

4 STATE AGENCY COMMENTS AND RESPONSES

This chapter provides responses to significant environmental issues raised in the comment letters received from state agencies on the draft environmental impact report (DEIR) for the Humboldt Wind Energy Project, as required by California Environmental Quality Act (CEQA) Guidelines Section 15132.

COMMENT LETTERS

This section provides a list of all comments received from state agencies on the DEIR during the public review period. Table 4-1 identifies the commenters and agencies that submitted written comments, and the dates of the comments.

Table 4-1. List of Written Comments Received from State Agencies

Letter Number	Commenter	Agency Represented	Date Received
S1	Charlene L. Wardlow, Northern District Deputy	California Department of Conservation, Division of Oil, Gas, and Geothermal Resources	May 9, 2019
S2	Curt Babcock, Habitat Conservation Program Manager	California Department of Fish and Wildlife, Northern Region	June 5, 2019
S3	Eric Gilles, Acting Chief, Division of Environmental Planning and Management	California State Lands Commission	June 5, 2019
S4	Tina Bartlett, Regional Manager	California Department of Fish and Wildlife	June 14, 2019
S5	Kate Huckelbridge, Senior Environmental Scientist	California Coastal Commission	June 14, 2019

RESPONSES TO COMMENTS

This section provides responses to significant environmental issues raised in the comment letters received on the DEIR for the proposed project. The comment letters received are reproduced in their entirety in Appendix A.

Revisions to the DEIR in response to comments are shown in underline and strikeout format in the responses below. These revisions are also shown in Chapter 9, "Revisions to the DEIR."

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S1-1 *The commenter describes the general role of the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (the Division), provides a brief summary of the proposed project, and notes that Division staff have identified several gas wells in the vicinity of the proposed transportation route and two plugged gas wells within 100 feet of Highway 101 in Fields Landing along the component delivery route. The commenter states that an on-site evaluation has not been conducted for these wells and notes that local agencies and property owners should be aware of significant and potentially dangerous issues associated with land development near oil and gas wells.*

The County appreciates the information provided by the Division. The proposed transportation route from Fields Landing to the project site is described in section 2.3.2 on page 2-21 of the DEIR and shown in Figure 2-16 on page 2-22 of the DEIR. Trucks loaded with Wind Turbine Generator (WTG) parts would travel eastbound on South Bay Depot Road and would turn right (south) onto Fields Landing Drive. This turn would require the repositioning of one communications pole and possibly a stop sign to allow for the wide right-hand turn. Trucks would merge onto U.S. 101 southbound from Fields Landing Road. The two mapped plugged gas well locations at Fields Landing are on both sides of U.S. 101 near Railroad Avenue to the north of the proposed improvements. No project-related activities are proposed in these locations; therefore, no potential for interactions with the plugged gas wells exist. No road improvements are proposed near any of the other mapped gas well locations provided by the Department of Conservation; therefore, no project-related impacts or hazards would occur related to these wells. No further analysis is required.

S1-2 *The commenter recommends that physical access to any oil or gas well be maintained and notes that abandonment of oil or gas wells must be up to current standards. The commenter recommends that alternatives to proposed development on the site should be considered. The commenter also notes that no well work (including mitigating leaking fluids or gas, modifications to well casings, and/or any other re-abandonment work) may occur without written approval from the Division in the form of an appropriate permit.*

The proposed project does not include any components that would occur near or impact the gas wells shown on maps provided by the Department of Conservation. Therefore, no project-related impacts or hazards would occur. No further analysis is required.

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**Letter
S2
Response**

**Curt Babcock, Habitat Conservation Program Manager
California Department of Fish and Wildlife, Northern Region
June 5, 2019**

S2-1 *This correspondence is an email exchange between Curt Babcock, Habitat Conservation Program Manager with the California Department of Fish and Wildlife (CDFW), and John Ford, Director of the Humboldt County Planning and Building Department, to arrange a conference call for the purpose of discussing issues raised by CDFW based on their review of the DEIR. The body of the email includes a list of topics to discuss during the call.*

All topics listed in the commenter's email are addressed below in the response to CDFW's June 14, 2019 comment letter from Tina Bartlett, Regional Manager, CDFW (please see Letter 4 Response). No further response is required.

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S3-1 *The commenter states that California State Lands Commission (Commission) staff have reviewed the proposed project, and defines the Commission's role as a responsible and trustee agency for projects that could affect or include work on State sovereign land. The commenter describes the Commission's jurisdiction over all tidelands and submerged lands, granted or ungranted, as well as navigable lakes and waterways, and how the State of California acquired sovereign ownership over these waterways and lands. The Commission states that the Eel River project location includes State-owned sovereign land and states that a lease from the Commission will be required to cross under the Eel River.*

The commenter has provided introductory information describing the role of the Commission as a trustee and responsible agency and describes its jurisdiction over State-owned sovereign land. These comments are not directed at the adequacy of the DEIR, nor do they contain an argument raising significant environmental issues. No further response is required. The County appreciates the information and comments submitted by the Commission.

Please note that the applicant has refined the proposed project, and it no longer includes an underground crossing of the Eel River. Please refer to Chapter 1 of this FEIR for details on refinements to the project description since circulation of the DEIR. The gen-tie line will now cross the Eel River as an overhead line, spanning lands under the jurisdiction of the Commission. Therefore, no lease from the Commission will be required.

S3-2 *The commenter states that the DEIR includes an analysis of land-based invasive species, but does not analyze impacts related to the potential introduction and spread of aquatic invasive species (AIS). The commenter provides examples of AIS and methods for reducing the impacts associated with AIS. The Commission also provides a link to the CDFW website for a background analysis of the potential impacts of AIS.*

The DEIR includes an analysis of land-based invasive species because the proposed project involves substantial ground disturbance along the project footprint corridor which could result in the introduction or spread of terrestrial invasive weeds. The project does not involve work in aquatic environments, such as in streams or in Humboldt Bay; therefore, the project is not expected to result in the introduction or spread of aquatic invasive species (AIS). Wind Turbine Generator Components (WTGs) would be delivered via barges to Fields Landing in Humboldt Bay via commercial barges, which are subject to commercial regulations. Neither the project applicant nor the County have the ability to impose measures for the management of AIS on commercial barges. No revisions to the impact conclusions or mitigation measures presented in the DEIR are warranted.

S3-3 *The commenter states that impacts on tribal and cultural resources may occur within the project footprint and suggests that proposed mitigation be developed and approved in consultation with the Tribal groups impacted by the project.*

The DEIR includes a thorough analysis of impacts on cultural resources and tribal cultural resources. Since circulation of the DEIR, the applicant has conducted additional cultural resources surveys to cover changes to the project area as a result of revision the project footprint. Two new prehistoric sites were located during the additional survey effort; however, these sites are not located within the revised project impact area and will be completely avoided. No changes to the impact conclusions in the DEIR are warranted. Stantec and Browning Archeological Consultants also conducted surface and subsurface investigations at P-12-000212 and determined that the expansion of the PG&E substation at Bridgeville would not result in significant impacts to cultural resources.

The county has been consulting with local tribes for the proposed project as required under Assembly Bill 52 (AB 52). This consultation has been described in the DEIR. In addition, Stantec (on behalf of the project applicant) has been conducting Native American Consultation as part of their cultural resource studies in support of the project. This consultation has also been described in the DEIR. As a result of these consultations, the capping of archeological resources that cannot be avoided has been determined to be an appropriate method to mitigate impacts that is agreeable to all parties.

Since circulation of the DEIR, Stantec has been able to relocate site P-12-003314 in the field, and the site will be avoided by capping. Mitigation Measure 3.6-1a has been refined to reflect this avoidance measure. Please see Chapter 9 in this FEIR for a track change version of Mitigation Measure 3.6-1a.

Section 3.6, “Cultural Resources including Tribal Cultural Resources,” in the DEIR also describes impacts to the Bear River Ethnobotanical/Cultural landscape, including plants, the ridge itself, and the relation of the site to the California condor. The DEIR contains mitigation measures to reduce these impacts, and the Reclamation, Revegetation and Weed Control Plan in Appendix B of this FEIR includes provisions for the salvage of Wiyot plant species of environmental and cultural concern, and to use them for restoration or to donate to the tribe as appropriate.

With respect to condors please see Mitigation Measure 3.6-4: (Detect Presence of and Curtail Operations for Condors) which requires a curtailment system whereby condors are fitted with devices to alert the wind farm operators when condors are in the vicinity of the project to inform WTG curtailment decisions. However, because there is an inherent conflict between the placement of WTGs and supporting infrastructure on the ridge and the nature of the project that requires such infrastructure placement, no mitigation is available to reduce this impact to less than significant and the impacts remain significant and unavoidable. For a track change version of Mitigation Measure 3.6-4 please see Section 3.6 in Chapter 9 of this FEIR.

- S3-4 *The commenter states that there could be potential recreational impacts that could occur from project-generated public access restrictions such as impeding access to the Eel River. The commenter proposes that a thorough impact analysis of the access routes to the Eel River above and below the proposed 115-kV gen-tie be included in the EIR, and recommends mitigation if impacts on recreation may occur.*

The project will not result in the closure of any currently accessible roads or trails to the Eel River or elsewhere in the project area. The gen-tie line will be developed on Humboldt Redwood Company property (HRC), which is inaccessible to the public. The proposed project will not affect the public’s access to the Eel River or diminish any other opportunities for public recreation along the route. Please also note that the applicant has refined the proposed project to no longer include an underground crossing

of the Eel River. Please refer to Chapter 1 of this FEIR for details on the refinements to the project description since circulation of the DEIR.

- S3-5 *The commenter states that the DEIR does not address environmental justice-related issues such as the assessment of public access and equity implications as to who would bear the burdens or benefits of the proposed project. The commenter concludes the letter with a request to consider the Commission's comments before certification of the EIR and provides Commission staff contact information.*

Environmental justice is not a topic that is specifically addressed under CEQA. It is mandatory to address environmental justice in the analysis of a project subject to environmental review under the National Environmental Policy Act (NEPA). However, as described in the response to comment S3-4, no public access will be taken away as a result of the proposed project. Furthermore, the project applicant is entering into a long-term lease agreement with Humboldt Redwood Company and private landowners for construction and operation of the proposed project and no undue burden is placed on other property owners not involved in the development of the project. The County appreciates the comments from the Commission and will consider them before certification of the EIR.

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S4-1 *CDFW Role. The commenter describes the responsibilities of the California Department of Fish and Wildlife (CDFW) as a Trustee and Responsible Agency and notes that CDFW has consulted regularly with the project team to during project development to provide recommendations on how to address natural resource impacts.*

The commenter has provided introductory information describing the role of CDFW and its statutory requirements. These comments are not directed at the adequacy of the DEIR, nor do they contain an argument raising significant environmental issues. No further response is required.

The County appreciates the comments submitted by CDFW and is grateful for the information and input CDFW staff have provided at meetings and calls with the project team during development of the DEIR.

S4-2 *Project Description. The commenter provides a description of the proposed project and gives an overview of the history of CDFW's consultation with the project team.*

CDFW has provided an accurate overview and description of the proposed project as analyzed in the DEIR. However, as discussed in Master Response 1, "Site Planning and Avoidance Measures," the project applicant has made numerous refinements to the project design since publication of the DEIR to avoid and minimize impacts on sensitive biological resources. Please also see Chapter 1 for "Refinements to the Project Description since Circulation of the DEIR." These project description revisions are also shown in the Project Description included in its entirety in FEIR Chapter 9, "Revisions to the DEIR."

S4-3 *Summary of Project Comments. The commenter provides a summary of CDFW's primary concerns as expressed in the comment letter.*

Please see the detailed responses below for each of the topics identified in this summary.

S4-4 *Project Siting. The commenter cites the California Energy Commission (CEC) and CDFW California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development (Guidelines) and states that in CDFW's opinion the project falls into Category 4: Project Sites Inappropriate for Wind Development. The CEC/CDFW Guidelines define Category 4 sites as: "Sites for which existing data indicate unacceptable risk of bird or bat fatalities might also be appropriately classified as Category 4, particularly if no feasible avoidance or mitigation measures are available to reduce impacts." The commenter also states that the DEIR did not include an adequate analysis of feasible siting alternatives.*

Master Response 1, "Site Planning and Avoidance Measures," addresses alternative sites (such as Rainbow Ridge and Shively Ridge) originally considered by the applicant. The applicant, in coordination with the resource agencies, decided not to pursue these sites because they were determined to be more environmentally sensitive than the preferred project location. Master Response 1 also explains why Bear River Ridge and Monument Ridge were ultimately selected for the proposed project. As noted in the comment letter, CDFW has been part of on-going consultations with the County and the project applicant.

Master Response 1 also describes refinements to the project design since publication of the DEIR that were made to avoid and minimize impacts on sensitive biological resources. These project description refinements are also summarized in Chapter 1 of this FEIR and shown in FEIR Chapter 9 “Revisions to the DEIR.”

The Guidelines were developed 12 years ago to provide a voluntary framework for project developers and permitting resource agencies, including the commenter, to use while screening potential wind development sites and to recommend protocols for gathering background data to use while analyzing impacts. The recommendations and protocols discussed in the Guidelines are intended to be suggestions for local permitting agencies to use at their discretion. The County has considered the Guidelines in assessing the environmental impacts of the proposed project and does not concur that Bear River Ridge and Monument Ridge fall into Category 4, which are sites “inappropriate for Wind Development.”

Under the Guidelines, wind development should not be considered in Category 4 sites. The Guidelines provide two criteria for determining whether a site is included in Category 4:

- (1) “land sites that are protected by local, state, or federal government such as a wilderness area, park, monument, or wildlife or nature preserve,” and, potentially,
- (2) sites where there is an unacceptable risk of bird or bat fatalities, particularly if no feasible avoidance or mitigation measures are available to reduce impacts.

As to the first criterion, the proposed project site is on privately-owned land, predominately subject to active timber harvesting and is not a wilderness area, park, monument, or wildlife or nature preserve. Regarding the second criterion, the Guidelines indicate that such sites “may” be appropriately classified as Category 4 and do not define an “unacceptable” risk of bat or bird fatalities. The Guidelines suggest that a risk could be unacceptable “particularly” if there are no feasible avoidance or mitigation measures to reduce impacts. Because the Guidelines do not define “unacceptable” risk and the term “unacceptable” requires some degree of subjective assessment, it is not possible for an EIR to determine whether the risks are “acceptable” or “unacceptable” for purposes of consistency with the Guidelines. To the extent that the Guidelines rely on whether there are feasible avoidance or mitigation measures to reduce impacts in determining what is an acceptable risk, the EIR has identified a comprehensive suite of siting and project design considerations that avoid or reduce impacts to wildlife and habitat. Adaptive management strategies to lessen or avoid impacts and compensatory mitigation to compensate for unavoidable impacts have also been thoroughly discussed in the DEIR and have been further refined in this FEIR. Although in some cases the DEIR has conservatively concluded that certain impacts could be significant and unavoidable, this does not mean that the impacts to birds and bats are “unacceptable.”

Further, CEQA requires a decision-making agency to balance the economic, legal, social, technological, or other benefits of a project against its unavoidable risks and determine whether such risks are “acceptable.” (See CEQA Guidelines section 15093, requiring a statement of overriding considerations if, in spite of unavoidable impacts, the lead agency considers these impacts “acceptable” or that there are no feasible mitigation measures to reduce or mitigate impacts.) Under CEQA, whether environmental risks are “acceptable” or “unacceptable” is within the purview of and will be made by the Humboldt County

Planning Commission and possibly by the Board of Supervisors on appeal at such time that they consider the project for approval.

The Guidelines also describe a Category 3 site as: “Project Sites with High or Uncertain Potential for Wildlife Impact.” Based on preliminary site screening by the project proponent, the County believes the proposed project meets the criteria for Category 3, meaning that risks to wildlife were considered to be high or uncertain during early screening. The County is of the opinion that this classification is appropriate based on the presence of special-status species occurring on or adjacent to the site, which is one of the suggested criteria for determining a Category 3 site. During the early screening of potential sites, the proximity of special-status species was known based primarily on ecological data collected in support of the previously proposed Shell Wind Project on Bear River Ridge, and data collected by Humboldt Redwood Company to support its timber operations in the region and to comply with a Habitat Conservation Plan (HCP) on HRC-managed lands. Data from both sources indicated the presence of special-status species on or adjacent to the project site (e.g., spotted owl, marbled murrelet, bald and golden eagle, horned lark), suggesting classification of the site as Category 3. The Guidelines call for site-specific intensive surveying and early consultation with CDFW, USFWS, local environmental groups, leading scientists, and other stakeholders for Category 3 sites.

As stated in the Guidelines, “Projects with high levels of bird and bat use or risk will need more study than Category 2 projects to help understand and formulate ways to reduce the number of fatalities” (p. 38). The project applicant has followed the recommendations in the Guidelines by engaging in intensive surveying, including protocol-level surveys for a variety of special-status species and baseline studies for numerous other species. The results of these surveys are presented in numerous appendices to the DEIR and Appendix C of this FEIR. Several of these studies were also provided during early consultation with CDFW, USFWS, local environmental groups, leading scientists, and other stakeholders. (See the response to Comment I25-1 in Chapter 8 of this FEIR for a summary of project outreach and consultation efforts.)

In addition to the use of baseline data from the project’s predecessor and the land owner (Humboldt Redwood Company), the project proponent undertook additional baseline data collection, consistent with recommendations for a Category 3 site. State and federal guidelines regarding the study of wildlife and how to assess potential impacts of wind energy on wildlife have evolved over the past 10 years, with the most current guidance from USFWS provided in the Land-based Wind Energy Guidelines (WEG) (USFWS 2012) and Eagle Conservation Plan Guidance (ECPG) (USFWS 2013). The site-specific studies implemented at the project site were designed to address the questions posed under Tier 3 of the WEG (USFWS 2012) and Stage 2 of the ECPG (USFWS 2013), while also collecting data comparable to those recommended in the more dated California Guidelines.

Based on the results of site-specific baseline surveys and risk assessments, the DEIR assessed the level of risk to the full range of special-status species with the potential to be affected by the proposed project and recommended numerous avoidance and mitigation measures consistent with recommendations in Chapter 4 of the Guidelines. In addition, the project applicant, in consultation with the County and the resource agencies, redesigned portions of the project since publication of the DEIR to significantly reduce the environmental footprint of the proposed project and thus further reduce risk (See Master Response 1). Notably, the revisions include a reduction in the number of turbines from 60 to 47, taking those turbines that were located in areas of the highest risk to documented bird passage locations out of the project. The

remaining turbines have been micro-sited and the gen-tie line has been realigned to avoid all old growth forest and all northern spotted owl core activity centers. The number of turbines along Monument Ridge was reduced with the goal of reducing marbled murrelet exposure to collision risk, and the number of turbines along Bear River Ridge was reduced with the goal of reducing habitat loss and turbine exposure for horned larks. Given the level of biological study and risk assessment conducted for the project, the refinement of the project footprint and micro siting to minimize impacts, as well as operations monitoring, adaptive management, and compensatory mitigation proposed in the DEIR and further refined in this FEIR, the County believes that the project does not pose an unacceptable risk to species and that the site is not inappropriate for wind development.

S4-5 *Marbled Murrelet Collision Risk Assessment.* The commenter states that take of marbled murrelet is likely to occur due to collisions with project turbines and notes the challenges associated with achieving full mitigation for the potential take pursuant to the California Endangered Species Act (CESA) for this species, which is State listed as Endangered. The commenter describes concerns about the DEIR's collision risk model (Appendix O of the DEIR), noting that a new collision risk model had been prepared but was not included in the DEIR, that a second year of marbled murrelet radar data should have been used for the model, and that a key element of the collision risk model, the avoidance probability, was unrealistically high at 0.98. The commenter states that fog and low visibility conditions warrant a lower avoidance rate, noting that a 0.75 avoidance rate was used for the Habitat Conservation Plan for the Skookumchuck Wind Energy Project in Lewis County, WA. The commenter expresses a lack of confidence in the collision risk model inputs and approach and the resulting take estimates for marbled murrelets.

Since circulation of the DEIR, the project applicant has conducted a second year of marbled murrelet radar surveys in 2019 and has revised the risk assessment and take estimate based on this second year of data. Please see *Marbled Murrelet Radar Survey Report - Year 2* prepared by Stantec Consulting Services, Inc., dated September 16, 2019) and *Marbled Murrelet Collision Risk Assessment Associated with the Humboldt Wind Project Proposed for Humboldt County, California: 2-Year Report* by H.T. Harvey & Associates, dated September 2019, both in Appendix B of this FEIR.

Please also see Master Response 2, “*Marbled Murrelet*,” for a detailed response to the issues raised by the commenter regarding the marbled murrelet collision risk assessment.

With regard to the higher risk of collision associated with fog and low visibility conditions, please see Master Response 2 and Appendix F, “*Influence of Fog on Navigation and Ridge Crossings by Murrelets*,” in the H.T. Harvey September 2019 report “*Marbled Murrelet Collision Risk Assessment Associated with the Humboldt Wind Project Proposed for Humboldt County, California: 2-Year Report*,” included in this FEIR in Appendix B.

S4-6 *Marbled Murrelet Mitigation Plan.* The commenter states that the proposed mitigation plan relies on a corvid management approach in Van Duzen County Park where murrelet occupancy has not been determined, noting that surveys in 2018 found no evidence of occupancy at any of the [Van Duzen County Park] forest habitats, although occupied behavior was detected at nearby Cheatham Grove, on California State Parks property. The commenter states that the proposed mitigation plan lacks specifics and performance standards, and does not contain sufficient detail to reasonably demonstrate that the proposed measures are capable of successful implementation and are enforceable. The commenter notes

that the DEIR defers mitigation specifics to some future time, thus precluding the meaningful review and analysis required per CEQA. The commenter states that the DEIR should evaluate and propose other feasible mitigation sites and provide a well-developed marbled murrelet mitigation plan that describes the monitoring necessary to evaluate and ensure that the corvid management plan will be effective in producing murrelets. The commenter also suggests that other mitigation measures be included in the EIR, such as shutting off wind turbines (i.e., curtailment) during all or a portion of the nesting season, and habitat acquisition and preservation in perpetuity via conservation easements.

Please see Master Response 2, “*Marbled Murrelet*,” and Appendix B, *Compensatory Mitigation Strategy for Marbled Murrelets Impacted by Operation of the Humboldt Wind Project*, prepared by H.T. Harvey & Associates, dated September 9, 2019 and *Supplement to Compensatory Mitigation Strategy for Marbled Murrelets Impacted by Operation of the Humboldt Wind Project* prepared by H.T. Harvey & Associates and Stantec Consulting, Inc., dated October 3, 2019 in Appendix B of this FEIR for a more detailed description of the proposed marbled murrelet mitigation at Van Duzen County Park.

Regarding the commenter’s suggestion that curtailment be considered as an option for reducing impacts on marbled murrelets, please see Master Response 2, “*Marbled Murrelets*” specifically answer 2e, which explains why unknown post-operational curtailment regimes would cause the proposed project to be infeasible and not financeable.

Off-site compensatory mitigation may not be necessary to offset project-related operational impacts on marbled murrelet because the proposed predator management efforts at Van Duzen County Park are anticipated to result in a level of compensation that exceeds the extent of the predicted take over the life cycle of the proposed project, thus in essence “overcompensating” for the anticipated take. However, in the unlikely event that impacts to murrelets far exceed model predictions, or if the proposed mitigation strategy fails for unforeseen reasons, other feasible options as outlined in the DEIR will remain under consideration as an adaptive backup plan and will remain part of the Mitigation and Monitoring Program (MMRP) to be adopted at the time of project approval and EIR certification.

In addition, the applicant plans to underground 5 miles of existing ridgetop power lines on top of Monument Ridge. This undergrounding will be included as additional raptor mitigation in the FEIR (see Master Response 6, “*Eagles and Other Raptors*”). Undergrounding this line will also benefit marbled murrelets by reducing the potential for collisions with overhead distribution lines when the birds pass over Monument Ridge.

S4-7 *Construction Impacts on Marbled Murrelets. The commenter states that Mitigation Measure 3.5-1a requires documentation depicting the location of marbled murrelet nesting habitat overlain with the construction footprint before issuing permits, and that this information should be included in the EIR to evaluate potential project impacts on murrelet habitat. The commenter recommends that the EIR quantify and disclose the extent to which the proposed project will encroach upon murrelet nesting habitat and propose appropriate mitigation for potentially significant impacts.*

Figure C-1a and C-1b in Appendix C of this FEIR shows an overlay of the refined project footprint (including micro-siting changes that occurred since publication of the DEIR) with mapped marbled murrelet nesting habitat. No murrelet nesting habitat will be altered as a result of project construction. Disturbance buffers around areas of suitable nesting habitat have been established in accordance with

USFWS guidelines (USFWS 2006). Please also see *Supplement to Humboldt Wind Energy Project Marbled Murrelet Habitat Assessment and Auditory and Visual Disturbance Analysis Report*, in Appendix B of this FEIR for more details.

S4-8 *Northern Spotted Owl Activity Centers.* The commenter states that the DEIR does not adequately report the number and status of northern spotted owl activity centers in and near the project area and provides a figure with additional information about northern spotted owl sites in relation to the project footprint. The commenter states that protocol level pre-construction surveys for northern spotted owl should be conducted to provide an accurate analysis of the potential impacts from project activities to northern spotted owl, and that these surveys should follow the most current USFWS Survey Protocol for any noise-disturbing or habitat-altering activities.

Please see Master Response 3, “Northern Spotted Owl,” and *Humboldt Wind Energy Project – Northern Spotted Owl Activity Center Occurrences Discussion and Figures*, prepared by Stantec Consulting Services, Inc., dated September 3, 2019, and *Northern Spotted Owl Survey Results 2019 – Humboldt Wind Energy Project, Humboldt County, California*, prepared by ICF, dated September 2019 in Appendix B of this DEIR for additional information regarding the surveying and mapping of northern spotted owl habitat and activity centers conducted since circulation of the DEIR.

As described in the 2019 ICF survey report (ICF 2019) northern spotted owl surveys were conducted to identify northern spotted owl activity centers in the project area and within 0.25 mile of the project footprint. A habitat assessment was also conducted within 0.7 mile of the project footprint in 2018 (Stantec 2018). In addition to the survey results, the applicant has compiled information about northern spotted owl activity centers within 0.7 mile of the project footprint using information about the activity centers managed by HRC as of 2018 and recent activity centers documented in CDFW’s Spotted Owl Observations Database (query included reported data between 2015–2018). In addition, CDFW’s Spotted Owl Observations Database was queried between 1996–2017 for an analysis of historic activity centers within 0.7 mile of the project footprint.

HRC, the owner of most of the lands in the project area, operates under a HCP and conducts protocol-level surveys for northern spotted owl activity centers on one-fifth of their ownership annually in accordance with the requirements of the HRC HCP. In addition, HRC does annual status checks for each of the activity centers considered to be current. Two other landowners whose lands are included in the project footprint have been conducting protocol-level northern spotted owl surveys of their lands for several years in support of various Timber Harvest Plans, and the results of their surveys are reported to CDFW and are included in CDFW’s Spotted Owl Observation Database.

Since circulation of the DEIR, the project’s northern spotted owl avoidance strategy has been refined to avoid and minimize impacts to all identified northern spotted owl activity centers. To further refine the project’s avoidance strategy, the project has been re-designed to avoid all northern spotted owl activity centers and to maintain at least a 500-foot buffer from these activity centers. In fact, a 1,000-foot buffer will be maintained from all activity centers, with the exception of one (Goat Rock, see Figure C-2b in Appendix C of this DEIR). However, work in this location will be avoided during the spotted owl breeding season.

Figures 1, 2, and 3 from the *Humboldt Wind Energy Project – Northern Spotted Owl Activity Center Occurrences Discussion and Figures*, in Appendix B of this FEIR, summarize the datasets reviewed and analyzed. Figure 1 and the associated analysis include a review of all available northern spotted owl activity center data from recent years, including 2018 HRC northern spotted owl data, Stantec 2019 northern spotted owl survey data, and data from the CDFW Spotted Owl Observations Database (filtered for the last four years, 2015-2018). Figure 1 provides the following overview and detailed exhibits of the *Northern Spotted Owl Activity Center Buffer Avoidance Overview Map*, *Current Northern Spotted Owl Activity Center Buffer Avoidance Map*, and *Northern Spotted Owl Activity Center Habitat Retention Thresholds Overview Map*. For Figure 1 and the associated analysis, where multiple activity centers occur at the same location, the most recent data were depicted. Figure 2: *Historic Northern Spotted Owl Activity Centers* and the associated analysis consisted of a review of historic northern spotted owl activity center data, including Stantec's 2019 survey data, HRC current and previous year (Level 1 sites)¹, all historic HRC activity center data (pre-2014), and historic CDFW Spotted Owl Database dataset (1996-2017). Figure 3: *2018 Northern Spotted Owl Survey Areas* depicts HRC northern spotted owl survey quadrats that fall within 0.7 mile of the project, and the last year each of these quadrats were surveyed, as well as 2018 survey areas completed by a private landowner off HRC property.

S4-9 *Northern Spotted Owl Habitat Impacts.* The commenter notes inconsistencies in the reporting of northern spotted owl impacts described in the different sections of the DEIR. The commenter states that the DEIR implies that project impacts on northern spotted owl habitat on HRC lands do not need to be mitigated because HRC will be conducting timber removal for project activities, which in their opinion would be improper pursuant to CEQA's definition of a project (CEQA § 15378). The commenter states that a complete accounting of temporary and permanent impacts on northern spotted owl habitat and mitigation should be provided.

Since circulation of the DEIR the current-year (2019) northern spotted owl protocol-level survey results have been analyzed, and the project has been refined to reduce impacts on northern spotted owl and other sensitive biological resources. Please see Master Response 3, “*Northern Spotted Owl*,” Master Response 1, “*Site Planning and Avoidance Measures*,” and *Humboldt Wind Energy Project – Northern Spotted Owl Activity Center Occurrences Discussion and Figures* in Appendix B of this FEIR. Among other refinements to the project, the gen-tie line has been realigned and shortened (from 25 miles to 22 miles) and co-located with existing roads on HRC property wherever possible to avoid all northern spotted owl activity centers and to reduce impacts to northern spotted owl habitat. For updated acreages of impacts on northern spotted owl roosting, nesting, and foraging habitat, please see revised Table 3.5-11, and Mitigation Measure 3.5-7 (Avoid, Minimize, and Compensate for Construction Impacts on Northern Spotted Owl) in Section 3.5 in Chapter 9 of this FEIR. Additional information has been added to this section to incorporate more detailed information about a proposed approach to northern spotted owl mitigation that involves purchasing and placing lands under a conservation easement and implementation of a barred owl management program. Please see *Potential Sites for Off-Site Mitigation of Loss of NSO Habitat* by Stantec Consulting Services, Inc., dated October 17, 2019 in Appendix B of this FEIR.

¹ According to the HCP, Level 1 activity sites supported NSOs in the previous year and must also be active for the year in which the site is selected.

S4-10 *Habitat Retention and Proposed Mitigation.* The commenter states that project activities and impacts are not covered activities under HRC's "Habitat Conservation Plan for the Properties of the Pacific Lumber Company, Scotia Pacific Holding Company, and Salmon Creek Corporation" (HCP). The commenter states that the DEIR should include a discussion of how habitat retention thresholds recommended in Attachment A (USFWS 2011) to the HCP can be met. The commenter notes that the DEIR is not sufficiently specific about the amount of northern spotted owl habitat that requires mitigation, or where and how that mitigation will occur. The commenter also notes that the DEIR does not provide sufficient analysis of the impacts of habitat fragmentation on northern spotted owls, or propose mitigation, and requests a description of how the project activities will adequately mitigate for impacts on northern spotted owl, and not conflict with the HRC HCP.

Please see *Humboldt Wind Energy Project – Northern Spotted Owl Activity Center Occurrences Discussion and Figures Memo* dated September 3, 2019, prepared by Stantec in Appendix B of this FEIR, for a discussion of how the revised project disturbance footprint is consistent with all of HRC's northern spotted owl habitat avoidance requirements and therefore would not prevent HRC from meeting the habitat retention requirements set forth in the HCP. This memo also includes a discussion of how the revised project footprint is consistent with habitat retention thresholds recommended in Attachment A (USFWS 2011), and therefore, would not prevent landowners from meeting these requirements. Please also see Master Response 8, "Conflict with Adopted HCP," and Master Response 3, "Northern Spotted Owl."

For updated acreages of impacts on northern spotted owl roosting, nesting, and foraging habitat, please see revised Table 3.5-11 in Chapter 9 of this FEIR. Mitigation Measure 3.5-7 (Avoid, Minimize, and Compensate for Construction Impacts on Northern Spotted Owl) has been revised to incorporate more detailed information about the proposed northern spotted owl mitigation site. For a version of this mitigation measure that shows the refinements that have been made, please see Section 3.5 in Chapter 9 of this FEIR.

S4-11 *Important Bird Areas and Sensitive Bird Species.* The commenter states that the project is located 5 miles south of the Humboldt Bay Important Bird Area (IBA) and within the Cape Mendocino Grasslands IBA, and recommends avoiding placing turbines in the Cape Mendocino IBA, as recommended in an earlier letter from the commenter. The commenter discusses the numerous special-status resident and migratory birds that depend on habitat in Humboldt Bay and in the Cape Mendocino Grasslands IBA.

As discussed in DEIR Section 3.5-3, "Environmental Impacts and Mitigation Measures," construction activities would not result in impacts on avian habitat in Humboldt Bay because barges would use existing shipping channels and infrastructure to deliver WTG components, with no dredging or anchoring required for access. No habitat modification in Humboldt Bay will occur and the shipping activities are within normal marine operations currently taking place in Humboldt Bay, including at Fields Landing.

The Cape Mendocino Grasslands IBA encompasses approximately 221,000 acres, beginning west of Ferndale and extending south and east down to the coastline west of Leggett. The portion of the project located on Bear River Ridge is situated along the northeastern border of the IBA (see Figure 3.5-6: *Important Bird Areas in the Vicinity of the Project Site* in Appendix C of this FEIR). Approximately 154 acres of the project (23 acres of permanent and 131 acres of temporary impact areas) overlap with the

IBA, representing only 0.01 and 0.05 percent, respectively, of the Cape Mendocino Grassland. Therefore, the proposed project is not expected to result in significant impacts to the IBA and no changes to the impact conclusions presented in the DEIR are necessary.

With respect to operational impacts of the project on sensitive bird species, please see Master Response 5, “*Migratory and Special-Status Birds.*”

S4-12 *Horned Lark.* The commenter notes uncertainty regarding the subspecies present at the project and states that the horned lark population in the project area is isolated and disjunct. The commenter further states that the population could possibly be extirpated by the project and recommends that turbines be sited outside the Cape Mendocino Grassland IBA. The commenter expresses the opinion that impacts on this small, disjunct population are potentially significant regardless of the distinctiveness of this subspecies and that the DEIR does not include mitigation to reduce this impact to less than significant. The commenter also states that it is not clear where compensatory mitigation described in Mitigation Measure 3.5-12 will be achieved.

Regarding the subspecies of horned lark present in the project area, the commenter questions whether horned larks in the area are California horned larks (*Eremophila alpestris actia*) or streaked horned larks (*E. alpestris strigata*), a subspecies federally listed as threatened. This is an important distinction because of the federal listing status of streaked horned lark and the lack of a state or federal Threatened or Endangered listing status for California horned lark, which is a Watch List species. As noted by the commenter, Watch List species include “taxa that were previously listed as species of special concern (SSC) but no longer merit that status, or do not yet meet SSC criteria, but for which there is concern and a need for additional information to clarify their status.” Because the California horned lark is not a federal- or state-listed species and does not otherwise qualify as “special status,” the threshold for determining a significant impact under CEQA is whether the project has the potential to drop the affected population below self-sustaining levels, and analyzed under the mandatory findings of significance.

It is unlikely that there are streaked horned larks in the vicinity of the project. While scientists initially identified horned larks collected on Bear River Ridge as streaked horned larks in 1929, experts subsequently re-identified those collected museum specimens as California horned larks. The two subspecies do not have the same ranges. USFWS identified the historic breeding range of the streaked horned lark to be “from southern British Columbia, Canada, south through the Puget lowlands and outer coast of Washington, along the lower Columbia River, through the Willamette Valley, the Oregon coast and into the Umqua and Rogue River Valleys of southwestern Oregon.” The current range is identified as limited to three regions: South Puget Sound in Washington, the Washington coast and lower Columbia River islands, and the Willamette Valley in Oregon (USFWS 2013). California is not within this subspecies’ range as identified in the USFWS 2016 Recovery Outline. Queries of the USFWS’ online Information for Planning and Consultation database, including the project area and surrounding areas out to approximately 10 miles, do not include the streaked horned lark as being listed as a potentially occurring species in the area. Given the best available information on the historical occupancy of the project by horned lark and information on the USFWS’s current-day distribution of streaked horned lark, it is apparent that the project is inhabited by the California horned lark, a non-listed species.

Regarding the impact of the project on horned larks, there is insufficient evidence to conclude that the project will lead to a population-level decline, let alone possibly extirpate the species from the area. The commenter expresses concerns about project impacts based on statements made in a previous work (McAllister and Fix 2008) that the Bear River Ridge horned lark population appears to be part of a disjunctive or peripheral, if not entirely isolated, population. Hunter et al. (2005), the resource which both the commenter and McAllister and Fix (2008) appear to rely upon, cite that horned larks were known in several ridges in the area "...the mountain prairies of the Bear River and inner Cape Mendocino ridgelines..." and provide nesting season records of horned larks in several places on Rainbow Ridge. A review of current eBird records show a distribution of the species during the breeding season within the Humboldt County primarily along Bear River Ridge, with additional occurrences along Cape Ridge and on Alderpoint Road east of Garberville (eBird 2019). However, it is important to note that available distribution data such as the citizen science-based resources like eBird and the atlas work of Hunter et al. (2005) have been limited to publicly accessible areas from which to document the species. In fact, Hunter et al. (2005) explicitly acknowledge this and state that "Atlasers found access to a significant portion of potential habitat impossible because of private property restrictions." The review of eBird records clearly show observation records exclusively along publicly accessible roads (which are limited primarily to Bear River Ridge Road and Mattole Road past Capetown and Alderpoint Road [eBird 2019]). Therefore, it is highly likely that additional occurrences of horned lark are present in the vicinity of the project area.

Given the suitability of habitat along Bear River Ridge and Mattole roads, it is not surprising that records of the species occur in these publicly accessible areas. However, vast areas of additional, highly suitable habitat for the species exist on adjacent mountaintops and ridges, a fact acknowledged by Hunter et al. (2005), and confirmed by descriptions of breeding season observations of the species in some of those areas (such as Rainbow Ridge). Stantec has also documented the presence of horned lark in some of these areas that are not readily accessible to the general public but were accessed by a Stantec biologist during project-specific surveys for the proposed project (Stantec, unpublished data). In the fall of 2017, horned lark were documented at two bird use count survey locations on Rainbow Ridge before bird use count surveys in that area were discontinued because Rainbow Ridge was removed from further consideration for potential development at that time. A more recent (August 2019) reconnaissance-level investigation by Stantec reconfirmed the presence of horned lark on Rainbow Ridge. Finally, observations by both Scotia Pacific Co. and HRC biologists include the routine and sometimes abundant occurrence of horned larks associated with grassland habitats along Rainbow Ridge and adjacent areas that occur incidental to other species surveys (Chinnici, pers. comm. 2019).

While access to privately held land limits what is known about the definitive occurrence of this species in Humboldt County, there is an abundance of higher elevation, ridgeline grassland habitat suitable for the species in the vicinity of the project. The Cape Mendocino Grasslands IBA, on which the project occurs along the immediate northeast margin of (Figure 3.5-6: *Important Bird Areas in the Vicinity of the Project Site* in Appendix C of this FEIR), is approximately 221,000 acres in size (National Audubon Society 2019) and, while not consisting exclusively of grassland habitat, clearly includes an abundance of suitable ridgeline grassland habitat for larks. Spring helicopter surveys by Stantec confirmed the widespread occurrence of suitable, grazed, ridgeline grassland habitat along a number of ridgelines and mountaintops to the west, southwest, and south of the project.

Given this presence of additional, local, abundant habitat suitable for the species, and the observation of the species by others, it is clear that the species does not exclusively occur on Bear River Ridge. As such, birds along Bear River Ridge are part of a larger population located on mountaintop and side slope grasslands and pastures across a larger landscape within Humboldt County, and the project turbines proposed along Bear River Ridge (which occur along the immediate boundary of suitable habitat and the Cape Mendocino Grasslands IBA) do not represent a potential threat that will extirpate the species from the County.

The project, as proposed, could result in localized impacts to horned larks on Bear River Ridge, as identified in the DEIR on page 3.5-125. However, impacts to horned larks resulting from the project are not anticipated to cause the population of horned larks to drop below self-sustaining levels, as the species has been documented on other ridgelines in the County, and likely inhabits an even larger range of privately-owned properties that provide suitable habitat. As such, the mitigation measures in the DEIR adequately address impacts on this species and no further revisions to the language in the DEIR are necessary.

Regarding the effectiveness of the mitigation measures in the DEIR and avoidance of placement of turbines inside the Cape Mendocino Grassland IBA, please see Response to Comment S4-11, above.

The DEIR also proposes mitigation measures to address unanticipated impacts to horned larks. These mitigation measures represent the best available methods to avoid and reduce impacts to this and other species to the extent practicable. Mitigation Measure 3.5-12 pertains to construction-related impacts of the project, such as habitat loss. Retaining microhabitat features (rock outcrops) used by horned larks and providing a buffer around them will ensure that these areas remain available for future use by horned larks. It should be noted that the proposed 150-foot buffer around rock outcrops for the protection of horned larks from collisions with turbines was not designed with operations-phase effects in mind. Rather, the 150-foot buffer referenced in the DEIR pertains to avoiding disturbance to lark habitat (rock outcrops) during construction activities.

Direct impacts to horned larks will be monitored through a rigorous post-construction fatality study. These are standard industry operation practices used by wind energy facilities across the U.S. for non-listed passerines. However, considering that this is a non-listed species, no additional mitigation measures or details on a mitigation plan specific to this species are required. Should the status of this subspecies change in the future, additional considerations may be necessary, but until such time none are warranted.

S4-13 *Passerine Bird Annual Operational Fatality Estimates. The commenter states that the calculated average turbine mortality rate for the project is statistically and ecologically erroneous, and that the risk of collision by bats and birds significantly increases when fog or low cloud cover are present. The commenter cites studies to support this claim. The commenter states that the estimates in the DEIR of bird, bat, and raptor mortalities are non-realistic. The commenter specifically states the following: an adjusted annual fatality estimate (using a 7-day search interval) of 11.88 "small birds" per turbine, with a 95 percent confidence interval of 7.85–18.14 small birds per turbine. Using this fatality rate as a general comparison for this project would result in an annual operational mortality of 712.8 birds (95 percent confidence interval of 471–1130.4), or 21,384 birds (95 percent confidence interval 14,130–*

33,912) killed over the 30-year life of the project, which is significantly higher than the DEIR's estimated operational bird mortality rate.

Please see Master Response 3, "Bats"; Master Response 5, "Migratory and Special-Status Birds"; and Master Response 6, "Eagles and Other Raptors," for detailed information on how mortality estimates have been refined since circulation of the DEIR. Please also see Master Response 1, "Project Siting and Design," for information on refinements made to the project design since publication of the DEIR to avoid and minimize impacts on sensitive biological resources, including birds and bats.

The rate of 11.88 "small birds" per turbine within the area surveyed at 7-day intervals is misleading because it represents results from only 16 of the 48 turbines studied. The cited study (H.T. Harvey 2018) evaluated mortality at separate subsets of turbines: one set of 16 turbines was searched at 7-day search intervals and the remaining 32 turbines were searched at 28-day intervals. The overall avian mortality rate (small, medium, and large birds combined) for the 7-day search area (15.20 fatalities/turbine; 95% CI 10.95-22.39) was 1.7 times higher than that of the 28-day search area (8.96 fatalities/turbine; 95% CI 6.64-12.81). The fatality rate for the 7-day search area was not higher because it was "more precise." Instead, the authors note (as reported in Table 8) that the precision in the fatality estimate was either higher for the area searched every 28 days when compared with the area searched every 7 days, or the two were similar, gauged by comparing the 95% CIs as proportions of the relevant estimates. When facility-wide fatality estimates were derived by integrating data from the 7-day and 28-day search interval areas (Table ES1 in H.T. Harvey 2018), the "all bird" fatality rate was 11.43 (95% CI = 8.86-16.29) fatalities per turbine or 6.39 (4.95-9.10) fatalities per MW, and an overall "small bird" fatality rate of 8.85 (95% CI = 6.38-13.81) fatalities per turbine or 4.95 (3.56-7.72) fatalities per MW. Although the "all bird" mortality rate at Golden Hills was higher than most other projects that have been studied in the region, it is important to consider that the results are based on one year of study, and may not be indicative of the long-term average mortality rate for the Golden Hills Wind Farm due to inter-annual variation in avian activity and mortality rates. Additional analysis relevant to the nonraptor avian mortality estimate can be found in Master Response 5, "Migratory and Special-Status Birds."

S4-14 *Passerine Bird Mitigation.* The commenter states that the DEIR does not provide information on how the project has minimized its construction footprint to mitigate for operational bird fatalities. CDFW recommends that the project be modified to incorporate feasible avoidance measures as provided in a previous letter. The commenter recommends providing compensatory mitigation to offset impacts on migratory birds, and notes that the DEIR should evaluate the possibility of curtailment as a feasible mitigation option to minimize operational impacts on birds. The commenter suggests that a TAC should assist the Lead Agency in developing performance standards and feasible measures for birds, as well as bats and raptors. CDFW recommends a post-construction bird and bat fatality monitoring plan that would incorporate scent dogs.

Since the DEIR was circulated and current-year survey results were analyzed, the project has been redesigned to reduce impacts on northern spotted owl, marbled murrelet, and other sensitive biological resources. The number of proposed WTGs has been reduced from 60 to 47 WTGs, minimizing the potential for collisions with WTGs by passerine birds and raptors.

Please see Master Response 1, “*Site Planning and Avoidance Measures*”; Master Response 2, “*Marbled Murrelet*,” and Master Response 3, “*Northern Spotted Owl*.” Please also see Master Response 5, “*Migratory and Special-status Birds*,” for a discussion of operational impacts and mitigation for birds.

Regarding the suggestion that curtailment be included as a potential option to minimize operational impacts on birds, please see Section e. of Master Response 2, “*Marbled Murrelet*,” for a discussion of curtailment.

With respect to the establishment of a technical advisory committee (TAC) to provide advice on developing performance standards and feasible mitigation measures for birds, the County will continue to coordinate with CDFW and USFWS in assessing post-construction monitoring results and developing adaptive management measures, and will engage the services of avian specialists who have expertise in the area of wind-wildlife interactions rather than develop a formal TAC.

Regarding the use of scent dogs to assist with bird and bat fatality monitoring, please see Section 4 e. of Master Response 4, “*Bats*.”

- S4-15 *Mitigation for Raptor Operational Impacts.* The commenter states that the DEIR does not provide feasible mitigations to reduce significant impacts on raptors, and notes examples of potential mitigations such as informed curtailment and alternative turbine locations.

Please see Master Response 6, “*Eagles and Other Raptors*.” The revised mitigation measures described in “*Operational Impacts on Bald and Golden Eagles*” in Chapter 9 of this FEIR and below in Section c. of Master Response 6 effectively identify measures to offset operational impacts on eagles.

- S4-16 *Fully Protected Raptors.* The commenter states that if take of a Fully Protected raptor species cannot be avoided, the development of a Natural Community Conservation Plan (NCCP) would be needed to authorize the take of Fully Protected raptor species. The commenter states that the DEIR should provide more information on a prey management program, including rodent control, and evaluate potential impacts to raptor species and mammals from rodenticide use.

Please see Master Response 6, “*Eagles and Other Raptors*.” As described in Master Response 6 Mitigation Measure 3.5-5a (Avoid, Minimize, and Compensate for Operational Impacts on Eagles) has been revised as described in “*Operational Impacts on Bald and Golden Eagles*” in Chapter 9 of this FEIR. The proposed rodent prey management plan has been removed from this measure because of concerns about feasibility and potential unintended impacts on other ecosystem components. However, additional measures have been added to offset the removal of the prey management plan, including the addition of the undergrounding of 5 miles of ridgetop overhead transmission line in the project area and the requirement that the project applicant contribute \$600 per raptor injury or mortality to a raptor rehabilitation center (see revised Mitigation Measure 3.5-11, described in “*Operational Impacts on Raptors*,” in Section 3.5 of Chapter 9 in this FEIR, and Section e., below). These measures are intended to offset impacts on raptors in general and will benefit fully protected raptors. In addition, the number of proposed WTGs has been reduced from the 60 WTGs proposed in the DEIR to 47 WTGs, further minimizing the potential for collisions with WTGs by fully protected raptors.

S4-17 Bats. *The commenter recommends that the roles and responsibilities of the TAC be clearly defined, that wind turbines be curtailed during fall season, and scent dogs should be used as part of the fatality monitoring plan for bats and birds.*

Please see Master Response 4, “Bats,” which includes a revised Mitigation Measure 3.5-18a that incorporates suggestions from CDFW and other commenters on the proposed TAC. Section 4 e. of Master Response 4 discusses the use of scent dogs for fatality monitoring.

S4-18 Survey Coverage for Special-Status Plants. *Rare plant surveys should be conducted for all potential habitat impacted by the project. If areas are inaccessible, then those areas should be removed from the project.*

Please see Master Response 7, “Special-Status Plants and Sensitive Plant Communities.”

S4-19 Mitigation for Impacts on Special-Status Plants. *The commenter notes that in Mitigation Measure 3.5-23d, the DEIR should include performance standards for Siskiyou checkerbloom.*

Please see Master Response 7, “Special-Status Plants and Sensitive Plant Communities,” and the *Revegetation, Reclamation, and Weed Control Plan*, included in Appendix B of this FEIR, which includes performance standards.

S4-20 Sensitive Plant Communities. *The commenter states that ground disturbance activities will cause permanent impacts to prairie habitat and recommends that the DEIR include mitigations for impacts to sensitive natural communities.*

Please see Master Response 7, “Special-Status Plants and Sensitive Plant Communities,” and the *Revegetation, Reclamation, and Weed Control Plan*, included in Appendix B in this FEIR.

S4-21 Eelgrass. *The commenter states that the DEIR should specify the standard for pre-construction surveys and post-construction surveys of eelgrass to be completed within 30 days of the start and within 30 days of the end of the barge transportation portion of the project.*

Since circulation of the DEIR, the project applicant has retained a qualified consultant to further refine the mapping of the extent of eelgrass at Fields Landing and propose recommendations to ensure the project’s avoidance of eelgrass (see *Eelgrass Avoidance Recommendations for the Humboldt Wind Energy Project* prepared by Merkel & Associates, Inc., June 2019, in Appendix B of this FEIR). As stated in the DEIR, the project will not result in impacts on eelgrass, and no project activity is proposed within areas of Humboldt Bay at Fields Landing that support eelgrass. Project activities are not expected to result in excessive wake or sediment disturbance that would result in impact on eel grass present in the vicinity of the landing site. The Final EIR has been revised to include the avoidance recommendations provided in this memo. Please see Chapter 9 of the FEIR for a track change version of Mitigation Measure 3.5-22c.

S4-22 Deferred Mitigation. *The commenter states that the DEIR should include species-specific revegetation and compensatory mitigation performance standards for potentially significant impacts.*

Since circulation of the DEIR, the applicant has further revised the revegetation plan to include mitigation performance standards. Please see the *Revegetation, Reclamation, and Weed Control Plan*, included in Appendix B of this FEIR.

- S4-23 *Submittal of Environmental Data.* The commenter cites Public Resources Code § 21003, subd. (e) and notes the requirement that the applicant submit CNDDDB field forms for all special-status and sensitive natural communities detected during the project surveys and that bat acoustic data should be submitted to the Bat Acoustic Monitoring Portal (BatAMP).

The applicant will provide information on sensitive species and natural communities to the CNDDDB. As described on page 4.4-15 of the DEIR the applicant will report bat survey and mortality data to BatAMP, the Wildlife Response and Reporting System, the Biogeographic Information and Observation System Program, and other organizations that collaboratively collect and analyze these data, in accordance with California Energy Commission guidelines, and as directed by the TAC.

- S4-24 *Recirculation.* CDFW states that the DEIR conclusions on potentially significant impacts are based on only one year of site-specific data. CDFW therefore recommends that the DEIR be recirculated once all biological studies are final, and after any modeling related to the project has been completed and the results have been verified by CDFW and USFWS.

Since circulation of the DEIR, a second year of surveys has been conducted for marbled murrelets, northern spotted owls, eagles, bats, and special-status plants. Updated collision risk modeling was conducted based on the second year of marbled murrelet radar surveys, and these results were shared with CDFW. Please see the updated reports in Appendix B of this FEIR. The surveys and modeling results did not change any of the conclusions of the DEIR; therefore, recirculation is not necessary.

- S4-25 *Alternatives.* The commenter asks why Alternative 5 was chosen and recommends incorporating elements from Alternative 2 and Alternative 4 with Alternative 5 to achieve an environmentally superior better alternative.

Please see Master Response 11, “Alternatives.” Elements from various alternatives have indeed been chosen for the final refined project footprint.

- S4-26 *Summary.* The commenter summarizes of comments and recommendations made in the letter.

Please see the responses above for a discussion of each of the topics identified in this summary.

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S5-1 *The commenter gives a brief project description.*

This comment does not raise specific questions or request information that pertains to the adequacy of the Draft EIR for addressing adverse physical impacts associated with the project, nor does it contain an argument raising significant environmental issues. No further response is required.

S5-2 *The Coastal Commission (“Commission”) states that the Fields Landing portion of the project is located within a Coastal Zone and requires a Coastal Development Permit (CDP). The commenter states that in addition to a CDP, if project components outside of the Coastal Zone affect coastal resources then a consistency certification under Section 307 of the Coastal Zone Management Act will be needed. If the applicant believes the project will not affect the coastal zone, the applicant should submit an evaluation of this determination to the Commission.*

The applicant plans to obtain a CDP from the Commission and has been consulting with the Commission regarding other required coordination. No further response is required.

S5-3 *The commenter describes the Commission’s stance on climate change and developing alternative sources of energy. The commenter states that alternative energy projects should ensure minimal impacts to the environment during development.*

Since publication of the DEIR, the project applicant has taken additional steps to further minimize the project footprint to reduce environmental impacts. Please see Chapter 1 and Master Response 1, “*Site Planning and Avoidance Measures.*” No further response is necessary.

S5-4 *The commenter proposes a pilot scale or phased project to quantify actual impacts of the project to coastal resources such as the marbled murrelet because this project is the first of its type on the North Coast.*

The project applicant and the County recognize the unique challenges of the project and the applicant has taken numerous steps since publication of the DEIR to further refine the project footprint to minimize potential impacts on marbled murrelets and to develop mitigation to offset these impacts. Please see Master Response 2, “*Marbled Murrelet,*” for further details.

S5-5 *The commenter gives a brief description of proposed modifications to reduce impacts on marbled murrelets and states that harassment and death could still occur to some individuals. The commenter asks the following questions related to construction impacts on marbled murrelet:*

a) *The commenter asks if USFWS and CDFW were consulted to determine potential murrelet habitat and noise thresholds, and if they have not been contacted, what is the process and timeline for consultation with these two agencies?*

Consultation with both agencies began in November 2017 and continues to date. The project applicant plans to obtain all necessary documentation to comply with laws and regulations enforced by USFWS and CDFW.

- b) *The commenter describes a recent publication that identifies longer distances of noise levels that could disturb marbled murrelets and asks to confirm that the noise buffer zones used in the analysis in the DEIR represent the most recent science and policy.*

The project applicant and the County recognize the unique challenges of the project and the applicant has taken numerous steps since publication of the DEIR to further refine potential impacts to marbled murrelets and to develop mitigation to offset these impacts. The project applicant has been consulting with CDFW and USFWS and has considered the most recent science and policy in determining the appropriate buffer distances to avoid noise impacts on marbled murrelets and northern spotted owls during construction. Please see Master Response 2, “*Marbled Murrelet*,” and *Supplement to Humboldt Wind Energy Project Marbled Murrelet Habitat Assessment and Auditory and Visual Disturbance Analysis Report* by H.T. Harvey & Associates, September 30, 2019, in Appendix B of this FEIR for further detail.

- c) *The commenter describes appropriate disturbance buffers and recommends revisiting noise thresholds and buffer distances used in the DEIR, in consultation with USFWS and CDFW.*

The applicant has been coordinating with CDFW and USFWS in the development of avoidance and minimization measures for marbled murrelet. Please see Master Response 2, “*Marbled Murrelet*” and “*Supplement to Humboldt Wind Energy Project Marbled Murrelet Habitat Assessment and Auditory and Visual Disturbance Analysis Report*” by H.T. Harvey & Associates, September 30, 2019, in Appendix B of this FEIR.

- d) *The commenter cites Mitigation Measure 3.5-1b and states that if a nesting buffer cannot be maintained then all construction activities shall be suspended to allow for consultation with USFWS and CDFW.*

Please see Master Response 2, “*Marbled Murrelet*” and “*Supplement to Humboldt Wind Energy Project Marbled Murrelet Habitat Assessment and Auditory and Visual Disturbance Analysis Report*” by H.T. Harvey & Associates, September 30, 2019, in Appendix B of this FEIR for further detail.

S5-6 *The commenter asks additional questions related to operational-impacts on marbled murrelet.*

- a) *The commenter asks if the County conducted an analysis of impacts on marbled murrelet and other wildlife from noise and vibration associated with proposed turbines.*

As discussed in Chapter 3.11, “*Noise*,” of the DEIR, a noise analysis was conducted using a WTG with a maximum sound power level of 110 dBA, which is the loudest (or worst-case), turbine that is expected to be used at the project site. The USFWS (2006) provides guidelines for auditory and visual buffer distances to protect marbled murrelets and northern spotted owls from disturbance. As discussed in Impact 3.5-1 (*Construction Impacts on Marbled Murrelet Nesting*), a 400 m buffer is the recommended buffer to prevent disturbance to marbled murrelets resulting from exposure to noise in the range of 101–

110 dB. No marbled murrelet habitat occurs within 400 meters of a proposed WTG; therefore, no noise impacts on marbled murrelet are anticipated as a result of turbine operation. Likewise, no vibration impacts resulting from the proposed project are expected to result. No further analysis is necessary.

Please also see *Supplement to Humboldt Wind Energy Project Marbled Murrelet Habitat Assessment and Auditory and Visual Disturbance Analysis Report* by H.T. Harvey & Associates, September 30, 2019, in Appendix B of this FEIR.

b) *The commenter asks if curtailment of wind turbines would minimize impacts on marbled murrelets, whether other operational changes were examined that could decrease impacts to marbled murrelet and other species, and why were they not included in the mitigation measures.*

Please see Master Response 2, “*Marbled Murrelet*,” for an explanation as to why curtailment was not included as a feasible mitigation for operational impacts on marbled murrelets.

c) *The commenter cites Mitigation Measure 3.5-2a and asks how “high passage rate” was defined. The commenter also asks for an analysis of how effective this mitigation measure would be in minimizing collisions, and requests justification for the 200 m distance.*

For a discussion of passage rates please see *Marbled Murrelet Radar Survey Report - Year 2* prepared by Stantec Consulting Services, Inc., dated September 16, 2019 and *Marbled Murrelet Collision Risk Assessment Associated with the Humboldt Wind Project Proposed for Humboldt County, California: 2-Year Report* by H.T. Harvey & Associates, dated September 2019. Please see Master Response 2, “*Marbled Murrelet*,” and *Supplement to Humboldt Wind Energy Project Marbled Murrelet Habitat Assessment and Auditory and Visual Disturbance Analysis Report* by H.T. Harvey & Associates, September 30, 2019, in Appendix B of this FEIR.

d) *The commenter cites Mitigation Measure 3.5-2b and asks for additional details on the “roads and pads” design and how it will be implemented. The commenter recommends that the measure includes a requirement for the results to be used to implement a reduced monitoring effort once shared and approved by the County and resource agencies.*

Please see Master Response 2, “*Marbled Murrelet*,” for an explanation of why curtailment was not included as a feasible mitigation for operational impacts on marbled murrelet. Please also see Mitigation Measure 3.5-2b (Conduct Postconstruction Mortality Monitoring for Marbled Murrelets and Other Species) in the DEIR, which provides a discussion of how the Evidence of Absence model will be used to estimate marbled murrelet fatalities, and how these estimates can be used as triggers for potential adaptive management or to evaluate the effectiveness of the proposed mitigation.

e) *The commenter asks if the applicant has considered real-time monitoring and/or adaptive management measures to reduce collisions, describes the methodology, and asks if a similar program would be feasible for this proposed project.*

Please see Master Response 2, “*Marbled Murrelet*,” for further detail on impact analysis and mitigation for marbled murrelets, and the response to S5-6d, above.

S5-7 *The commenter states they have reviewed the DEIR section on salmonids and concurs with the applicant's mitigation measures associated with salmonids. The commenter provides a contact phone number.*

Thank you for the concurrence. No further response is required.