 location the "best option on this ridge," and recommended using it as opposed to the Layout 2 or 3 locations. In other words, while the comment counts this site as an example of the alternative failing to follow the expert recommendation, in fact this is a site where the alternative followed the Smallwood (2018) recommendation, and then made additional refinements per Estep (2019).

This comment also omits key information. Most notably, while the comment cites the Smallwood (2018) micrositing report, it does so only when the Micro-Sited Alternative used a turbine site that Smallwood recommended avoiding. By contrast, the comment fails to acknowledge the many instances in which the alternative's turbine location follows Smallwood's recommendation. For example, the comment claims that the alternative did not follow the expert recommendation at Site 16 because it did not use the modified Layout 2 location for that turbine. Here, the comment asserts that although the alternative relocates Turbine 16 per a secondary Estep (2019) recommendation to modify the Layout 1, 4 location, this would result in only a "slight reduc[tion] in risk" and would

“Still [be] a very risky site.” In fact, Estep (2019) stated that risk would be reduced by relocating the Layout 1,4 location, though the new location would be “a *potentially* risky site” (emphasis added). More importantly, the comment fails to acknowledge that Smallwood (2018) classified the Layout 1 location as relatively lower risk than the alternatives; that Smallwood (2018) recommended avoiding the Layout 2 and 3 locations (which sPower did); and that although Estep (2019) selected the modified Layout 2 location as the recommended locus, Estep acknowledged that such a relocation would only reduce potential risks “somewhat.” In other words, even though the comment counts this site among those where the alternative did not follow the expert recommendation, in fact, the alternative followed Smallwood’s recommendation, refining it slightly per Estep (2019).

The numbers this comment provides are also wrong. The comment claims, “this alternative still retains all but 3 of the 18 of the very high, high, and moderate-high risk turbine sites identified in the project micro-siting reports prepared by Dr. Shawn Smallwood and Jim Estep.” *Id.* at 19. The comment is incorrect. First, Estep did not identify a single proposed Sand Hill turbine site as “very high risk.” Second, of the 18 sites at which Estep identified one or more turbine locations as relatively moderate-high or high risk, the Micro-Sited Alternative uses a location recommended by Estep or Smallwood at seven sites, and follows a secondary or modified micro-siting recommendation made by Smallwood or Estep at four sites. By contrast, the Micro-Sited Alternative was unable to follow micro siting recommendations at only seven of the sites the comment highlights. At six of these sites, the Micro-Sited Alternative would reduce turbine size (see Attachments 1 through 3 in Appendix E-3).

Regarding Footnote 15, which states that the “repowering by others” alternative is really the “no project” alternative required by CEQA, and a no project alternative in this instance would still result in repowering of the project site by another wind developer pursuant to applicable planning and zoning regulations. This Lead Agency’s inclusion of both a No Project–No Repowering Alternative and a No-Project–Repowering By Others Alternative was intended to satisfy requests for a baseline with no previously installed wind turbines. The former No Project Alternative would thus entirely prohibit wind repowering at the Project site; whereas, the latter assumes that others would occur by others [“The Lead Agency should proceed to analyze the impacts of the no project alternative by projecting what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services” (CEQA Guidelines 15126.6(e)(3)(C)]. Comparison of the effects of that alternative to the proposed Project shows the degree to which the proposed Project would affect a hypothetical “no legacy turbine” environmental baseline.

Response to Comment 5-23

As noted on page 3.4-13 of the draft SEIR, golden eagle nesting data received from USGS “indicate that nest site fidelity is low within the APWRA (i.e., eagles are not nesting in the same locations from year to year). This information further supports the approach to nesting eagle surveys in the PEIR, which requires surveys to be conducted during the nesting season prior to construction in order to determine nesting status and locations at the time of construction.” Surveys and mitigation addressing nesting by golden eagles are further detailed in Response to Comment 5-6. Similarly, pre-construction surveys and mitigation for impacts to birds other than golden eagles, including burrowing owls and Swainson’s hawks, are addressed in Impact BIO-8 and draft SEIR Mitigation Measure BIO-8a (draft SEIR page 3.4-59). These requirements apply to the Micro-Sited Alternative as well as to the proposed Project. Relatedly, the Lead Agency notes that because golden eagle nest

locations change while turbines remain stationary, it is counterproductive to make permanent turbine micro siting decisions on the basis of nest locations.

The Lead Agency disagrees with the comment that the analysis in the draft SEIR didn't appear to take into account burrowing owl and Swainson's hawk nesting habitat, and the influence of the Fletcher Conservation Land Bank. Burrowing owl and Swainson's hawk are known to be present in the area and suitable habitat is distributed all around the Project area. Impact BIO-9 in the draft SEIR evaluated temporary and permanent impacts of known nest sites and burrowing owl observations within the project area. Smallwood and Neher (2018), on which the Micro-Sited Alternative relies, not only mapped burrowing owl nest locations, but more importantly explained that "[b]ecause burrowing owls tend to nest low on the slope, it would be rare for a predictive model of burrowing owl burrow locations to correspond with terrain where burrowing owls are killed by wind turbines." In other words, because turbines typically are sited higher on slopes and hilltops in order to take maximum advantage of wind resources, turbines are unlikely to be sited near burrowing owl nests. Regarding Swainson's hawk, the draft SEIR explains that suitable nesting habitat in the project area is limited to scattered trees along paved roads and transmission towers, and that the closest California Natural Diversity Database nesting records for Swainson's hawk are approximately 0.25 mile north and east of the Project area. Please also see Response to Comment 5-11. As described there, because the PEIR concludes that the repowering project could affect the nests of Swainson's hawk and nests often change from season to season and year to year, the mitigation measures of the PEIR, and consequently, the draft SEIR, require such specific information to be acquired through surveys performed after project approval and prior to construction when such information is fresh enough to be of practical use.

Finally, the Lead Agency notes that to the extent commenter takes issue with certain details in applicant's micrositing efforts (reflected in the Micro-Sited Alternative), under the framework adopted by the PEIR and carried over into the SEIR, such concerns are properly addressed to and resolved by the TAC, as prescribed by the mitigation measures of the PEIR and draft EIR.

Response to Comment 5-24

The comment states that PEIR Mitigation Measure BIO-14a in the draft SEIR requires a bat habitat assessment and roost survey, and that turbine siting decisions must incorporate relevant bat use survey data and bat fatality records, and that it is unclear as to whether the micro-sited alternative accounted for this PEIR mitigation measure.

Although not required prior to publication of the SEIR, and in accordance with PEIR Mitigation Measure Bio-14a, the applicant has obtained a site-specific bat habitat assessment, which identifies and maps bat habitat (ICF 2019). This report demonstrates that there is limited roosting and foraging habitat in the project area, but that this habitat is dispersed throughout the project site. See Attachment 8 in Appendix E-3 [Figure 1 from ICF bat memo].

The Micro-Sited Alternative is based on Smallwood and Neher (2018) and Estep (2019). Smallwood and Neher (2018) did not make micrositing recommendations specific to bat collision risk. Estep (2019), however, did address bat collision risks. That report explained that there is currently little information to suggest that micrositing turbines within the APWRA to reduce bat fatalities is productive, and therefore also did not suggest moving turbines to reduce bat collision risks. This is consistent with the bat habitat assessment for the Project (ICF 2019), which finds that given the limited amount of bat habitat at the project site and the fact that the Project's primary risk is to migratory bats, siting revisions are not warranted to reduce bat collision risks. The best available

information indicates that other measures, such as operational curtailment, are far more appropriate methods of reducing bat fatalities. This is also consistent with comments on the draft SEIR submitted by Smallwood.

The comment also states that it is unclear the extent to which the Micro-Sited Alternative accounted for increased risks due to grading. The micrositing reports prepared for the Project expressly incorporated potential grading effects into their analyses based on the recommendations of Smallwood and Neher (2018) and Estep (2019). See, e.g., Smallwood (2018) page 66 (stating that “Table 12 also warns of many situations where in our experience the grading for turbine pads will likely leave berms or cut slopes located between the tower base and the prevailing upwind direction”); *id.* page 67 (recommendations to avoid grading-related issues); *id.* page 71-73 (Table 12, which accounts for grading concerns); Estep (2019) page 13 (recommendations focused on “moving turbines off of slopes, out of swales and ravines, and away from saddles and notches along ridges; and onto hill or ridge tops and generally flat terrain . . . and areas where the construction of turbine pads or roads would not substantially alter the local topography”); *id.* page 8 (site-specific field data collected and considered included “Assessment of the extent of disturbance to construct a new turbine pad and how this might alter the configuration of ridges or slopes (e.g., create berms or notches along ridgelines or create new benches on slopes) that would result in additional risk”); *id.* Appendices 1 through 4 (noting locations where turbine pad construction would create bench or berm that may impact collision risk, and making corresponding micro-siting recommendation).

Finally, the comment states that it is unclear the extent to which the Micro-Sited Alternative accounted for “risks to the other three focal raptor species besides golden eagles.” The micrositing recommendations driving the Micro-Sited Alternative are set forth in Smallwood and Neher (2018) and Estep (2019). Each report takes into account all four focal raptor species when making micrositing recommendations.

Response to Comment 5-25

The comment states that the SEIR contains no analysis of the relative extent to which reduced turbine size and rotor-swept area of the Micro-Sited Alternative are expected to reduce the Project’s impacts on avian and bat resources. See Response to Comment 5-24.

Additionally, the Lead Agency refers commenter to pages 4-14 and 4-15 of the draft SEIR, which state the relative extent to which reduced turbine size and rotor-swept area of the Micro-Sited Alternative are expected to reduce the Project’s impacts on avian and bat resources. As noted on page 4-14 of the final SEIR, which has been revised slightly for clarity:

...the Smaller Turbine – Pre-Micro-Sited Layout alternative is expected to reduce avian and bat fatalities because some turbine locations would be adjusted based on the results of two micrositing studies and larger turbines would be replaced with smaller turbines with a smaller total rotor-swept area and, for most turbines, a greater rotor-to-ground clearance distance.

Further, as noted on final SEIR page 4-15:

In total, the Smaller Turbine – Pre-Micro-Sited Layout responds to the two micro-siting studies by relocating 17 of the proposed Project’s 40 turbines, reducing overall Project capacity by 24% from 144.5 MW to 109.5 MW, reducing rotor-swept area by 13%, from 568,775 m² to 496,220 m², and raising the average clearance of turbine blades by 75%, from 14.1 m to 24.7 m above the ground. Each of these steps is expected to reduce bird and bat mortality based on input obtained from two micro-siting studies.

In other words, the Micro-Sited Alternative would reduce impacts per MW by 24% relative to the proposed project. Rotor-swept area would be reduced by 13% relative to the proposed Project; inferring a corresponding 13% reduction in bat and avian mortality is a reasonable assumption based on the reduction in rotor-swept area. This fits CEQA’s definition of substantial evidence, which includes “reasonable assumptions predicated upon facts” (CEQA Guidelines Section 15384).

Dr. Smallwood’s recommendation regarding rotor-to-ground clearance is based on language in the Draft PEIR that was modified in the final PEIR. Although the Draft PEIR proposed mitigation measure BIO-11c to require a minimum rotor-to-ground height of 29 meters, the Final PEIR eliminated this requirement, providing instead that “Turbine designs will be selected that have been shown or that are suspected to reduce avian fatalities, based on the height, color, configuration, or other features of the turbines.” As the Lead Agency considered and excluded a 29-meter standard when preparing the Final PEIR, the proposed Project was not required to or obligated to be designed to that standard.

The Lead Agency acknowledges that a larger rotor-to-ground clearance would likely reduce impacts, and page 4-15 of the final SEIR has been revised to clarify that majority of the impact reduction would be achieved by reducing Project capacity and reducing rotor-swept area.

Response to Comment 5-26

The comment states that the Lead Agency should consider a second reduced Project size alternative and incorporate recommendations by Smallwood, Estep, and federal and state wildlife agencies. As described in Master Response 3: Alternatives, an EIR need not discuss every alternative to the project, but must instead present a reasonable range of potentially feasible alternatives. The Lead Agency has already identified a reasonable range of feasible alternatives that it considers feasible in the draft SEIR, and screened out other alternatives, including a Reduced Footprint alternative, as described in Chapter 4, *Alternatives*, of the draft SEIR.

Furthermore, as described in Section 3 of Master Response 1: Smaller Turbine–Pre-Micro-Sited Layout Alternative, the Lead Agency considered the Smallwood and Neher (2018) and Estep (2019) sources in the design of the Micro-Sited Alternative to minimize impacts to birds and bats. As further described in that response and the attachments referenced therein, the Lead Agency found that some recommendations in these reports were not feasible to implement. For instance, some siting recommendations could not be implemented due to County setback requirements, while others could not be implemented because turbines would have to be placed so close together that wake turbulence effects would render them commercially infeasible. Additionally, some turbine relocation recommendations were modified to maximize feasibility and minimize impacts through one or more changes.

To provide further context regarding the feasibility of additional Project alternatives, the applicant provided the Lead Agency with the following assessment as to why further adjustments to the

proposed Project, or further reductions in Project size, are not feasible. The Lead Agency has reviewed this material and agrees that it demonstrates with substantial evidence that a further reduced alternative is not feasible:

sPower has successfully developed over 1,650 MW of operating wind and solar energy projects in the United States. sPower is an expert in wind project permitting, power contracting, wind turbine procurement, and project development.

Some commenters have asked that the SEIR consider an alternative consisting of fewer than 40 turbines and avoiding all or the majority of the highest risk turbine sites and known nesting areas for sensitive bird and bat species, asserting that such an alternative could still meet most of the Project's objectives.

This is not the case. As identified in the SEIR, the fundamental objectives of the Project are 1) to maximize wind energy production for power purchase agreements obtained for the project and 2) maintain commercial viability (Draft SEIR, page 2-3).

The Project is at risk even without the removal of turbines. The Project's estimated rate of return has shrunk considerably as a consequence of several events beyond sPower's control during the delay caused by preparation of the Draft SEIR over the past year. Increased construction pricing and steel tariffs drove this downward trend. For example, the original Engineering, Procurement and Construction (EPC) contractor sPower intended to hire for construction of the Project in 2019 provided a quote in line with the Project's pro-forma, but was only able to support the Project if construction began in 2019 and concluded in 2020 because the EPC was already fully contracted for 2020 projects. The more than one-year delay to the Project caused by the Draft SEIR required sPower to seek a different EPC who could commence construction in 2020 instead. The price quoted by the second EPC after extensive negotiations is 30% higher than the price of the original EPC, largely as a result of increased market demand (increase market price, shortage of crane availability, labor costs, etc.) in 2020 as wind developers race to meet a federal production tax credit (PTC) deadline ending on January 1, 2021 (see below for an extensive discussion of the effect of the PTC on the Project). The second contractor's quoted price for 2020 has increased project costs by \$21 million.

In addition, tariff increases on Chinese steel imposed by the Trump Administration in the summer of 2019 have resulted in a \$3 million aggregate increase in the Project's turbine pricing. Had the Project been permitted as planned in the fall of 2018, this tariff increase would not have been included in the Project's capital expenditures because materials would have been secured long before the administration's tariff increase.

As a consequence of these changes over the past year, the Project's estimated rate of return of 0.3% above target for a 2019 construction year has since fallen to 2.0% below target for a 2020 construction year. The Project's new rate of return is on the cusp of unprofitability.

Avoiding all high-to-moderately-high-risk turbine sites would result in the loss of 10 of the Project's 40 wind turbines. Removing one quarter of the Project's wind turbines would drive the Project's return on investment deeply into the negative. This is because Sand Hill would be burdened with the costs of the full turbine order and experience a 25% drop in revenue, while still being liable for a similar amount of fixed costs. In this scenario, losses to the Project would easily reach \$20 million, the Project would cost more money to build and operate than it would recover in power sales, and therefore would render the Project economically infeasible.

The economic loss caused by removing turbines from the Project at this stage could not be avoided by installing fewer, larger turbines instead, as suggested by some commenters. This is in large part because the Project must secure 100% of the PTC to remain economically feasible in light of the contractor pricing and tariff increases discussed above. To secure the 100% PTC, the Project must commence commercial operations before January 1, 2021 and have procured at least 5% of the Project's costs in 2016. Per the federal tax code, the PTC is in the process of a "step-down," with a 2020 in-service date being the final year projects could be eligible for 100% of the PTC value. After 2020, the PTC value reduces by 20% increments each year. For projects placed in service during

2021, for example, the maximum value of PTC eligibility is 80%, provided at least 5% of their costs were incurred before 2018.

Wind Production Tax Credit (PTC)		
Safe-Harbor Procurement	COD Deadline	Wind PTC
During 2016	12/31/2020	100%
During 2017	12/31/2021	80%
During 2018	12/31/2022	60%
During 2019	12/31/2023	40%
During 2020	None	0%

In 2016, sPower secured 100% PTC eligibility for the Project by purchasing five GE 2.3 MW turbines that amount to more than 5% of the Project's cost. The Project consequently must commence operations before the end of the 2020 calendar year to claim the 100% PTC. If Sand Hill is placed in service after December 31, 2020, then the turbines procured in 2016 no longer "safe harbor" the project for PTC eligibility because they would have been acquired more than four calendar years before the calendar year during which construction began.

In practice, the PTC from a project that begins operations in 2020 would be \$23.00/MWh for 10 years. A project that is delayed from beginning operations until 2021 would earn \$18.40/MWh on the PTC for 10 years instead. While sPower could in theory re-allocate other turbines it has purchased to allow the Project to qualify for the 80% PTC, the 20% drop in value of the PTC, in combination with the contractor pricing and tariff increases discussed above, would render the project economically infeasible: Qualifying for the PTC represents \$72 million of net present value over the life of the Project, assuming a 9% discount rate. The \$14.4 million of net present value lost by failing to meet the 100% PTC and defaulting to the 80% PTC would cause the Project to yield a negative return (i.e., a loss) of -1.36%.

Furthermore, global supply chain logistics require wind developers to enter into turbine supply contracts roughly one year in advance of commencement of construction. Separate from the 5 "safe harbor" turbines acquired in 2016, the Project consequently needed to sign a turbine supply agreement for the 35 remaining Project turbines well in advance of 2020 to meet the PTC's December 31, 2020 commencement of operations deadline. Specifically, wet season endangered species constraints prevent Project construction from commencing before May 1st. This means sPower has very limited time to prepare individual turbine locations to receive turbine components before they are scheduled to arrive beginning June 1st, 2020. If the sites are not prepared to receive the turbine equipment, then sPower will be forced to "double-handle" the components, consisting of off-loading the equipment to an on-site laydown yard and re-loading it onto a truck again for specific location delivery when the site is prepared. The incremental cost of double-handling turbine equipment would approximately \$40,000 per turbine, consisting of 9 trucks each. Because of the 12-month lead-time on turbine deliveries, the Project therefore had to enter into a turbine supply agreement no later than June 2019 to ensure the Project has a supply of turbines available for construction in 2020 and thus qualifies for the 100% PTC. Accordingly, Sand Hill duly entered into a turbine supply agreement in May 2019 and, in light of comments on the Proposed Project, decided to select turbines matching the Smaller Turbine – Pre-Micro-Sited Layout Alternative rather than turbines matching the Proposed Project. The Smaller Turbine – Pre-Micro-Site Layout Alternative reduces the Project's output to 109.5 MW, which is the bare minimum amount of nameplate generation the Project can sustain without breaching its power purchase agreements (PPAs), which amount to 109.5 MW. Furthermore, the Project's PPAs require all discretionary permits by May 15, 2020 and June 1, 2020, and commencement of operations no later than December 31, 2020.

In short, the Project must be built before the end of 2020 to qualify for the 100% PTC, remain economically feasible, and avoid a breach of its PPAs. The Project can only qualify for the 100% PTC if

it commences construction using the five “safe harbor” turbines from 2016 and the 35 smaller turbines it contracted for in May 2019.

Installing fewer, larger turbines is infeasible at this stage because it would prevent the project from qualifying for the 100% PTC and the larger turbines could not be procured in time to allow construction to commence before the PPA deadlines of December 31, 2020 (sPower has no uninstalled larger turbines that it could re-allocate to the Project). As mentioned above, removing Project turbines is economically infeasible as well. The tariff increase and significantly increased EPC pricing in 2019 have eroded the Project’s rate of return to such a degree that, even with 40 turbines installed, the Project’s rate of return is 2% below target. Removing turbines from the Project would reduce its rate of return farther below target.

Removing higher risk turbines and turbines near known bat and avian nesting sites would also be biologically ineffective and overly burdensome. First, because the risk values ascribed to the turbines are relative, not absolute – if all ten higher risk turbines were removed, the turbines presently characterized as moderate risk would simply become higher risk turbines relative to the other turbines (Estep, March 2019, pages 8-9). Second, nesting sites are not static; they will shift and change over the 30-year life of the Project, as can be seen from USGS nesting data at the Project site (USGS 2019).

Foregoing the installation of tens of millions of dollars of wind turbines because they may be in closer proximity to sensitive nesting sites during the current nesting season would be ineffective because nesting and roosting sites move while turbines remain static. In future years, nesting sites may be close to installed turbines and far from the 10 removed turbine sites.

This is why Mitigation Measure BIO-8a instead requires removal of suitable raptor nesting habitat within 1 mile (2 miles for golden eagles) of the Project, as well as suitable tree/shrub- and ground-nesting habitat for other migratory birds within 50 feet of the Project. The PEIR (and by extension, the SEIR) does not require proactive removal of bat roosts, however. Bat activity is highly variable across the landscape (PEIR, p. 3.4-128) and the vast majority of mortality events occur during the fall migratory season (August through October) (PEIR, p. 3.4-131; H.T. Harvey & Associates, 2018a, 2018b). Therefore, among other mitigation measures, the PEIR requires a bat adaptive management plan mandating an increase of cut-in speeds to 5.0 meters per second from sunset to sunrise during peak bat migration season, which will be increased until target fatality reductions are achieved, an approach which has been shown to reduce bat mortality rates by 52-87%, as indicated in the PEIR (PEIR, p. 3.4-136). While the spatial and temporal variability of bat activity renders turbine removal ineffective as a method of bat mortality reduction, increased cut in speeds have been proven to be highly effective.

Aware of the contractual and financial limitations above, Sand Hill has developed an unprecedentedly aggressive adaptive management program to avoid and minimize adverse effects on avian species. The curtailment program proposed by Sand Hill in the Project’s BBCS could shut down operations as much as 75% of daylight operations during the winter avian migration period or 40% of daylight operations year-round, thereby substantially avoiding avian impacts. The adaptive management provisions have significant force because they require deployment of adaptive management until impacts are reduced to baseline levels. While curtailment would reduce the Project’s energy output, it would be substantially less impactful to the Project’s bottom line than removing turbines altogether, largely because most wind energy is produced at night when birds aren’t flying. Unlike turbine removal strategies, the adaptive management program of the Project’s BBCS will, in combination with the PEIR’s increased cut-in speed requirements for bats, substantially reduce the Project’s avian and bat impacts in a manner that allows it to remain economically viable.

Beyond the reasons described above regarding the feasibility of a reduced Project size alternative, no evidence has been provided to demonstrate that eliminating particular turbines will, in fact, substantially reduce the impact of turbine collisions on avian and bat species, especially given that the experts themselves qualify their recommendations. In particular, Estep (2019) qualifies its recommendations by noting that because “raptor collisions with wind turbines remain a rare event,”

“assessing predictability or assigning cause continues to be problematic.” Estep expressly cautions that “the extent to which [micrositing is] effective remains unclear,” and “there has been no way to reasonably differentiate the potential benefits of micro-siting new-generation turbines from the possibility that any reported changes in collision-related mortality are instead a function of the change from an old-generation to a new-generation turbine landscape.” Thus, Estep (2019) concludes that “[i]dentifying and avoiding high risk locations and relocating turbines to further minimize potential mortality based on current knowledge is certainly valid, but the effectiveness of these approaches may only be determined through ongoing monitoring of repowered projects.”

Further, the risk values Estep (2019) ascribed to turbines are relative, not absolute. In other words, they indicate whether one turbine location has the potential for higher collision risk than another—not whether a given turbine location will present an unacceptably high risk to birds or bats. Consequently, these risk designations are useful for comparing potential turbine sites against one another, but not for evaluating the impact of removing turbine sites altogether. Relatedly, the Lead Agency reiterates that Estep (2019) did not designate any of the turbine sites it evaluated at the Project as “very high risk,” its highest relative risk category. Also of importance is the fact that bat and avian nesting sites are not static; they will shift and change over the 30-year life of the project. Foregoing the installation of wind turbines because they may presently be in closer proximity to sensitive nesting sites while other, installed turbines are closer in other years, would render the alternative ineffective. Instead, Mitigation Measure BIO-8a requires removal of suitable raptor nesting habitat within 1 mile (2 miles for golden eagles) of the Project, as well as suitable tree/shrub- and ground-nesting habitat for other migratory birds with 50 feet of the Project. The PEIR (and by extension, the SEIR) does not require proactive removal of bat roosts. Bat activity is highly variable across the landscape (PEIR page 3.4-128) and the vast majority of mortality events occur during the fall migratory season (August through October) (PEIR page 3.4-131; H. T. Harvey & Associates 2018a, 2018b). Therefore, among other mitigation measures, the PEIR requires a bat adaptive management plan mandating an increase of cut-in speeds to 5.0 meters per second from sunset to sunrise during peak bat migration season, which will be increased until target fatality reductions are achieved, an approach which has been shown to reduce bat mortality rates by 52-87%, as indicated in the PEIR (page 3.4-136). While the spatial and temporal variability of bat activity renders turbine removal ineffective as a method of bat mortality reduction, increased cut in speeds have been proven to be highly effective.

Response to Comment 5-27

The comment cites the CEQA Guidelines but does not raise a specific issue on the substance of the draft SEIR. The comment’s statement of background CEQA law is noted.

Response to Comment 5-28

The comment asserts that the draft SEIR “includes very few meaningful changes to the PEIR’s mitigation program.” As noted above, the draft SEIR tiers from the PEIR. Deviations from the PEIR’s mitigation measures would only be appropriate if new information, or a change in the project or its circumstances that developed after 2014 show there were new or more intense significant effects that were not contemplated in the PEIR (See *Sierra Club v. Town of Mammoth Lakes* [2005], No. C044984, 2005 WL 1492006, at *8 [supplemental EIR may be “limited in scope” and “focus upon the proposed project modifications,” and need not “reopen the entire EIR . . . process”]). The Lead Agency acknowledges that new, relevant information has emerged since publication of the SEIR; however, the Lead Agency has found that consideration of such information has not uncovered any

new of more significant impact or suggested any feasible new alternatives or mitigation measures that were not already identified in the PEIR or the SEIR.

Further, CEQA does not require analysis of every imaginable mitigation measure (*Gilroy Citizens for Responsible Planning v. City of Gilroy* [2006] 140 CA4th 911, 935; *San Franciscans for Reasonable Growth v. City & County of San Francisco* [1989] 209 CA3d 1502, 1519). Rather, an EIR should focus on mitigation measures that are feasible, practical, and effective (*Napa Citizens for Honest Gov't v. Napa County Bd. of Supervisors* (2001) 91 CA4th 342, 365; *Concerned Citizens of S. Cent. L.A. v. Los Angeles Unified Sch. Dist.* [1994] 24 CA4th 826, 841). Here, the PEIR and draft SEIR contain a wide array of mitigation measures—many of which are intended to address avian and bat fatalities—based on the best available data.

While the commenter suggests that additional changes to mitigation should be implemented, the comment does not present significant new information regarding how further mitigation of avian mortality might be achieved. The commenter does specifically cite Arnett (2017) regarding mitigation of impacts to bats. However, with regard to minimizing impacts to bats, one of the principal effective methods of mitigation, changed cut-in speed, is already required of the project under PEIR Mitigation Measure BIO-14d, which, as the PEIR observes, has been shown to reduce impacts by 53 to 87% (PEIR page 3.4-146). As discussed in Response to Comment 5-29, the Bird and Bat Conservation Strategy contains a detailed adaptive management framework for avoiding and minimizing operational impacts to birds and bats.

The comment also states that the draft SEIR cites uncertainty in repowering fatality data as a justification for making few substantive changes in the PEIR's mitigation measures, and that the draft SEIR declines to consider otherwise feasible mitigation measures due to uncertainty with respect to repowering fatality data. However, the commenter provides no specific examples of such occurrences in the draft SEIR, and the Lead Agency is not aware of any. In any event, the draft SEIR shows with substantial evidence that the growing body of APWRA repowering mortality data developed since 2014 continues to confirm the PEIR's conclusions with regard to avian and bat effects. The mitigation measures in the final SEIR are based on the best available data, including sources of information provided by commenter (see Response to Comment 5-3, and Master Response 2: Avian and Bat Impacts).

Finally, the Lead Agency notes that commenter appears to claim the monitoring program is incomplete by partially quoting a section of the draft SEIR regarding reduction of TAC review delays as though that is all the draft SEIR had to say on the matter of post-construction monitoring. However, commenter fails to quote the rest of the paragraph, which explains that the project will be expected to initiate monitoring closer to the date of commercial operations than had occurred on other projects.

Response to Comment 5-29

The commenter notes that they provided prior recommendations for the draft SEIR, each of which are addressed in this response. Commenter's item (1) was addressed by creation of the Micro-Sited Alternative presented in the Draft SEIR, recognizing that turbine removal is a macro issue outside the scope of micrositing studies. See Master Response 1: Smaller Turbine-Pre-Micro-Sited Layout Alternative, as well as Response to Comments 5-22, 5-24, and 5-25. Commenter's items (2) through (4) are addressed by the compensatory mitigation, monitoring protocol, and adaptive management provisions of the proposed Project's September 2019 Draft BBCS, attached to the final SEIR as Attachment 9 in Appendix E-3. Commenter's item (3) and item (4) were also addressed by

modifications of the required mitigation for avian and bat impacts. Some of these modifications appeared in the draft SEIR, which updated the requirements of a variety of PEIR mitigation measures; the updated mitigation measures are listed in Table ES-1 on pages ES-6 to ES-24 of the draft SEIR (the primary measures of interest address biological resources, but other measures would have collateral benefits for biological resources). Additional measures have been updated in the final SEIR, primarily, 2019 Updated Mitigation Measure BIO-14b requiring use of trained dogs in carcass detection monitoring, and Mitigation Measure BIO-14d to recognize recent significant recent advances in predictive models that have enabled some wind farms to substantially reduce bat mortality by idling turbines for short periods during conditions especially favorable for bat movement (see pages 3.4-95 and 3.4-98).

With respect to commenter's request that the SEIR require thermal image monitoring for bats, as explained in the response to comment 6-11, the Lead Agency will rely on the expertise of the TAC in judging the most effective and appropriate methods for bat monitoring. However, based on the results of monitoring to date using scent detection dogs, and the best available science, the Lead Agency expects the use of dogs will be the most appropriate method. The Lead Agency does not find sufficient evidence to conclude that the requiring the use of thermal imaging would substantially reduce impacts to bats.

Finally, see Section 6 of Master Response 2: Avian and Bat Impacts, for further information that was incorporated into the final SEIR. As described in Section 7 of Master Response 2: Avian and Bat Impacts, incorporating this information into the final SEIR maintains the best available science performance standard. This additional information does not change the significance determinations relative to what was published in the draft SEIR or PEIR, and this new information does not result in the identification of new feasible mitigation to avoid or substantially reduce the severity of a significant impact identified in the draft SEIR or PEIR.

Response to Comment 5-30

See Response to Comment 4-8. The draft SEIR does not "require" the applicant to obtain such a permit, as that is outside of the scope of this CEQA document. The applicant has informed the Lead Agency that it submitted a CESA incidental take permit application for the potential take of tricolored blackbird and Swainson's hawk.

Response to Comment 5-31

The comment does not raise a specific issue on the substance of the draft SEIR.

Response to Comment 5-32

The comment does not raise a specific issue on the substance of the draft SEIR. Attachment 2 in Appendix E-3 provides corrections to the micrositing assessment provided by commenter. See also Master Response 1: Smaller Turbine-Pre-Micro-Sited Layout Alternative, as well as Response to Comment 5-22.

Letter 6—East Bay Regional Park District, October 4, 2019

Response to Comment 6-1

The comment does not raise a specific issue on the substance of the draft SEIR.

Response to Comment 6-2

The commenter points to a statement on page 2-21 of the draft SEIR, which notes that future projects identified in the PEIR should be considered in allocating the total nameplate capacity, with subsequent projects reviewed on a first-come, first-served basis, and the commenter links this statement to the assessment of cumulative impacts. This statement is made in reference to the current 450 megawatts (MW) limit of the County's wind repowering program described in the PEIR. It is not a statement about how the Lead Agency will assess cumulative impacts, which is instead dictated by CEQA, its implementing regulations, and case law. The proposed Project involves fewer turbines, acres, and rotor-swept area than the phased Golden Hills project (consisting of Golden Hills as Phase 1 and Golden Hills North as Phase 2). Moreover, it is the effects, not the size, per se, of a project that is the subject of CEQA review. Please see the Response to Comment 5-16 and the revised cumulative impacts analysis in the Final SEIR for a discussion of the SEIR's treatment of cumulative impacts, including important clarifications regarding the proper scope of cumulative impacts and the role of the 450 MW "cap." In particular, the Lead Agency notes that CEQA requires consideration only of cumulative projects that are reasonably foreseeable.

Response to Comment 6-3

The commenter confuses the County's tallying of projects against its 450 MW program "cap" with the cumulative effects analyses of the PEIR and draft SEIR, which extend beyond the 450 MW program to also include the Contra Costa segment of the Altamont Pass Wind Resource Area (APWRA) as well as the Montezuma Hills WRA in Solano County. Regarding the comment's discussion of cumulative impacts, see Response to Comments 5-16 and 6-2. No application has been filed for the Clearway project and, it therefore was not (and still is not) a foreseeable cumulative project when CEQA review of the proposed project began. The Diablo Winds project pre-dated the PEIR by a decade. However, as a past project contributing to the total capacity within the APWRA, this project is included in the list of approved, operational, and proposed projects within the program area, and has been added to the revised calculation of combined gross total MW within the APWRA. This revised total, as reflected in revisions to Chapter 2, Project Description, and the cumulative analysis contained in Chapter 5 of the Final SEIR, has been incorporated into the updated cumulative analysis. See Section 7 of Master Response 2 for further discussion of these revisions to the final SEIR. The comment also states that the Lead Agency must develop a new PEIR to account for additive wind projects and associated impacts. A decision on the part of the Lead Agency to develop a new PEIR is beyond the purview of the proposed project, and is not required under CEQA for the proposed project. As noted in Master Response 2 above, the proposed project by itself would not result in the total capacity evaluated in the PEIR being exceeded, and subsequent projects that would result in wind development beyond the 450 MW capacity will be required to conduct subsequent environmental review to account for impacts not analyzed in the PEIR. Further, it has been demonstrated with the revised cumulative analysis in Chapter 5 that even with consideration of additive projects beyond the 450 MW program capacity, the PEIR's determinations regarding the project's contribution to identified cumulative impacts would remain the same, and there is no

evidence of a substantial change in the magnitude of the cumulative impact, relative to the analysis in the PEIR.

Response to Comment 6-4

As described in Section 3 of Master Response 1: Smaller Turbine –Pre-Micro-Sited Layout Alternative (Micro-Sited Alternative) and Responses to Comments 5-22 and 5-26, the Smallwood and Neher (2018) and Estep (2019) sources were used to design the Micro-Sited Alternative to minimize collision-related impacts. As further described in those responses, some recommendations in these reports were not feasible to implement. For instance, some siting recommendations could not be implemented due to County setback requirements, while others could not be implemented because turbines would have to be placed so close together that wake turbulence effects would render them commercially infeasible. Additionally, some turbine relocation recommendations were considered but modified to maximize feasibility and minimize impacts through one or more changes. The commenter also references Exhibit A [sic – labeled “Exhibit 1”] from Anonymous (2019), which was prepared by the applicant. An update to Exhibit 1 documenting siting decisions is provided as Attachment 1 in Appendix E-3. Attachments 2 and 3 in Appendix E-3 also provide summaries of micro-siting efforts at the project site. There are a number of errors, inaccuracies, and misleading statements in the comment’s description of the project’s micro-siting efforts. For example, the comment lists Turbine 10 as a site that was sited contrary to the recommendations of Smallwood and Neher (2018) or Estep (2019). However, the Micro-sited Alternative (Layout 5) uses Estep’s recommended site for Turbine 10; Smallwood did not offer a recommendation for relocating this site and did not give it a high Scientific Review Committee-style risk rating. Please see Attachment 1 in Appendix E-3, *Summary of Micro Siting* for an accurate summary of micrositing efforts at the Project site.

With respect to the comment’s reference to Smallwood’s disagreement with the attribution of certain turbine relocations, see Response to Comment 1-9. Regarding the statement that the PEIR recommended a minimum blade-to-ground height of 29 meters, see Response to Comment 5-25, which addresses how that recommendation was removed from the Draft PEIR in the Final PEIR. The commenter’s assertion that “any benefits accrued through decreasing rotor swept area (RSA) may be eliminated through the Project’s minimum blade height above ground regardless of RSA” is speculative. See Response to Comment 5-25 for further discussion on this topic.

Lastly, the comment states that the benefits of careful micrositing are likely going to be offset by “too many turbines in too small an area,” but does not provide any evidence other than a vague figure depicting telemetry data from golden eagles in the Altamont Pass Wind resource Area (APWRA). The commenter’s assertion is, therefore, unfounded.

Response to Comment 6-5

The comment states that “based on micro-siting analysis alone, at least 11-18 Project turbines, and likely more such as additional turbines listed ‘of concern’ by Smallwood and Neher (2018) and those designated as “High Risk” by Estep (2019) should be considered for elimination from Project scope to reduce significant and unavoidable impacts to wildlife.”

Please see Response to Comment 5-26, which explains that the designs of the proposed Project and the Micro-Sited Alternative are the only alternatives considered feasible. As such, the commenter’s suggestions to further restrict the number of turbines associated with the proposed Project or the Micro-Sited Alternative are not feasible and do not warrant further consideration. Response to

Comment 5-26 also explains that the proposed Project's micrositing studies were not designed to make macro-siting recommendations regarding the removal of relatively higher risk turbine sites. Finally, the Lead Agency observes that the commenter is not expert in the business of wind development or project economics.

The comment also states that "additional micro-siting analyses should be conducted to rectify conflicting interpretations of the micro-siting reports" prepared for the proposed Project. The commenter does not specify the alleged "conflicting interpretations" to which it refers. In any event, as shown in Appendix E-3 Attachment 1, the micrositing recommendations by Smallwood and Neher (2018) and Estep (2019) overlap to a great extent, and the Micro-sited Alternative follows them whenever feasible. To the extent there is any disagreement, it appears that such comments are driven more by professional considerations on the part of one of the micrositing report's authors than biology, per se.

The comment correctly notes that macrositing is not an option. The comment states that "macro-siting can be employed within a Project's footprint to inform micro-siting." The commenter appears to conflate micrositing (adjusting turbine locations within a project area) with macrositing (selecting a project area). Please refer to Response to Comment 5-26 for a discussion regarding proposals to eliminate high-risk turbines. Commenter asserts that telemetry data shows the Project site is used extensively by golden eagles, but the figure supplied by the commenter shows much more concentrated and extensive golden eagle use to the northwest of the Project site. While general flight information is important to consider, site-specific analysis of risk, such as that implemented by Smallwood and Neher (2018) and Estep (2019) for the proposed Project, is much more likely to be predictive of more risky turbine locations.

Response to Comment 6-6

The comment on draft SEIR page 3.4-9-11 states that "attributing increased second-year golden eagle mortality rates at Golden Hills to bias from increased perching opportunities provided by old gen turbines near the site is pure conjecture." The Lead Agency disagrees. As explained in the draft SEIR, the Lead Agency observed a limitation on the H. T. Harvey report disclosed by the report itself: "The report observed that all of its golden eagle mortality rates may be overstated as a consequence of bias attributable to the presence of old turbines near the Golden Hills site that provided perching and nesting opportunities for raptors, including golden eagles, which were seen perching on them on several occasions" (H. T. Harvey & Associates 2018a:46, 50). The commenter's claim of personal observation of "golden eagles spend[ing] considerable time perched on the ground and low rocks throughout the APWRA" is noted, but does not change the Lead Agency's decision to disclose potential biases as stated in the referenced fatality monitoring report, which was prepared by a qualified expert consultant who has more intimate knowledge of the Golden Hills project and the behavior of avian species on and around that project's site as a result of the extensive monitoring work the consultant has performed for the Golden Hills project.

The comment also states that "although climate does influence inter-annual variability in environmental parameters, the reported 'surge' in golden eagle productivity following a wet year in 2018 (H. T. Harvey & Associates 2018b:63) did not happen locally." Here, the commenter cites "EBRPD, unpublished data; Contra Costa Water District" to contradict another finding of the Golden Hills report discussed immediately above. The commenter does not provide the "unpublished data" on which it relies, nor does it explain what it means by "did not happen locally." Please see Response

to Comment 5-9 for additional discussion, as well as Master Response 2: Avian and Bat Impacts, which explains that under CEQA, “disagreement among experts does not make an EIR inadequate.”

Regarding the comment on draft SEIR page 3.4-12-15 with respect to golden eagle population and nesting data, please see Response to Comment 5-6. We note here that the Lead Agency has corrected the citation to Kolar and Wiens (2017), rather than Bell (2017a,b) on page 3.4-13 of the Final SEIR. The Lead Agency notes that the information in the Draft SEIR was correct, regardless of the mistake with the citation. The Lead Agency has also clarified on page 3.4-13 of the Final SEIR that there are numerous golden eagle nests within the APWRA, and there were 3-6 nesting attempts between 2014 and 2016 within the APWRA as noted by the comment. Finally, the Lead Agency has revised Table 3.4-3 on page 3.4-35 of the final SEIR to note that the proposed Project area contains both foraging and nesting habitat for the golden eagle.

The comment also takes issue with conclusions in the Draft SEIR that are based on data on golden eagle nesting provided by the U.S. Geological Survey (USGS), and for its justification cites other studies that, as cited, do not speak to the question of how many golden eagle nests are in the APWRA. We regard the data provided by USGS as reliable. Regardless, the draft SEIR notes that golden eagles may nest within the Project area and provides Mitigation Measure BIO-11b: Site turbines to minimize potential mortality of birds to address impacts to this species, described on draft SEIR page 3.4-75, which states:

Project proponents will also collect and utilize additional field data as necessary to inform the siting analysis for golden eagle. As required in 2019 Updated Mitigation Measure BIO-8a, surveys will be conducted to locate golden eagle nests within 2 miles of proposed project areas. Siting of turbines within 2 miles of an active or alternative golden eagle nest or active golden eagle territory will be based on a site-specific analysis of risk based on the estimated eagle territories, conducted in consultation with USFWS.

The commenter discusses the estimate of the golden eagle population size presented in the draft SEIR and asserts that this estimate is not based on habitat suitability modeling as “performed by Wiens (2015)” —but the commenter also notes that the population size estimate given in the draft SEIR is based on the work of Wiens et al. (2015). The Draft SEIR does not need to repeat Wiens’ habitat suitability modeling in order to produce a population estimate. The draft SEIR outlines the local area population (LAP) estimates in the context of recently available information and explains why current U.S. Fish and Wildlife Service (USFWS) estimates are likely underestimated. The draft SEIR also acknowledges that eagle density is likely to vary dramatically over the landscape, which is also noted by the commenter, but that even with this taken into account, the USFWS population still appears to be an underestimate. Regardless of the exact LAP estimate, the Lead Agency notes that the current USFWS estimate of 718 individuals within the entire Bird Conservation Region (BCR) 32 is likely to be an underestimate. The USGS study alone documented 560 individuals within only the Diablo Range.

However, the commenter is correct that the population-level impacts of the APWRA, including the proposed Project, likely accrue to an area smaller than that occupied by the LAP, and page 3.4-13 and 3.4-14 of the final SEIR has been revised to acknowledge recent work by USGS staff indicating adverse effects on the Diablo Range golden eagle population. This change does not alter the conclusions or the analysis set forth in the draft SEIR because the PEIR and draft SEIR both conclude that adverse effects to golden eagles will, along with other avian species, be significant and unavoidable even after mitigation.

The comment is also correct that the LAP estimates do not take population-specific movements of individuals into account. The Lead Agency acknowledges this fact but, given that LAPs are creatures of the Bald and Golden Eagle Protection Act (BGEPA), not CEQA, and given the draft SEIR's focus on effects within the APWRA, which is only a small subset of the far larger LAP, the smaller geographic scope of analysis of the PEIR and draft SEIR already track the narrower geographic scope asserted by commenter.

Response to Comment 6-7

The comment asserts that the removal of nesting habitat (shrubs and trees) during the non-breeding season is not a viable mitigation measure. The commenter references golden eagle nest sites within the Project area based on surveys conducted by USGS between 2014 and 2016 (Kolar and Wiens 2017). As noted in Response to Comments 6-6 and 5-6, the Lead Agency has clarified the discussion of nesting golden eagles on page 3.4-13 of the final SEIR. The Lead Agency refers the commenter to the Responses to Comments 5-6, 5-11, and 5-23 for a more detailed discussion of golden eagle nesting.

The Lead Agency acknowledges that the commenter takes exception to the removal of nesting substrate during the non-breeding season, but the Lead Agency considers this form of mitigation adopted by the PEIR to be a biologically net-positive modification because it would reduce avian turbine interactions by reducing the likelihood of birds nesting close to wind turbines. Moreover, based on the nest locations referenced by commenter, there are no trees in these areas, only transmission towers that will not be impacted by the proposed Project. There are no trees in the Project area large enough to support an eagle nest and no cliff-nesting habitat. Additionally, there are no trees that overlap with Project components that would require removal, with exception of the proposed gen-tie route (power line), which follows Altamont Pass Road and an existing transmission line. No Swainson's hawk or golden eagle nests have been reported along this section of Altamont Pass Road. Impact BIO-8 of the draft SEIR states that few if any trees or shrubs would be removed by the Project. Finally, removal of nesting substrate during the non-breeding season is part of a mitigation measure of the PEIR. As the statute of limitations on the PEIR has concluded, the commenter must show how conditions changed since 2014 have resulted in a new or more significant impact as a result of this measure that was not apparent at the time of certification of the PEIR. The commenter has made no such showing.

To address golden eagle, Swainson's hawk, and tricolored blackbird nesting near the Project area that could be disturbed from construction activities, 2019 Updated Mitigation Measure BIO-8a: Implement measures to avoid and minimize potential impacts on special-status and non-special-status nesting birds requires that surveys be conducted to locate active nests so that impacts on these species can be avoided with establishment of no-activity zones. The commenter also notes that "unpublished data" exists documenting tricolored blackbird nesting at Vasco Caves Regional Preserve. The Lead Agency notes that Vasco Caves Regional Preserve is located approximately 4 miles to the north/northwest of the proposed Project site, and any nesting colony there is unlikely to be affected by the proposed Project.

Response to Comment 6-8

The commenter cites data sources allegedly supporting determinations that “repowering the APWRA will continue to cause significant and unavoidable impacts related to avian and bat mortality,” and that mortality from the proposed project may result in a persistent, long-term decline in golden eagle populations.

To reach these conclusions, the comment asserts that the proposed Project, in combination with other approved projects, will likely exceed the golden eagle fatality “threshold” set by the PEIR, and the significant and unavoidable impact of the proposed Project may be far more severe than previously assumed. However, as stated in the PEIR, the draft SEIR, the May 2019 *Avian and Bat Assessment*, and elsewhere in these responses to comments, the PEIR did not set a “threshold” for golden eagle fatalities that would be authorized under the PEIR. Instead, the PEIR used the data on repowering projects available at the time to estimate the potential number of fatalities that could be possible for two proposed projects and for two proposed repowering alternatives in the APWRA (417MW and 450MW alternatives). As discussed in Section 1.4 of the draft SEIR, the PEIR disclosed substantial uncertainty about the level of avian mortality that would result from repowered turbines. In fact, despite the expectation of a reduction in fatalities from baseline, the Lead Agency acknowledged the uncertainty inherent in such estimates and specifically concluded on that basis that the impact would be significant and unavoidable. Additional background and discussion of this is provided in Section 1.4 of the draft SEIR. As described in the draft SEIR, information gathered since publication of the PEIR, on balance, supports the PEIR’s estimates. And as explained in Master Response 2: Avian and Bat Impacts, additional information brought to the Lead Agency’s attention does not change this conclusion or the analysis supporting it. Please see Master Response 2 as well as Responses to Comments 5-5, 5-9, and 5-10 for additional detail responsive to this comment.

Response to Comment 6-9

The comment states that compensatory mitigation should be applied broadly and at the landscape level. The Lead Agency notes that 2019 Updated PEIR Mitigation Measure BIO-11h, including golden eagles, by contributing to conservation efforts already notes that “each avian mitigation plan incorporate a landscape-scale approach such that the mitigation efforts achieve the greatest possible benefits.” The commenter also states that take thresholds for eagles should be set at the local level commensurate with the sustainability of the local eagle population and it should include cumulative effects. The Lead Agency notes that it is beyond the scope of its review and authority to set take thresholds for eagles; this is an issue more appropriate for USFWS in its administration of Bald and Golden Eagle Protection Act (BGEPA). However, the Lead Agency has tried to design mitigation measures that incentivize applicants to apply for eagle take permits with the anticipated result being that receipt of such permits would come with conditions to mitigate impacts to eagles to a no net loss standard, including cumulative considerations. The applicant was the first project proponent in the APWRA to apply for an eagle take permit.

The comment further suggests that compensatory mitigation for raptor habitat should include habitat restoration and enhancement of prey populations that would benefit golden eagles. The Lead Agency notes that 2019 Updated PEIR Mitigation Measure BIO-11h, on page 3.4-84, includes (but is not limited to) “habitat enhancement, lead abatement activities, elimination of rodenticides, and/or other measures[.]” The Lead Agency further notes that under 2019 Updated PEIR Mitigation Measure BIO-11h, the experts on the technical advisory committee (TAC) will review and provide input to the Lead Agency on whether the proposed mitigation strategy is appropriate.

The comment also notes that compensatory mitigation could support programs that create conservation easements or conservation bank credits on private lands that would then be managed for golden eagles (and other species), and provides a specific ranch property that may be appropriate for compensatory mitigation. The Lead Agency appreciates the suggestion and will provide this information to future applicants, including the proposed Project applicant, for their consideration. With respect to the comment's other suggestions for appropriate compensatory mitigation, the Lead Agency believes that 2019 Updated PEIR Mitigation Measure BIO-11h provides sufficient flexibility for a particular applicant to select one or more of the methods suggested.

The Lead Agency further notes that the Bird and Bat Conservation Strategy (BBCS), included as Attachment 9 in Appendix E-3, described in more detail in Response to Comment 5-29, calls for establishing a compensatory mitigation fund in the amount of \$14,500/MW of installed capacity, to be used on a variety of efforts subject to USFWS approval including retrofitting high-risk power poles, contributing to the regional management of eagle and raptor habitat, supporting additional conservation of lands for the benefit of eagles and raptors, and supporting the reduction of rodenticide use in wildlands (BBCS pgs 4-6 – 7). The Lead Agency notes that \$14,500/MW is roughly 40% greater than the \$10,500/MW established in the NextEra settlement agreement in 2010.

Finally, commenter states that the PEIR's required contribution of \$580/raptor fatality to raptor conservation efforts is not adequate. However, the commenter does not provide evidence demonstrating that a different figure is more appropriate. The final SEIR has been updated to require contribution in an amount equal to the average cost to rehabilitate one raptor at the California Raptor Center. (See page 3.4-78).

Response to Comment 6-10

PEIR Mitigation Measure BIO-11i: Implement an avian adaptive management program in the draft SEIR includes provision ADMM-5, Turbine Curtailment, on page 3.4-84. As there noted, "[c]urtailment restrictions would be developed in coordination with the TAC." This provision appears to address commenter's concern regarding curtailment. Consistent with this requirement, the project's BBCS, included as Attachment 9 in Appendix E-3 and described in more detail in Response to Comment 5-29, addresses curtailment. In addition, as noted on page 3.4-83 of the draft SEIR, the provision for curtailment restrictions is subject to consideration by the technical advisory committee (TAC). The TAC will also consider micro-siting at the Project site. However, as described in Response to Comment 6-5, the number and size of turbines proposed as part of the Project are the minimum considered feasible by the Lead Agency and, therefore, post-construction measures to eliminate turbines are also considered infeasible. The Lead Agency refers commenter to Response to Comment 5-26 for a more detailed discussion of the feasibility of relocating or removing turbines.

Response to Comment 6-11

The comment asserts that annual bat mortality rates are far greater than previously reported for the APWRA and requests that post-construction bat fatality monitoring use scent detection dogs. See Responses to Comments 1-17, 5-16, 5-29, and 8-4. In summary, we agree. In the final SEIR, 2019 Updated Mitigation Measure BIO-14b calls for using dogs to improve detection probabilities for bats and small birds. The Lead Agency also refers commenter to the Response to Comment 1-17 and Master Response 2: Avian and Bat Impacts, Section 6. The effectiveness of detection dogs was known at the time of preparation of the draft SEIR, through incorporation of the Golden Hills year 1 and 2 post-construction monitoring reports. This information was factored into the SEIR's estimated

mortality rates, and necessarily informs the mitigation measures set forth in the Draft SEIR. The Lead Agency also notes that the BBCS (included as Attachment 9 in Appendix E-3), subject to TAC approval, includes the use of scent-detection dogs for 7-day search intervals as part of its monitoring measures (BBCS, pgs 4-4 -5).

Response to Comment 6-12

The comment does not raise a specific issue on the substance of the draft SEIR.

**Letter 7—Golden Gate Audubon Society, Pam Young, Executive Director,
October 4, 2019****Response to Comment 7-1**

The comment's information about the commenter, incorporations by reference, Project, and background law are noted. The comment does not raise a specific issue on the substance of the draft SEIR.

Response to Comment 7-2

The comment notes that the SEIR should describe two sets of existing conditions that "constitute the current baseline for evaluating impacts." The Lead Agency refers commenter to the response to comment 5-5 for a description of the methodology and justification for the environmental baseline used in the draft SEIR impact analysis. The comment also states that pursuant to Guidelines Section 15125(a), "the impact assessment should emphasize a thorough description and detailed knowledge of rare and unique species and resources in the project area. The draft SEIR contains such a description, and the commenter does not explain what "rare and unique species and resources" it believes the draft SEIR has addressed insufficiently.

Response to Comment 7-3

The comment claims that the draft SEIR project description does not contain sufficient detail to adequately assess the exact location and magnitude of the Project's impacts. Because it requires initiation of environmental impact analysis early in the decision-making process, before commitments are made, CEQA does not require exact details on every aspect of the project. The description of the proposed Project provided in the draft SEIR is based on what was known when the draft SEIR was released for public review, and the draft SEIR makes conservative assumptions as to the Project's impacts. In other words, wherever assumptions are required to accommodate for an absence of project design detail, the draft SEIR generally assumes that the most impactful option would be implemented. Refinement of the Project design, for example during technical advisory committee (TAC) review, is not anticipated to result in environmental impacts above those which were identified in the draft SEIR. The level of detail in the draft SEIR is consistent with CEQA and industry best practices.

The Lead Agency refers commenter to the response to comment 5-5 for a more detailed description of old generation turbines, and generally of the methodology and justification for the environmental baseline used in the draft SEIR impact analysis.

Response to Comment 7-4

The comment notes that the draft SEIR should provide a detailed analysis of Altamont's carrying capacity for the golden eagle, red-tailed hawk, American kestrel, western burrowing owl, and tricolored blackbird. Comparable data do not exist to enable alternative methods of analysis suggested by some commenters, such as a carrying capacity analysis or a population viability analysis. The Lead Agency determined that a carrying capacity analysis would be an unsatisfactory approach to the quantitative analysis provided in the draft SEIR. A carrying capacity analysis would be methodologically flawed because it assumes that the affected populations are resident in the Altamont Pass Wind Resource Area (APWRA), when many birds and bats are non-resident and use

the area during their seasonal migrations. Also, factors such as available food, water, cover, prey, and predator species all affect a particular species' carrying capacity. Analysis of the relative importance of such numerous factors is difficult to do given available data, and is beyond the scope of what is required under CEQA. CEQA does not require an exhaustive discussion of a project's every possible environmental impact, but rather "a good-faith effort at full disclosure." *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 515; *id.* at 525 (holding that CEQA "requires that the EIR have made a reasonable effort to discuss relevant specifics" such that it "allow[s] the public to make an informed decision"); *see also* CEQA Guidelines Section 15151 ("An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible."). Nonetheless, the Lead Agency has assessed potential cumulative effects on focal species populations. Please refer to Response to Comment 5-16 for further details.

With respect to the comment's request that the SEIR provide an "analysis of tricolored blackbird occupancy and activity within and near the project site," the draft SEIR provides such analysis. (See, e.g., draft SEIR at 3.4010 (noting that tricolored blackbird are possible at the project site, and have been observed in very small numbers at the nearby Vasco Winds and Golden Hills project); Figure 3.4-3b (depicting California Natural Diversity Database records, including for tricolored blackbird); 3.4-22 (describing CNDDB nesting records for tricolored blackbird in project vicinity); 3.4-35 (discussing likelihood of tricolored blackbird occurring at project site)).

Response to Comment 7-5

The comment asserts that the draft SEIR lacks a thorough assessment of impacts on birds, bats, and associated biological resources and lack sufficient mitigation. More specifically, that the comment asserts that data reported by H.T. Harvey et al. supplant earlier mortality estimates. In fact they supplement earlier data, and as described in the PEIR, mortality estimates for the proposed Project were based on data from all repowered projects in the APWRA. With regard to commenter's numerical comments, commenter has either misread Table 3.4-4 or believes that fatality estimates are based solely upon Golden Hills monitoring data. This is incorrect. Fatality estimates are based upon evidence from all four repowered projects shown in Tables 3.4-4 and 3.4-8 of the draft SEIR. The comment's rationale for concluding a "trend" based upon data collected from different sites at similar times is unclear and does not appear to improve upon the approach for the analysis employed in the draft SEIR.

With respect to the comment's note that Table 3.4-8 in the draft SEIR does not expressly reference a source for its base rate, the final SEIR has been clarified to reflect that the non-repowered calculations in this table are based on the PEIR's calculation of baseline mortality rates. The commenter should also note that Table 3.4-4, which expressly references this source, provides the same non-repowered mortality estimates.

Response to Comment 7-6

The comment asserts that updated monitoring reports, new published findings, and updated collision hazard models did not adequately inform impact evaluations and micro-siting. The Lead Agency refers commenter to Master Response 1: Smaller Turbine – Pre-Micro-sited Layout Alternative, which describes which data were relied upon for micro-siting decisions and impact analysis. The commenter is correct that the Micro-sited Alternative did not adopt all of the micro-siting recommendations from Estep (2019) and Smallwood and Neher (2018). The comment fails to

acknowledge, however, that those recommendations were made without regard to their technical, legal, and economic feasibility. As explained in Master Response: Smaller Turbine – Pre-Micro-sited Layout Alternative, and particularly the attachments referenced therein, the applicant followed expert micro-siting recommendations to the maximum extent feasible, subject to setback and wake effect limitations. As described therein, the Micro-sited Alternative follows an expert micro-siting recommendation at 24 turbine sites; uses a partial, modified, or secondary recommendation at five additional sites where the full recommendation could not be feasibly implemented; and reduces the turbine size at 10 of the 11 locations where turbines could not be relocated due to setback or other physical constraints.

The Lead Agency also refers commenter to the responses to comments 5-22, 5-23, 5-24, and 5-25 and for more detailed discussions regarding micro-siting and its impacts on avian and bat resources, including the manner in which project-specific micro-siting studies considered the effects of grading. The Lead Agency refers commenter to the response to comment 5-26 for a discussion about the feasibility of reducing the number of turbines.

With respect to the comment's assertion regarding the draft SEIR's discussion of mortality, please see the response to 7-5.

Finally, Section 6 of Master Response 2: Avian and Bat Impacts describes changes incorporated into the Final SEIR to account for new information. As explained in that response, the incorporation of this information does not change the conclusions reached in the draft SEIR and does not result in the identification of new feasible mitigation measures to avoid or substantially reduce the severity of a significant impact identified in the draft SEIR.

Response to Comment 7-7

The commenter claims that micro-siting recommendations to avoid or minimize adverse impacts were disregarded. The comment's description of the Micro-sited Alternative is incorrect. The Lead Agency refers commenter to Master Response 1: Smaller Turbine – Pre-Micro-sited Layout Alternative for a discussion of how siting decisions were made, as well as the responses to comments 7-6, 5-22, 5-23, 5-24, and 5-25 for discussions regarding micro-siting and its impacts on avian and bat resources. In particular, Attachment 2 in Appendix E-3 corrects the many errors in the presentation to the TAC referenced by commenter. Response to comment 1-12 also provides further information regarding rotor-ground clearance.

Response to Comment 7-8

The comment states that additional alternatives should have been considered. The comment then goes on to suggest that alternatives evaluated in the PEIR should be tailored for the proposed Project and considered in the draft SEIR. The SEIR does include alternatives beyond those analyzed in the PEIR that are tailored to the proposed Project and are designed in the spirit of the PEIR alternatives described by the commenter. Further, these PEIR alternatives still apply because the SEIR tiers from and supplements the PEIR and does not replace it. As described in Master Response: Alternatives, an EIR need not discuss every alternative to the project, but must instead present a reasonable range of potentially feasible alternatives (*See* 14 Cal. Code Regs §15126.6(a)). The Lead Agency has already identified a reasonable range of feasible alternatives that it considers feasible in the draft SEIR, and screened out other alternatives, including a Reduced Footprint alternative, as described in Chapter 4, *Alternatives*, of the draft SEIR. The Lead Agency refers commenter to the response to comment 5-26 for a discussion about the feasibility of reducing the number of turbines.

Lastly, the comment suggests that the addition of the proposed project to the APWRA could exceed the Alternative 2 capacity of 450 MW. As noted in Master Response 2 above, the proposed project by itself would not result in the total capacity evaluated in the PEIR being exceeded, and subsequent projects that would result in wind development beyond the 450 MW capacity will be required to conduct subsequent environmental review to account for impacts not analyzed in the PEIR. This revised total in the capacity of the APWRA, as reflected in revisions to Chapter 2, Project Description, and the cumulative analysis contained in Chapter 5 of the Final SEIR, has been incorporated into the updated cumulative analysis. See Section 7 of Master Response 2 for further discussion of these revisions to the final SEIR.

Response to Comment 7-9

The commenter asserts that the impacts of the proposed Project are likely to affect the threshold for carrying capacity for four focal species, the tricolored blackbird, and bats. The comment does not, however, provide substantial evidence in support of this claim. Further, the commenter misstates the Project's objectives. Those objectives, listed in the draft SEIR at p. 2-3, do not include "protecting the carrying capacity of the four focal species, the tricolored blackbird, and bats." Please see Response to Comment 7-4, above, regarding carrying capacity. Finally, the commenter's argument regarding adverse effects to certain special status avian species, while unsupported, is consistent with the impact analyses and significant and unavoidable impact conclusions of the PEIR and the SEIR with regard to adverse impacts on avian species.

Response to Comment 7-10

The comment asserts that alternatives may not be rejected because they are beyond an agency's authority, would require new legislation, or would be too expensive. The Lead Agency refers commenter to the responses to comments 7-8 and 5-26 regarding the identification of feasible alternatives in the draft SEIR. The comment misinterprets CEQA. An EIR need only examine a range of alternatives that are "potentially feasible." CEQA Guidelines Section 15126.6(a) The term "feasible" is defined in Pub. Res. Code §21061.1 as "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors." See also *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 566. Thus, an EIR need not consider economically infeasible alternatives so long as the economic infeasibility determination is supported by evidence in the EIR or in the administrative record. See *City of Fremont v. San Francisco Bay Area Rapid Transit Dist.* (1995) 34 CA4th 1780, 1787; *Crenshaw Subway Coalition v. Los Angeles County Metro. Transp. Auth.*, No. CV 11-9603 FMO (JCx), 2015 WL 6150847, at *9-13 (C.D. Cal. Sept. 23, 2015).

Response to Comment 7-11

The comment states that the draft SEIR cumulative analysis should incorporate new information that reasonably analyzes feasible options for mitigation and avoiding significant effects, and should explain why the Project has not been reduced despite cumulative impacts. The cumulative analysis in the final SEIR has been revised to incorporate additional analysis to the extent that such projects can be determined to have an impact on local and regional avian and bat populations (see pages 5-5 through 5-7). The cumulative analysis takes into account the revised repowering scenario of 479 MW (see Section 7 in Master Response 2) and has also been augmented to provide a quantitative cumulative total of avian and bat fatalities utilizing the best available information, including substantial new information that has been made available in response to comments on the draft

SEIR. Please see Response to Comment 5-16, and revisions to the cumulative impacts analysis in the Final SEIR, for additional detail. This new information does not change the conclusions reached in the draft SEIR and does not result in the identification of new feasible mitigation to avoid or substantially reduce the severity of a significant impact identified in the draft SEIR.

The commenter specifically addresses statements on page 5-3 of the draft SEIR regarding cumulative impacts on vegetation, wetlands, habitats, and terrestrial species. The draft SEIR correctly states that “compensation for the loss of vegetation and wetlands would mitigate those impacts with the goal of no net loss” and that compensatory restoration of habitats and “implementation of mitigation measures identified in the PEIR that require restoration of temporarily affected habitat and compensation for the permanent loss of habitat” would reduce the program’s contribution to certain cumulative impacts on habitats and terrestrial species.

Compensatory mitigation is a mainstream, commonly accepted, and appropriate mitigation tool. CEQA defines mitigation to include “Compensating for the impact by replacing or providing substitute resources or environments, including through permanent protection of such resources in the form of conservation easements.” CEQA Guidelines 15370. The Lead Agency considers the protection of resources in perpetuity through habitat restoration and acquisition of conservation lands to be adequate compensation both for temporary construction impacts and for permanent impacts.

Furthermore, PEIR mitigation measure BIO-18 requires compensation for the filling or disturbance of wetlands at a 1:1 ratio. Similarly, PEIR mitigation measure BIO-2 requires project proponents to restore areas disturbed by project activities following construction to a condition of equal or greater habitat function than occurred prior to the disturbance. The portion of the draft SEIR’s cumulative impacts discussion with which commenter takes issue incorporates by reference and summarizes the PEIR’s detailed cumulative impacts discussion. As the mode of analysis, mitigation methods, and impact conclusions of the PEIR are no longer subject to challenge, the commenter’s claim only has potential merit to the extent commenter can show that a change in the project, its circumstances, or new information require modifying the SEIR in order to address a new or more intense significant impact than was identified in the PEIR. The commenter has made no such showing.

The comment also states that habitat restoration does not adequately offset the cumulative impacts of newly installed turbines in high-hazard locations, and asserts that the SEIR must adequately discuss the severity of cumulative impacts. However, the draft SEIR does not claim that habitat restoration offsets the impacts of newly installed turbines (i.e., avian and bat mortality). As explained on page 5-5, the draft SEIR finds that the Project would result in a considerable contribution to a significant cumulative impact with respect to bird and bat mortality. And again, the portion of the draft SEIR’s cumulative impacts discussion with which commenter takes issue tiers from the PEIR.

The commenter also states that the draft SEIR should explain why the Project proponents elect to keep the project level at 40 turbines, and the SEIR must analyze and explain how the Project will avoid cumulative impacts if fewer turbines are not considered. Please see the response to comment 5-26 for a discussion of why the Lead Agency did not analyze a project alternative consisting of fewer than 40 turbines. Regarding the analysis of cumulative impacts on birds and bats, please also see the response to comment 5-16. As noted in response to comment 5-16, the Final SEIR has been modified slightly to clarify certain aspects of the cumulative impacts discussion. Please see also the response to comments 5-3.

Response to Comment 7-12

The comment states that the Project should not be approved if there are feasible mitigation measures or alternatives that would substantially reduce environmental impacts, and more specifically notes that the Project should not be approved unless impacts can be substantially reduced through a reduction in the number of turbines. The Lead Agency refers commenter to the responses to comments 7-8, 7-11, and 5-26 regarding the identification and analysis of feasible alternatives in the draft SEIR. The County has found that an alternative consisting of fewer turbines is not feasible.

The comment also states that new and additional compensatory mitigation measures were discussed but not fully applied in the draft SEIR. The comment does not identify feasible mitigation measures that it believes should have been included in the draft SEIR. In addition, the PEIR and draft SEIR, as implemented through the project's Bird and Bat Conservation Strategy, set forth robust compensatory mitigation requirements. For example, the applicant will conserve 263 acres of suitable habitat in perpetuity, based on the acres of habitat temporarily and permanently disturbed by the project. (Bat and Bird Conservation Strategy [BBCS] at 4-6, included as Attachment 9 in Appendix E-3). The applicant will also contribute \$14,500 per MW of installed capacity towards additional efforts to benefit eagles and other raptors, such as power pole retrofits and efforts that support additional conservation lands or reducing rodenticide use in wildlands (BBCS at 4-6 to 4-7).

The comment also notes that the draft SEIR provides that the no-disturbance buffer for nesting birds may be reduced to 0.5 miles in certain instances. The comment states that "this condition should not take precedence over the recommendations of qualified biologists to avoid disturbing an active eagle nest." The portion of the draft SEIR's cumulative impacts discussion with which commenter takes issue tiers from the PEIR. As the mode of analysis, mitigation methods, and impact conclusions of the PEIR are no longer subject to challenge, commenter's claim only has potential merit to the extent commenter can show that a change in the project, its circumstances, or new information require modifying the SEIR in order to address a new or more intense significant impact than was identified in the PEIR. The commenter has made no such showing.

Finally, the commenter states that mitigation for avian and bat mortality that cumulatively constitute significant effects should be implemented with the goal of no net loss, and should demonstrate verifiable impact reductions to a less-than-significant level. As described in the draft SEIR and the PEIR from which it tiers, the Project is subject to extensive mitigation requirements. In addition, the project's BBCS includes adaptive management requirements triggered by bird or bat mortality rates exceeding baseline conditions designed to reduce mortality rates to baseline conditions. (See BBCS 4-4, 5-2 to 5-6). As also explained in the draft SEIR and PEIR, the Lead Agency has conservatively concluded that the project would nevertheless result in a considerable contribution to a significant cumulative impact with respect to bird and bat mortality. The commenter does not identify any potential feasible mitigation measures that would reduce cumulative mortality impacts to a less than significant level. Finally, the commenter does not demonstrate that a change in the project, its circumstances, or new information require modifying the SEIR in order to include or address mitigation measures not discussed in the PEIR.

As noted in response to comment 11 above, the cumulative analysis has also been augmented to provide a quantitative cumulative total of avian and bat fatalities utilizing the best available information, including substantial new information that has been made available in response to comments on the draft SEIR. Please see Response to Comment 5-16, and the revisions to the

cumulative impacts analysis in Final SEIR Chapter 5, for additional detail. This new information does not change the conclusions reached in the draft SEIR and does not result in the identification of new feasible mitigation to avoid or substantially reduce the severity of a significant impact identified in the draft SEIR.

Response to Comment 7-13

The comment asserts that the SEIR's evaluation of measures to avoid impacts to sensitive biological resources is inadequate. The comment's statement of opinion is unsupported by either specific mitigation recommendations or substantial evidence that demonstrates the effectiveness of such recommendations such that CEQA Guidelines 15162 (PEIR) and or 15088.5 (draft SEIR) are triggered.

Response to Comment 7-14

The commenter states that Mitigation Measures BIO-11a through BIO-11i should be updated to reflect recent research, collision hazard models, behavior and use study findings, and related guidance materials. See the response to comment 5-12 for discussion of mitigation, particularly a discussion of CEQA's rules regarding modifying or adding mitigation measures to the draft SEIR, which tiers from the PEIR. We additionally note that Master Response 2: Avian and Bat Impacts summarizes new information considered in the Final SEIR, and explains corresponding modifications to the Final SEIR. This information, however, does not warrant an update to Mitigation Measure BIO-11a.

The commenter appears to assert that the final SEIR should modify Mitigation Measure BIO-11b to prohibit locating turbines within 2 miles of an active golden eagle nest, and that nesting surveys be conducted by "qualified independent neutral third-party biologists." Similarly, the comment asserts the PEIR "fails to direct the use of compensatory mitigation funds . . . to improving the design and siting of wind turbines." However, the commenter does not provide any information supporting these claims and requests, and thus has not shown that modification of the draft SEIR is appropriate. In particular, the commenter has provided no evidence of the effectiveness of applying a 2-mile buffer rule, which, incidentally, would render most of the Project site unavailable for wind development, and thus render the Project infeasible. In addition, as explained in the response to comment 7-15, there is no evidence that diverting funding from the compensatory mitigation contemplated by the PEIR and Draft SEIR towards additional research improving the design and siting of wind turbines would be substantially more effective at avoiding or reducing significant impacts. Moreover, the project proponent has commissioned two new, project-specific micro-siting studies. These studies, combined with monitoring required for the project, will contribute to advancing the science surrounding the design and siting of wind turbines."

The commenter also asks that the draft SEIR apply recent research and modeling regarding raptor and bat behavior and use, as well as TAC recommendations to improve monitoring and turbine design and siting. As explained in the draft SEIR and responses to comments, the draft SEIR reflects the relevant research known to the Lead Agency made available since publication of the PEIR, and, like the PEIR, continues to require TAC to ensure proper implementation of the PEIR's avian-related mitigation measures. Additionally, the Final SEIR has been revised where appropriate to reflect new information that was not available at the time the draft SEIR was published.

With respect to the commenter's request that the SEIR account for terrain alterations such as grading, please see the response to comments 7-6, 5-22, 5-23, and 5-24. As explained therein, the Project's site-specific micro-siting studies consider the effects of terrain alteration.

Unless otherwise noted in this response, the comment simply quotes mitigation measures that have already been presented in the draft SEIR and recommends that they be implemented. As is stated in the draft SEIR, implementation of these measures would be required as part of project approval, and are not required to be implemented prior to certification of the Final SEIR. The comment provides no substantial evidence to warrant specific additional mitigation, or modification of existing mitigation measures beyond those already in the PEIR and draft SEIR, or otherwise establish that new or revised mitigation measures should be included in the draft SEIR.

Response to Comment 7-15

The comment states that the PEIR should be updated to reflect current pricing and costs in compensatory measurement guidelines. As stated previously, the PEIR has been certified, and the commenter has presented no substantial evidence of substantial changes to the project, circumstances, or available information that demonstrate new significant environmental effects or increased severity of previously identified significant effects to demonstrate that additional mitigation measures or modifications to existing mitigation measures are warranted. The comment's statement of opinion is similarly unsupported by new information demonstrating that the recommended revisions to the compensatory mitigation would be substantially more effective at avoiding or reducing significant impacts. As described in the response to comment 7-12, the project is subject to robust compensatory mitigation requirements, including preserving avian and bat habitat, and contributing additional funds towards other efforts to support raptors, such as power pole retrofits and additional conservation lands. Please also see the response to comment 7-14.

Response to Comment 7-16

The comment states that the project-specific adaptive management plan should be updated to reflect new information. The comment quotes from the existing mitigation measure BIO-11i and advocates using "new information that warrants" a shortened response timeline and the inclusion of options that involve removing or replacing turbines. No new data or information are provided to explain why these changes should be made. Reduced response timelines are not feasible in the context of the technical challenges of creating, reviewing, and implementing an adaptive response. Time is needed to assess whether an effect is above baseline rates such that adaptive management is required. The Project applicant's BBCS includes adaptive management measures that reduce the delay of initiation of adaptive management from three years, as stated in the PEIR, to one year, which the applicant considers to be the shortest reasonable period of time for assessing impact patterns and employing adaptive management measures to address them. In any case, the recommendation for response timeline reductions is unsupported by new information demonstrating that the recommended revisions to the compensatory mitigation would be substantially more effective at avoiding or reducing significant impacts.

As described in Master Response 1: Smaller Turbine – Pre-Micro-sited Layout Alternative and Master Response: Avian and Bat Impacts, the draft SEIR and the project's micro-siting analysis are based on up-to-date information. For example, the draft SEIR incorporates recent monitoring data from the Vasco and Golden Hills projects, and the two, project-specific micro-siting reports (prepared in 2018 and 2019) use the latest information regarding how best to reduce collision risks

by relocating turbines. The project's BBCS, too, is the product of up-to-date science. (See BBCS at 6-1 to 6-2, included as Attachment 9 in Appendix E-3).

The comment also addresses turbine curtailment. The project's BBCS provides an adaptive management plan that includes curtailment. As noted on page 3.4-83 of the draft SEIR, this plan is subject to review by the TAC. As explained in the BBCS, adaptive management measures include seasonal or annual curtailment (via increasing cut-in speeds). (BBCS at 5-2 to 5-6.) These measures address commenter's requests regarding curtailment, cut-in speed changes, shutdowns, and overnight shutdowns during bat migration.

The comment also requests that the Lead Agency consider including the following adaptive management measures: reducing the number of turbines, reducing the size of turbines, replacing existing turbines with new designs that demonstrate impact reductions, and removing hotspots or known high-kill turbines that repeatedly kill avian or bat species. However, as described in the response to comments 5-16, 5-26, and 6-10 the number and size of turbines proposed as part of the project are the minimum considered feasible by the Lead Agency, and post-construction measures to eliminate some turbines are considered infeasible. For the same reasons, it is also infeasible to replace turbines with smaller or otherwise different models once they have been constructed.

Response to Comment 7-17

The commenter requests that the Lead Agency consider research produced under the NextEra mitigation funds, along with revised and updated collision hazard models. As stated in NextEra Energy's Avian Protection Plan (CH2M Hill 2018), this research has included the following two "projects":

1. Research of wind turbine impacts on wildlife in the APWRA- This research included an assessment of the effectiveness of wind turbine siting in repowering to minimize collision hazards to golden eagles, red-tailed hawks, American kestrels, and burrowing owls. Several goals of the study are listed (e.g., satellite telemetry of golden eagles in and around the APWRA), however it is unclear if or how these studies may be used to specifically assess the impacts of the Sand Hill project or how they may be used to design new or different mitigation relative to what is already described in the PEIR and draft SEIR.
2. Research on trends in site occupancy, breeding success, and abundance of golden eagles in the vicinity of the APWRA. This research has already helped to identify golden eagle territories within the APWRA which has informed siting of the project as well as measures to avoid and minimize impacts to nesting birds during construction through the implementation of mitigation. However, the research does not result in any new mitigation approaches beyond what is already described in the PEIR and draft SEIR.

Consequently, the comment provides no substantial evidence to warrant specific additional mitigation, or modification of existing mitigation measures beyond those already in the PEIR and draft SEIR, or otherwise establish that new or revised mitigation measures should be included in the draft SEIR.

With respect to item 1 above, micro-siting research was incorporated into the draft SEIR by incorporation of Smallwood and Neher (2018). No changes were made in the Small Turbine Micro-Sited Alternative in the final SEIR.

With respect to item 2 above, further information was incorporated into the final SEIR by reference to the research by Wiens et al. (2019). The final SEIR has been revised on pages 3.4-9, 3.4-13, 3.4-14, 3.4-72, 3.4-73, and 5-6 to reflect this new information.

With respect to bats in particular, the draft SEIR incorporates the most recent available data on bat mortality in APWRA – largely from Vasco Wind and Golden Hills – which confirm the original conclusion of the PEIR that repowering the APWRA likely would increase impacts on bat resources compared to old-generation turbines (draft SEIR pgs 3.4-9 – 11; PEIR pgs 3.4-131 – 133). The PEIR, and the draft SEIR that tiers from it, include stringent bat mitigation measures to reduce bat impacts, including robust monitoring and reporting, an adaptive management plan, and a seasonal turbine cut-in speed increase to 5 meters per second (PEIR pgs 3.4-133 – 139). The comment’s recommendations regarding the use of collision hazard models are consistent with the mitigation measures already incorporated in the draft SEIR.

Response to Comment 7-18

The comment states that bat impact are higher than contemplated in the PEIR, and that the SEIR should continue to study effects on bats and include a bat specialist on the TAC. As described in Section 7 of Master Response: Avian and Bat Impacts, all substantial new information made available to the Lead Agency since publication of the draft SEIR has been incorporated into the Final SEIR and was used to more fully describe the types and magnitude of project effects on bats. This new information does not change the significance determinations relative to what was published in the draft SEIR, and this new information does not result in the identification of new feasible mitigation to avoid or substantially reduce the severity of a significant impact identified in the draft SEIR. The comment also references a recommendation in PEIR Mitigation Measure BIO-14b to include a biologist with expertise in bat research and wind energy impacts. This mitigation measure is included on page 3.4-88 of the draft SEIR and also includes the same requirement as the PEIR. Implementation of this mitigation measure will be required as part of project approval, and is not required to be implemented prior to certification of the Final SEIR.

Response to Comment 7-19

The comment states that compensatory mitigation should include compensation for the economic and environmental costs of avian and bat fatalities, but provides no rationale for this recommendation. Further, the recommendation is unsupported by new information demonstrating that such compensatory mitigation would be substantially more effective at avoiding or reducing significant impacts.

Response to Comment 7-20

The comment states that bat and bird deaths from turbine strikes should not be treated as externalities. The commenter’s rationale for this recommendation is that the proposed project would “exceed the Altamont’s carrying capacity,” but the comment provides no evidence that this assumption is valid, nor any information about how the environmental costs of the proposed project should (or even could) be assessed. Furthermore, this recommendation is unsupported by new information demonstrating that such mitigation would be substantially more effective at avoiding or reducing significant impacts.

While it is beyond the prevue of CEQA to consider the long-term economic costs of projects, the PEIR and draft SEIR do specifically to consider the environmental costs of the project as the commenter

requests through their analysis of environmental impacts on avian and bat species. *See* CEQA Guidelines Section 15002(a) (the “basic purpose” of CEQA is to “inform governmental decision makers and the public about the potential, significant environmental effects of proposed activities”).

Response to Comment 7-21

The comment suggests that a “precautionary approach” should be taken to avoid significant impacts through such measures as reducing the number of turbines in the project, shutting down turbines overnight, enacting cut-in speeds, curtailing turbine operations near active nests, and decommissioning turbines. The Lead Agency refers commenter to responses to comments 7-8 and 5-16 regarding the identification of feasible alternatives in the draft SEIR. The Lead Agency has found that an alternative consisting of fewer turbines is not feasible. The comment’s proposed measures, such as curtailing turbine operations, are already proposed in PEIR Mitigation Measure BIO-11i of the draft SEIR and are applied to the project in the draft BBBS attached to the final SEIR as an appendix. In addition, as noted on page 3.4-83 of the draft SEIR, the provision for curtailment restrictions is subject to consideration by the TAC, and the TAC may recommend these or other measures that are shown to be successful in reducing the impact.

Response to Comment 7-22

The comment notes that CEQA requires a reasonable and good faith effort to quantify impacts and develop mitigation measures in light of the best available scientific information. The Lead Agency refers commenter to the response to comment 7-11 regarding the revisions to the cumulative impact analysis that the Lead Agency has incorporated into the Final SEIR. The Lead Agency has undertaken these revisions as a reasonable and good faith effort at estimating the potential cumulative impacts in light of all available information, including new and updated mortality data and project-specific analyses of biological impacts. This new information does not change the conclusions for the cumulative impact analysis reached in the draft SEIR and does not result in the identification of new feasible mitigation to avoid or substantially reduce the severity of any significant impact identified in the draft SEIR. However, the Lead Agency notes that the existing mitigations measures in the PEIR and draft SEIR intended to address impacts to avian and bat resources are robust and subject to review by the TAC. These measures include many of commenter’s suggestions, such as conducting field research and monitoring programs, acquiring mitigation lands, micro-siting turbines, and other forms of compensatory compensation. As explained in the response to comment 7-15, there is no evidence that diverting funding from the compensatory mitigation contemplated by the PEIR and Draft SEIR towards other endeavors, such as funding research on improving turbine designs, would be more effective at avoiding or reducing significant impacts.

The Lead Agency will continue to notify stakeholders of relevant actions and documents pertaining to the project as required by CEQA or other applicable law.

Letter 8—Shawn Smallwood, PhD, October 4, 2019

Response to Comment 8-1

Commenter provides a summary of the focus of the current letter. The comment does not raise a specific issue on the substance of the draft SEIR.

Response to Comment 8-2

Section 6 of Master Response 2: Avian and Bat Impacts describes new information incorporated into the final SEIR. This includes information pertaining to the golden eagle population in the area and explicit treatment, in the final SEIR, of likely project and cumulative consequences for this population and for bat populations; project-level consequences are treated in the analysis of Impact BIO-11 (golden eagle) and BIO-14 (bats), while cumulative impacts are addressed in draft SEIR Chapter 5. Bat fatality estimates in Table 3.4-9 have been updated in the final SEIR. The commenter states that the cumulative impacts analysis was deficient because specific fatality rates at the APWRA-level were not provided. Please see Response to Comment 5-16, which discusses the cumulative analysis in the PEIR relative to the requirements of the Draft SEIR, as well as the revised cumulative impacts analysis in Chapter 5, which relates cumulative fatalities to population status for each focal species. As outlined in Response to Comment 5-16, although a quantitative analysis of the cumulative effects of APWRA (and other nearby wind resource areas) is not specifically required, the Lead Agency has provided the analysis in the response to comment and on pages 5-4 to 5-11 of the final SEIR.

Response to Comment 8-3

The commenter describes several notes regarding the micrositing process used at Vasco Winds by the commenter. With respect to micro siting, the Lead Agency notes that the commenter contributed to (and the applicant redesigned its project in response to) the micrositing studies for the proposed Project, presumably bringing knowledge and experience learned at other projects, such as Vasco Winds, to the proposed Project. Additionally, while the applicant also hired a second avian micrositing expert to review the proposed Project, the Lead Agency views these studies as generally complementary to each other. Please see Response to Comments 5-5, 5-22, 5-23, 5-25, and 5-26 from Letter 5 State of California, Department of Justice, as well as Master Response 1: Smaller Turbine-Pre-Micro-Sited Layout Alternative for further discussion on micrositing for the proposed Project.

The comment states that the commenter:

sometimes over-rule[s] model-predicted hazard classes of 3 or 4 . . . but otherwise any site developed on or next to model-predicted hazard classes 3 or 4, or at sites [commenter] rated 8 to 10 on the SRC-style scale, or that left substantial berms or cut slopes upwind of the turbine will deviate from the PEIR's standard of using 'the best information available to site turbines to reduce avian collision risk.

The Lead Agency notes the commenter's opinion, but does not agree that final turbine siting decisions must always comply with the commenter's recommendations. Moreover, while the commenter purports to quote the PEIR, the quoted language does not appear in that document. PEIR mitigation measure BIO-11b requires project proponents to "conduct a siting process and prepare a siting analysis to select turbine locations to minimize potential impacts on bird and bat species. Proponents will utilize existing data as well as collect new site-specific data as part of the siting analysis." Neither the PEIR nor the draft SEIR requires that projects fully comply with micrositing

recommendations, particularly when such recommendations do not account for technical and economic feasibility or legal constraints, such as setbacks. This is consistent with CEQA, which instructs the Lead Agency to consider only those mitigation measures that are feasible, practical, and effective (*Napa Citizens for Honest Gov't v. Napa County Bd. of Supervisors* [2001] 91 CA4th 342, 365; *Concerned Citizens of S. Cent. L.A. v. Los Angeles Unified Sch. Dist.* [1994] 24 CA4th 826, 841). To the extent this comment seeks to modify PEIR Mitigation Measure BIO-11b, the Lead Agency notes that the mitigation measure originated from the PEIR and, therefore, is conclusively presumed to be valid as a matter of law and is only subject to modification if it can be shown that changed information, circumstances, or a change in the proposed Project result in new or more intense impacts beyond those assessed in the PEIR. The commenter makes no such showing. Finally, the Lead Agency notes that to the extent the commenter takes issue with certain details in the applicant's micrositing efforts (reflected in the Micro-Sited Alternative), under the framework adopted by the PEIR and carried over into the SEIR, such concerns are properly addressed to and resolved by the TAC, as prescribed by the mitigation measures of the PEIR and SEIR.

The commenter provides estimates of cumulative golden eagle fatalities that could occur within Alameda County and within the entire APWRA. The commenter also "independently calculated" golden eagle fatality rates for Diablo Winds and Buena Vista as part of the estimates. Methods used to calculate fatality rates for the two projects were not provided. The Lead Agency notes that Table 3.4-4 in the draft SEIR, page 3.4-39, presents fatality rates for Diablo Winds and Buena Vista that are different from commenter's rates and that are based on published fatality monitoring studies. A source for the remaining Project fatality rates was not provided by the commenter, however the Lead Agency notes that the remaining Project fatality rates look identical or substantially similar to the fatality rates in Table 3.4-4 in the draft SEIR, page 3.4-39. Overall, the Lead Agency believes that the rates used in the draft SEIR, based on published and publicly available sources, are correct. With respect to cumulative impacts on golden eagles, please see Response to Comment 5-16, from Letter 5 State of California, Department of Justice which discusses the cumulative analysis in the draft SEIR relative to the PEIR, and although not specifically required under CEQA, provides estimates of fatalities for the APWRA, as well as the Montezuma Hills Wind Resource Area. The Lead Agency notes that the commenter compares potential results under two different projects as though turbine choice and density are the only variables; however, as stated in the PEIR and draft SEIR, there are multiple other variables that, while not well understood at this time, are known to affect the potential mortality rate of a wind project in the APWRA, such as prey and nesting substrates, the underlying terrain, seasonal variability, and adjacent roosting and nesting habitat.

Lastly, the commenter provides commentary on the use of IdentiFlight as a mitigation strategy to reduce golden eagle fatalities. As the commenter is likely aware, IdentiFlight has recently been selected by NextEra Energy at the Golden Hills project site as a strategy to reduce eagle fatalities. The draft SEIR does not suggest that Sand Hill would be required to also select IdentiFlight, and in fact, the word IdentiFlight does not appear in the draft SEIR. In general, the Lead Agency's mitigation strategy under Mitigation Measure BIO 11-I, Implement an avian adaptive management program on page 3.4-84 of the final SEIR, suggests that experimental technologies (such as IdentiFlight) may be deployed at facilities to test their efficacy in reducing turbine-related fatalities. Implementation of this experimental technology at Golden Hills is consistent with our impact reduction strategy and adaptive management requirements outlined in the PEIR.

Response to Comment 8-4

Section 6 of Master Response 2: Avian and Bat Impacts describes the new information incorporated into the final SEIR. This includes information pertaining to the bat populations (particularly the hoary bat) that live in and migrate through the APWRA and explicit treatment, in the final SEIR, of possible Project and cumulative consequences for this population. This section of the master response also details the importance of using trained dogs in bat fatality surveys. The final SEIR includes a modification to 2019 Updated Mitigation Measure BIO-14b: Implement postconstruction bat fatality monitoring program for all repowering projects (see page 3.4-91) to mandate use of such dogs in survey programs. Information presented in this comment letter is included in the final SEIR. The Lead Agency also notes that the applicant's Bird and Bat Conservation Strategy (Attachment 9 in Appendix E-3 to the final SEIR), already includes a commitment to use trained dogs for bat fatality surveys.

The commenter provides estimates of cumulative bat fatalities that could occur within Alameda County and within the entire APWRA. Similar to golden eagle cumulative estimates, the commenter provides an alternate fatality rate for bats at the Buena Vista site based surveys conducted at the site in 2017 and reported on July 17, 2019. The Lead Agency notes that the Draft SEIR was published on August 9, 2019, just over 3 weeks after the release of this paper, making inclusion in the draft SEIR very difficult to impossible. However, the results of this additional study have been summarized and incorporated into the final SEIR. With respect to cumulative impacts on bats, please see Response to Comment 5-16 from Letter 5 State of California, Department of Justice and Attachment 7 in Appendix E-3, *Cumulative Fatality Rates*, which discuss the cumulative analysis in the draft SEIR relative to the PEIR, and although not specifically required under CEQA, provide estimates of bat fatalities for the APWRA that are similar to the estimate provided by commenter. See also the revised analysis of cumulative impacts on bats, presented on page 5-10 of the Final SEIR. Finally, the Lead Agency notes that the estimates provided by commenter are consistent with the conclusions of the PEIR and draft SEIR that bat impacts are likely to increase under repowered conditions such that impacts will remain significant and unavoidable after mitigation.

Response to Comment 8-5

Section 6 of Master Response: Avian and Bat Impacts describes the new information incorporated into the final SEIR. Please also refer to response to comment 5-13 from Letter 5 State of California, Department of Justice regarding the incorrect claim that the Draft SEIR assumed only one burrowing owl nest on the project site. This includes information pertaining to the abundance of burrowing owls in the project area provided in this comment. Information presented in this comment is included in the final SEIR. This information does not change the conclusions reached in the draft SEIR and does not result in the identification of new feasible mitigation to avoid or substantially reduce the severity of a significant impact identified in the draft SEIR.

Response to Comment 8-6

The comment is a copy of a letter prepared by commenter in 2011 describing results of monitoring performed 2009 through 2011 at the Buena Vista project. This repeats information presented in the PEIR (albeit with greater detail, but not to the point of affecting the SEIR analysis) and, thus, is not substantial new information justifying revision of the PEIR under CEQA Guidelines Section 15162.

Response to Comment 8-7

See response to comment SMALLWOOD2-6.

Response to Comment 8-8

See response to comment SMALLWOOD2-6.

Response to Comment 8-9

See response to comment SMALLWOOD2-6.

Response to Comment 8-10

See response to comment SMALLWOOD2-6.

Response to Comment 8-11

See response to comment SMALLWOOD2-6.

Response to Comment 8-12

See response to comment SMALLWOOD2-6.

Letter 9—U.S. Fish and Wildlife Service, October 9, 2019

Response to Comment 9-1

The comment does not raise a specific issue on the substance of the draft SEIR.

Response to Comment 9-2

The comment requests that bald eagle distribution, habitat, and occurrence information in the Project area be updated and clarified. The Lead Agency refers the commenter to the Response to Comment 5-6 for a detailed discussion about bald eagle distribution in the Project area. In general, the draft SEIR indicates that the species likelihood of occurrence in the project area is high. Because of the limited number of trees and tree clusters in the Project Area (approximately 35, with 11 in the Project area and 24 outside the Project parcels), the draft SEIR indicated there was no suitable nesting habitat within the Project area itself. There are no known current or historic bald eagle nests in transmission facilities within the Project area, but this is a possibility in the future. In the final SEIR, the Lead Agency has clarified that there is limited, but possible, nesting and foraging habitat within the Project area.

This information has not altered the analysis of potential impacts on bald eagles or the conclusions of that analysis. Bald eagles are expected to remain a minor component of raptor mortality given their foraging and behavior patterns, with fatalities in the APWRA approximately 1% as common as golden eagle fatalities given the lack of historic or recent operational fatalities.

Response to Comment 9-3

The Lead Agency refers commenter to the response to Response to Comment 5-6 for a detailed discussion about golden eagle distribution in the Project area.

Specifically, the Lead Agency has clarified in the final SEIR that mammals (such as ground squirrels and larger mammals) are an important food source for golden eagles. Impact BIO-8 of the draft SEIR assessed and proposed mitigation for the direct and indirect disturbance of special-status avian nesting and foraging habitat (which includes golden eagle habitat). Because of the limited number of trees in the Project area (approximately 35, including 11 in the Project area and 24 outside Project parcels), the draft SEIR indicated there was no suitable nesting habitat within the Project area itself. However, eagles have been using the electric transmission towers and other nearby nesting locations over the past 5 years. Therefore, the Lead Agency has revised the text in Table 3.4-3, on page 3.4-35 of the final SEIR, to indicate that suitable nesting habitat is present. Because of a confidentiality agreement between the applicant and the U.S. Geological Survey, a map cannot be included in the draft SEIR; however, this information can be made available to the U.S. Fish and Wildlife Service (USFWS). Further, the Lead Agency has expanded the analysis on pages 3.4-13 and 3.4-14 of the final SEIR to include information on the local territorial pairs in the Project area. This clarification does not change the conclusions reached in the Draft SEIR and does not result in the identification of new feasible mitigation to avoid or substantially reduce the severity of a significant impact identified in the draft SEIR.

Response to Comment 9-4

Analyses of wind turbine impacts within the APWRA necessarily deal with data collected over a period under varying protocols. The draft SEIR included average mortality rates using both the two projects (Vasco Wind and Golden Hills) and all four projects (Diablo Wind, Buena Vista, Vasco Wind, and Golden Hills) in order to illustrate the range of fatalities that could occur (see draft SEIR Table 3.4-4 on page 3.4-39 and Table 3.4-8 on page 3.4-67). At this time, the Lead Agency does not propose to discard the Diablo Wind and Buena Vista data as detailed site-specific monitoring was conducted at these sites, mortality monitoring data within the APWRA are limited and site-dependent, not just turbine-dependent, and both large and smaller turbine alternatives are considered in the draft SEIR, making the use of multiple data sources important. Though the Lead Agency notes the commenter's concerns with the Diablo Wind and Buena Vista datasets, we also note that those data do not necessitate revisions to the CEQA analysis and have been cited extensively by other commenters for their relevance to the proposed Project (see comment letter 8). The fact that the Diablo Winds and Buena Vista mortality coefficients are higher than those of Vasco Winds and Golden Hills in some instances and lower in others provides further support for their use. Also, the Vasco Winds and Golden Hills data are not without imperfections of their own; however, they constitute the best available science for the purposes of the analysis in the draft SEIR (see Response to Comment 5-9, which details the modeling limitations of the first year Golden Hills mortality study, which observed that its golden eagle mortality estimate was overstated due to using a searcher efficiency coefficient that assumed harder to find medium/large sized birds rather than more easily observed carcasses like those of golden eagles).

Though the proposed Sand Hill turbine blade length is longer, and the per-turbine capacity is greater than the most recently repowered project, the total rotor swept area is smaller than Golden Hills on a MW per MW basis. The Lead Agency continues to use the MW methodology set by the PEIR to standardize fatality estimates across projects. The Lead Agency understands that rotor swept area will continue to be used by USFWS in the eagle take permitting process.

As the comment requests, the Final SEIR has been revised on page 3.4-71 to cite the *Final Report APWRA Bird Fatality Study, Monitoring Years 2005–2013* (ICF 2016). The relevant data are the same for both the draft (ICF 2013) and final (ICF 2016) reports, so this change had no effect whatsoever on the analysis or its conclusions; therefore, this does not constitute significant new information, and recirculation is not required under CEQA Guidelines Section 15088.5.

Additional Eagle Risk Factors: The comment notes that there are two golden eagle territorial pair activity centers located on the Project site. See the Response to Comments 9-3, 5-6, and 5-11 regarding Final SEIR revisions concerning the information that was added to the final SEIR on golden eagle habitat requirements and likelihood to occur in the Project area. The Lead Agency acknowledges that the golden eagle territorial pair activity centers could be affected by the proposed Project and agrees with USFWS that the proposed Project could cause reoccurring mortality of breeding eagles occupying the site. This mortality is consistent with the analysis and conclusions in the draft SEIR, which finds a significant and unavoidable impact on golden eagles. The applicant will implement 2019 Updated PEIR Mitigation Measure BIO-8a with input from the Lead Agency, USFWS, and the California Department of Fish and Wildlife to reduce this effect.

Response to Comment 9-5

The Lead Agency acknowledges in the draft SEIR that there are significant and unavoidable effects on golden eagles as well as other birds and bats. Section 6 of Master Response: Avian and Bat Impacts describes the new information incorporated into the Final SEIR. This new information includes Wiens and Kolar (2019), referenced by commenter; other sources pertinent to Diablo Range golden eagles cited by commenter, including work by USFWS (2016), Hunt (1998, 2002), Hunt and Hunt (2006), Hunt et. al (1999) (referenced by commenter with a 1998 date, but apparently the same study), Kolar, Wiens and others, were already cited in the PEIR or the Draft SEIR, and were also referenced in the revised discussion of direct and cumulative impacts on golden eagles (appearing, respectively, in Section 3.4, Impact BIO-11; and in Chapter 5, both in the final SEIR). The revised cumulative impacts analysis notes that estimates of Diablo Range golden eagle productivity cited by Hunt et al. (2017) indicate that wind energy mortality in the cumulative impacts analysis area is still substantially less than Diablo Range productivity. Although the commenter notes that data collected during the recent drought indicate a substantial reduction in productivity during that event, this does not constitute a new baseline condition; the work by Kolar and Wiens (2019) shows that productivity was depressed during 2014 through 2017, but as quickly as the drought ended in 2018, eagle productivity recovered to levels commensurate with those recorded in Hunt's study. The Lead Agency further notes that the standards and requirements for considering cumulative effects are different between USFWS and the Lead Agency because they are driven by two different statutes, the Bald and Golden Eagle Protection Act (BGEPA) and CEQA. The significance determination remains significant and unavoidable under CEQA. The Lead Agency further refers commenter to the Response to Comment 5-16, which contains a more detailed discussion about the PEIR and draft SEIR cumulative effects analyses.

Response to Comment 9-6

The comment suggests that the proximity of the project site to burrowing owl and Swainson's hawk nesting and foraging habitat in the Mountain House Conservation Bank may negate the purpose of those conservation lands. While the draft SIER did not specifically reference these conservation lands, both species are known to be present in the area, and suitable habitat is distributed all around the Project area. The proximity of the proposed Project to the conservation bank and conservation easement does not result in a new significant impact, a substantial increase in the severity of an impact, or a new feasible Project alternative or mitigation measure. The Lead Agency has described potential impacts on Swainson's hawks and burrowing owl in the draft SEIR, and these estimates are not altered by proximity of nearby conservation lands given use of the wind resource area by these species. The adjacent conservation lands will still be suitable nesting and foraging habitat, though some of the conservation benefits of these lands may be reduced if species conserved on those sites die in the Project area. This assumption is based on the fact that wind turbines have been at the Project site since the 1980s, and as noted in the PEIR, the region has long been identified as suitable for wind projects and wind project repowering. By approximately 2000, there were over 1,300 wind turbines onsite, for example, and many of them in close proximity to the conservation bank and conservation easement.

The comment also suggests that "permanent meteorological towers be of a monopole design rather than a lattice tower." The proposed Project does not include the construction of any new lattice towers consistent with mitigation measure BIO-11d in the draft SEIR, which requires the use of meteorological towers without guy wires, or large gauge guy wires with visible bird deterrent devices. The applicant's meteorological tower is proposed to be a monopole design.

The applicant cannot completely avoid siting near transmission facilities or nests. And as the commenter notes, predicting where golden eagles will nest from year-to-year is difficult. As explained in the Response to Comments 5-23 and 5-26, given that golden eagle (and other avian and bat) nesting sites change from year to year while turbine locations remain static, the PEIR and, consequently, the draft SEIR as well, provide for measures other than turbine relocation (such as curtailment and substrate removal to address risks related to turbine proximity to nests).

Finally, the comment suggests that wind operators should survey annually for golden eagle nests within 2 miles of turbine locations. The underlying concern of adapting to shifting eagle nesting decisions is addressed by the mortality monitoring and adaptive management requirements of the PEIR as specifically implemented by the proposed Project's Bird and Bat Conservation Strategy (BBCS) and USFWS' separate purview under the BGEPA. In particular, the Lead Agency notes that mitigation measure BIO-11a requires a project-specific avian protection plan, to be reviewed and approved by the TAC. The TAC may require annual golden eagle nest surveys as part of its review.

Response to Comment 9-7

Page 3.4-88 of the final SEIR has been modified in accordance with this comment.

Response to Comment 9-8

The comment does not raise a specific issue on the substance of the draft SEIR.

E.3 References Cited

- Alameda County. 2018. *Sand Hill Wind Repowering Project Environmental Analysis*. Prepared by ICF International. September. Sacramento, CA.
- Anonymous. 2019. Micro-Sited Smaller Turbine Layout Alternative. [Unpublished document.] 26pp.
- Brown, K., K. S. Smallwood, B. Karas, and J. M. Szewczak. 2016. *Vasco Avian and Bat Monitoring Project 2012–2015 Final Report*. June. Prepared by Ventus Environmental Solutions, Portland, OR. Prepared for NextEra Energy Resources, Livermore, CA.
- Estep. 2019. Assessment of proposed wind turbine sites to minimize raptor collisions at the Sand Hill Wind Repowering Project in the Altamont Pass Wind Resource Area. Prepared for ICF International and sPower. March.
- H. T. Harvey & Associates. 2018a. *Golden Hills Wind Energy Center Postconstruction Fatality Monitoring Report: Year 1*. February 28. Prepared for Golden Hills Wind, LLC, Livermore, CA.
- . 2018b. *Golden Hills Wind Energy Center Postconstruction Fatality Monitoring Report: Year 2*. December 17. Draft Report. Prepared for Golden Hills Wind, LLC, Livermore, CA.
- Hunt, G. W., D. J., Wiens, P. R. Law, M. R. Fuller, T. L. Hunt, and D. E. Driscoll. 2017. Quantifying the demographic cost of human-related mortality to a raptor population. *PLoS ONE* 12(2): e0172232. Doi:10.1371/journal.pone.0172232.
- ICF. 2013. *Draft Altamont Pass Wind Resource Area Bird Fatality Study, Bird Years 2005–2011*. November. (ICF 00904.08.) Sacramento, CA. Prepared for Alameda County Community Development Agency, Hayward, CA.
- ICF. 2016. *Final Altamont Pass Wind Resource Area Bird Fatality Study, Bird Years 2005–2011*. November. (ICF 00904.08.) Sacramento, CA. Prepared for Alameda County Community Development Agency, Hayward, CA.
- Kolar, P. S., and J. D. Wiens. 2017. Distribution, nesting activities, and age-class of territorial pairs of golden eagles at the Altamont Pass Wind Resource Area, California, 2014-2016: U.S. Geological Survey Open-File Report 2017-1035, 18 p., <https://doi.org/10.3133/ofr20171035>.
- Rodhouse, Thomas J., Rogelio M. Rodriguez, Katharine M. Banner, Patricia C. Ormsbee, Jenny Barnett, and Kathryn 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*, DOI 10.1002/ece3.5612.
- Smallwood, K.S. 2016. Bird and bat impacts and behaviors at old wind turbines at forebay, Altamont Pass Wind Resource Area. Prepared for California Energy Commission. November 2016. CEC-500-2016-066.
- Smallwood, K. S. 2018. *Addendum to Comparison of Wind Turbine Collision Hazard Model Performance: One-year Post-construction Assessment of Golden Eagle Fatalities at Golden Hills* Report to Audubon Society, NextEra Energy, and the California Attorney General
- Smallwood, K.S. 2019. Addendum to comparison of wind turbine collision hazard model performance: one-year post-construction assessment of golden eagle fatalities at Golden Hills. Attachment to draft SEIR comment letter, September 16, 2019.

- Smallwood, K.S. and D.A. Bell. 2019. Relating bat and bird passage rates to wind turbine collision fatalities. Report #2 to the East Contra Costa County Habitat Conservancy Science and Research Grant Program (Conservancy Contract 2016-03), 17 July 2019.
- Smallwood, K. Shawn, and L. Neher. 2018. Siting wind turbines to minimize raptor collisions at Sand Hill Repowering Project, Altamont Pass Wind Resource Area. August 10. Unpublished mss.
- Smallwood, K.S., D.A. Bell, and S. Standish. 2019. Skilled dog detections of bat and small bird carcasses in wind turbine fatality monitoring. Report #1 to the East Contra Costa County Habitat Conservancy Science and Research Grant Program (Conservancy Contract 2016-03), 17 July 2019.
- Taber D. Allison, Jay E. Diffendorfer, Erin F. Baerwald, Julie A. Beston, David Drake, Amanda M. Hale, Cris D. Hein, Manuela M. Huso, Scott R. Loss, Jeffrey E. Lovich, M. Dale Strickland, Kathryn A. Williams, Virginia L. Winder. 2019. Impacts to wildlife of wind energy siting and operation in the United States. *Issues in Ecology*, Report No. 21.
- Wiens, J. D., P. S. Kolar, M. R. Fuller, W. G. Hunt, and T. Hunt. 2015. Estimation of occupancy, breeding success, and predicted abundance of Golden Eagles (*Aquila chrysaetos*) in the Diablo Range, California, 2014: U.S. Geological Survey Open-File Report 2015-1039, 23p
<http://dx.doi.org/10.3133/ofr20151039>.
- 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. U.S. Geological Survey, Forest and Rangeland Ecosystem Science Center, Corvallis OR.