

O5-1 *The commenter provides a brief summary on the purpose of the letter and the proposed project and claims that the DEIR does not meet the basic CEQA requirements as an informational document. The commenter states that the DEIR fails to accurately describe the environmental setting, adequately disclose and analyze the significant impacts, and incorporate all feasible mitigation measures to reduce such impacts. The commenter gives a statement of interest and summarizes the legal background of CEQA requirements and CEQA's purpose.*

The commenter states the opinion that the DEIR fails to accurately describe the environmental setting, adequately disclose and analyze the significant impacts, and incorporate all feasible mitigation measures to reduce such impacts. This comment does not raise specific questions or request information that pertains to the adequacy of the DEIR for addressing adverse physical impacts associated with the project, nor does it contain an argument raising significant environmental issues. No further response is required.

O5-2 *The commenter claims the county fails to describe the existing environmental setting accurately and completely and states that the DEIR must describe the existing environmental setting in sufficient detail to enable a proper analysis of project impacts. The commenter states that greater detailed data is needed to properly evaluate the project's impacts and asks for the DEIR to be withdrawn and recirculated with accurate data that reflects the area's rich biodiversity.*

The commenter states the opinion that the DEIR fails to accurately describe the environmental setting and that recirculation of the DEIR is necessary. 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.

O5-3 *The commenter claims the DEIR fails to adequately analyze and mitigate impacts to marbled murrelet.*

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

O5-4 *The commenter states that Mitigation Measures 3.5-1c and 3.5-2c are ineffective at reducing marbled murrelet impacts to a less than significant level. The commenter claims that the DEIR proposes impermissibly deferred mitigation in mitigation measures 3.5-1a and 3.5-2c.*

Please see *Compensatory Mitigation Strategy for Marbled Murrelets Impacted by Operation of the Humboldt Wind Project*, prepared by H. T. Harvey & Associates, dated September 2019, in Appendix B of this FEIR for a thorough discussion of the proposed marbled murrelet mitigation strategy.

- O5-5 *The commenter claims that the DEIR fails to establish the existing environmental setting for the northern spotted owl and claims that no protocol level surveys were conducted for northern spotted owls.*

Please see Master Response 3, “Northern Spotted Owls,” and *Humboldt Wind Energy Project – Northern Spotted Owl Activity Center Occurrences Discussion and Figures*, prepared by Stantec Consulting Services, Inc., dated September 3, 2019 (Appendix B of this FEIR), and *Northern Spotted Owl Survey Results 2019 – Humboldt Wind Energy Project, Humboldt County, California*, prepared by ICF, dated September 2019 (Appendix B of this FEIR) for additional information regarding surveying and mapping of Northern Spotted Owl habitat and activity centers conducted since circulation of the DEIR. The results of the 2019 surveys do not change the conclusions of the DEIR with respect to northern spotted owl.

- O5-6 *The commenter states that the DEIR fails to adequately mitigate impacts to bald and golden eagles.*

Please see Master Response 6, “Eagles and Other Raptors.” The revised mitigation measure (Operational Impacts on Bald and Golden Eagles) in Section c of Master Response 6 identifies measures for effectively offsetting operational impacts on eagles. This revised mitigation measure and the changes that were made are also shown in Section 3.5 of Chapter 9 of this FEIR.

- O5-7 *The commenter claims that the DEIR fails to adequately analyze and mitigate impacts on bats. Commenter also states the technical expert provides substantial evidence that the project will potentially have significant impacts on thousands of special-status bats without mitigation.*

Please see Master Response 3, “Bats,” which includes refinements to Mitigation Measure 3.5-18a (Avoid and Minimize Bat Population Level Declines through Consultation with a Technical Advisory Committee) and includes Mitigation Measure 3.5-18d (Implement Operational Minimization Measures) and Mitigation Measure 3.5-18e: (Implement American Wind Energy Association Best Management Practices) for a discussion of measures that will avoid and minimize potential operational impacts of the project on bat populations. The revised mitigation measures and the changes that were made are also shown in Section 3.5 of Chapter 9 of this FEIR. The refinements to the bat mitigation measures do not change the conclusions of the DEIR with respect to the impacts of the project on bats, but rather provide additional detail on the mitigation measures requested by commenters.

- O5-8 *The commenter states the DEIR fails to disclose the status of fully protected species; including the peregrine falcon, white-tailed kite, and ringtail.*

Please see DEIR Table 3.5-5 (Special-Status Wildlife with Potential to Occur in the Biological Study Area) which provides CDFW and USFW listing status (including fully protected species such as peregrine falcon and golden eagle) for all species with potential to occur in the project area. The DEIR provides a thorough analysis of construction and operation impacts of the project on special-status species and this FEIR provided supplemental information collected since circulation of the DEIR to substantiate the findings in the DEIR. No further revisions are necessary.

- O5-9 *The commenter states that the DEIR fails to adequately establish the environmental setting for special-status fish and aquatic species, fails to adequately describe the abundance of species and the nature of the riparian habitat in the area, fails to analyze and mitigate impacts to special-status fish and other aquatic species, and lacks a water quality analysis. The commenter notes that without onsite sampling of*

*fish populations or recent fish surveys and one or two years of water quality metrics an adequate water quality, a baseline cannot be established.*

The DEIR provides an adequate description of the special-status fish and other aquatic species that could occur in or near the project area. This discussion provides all the information needed for an analysis of the potential impacts of the project on fish and aquatic resources. Data from fish sampling or a year of baseline water quality sampling are not necessary and would not have changed the analysis or conclusions in the DEIR. CEQA does not require a lead agency to conduct every test or perform all research, surveys, and experimentation recommended or demanded by commenters. In reviewing DEIRs, persons and public agencies should focus on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated (CEQA Guidelines Section 15204).

Please see pages 3.5-145 through 3.5-156 of the DEIR, which provide a thorough discussion of the potential impacts of the project on aquatic resources, including amphibians and special-status fish species. Please also see Section 3.10, “Hydrology and Water Quality,” of the DEIR which analyzes the potential for erosion and sedimentation into the Eel River, Jordan Creek, and Bear Creek, and Impact 3.10-1 (Potential Temporary, Short-Term Construction-Related Drainage and Water Quality Effects) in Section 3.10, “Hydrology and Water Quality,” of the DEIR. Activities conducted during the wet-weather season, defined as October 15 to June 1, would comply with aquatic conservation measures of the Humboldt Redwood Company Management Plan and logging practices outlined in the Forest Practices Act. A detailed description of these measures is provided in Mitigation Measure 3.10-1 (Implement Wet-Weather BMPs Consistent with the Humboldt Redwood Company Habitat Conservation Plan). Implementing Mitigation Measure 3.10-1 would protect water quality during wet-weather road construction and would achieve consistency with the requirements of the Humboldt Redwood Company HCP, specifically those established to protect anadromous fish, by avoiding any potential for downstream sedimentation. The commenter does not indicate specifically which of these elements of the DEIR they find deficient. No changes are necessary.

As described in the DEIR, the project originally proposed to underground the gen-tie line under the Eel River using horizontal directional drilling. After consultation with the County and the National Marine Fisheries Service (NMFS), which expressed concerns about potential frac-outs during drilling that could result in adverse effects on aquatic resources in the river, the project applicant agreed to cross the Eel River via an overhead alignment of the gen-tie line. Other project refinements have been made, including micro siting roads and WTG pads to minimize the effects of sedimentation on water quality and biological resources. Please see Master Response 1, “*Site Planning and Avoidance Measures*,” and “Revisions to the Project Description since Circulation of the DEIR,” in Chapter 1 of this FEIR for specific refinements to the project description.

The project applicant will prepare a Stormwater Pollution Prevention Plan and implement Best Management Practices to reduce potential adverse impacts to water quality and aquatic species. Implementation of the avoidance and minimization measures listed in Mitigation Measure 3.5-21a (Avoid and Minimize Impacts on Aquatic, Riparian, and Upland Habitats), Mitigation Measure 3.5-22a (Avoid and Minimize Impacts on Aquatic Resources), Mitigation Measure 3.5-21b (Avoid and Minimize Impacts on Special-Status Amphibians and Reptiles), Mitigation Measure 3.5-21d (Avoid and Minimize Impacts

on Foothill Yellow-Legged Frog), Mitigation Measure 3.5-21e (Compensate for Impacts on Aquatic and Upland Habitats for Foothill Yellow-Legged Frog), Mitigation Measure 3.5-21c (Develop and Implement a Preconstruction Survey Plan for Special-Status Amphibians and Reptiles), Mitigation Measure 3.5-22a (Avoid and Minimize Impacts on Aquatic Resources), and Mitigation Measure 3.10-1 (Implement Wet-Weather BMPs Consistent with the Humboldt Redwood Company Habitat Conservation Plan) will reduce potential impacts on water quality and aquatic resources, including special-status fish and amphibian species, to less-than-significant.

O5-10 *The commenter claims that the proposed Mitigation Measure 3.5-22a to limit impacts to riparian habitat is vague and ineffective. The commenter recommends mitigation measures relating to special-status fish populations, including conducting two years of fish surveys, providing water quality data on impacted streams, developing stronger erosion control measures, developing metrics for the revegetation of cleared areas, preventing of the use of treated wastewater with phosphates for dust suppression, and developing a pikeminnow control plan.*

Please see the response to Comment O5-9 above regarding the request to conduct fish surveys and water quality sampling and regarding erosion control measures. There is no indication that data suggested by the commenter would support any different impact conclusions in the DEIR, or that the collection of the data is necessary to conduct a thorough analysis.

Please see the *Reclamation, Revegetation and Weed Control Plan* in Appendix B of this FEIR for a discussion of metrics for the revegetation of cleared areas.

Regarding the request to avoid using treated wastewater with phosphates for dust suppression, the water used would need to meet all requirements for public safety. There is no indication that use of the treated wastewater for dust control would lead to adverse effects on aquatic resources. No revisions are required.

With respect to the request to develop a pikeminnow control plan, there are no activities associated with construction or operation of the project that would involve the introduction or spread of pikeminnow; therefore, there is no need to develop a control plan for this species. No revisions are required.

O5-11 *The commenter requests that focused surveys be conducted for special-status mammals such as the Sonoma tree vole, ringtail, pacific fisher, and American badger, and claims that the DEIR fails to analyze impacts and provide adequate mitigation for special-status mammals such as the Sonoma tree vole, ringtail, pacific fisher, and American badger. The commenter notes that the DEIR raptor mitigation measure requires prey reduction measures in the vicinity of turbines which, if rodenticides were used, could adversely affect fishers.*

Focused surveys were not conducted for all special-status species mentioned by the commenter because the level of effort required for to conduct presence/absence for these secretive and wide-ranging mammals is not commensurate with the amount of information that such surveys would yield. Instead, the impact analysis in the DEIR made the conservative assumption that these species could potentially be present in or near the project area. Please see the responses to Comment O7-39 and Comment O7-40 for a discussion of mitigation for special-status mammals. It would be speculative to try to project how prey reduction measures near the turbines could result in substantial adverse effects on these species. No revisions are necessary.

O5-12 *The commenter states that the DEIR fails to adequately disclose, analyze, and mitigate significant impacts from the project gen-tie line, wildfire risk, GHG emissions, and air quality. The commenter states that the DEIR fails to disclose the risk of wildfire from the project's gen-tie line. The commenter also states that the DEIR proposes ineffective and impermissibly deferred mitigation for wildfire risk. Commenter also states that the DEIR fails to analyze the aesthetic impacts from the project's gen-tie line.*

Section 3.13, "Fire Protection Services and Wildfire Hazards," of the DEIR provides information related to wildfire and Master Response 10, "Wildfire," of this FEIR provides further discussion of the history of wildfire in the region and regulatory requirements and mitigation measures that reduce the potential for wildfires. These issues have been adequately addressed in the DEIR and FEIR and no further changes are necessary.

Please also see Master Response 9, "Adequacy of the Greenhouse Gas Analysis," for additional in-depth information regarding the adequacy of the greenhouse gas analysis and results of additional modeling completed to substantiate the findings presented in the DEIR. No changes are necessary.

Section 3.4, "Air Quality," of the DEIR provides a thorough analysis of air quality impacts resulting from the proposed project and Section 3.2, "Aesthetics," includes a thorough analysis of aesthetic impacts. The commenter does not provide information on the specific impact analyses they find deficient or which mitigation they consider deferred. No further changes are necessary.

O5-13 *The commenter provides technical expert evidence that transmission lines generally have a significant aesthetic impact, and in the absence of evidence to the contrary, should be presumed to do so. Commenter also states that the transmission lines fail to comply with Humboldt County General Plan Policy E-S5, which requires transmission lines to be placed underground when feasible.*

The description of aesthetic resources presented in Section 3.2, "Aesthetics," of the DEIR is thorough and adequate and meets CEQA requirements for describing the existing aesthetic and visual conditions in the project area and includes an assessment on the visual impacts of the gen-tie line. The majority of the gen-tie line would traverse remote regions that are not accessible by the public and in those regions the gen-tie line would not be visible. No photo simulation of the gen-tie line is provided in the DEIR, but there is no requirement in the CEQA statutes or guidelines that an EIR include a photo simulation that shows all project features.

In addition, the project applicant has refined and narrowed the footprint of the proposed project to further avoid or minimize impacts since circulation of the DEIR. Since the publication of the DEIR, the applicant has proposed a reduction in the number of wind turbine generators from 60 to 47, spread across Monument Ridge and Bear River Ridge, and has shortened the gen-tie line from 25 to 22 miles. Please see "Refinements to the Project Description Since Circulation of the DEIR," in Chapter 1 of this FEIR for a description of the refinements.

With respect to the comment regarding the undergrounding of the gen-tie line, undergrounding would create substantially more ground disturbance than an above-ground line because in addition to requiring vegetation clearing, heavy equipment and associated roads would be required to dig a trench the length of the gen-tie with machinery. Stringing line between poles for an overhead line would require access only as needed at the pole sites and pull site, resulting in minimal soil disturbance in comparison to trenching.

Humboldt County’s policy for undergrounding gen-tie lines clearly states “when feasible.” It would not be feasible to underground the gen-tie line in steep remote terrain.

- O5-14 *The commenter states that the DEIR improperly dismisses the placing of the gen-tie underground. The commenter states that underground impacts will be less than above-ground transmission line impacts such as bird strikes, fire hazards, GHG, and aesthetic impacts.*

Please see the responses to Comment O5-13 above and to Comment O9-30. Please also see Master Response 10, “Wildfire.”

- O5-15 *The commenter claims that the DEIR did not consider the following GHG emissions sources and overestimated GHG emissions reductions, thereby underestimating GHG emissions: 1) Loss of carbon sequestration due to vegetation removal, 2) increased use of diesel fuel (and thereby GHG emissions) during construction due to the topography of the proposed project site, 3) emissions associated with the manufacturing of project components, 4) emissions of sulfur hexafluoride (SF6) during project construction and operations, and 5) emissions avoided by implementation of the proposed renewable energy source. Finally, the commenter states that, as a result of the above assertions regarding analysis, the proposed project would have a significance impact on global climate change and mitigation must be provided.*

Please see Master Response 9, “Adequacy of the Greenhouse Gas Analysis,” for a detailed discussion of GHG emissions sources and calculation of emissions reductions.

- O5-16 *The commenter claims that CalEEMod, one of the tools used to estimate construction-related emissions from the proposed project, uses mobile emission model inputs that underestimate emissions. The commenter also claims that the model further underestimates construction emissions because the modeling does not account for site-specific steep hills and slopes.*

Please see Master Response 9, “Adequacy of the Greenhouse Gas Analysis.”

- O5-17 *The commenter claims that emissions modeling does not analyze emissions from windblown dust associated with grading, truck loading, and inactive disturbed areas. The commenter noted that the average wind speed input data point was inconsistent between the DEIR write-up and CalEEMod assumptions.*

Humboldt County estimated GHG emissions associated with project construction using CalEEMod, version 2016.3.2. CalEEMod calculates fugitive dust associated with site preparation and grading from three major activities: haul road grading, earth bulldozing, and truck loading. These fugitive dust emissions are calculated using the methodology described in USEPA AP-42.<sup>1</sup> CalEEMod also calculates on-road fugitive dust associated with paved and unpaved roads. CalEEMod also does estimate grading equipment passes, which accounts for a portion of off-road travel. Fugitive dust emissions estimates from CalEEMod were included in the emissions calculations and are detailed in DEIR Appendix B.

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<sup>1</sup> AP-42, *Compilation of Air Pollutant Emissions Factors*, has been published since 1972 as the primary compilation of the EPA's emissions factor information. It contains emissions factors and process information for more than 200 air pollution source categories.

For the project, after the grading phase, unpaved access roads would be either paved or graveled and compacted to minimize fugitive dust, and other disturbed areas would be watered for purposes of dust suppression and in accordance with the requirements of NCUAQMD Rule 104, as described in the discussion of Impact 3.4-3 (page 3.4-24 of the DEIR). In addition to these emissions estimated by CalEEMod, emissions of fugitive dust that could result from stockpiling were calculated using EPA AP-42 emissions factors and added to the fugitive dust emissions estimated using CalEEMod.

With respect to the average wind speed in the region, this is used to estimate fugitive dust from truck loading and dumping when there is material import and export estimated within CalEEMod. However, because the project is considered to be balanced and stockpiling of material on-site was calculated outside of CalEEMod, the default wind speed within the CalEEMod model did not affect the overall emissions estimates. The wind speed used to calculate potential fugitive dust emissions from stockpiling did not use the CalEEMod default wind speed and instead used an estimated wind speed of 6.5 miles per hour, per the Western Regional Climate Center data (WRCC 2019). However, for the consistency of data records, the CalEEMod default input has been revised to be 6.5 miles per hour as well. Updated air quality and GHG calculations and CalEEMod input and output files are contained in Appendix B of this FEIR. These consistency edits do not change any of the conclusions presented in the DEIR. No further changes are necessary.

- 05-18 *The commenter identifies mitigation options other than the proposed use of equipment that meets ARB Tier 4 standards for heavy-duty diesel engines to be included to reduce emissions of NOX from construction equipment operations.*

The information submitted by the commenter is noted. Section 3.4, “Air Quality,” of the DEIR provides a thorough analysis of air quality impacts resulting from the proposed project and the proposed mitigation measures have been determined to reduce project-related air quality impacts to less than significant. No further revisions are necessary.

- 05-19 *The commenter states that their technical expert has found illegal deferred mitigation issues throughout the document. The commenter states that by proposing to develop a Reclamation, Revegetation and Weed Control Plan, American Landscape Survey Report, Site Protection Plan, Soil Sampling Report, Blasting Plan, Transportation Route Plan, Traffic Control Plan, Fire Service Financing Plan, Fall Protection and Rescue Plan in the future, rather than during the public review process, the County prevents the public from being able to evaluate and comment on the efficiency of the mitigation.*

Since circulation of the DEIR, the *Reclamation, Revegetation, and Weed Control Plan* prepared by Stantec Consulting Services Inc., dated September 23, 2019, has been completed and is provided in Appendix B of this FEIR. Regarding the other plans listed by the commenter, specific performance standards are provided in the mitigation measures that will guide the development of these reports and plans. Please note that the specific design of the mitigation can be permissibly deferred where mitigation is known to be feasible, but practical considerations prevent a lead agency from establishing specific standards early in the development process. Such deferral of the specific design of mitigation is permissible when the lead agency commits itself to devising mitigation measures that will satisfy specific performance standards for evaluating the efficacy of the measures and the project implementation is contingent upon the mitigation measures being in place (*Oakland Heritage Alliance v. City of Oakland*

(2011) 195 Cal.App.4th 884; *Poet, LLC v. California Air Resources Board* (2013) 218 Cal.App.4th 681, 735-738; *Sacramento Old City Association v. City Council* (1991) 229 Cal.App.3d 1011, 1028-1029). Humboldt County will ensure that all of the plans listed by the commenter will be completed, as required by project-specific mitigation. No further revisions are necessary.

05-20 *The commenter reiterates that the DEIR fails to adequately describe the existing setting, lacks evidence to establish proper baselines, underestimates impacts, relies on ineffective and deferred mitigation measures, and lacks substantial evidence to support its conclusion.*

The commenter states an opinion about the DEIR's adequacy but does not raise specific questions or request information that pertains to the adequacy of the DEIR for addressing adverse physical impacts associated with the project, nor does it contain an argument raising significant environmental issues. No further response is required.

## Letter O5 Attachment Exhibit A

### DEIR Comments by Phyllis Fox, PhD, PE

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O5A-1 *The commenter summarizes the proposed project and gives a list of reasons why they believe the DEIR fails to be an informational document under CEQA. The commenter states that the DEIR is substantially deficient and provides qualifications.*

The commenter states an opinion about the DEIR's adequacy but 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.

O5A-2 *The commenter states that the DEIR's fire analysis is incomplete and that the proposed mitigation is ineffective and violates CEQA. The commenter claims that the DEIR fails to disclose the risk of fire from the gen-tie. The commenter provides an example of a transmission line causing catastrophic wildfires.*

Section 3.13, "Fire Protection Services and Wildfire Hazards," of the DEIR provides information related to wildfire and Master Response 10, "Wildfire," of this FEIR provides further discussion of the history of wildfire in the region and regulatory requirements and mitigation measures that reduce the potential for wildfires. These issues have been adequately addressed in the DEIR and FEIR and no further changes are necessary.

O5A-3 *The commenter states the DEIR wrongly concludes that undergrounding the gen-tie line is ineffective and infeasible. Commenter states the transmission corridor will pass through areas that are classified as high to very high hazard fire areas. The commenter discusses the benefits of undergrounding the gen-tie line.*

Please see Master Response 10, "Wildfire," and the response to Comment O5-13, above. No revisions are necessary.

O5A-4 *The commenter claims that the fire impacts will be significant with the proposed mitigation and that the DEIR fails to disclose the consequences of a fire in the setting.*

Please see Master Response 10, "Wildfire." No further revisions are necessary.

O5A-5 *The commenter states that all fire risk mitigation measures in the DEIR require the future preparation of plans outside of the CEQA process, which is not a valid CEQA mitigation.*

Please see Master Response 10, "Wildfire." No further revisions are necessary.

O5A-6 *The commenter states that the DEIR relies on existing regulations, plans, and policies to mitigate the risk of fire and that this is not a reliable method of mitigating the risk of fire.*

Please see Master Response 10, "Wildfire." No further revisions are necessary.

O5A-7 *The commenter states that the DEIR did not evaluate the aesthetic impacts of the gen-tie and the impacts are significant. The commenter discusses different transmission tower designs and their aesthetic*

*impacts. The commenter disagrees with the conclusion that the aesthetic impacts of the transmission line would not be significant.*

The description of aesthetic resources presented in Section 3.2, “Aesthetics,” of the DEIR is thorough and adequate and meets CEQA requirements for describing the existing aesthetic and visual conditions in the project area and includes an assessment of the visual impacts of the gen-tie line. The majority of the gen-tie line would traverse remote regions that are not accessible by the public and the gen-tie line would not be visible to any member of the public in these locations. No photo simulation of the gen-tie line is provided in the DEIR, but there is no requirement in the CEQA statutes or guidelines that an EIR include a photo simulation showing all project features.

In addition, the project applicant has refined and narrowed the footprint of the proposed project to further avoid or minimize impacts since circulation of the DEIR. Since the publication of the DEIR, the applicant has proposed a reduction in the number of wind turbine generators from 60 to 47, spread across Monument Ridge and Bear River Ridge, and has shortened the gen-tie line from 25 to 22 miles. Please see “Refinements to the Project Description since Circulation of the DEIR,” in Chapter 1 of this FEIR. No revisions to the analysis of impacts on aesthetics are necessary.

*O5A-8 The commenter claims that construction-related emissions were underestimated due to the use of default load factors for modeling in CalEEMod, which the commenter states are not reflective of equipment operations on the terrain of the proposed site location and, the commenter argues, because CalEEMod emission factors are not reflective of real-world emissions.*

Section 15064.4 of the State CEQA Guidelines states that the lead agency has discretion to select the model or methodology it considers most appropriate to enable decision makers to intelligently consider the project’s incremental contribution to climate change. In doing that analysis, agencies should avoid engaging in speculation. (State CEQA Guidelines §§ 15144 [“an agency must use its best efforts to find out and disclose all that it reasonably can”], 15145 [“[i]f, after a thorough investigation, a lead agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact”].)

The North Coast Unified Air Quality Management District (NCUAQMD) requires that modeling done in support of CEQA use the most recent modeling protocol approved by the California Air Resources Board or an alternative as approved by the NCUAQMD Air Pollution Control Officer; NCUAQMD specifically identifies CalEEMod as the most current air emissions model being used. Humboldt County estimated the emissions associated with project construction and operations using CalEEMod, version 2016.3.2, which was developed for the California Air Pollution Officers Association (CAPCOA) in collaboration with the California Air Districts. As discussed in Section 3.4, “Air Quality,” of the DEIR, CalEEMod provides emission estimates using both default emission factors based on existing fleet information as well as project-specific parameters such as regional climate and project-specific construction equipment and schedule. For the purposes of estimating exhaust emissions from construction equipment, CalEEMod utilizes data from OFFROAD 2011 to generate emissions estimates associated with construction equipment activity. OFFROAD 2011 is an industry-accepted emissions inventory tool developed by the California Air Resources Board for assessing the population, activity, and emissions from mobile sources.

These data provide the best available information regarding potential emissions from construction equipment.

The commenter asserts that emission factors used to model exhaust emissions from construction equipment (those in CalEEMod) “should be confirmed for the specific equipment and work conditions in the field by connecting a particulate emissions monitoring system (PEMS) to the vehicle’s engine and to its exhaust system to monitor the emissions while the vehicle is in use,” and referenced the study “Requirements and Incentives for Reducing Construction Vehicle Emissions and Comparison of Nonroad Diesel Engine Emissions Data Sources” (Lewis, et. al., 2009).

Default values are used when modeling emissions of off-road heavy construction equipment because the analysis conservatively assumes that all equipment for a given phase would operate concurrently for all construction days. While grading across steep terrain is required to construct the access road, the amount of heavy equipment in operation at a single point in time would be constrained by the slope angle and limited space in which to maneuver. It is not likely that all pieces of equipment available on the construction site would operate at once during road grading. While there may be days in which most or all equipment is in use, it is atypical that all equipment would be in use on daily basis. Therefore, estimates of annual emissions from construction equipment exhaust presented in the DEIR are likely an overestimation compared to actual conditions, and no revisions to the analysis of construction-related emissions are necessary.

*O5A-9 The commenter states that the CalEEMod model does not include all sources of PM10 and PM2.5 construction emissions, which must be calculated separately and added to the CalEEMod total. The commenter also notes that the average wind speed input data point was inconsistent between the EIR write-up and CalEEMod assumptions. The commenter states that the DEIR does not include calculations of wind erosion emissions or an assessment of impacts using the American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD).*

For the purposes of estimating fugitive dust, CalEEMod calculates fugitive dust associated with site preparation and grading from three major activities: haul road grading, earth bulldozing, and truck loading. These fugitive dust emissions are calculated using the methodology described in USEPA AP-42.<sup>2</sup> CalEEMod also calculates on-road fugitive dust associated with travel on paved and unpaved roads. In addition to these emissions estimated by CalEEMod, emissions of fugitive dust that could result from stockpiling were calculated using EPA AP-42 emissions factors and added to the fugitive dust emissions estimated using CalEEMod.

With respect to the average wind speed in the region, this is used to estimate fugitive dust from truck loading and dumping when there is material import and export estimated within CalEEMod. However, because the project is considered to be balanced and the stockpiling of material on-site was calculated outside of CalEEMod, the default wind speed within the CalEEMod model did not affect the overall emissions estimates. The wind speed used to calculate potential fugitive dust emissions from stockpiling did not use the CalEEMod default wind speed and instead used an estimated wind speed of 6.5 miles per hour, per the Western Regional Climate Center data (WRCC 2019). However, for consistency of data

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records, the CalEEMod default input has been revised to be 6.5 miles per hour as well. Updated air quality and GHG calculations and CalEEMod input and output files are contained in Appendix B of this FEIR.

In addition, as noted in Section 3.4 of the DEIR, the Humboldt County General Plan includes strategies to reduce and minimize the generation of air pollutants, including particulate matter. These policies and strategies include required implementation of fugitive dust control strategies to prevent visible emissions from exceeding NCUAQMD regulations, per Rule 104. The project would comply with all rules and regulations, including the fugitive dust reduction measures identified in NCUAQMD Rule 104.

*O5A-10 The commenter states that the mitigation measure for maximum daily NOx emissions is inadequate and that the deferral of mitigation to future plans is not allowed under CEQA. The commenter states that additional feasible NOx mitigation is required and discusses a few options.*

The information submitted by the commenter is noted. Section 3.4, “Air Quality,” of the DEIR provides a thorough analysis of air quality impacts resulting from the proposed project and the proposed mitigation measures have been determined to reduce project-related air quality impacts to less than significant. No further revisions are necessary.

*O5A-11 The commenter claims that the DEIR underestimates greenhouse gas emissions (GHG) because it failed to include the increase in GHG from clearing vegetation to make way for project components and failed to include all sources of GHGs. The commenter analyzes GHG emissions from vegetation removal and provides total GHGs for the project.*

The project is proposed on land owned by Humboldt Redwood Company LLC (HRC), which owns and manages 209,200 acres of forestland in southern Humboldt County. Timber harvest and forestry management are the primary activities on HRC lands, with approximately 203,000 acres of landholdings including the project site and gen-tie corridor available for harvest if such activity is conducted consistent with conservation protocols required by the HRC Habitat Conservation Plan (HCP). See Master Response 8, “*Conflict with Adopted HCP*,” for more information on the HCP and its relationship to the project.

- ▶ Timber harvest on HRC land is conducted consistent with the HRC Sustainability Plan, which describes the land management actions to promote forest health and provide the maximum Long-Term Sustainable Yield<sup>3</sup> of lumber. Management actions listed in the plan include:
- ▶ Uneven age management—single tree, group selection, and, where necessary, transition. Clearcutting is prohibited on company lands. Some Special Prescriptions (as categorized by the Forest Practice Rules) with even age characteristics—specifically variable retention and rehabilitation—will be used to move stands toward a multi-aged stand condition or to restore conifer dominance in hardwood-impacted stands.
- ▶ The selection harvest cutting cycle averages 20 years.
- ▶ Old growth trees (as defined by HRC policy) and associated screen trees will not be cut.

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<sup>3</sup> Long-Term Sustained Yield (LTSY) is defined in the California Forest Practice Rules (14CCR 895.1) as “the average growth sustainable by the inventory predicted at the end of a 100-year planning horizon.”

Project-related timber harvest within the gen-tie corridor would be conducted by HRC crews operating under a Timber Harvest Plan that would be prepared to be consistent with Forest Practice Rules. The timber would be the property of HRC and would be counted toward the sustainable yield, which is calculated to be 914,618 net million board feet over a five-year period. The project would not alter the ability of HRC to harvest timber within its landholdings.

In response to multiple requests, CalEEMod Version 2016.3.2 was used to estimate the loss in carbon sequestration from permanent disturbance to 65.64 acres, including 35.24 acres of forest and woodland that would occur if the project were approved. The modeling results indicate the total annual carbon sequestration loss to be approximately 4,195 MT CO<sub>2</sub> per year.<sup>4</sup> As described below in the response to comment 05A-12, overall GHG emissions benefits would still be achieved by the project, because it would provide a source of renewable (GHG-free) energy at a rate that would exceed the potential carbon sequestration losses calculated. Updated air quality and GHG calculations are contained in Appendix B of this FEIR.

*05A-12 The commenter states that the proposed project would not replace conventional energy production and provides an analysis as to why.*

Please see Master Response 9, “*Adequacy of the Greenhouse Gas Analysis.*”

*05A-13 The commenter states that GHG emissions from manufacturing the wind turbines and associated facilities and transportation is not included in the analysis. The commenter also claims that the GHG emissions from sulfur hexafluoride and other chemicals are omitted.*

Emissions associated with the manufacturing of the proposed project’s components would be more indicative of a “life-cycle” emissions analysis. Defining the scope and boundary of such analysis can be subjective and would require quantification of project supply chain emissions, including emissions from activities overseas or otherwise difficult to verify. The emissions estimates in support of the DEIR estimate direct and indirect emissions associated with construction and operational activities, including transport of the materials by barge and truck to the project site, on-site construction activities, worker and equipment transport, and ongoing operational and maintenance over the lifetime of the project; however, analysis of project component manufacturing would be too speculative for reliable evaluation. Therefore, and in accordance with Section 15145 of the CEQA Guidelines, an estimation of such emissions was not included in the GHG analysis.

Fugitive emissions of sulfur hexafluoride (SF<sub>6</sub>) are typically associated with high-voltage transmission. The proposed project would transmit at low voltage and would not include the use of SF<sub>6</sub>; therefore, such emissions have not been included in the overall project GHG emissions calculations and impact analysis. No revisions to the analysis to account for this source are necessary.

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<sup>4</sup> The potential carbon sequestration loss from the project was calculated using the CalEEMod emission factors for each vegetation type (i.e., forest land [trees, scrub], grassland, and wetlands). The proposed disturbed area that was not yet surveyed was conservatively assumed to be forest, as this vegetation type has the highest carbon sequestration value (111 MT CO<sub>2</sub> per year). Per the CalEEMod User Guide Appendix A, Calculation Details for CalEEMod, temporary disturbance areas were not included in this calculation as they will recover to become vegetated and not count toward any net change in vegetation.

**Letter O5 Attachment Exhibit B**  
**Renee Owens, M.S. – Biologist and Independent**  
**Environmental Consultant**

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O5B-14 *The commenter states that the DEIR biological baseline description and analysis is incomplete and does not adequately report the extent and high value of biodiversity represented by the forests and habitats in the project. The commenter expresses the opinion that the DEIR describes forests as timberlands from an economic zoning perspective and states that ecological descriptions should be presented instead.*

Section 3.5.1, “Environmental Setting,” of the DEIR provides a thorough description of the ecological characteristics of forests, woodlands, and other habitat types in the project area. These forests are referred to as timberlands in Chapter 3.3, “Agriculture and Forestry Resources,” and this section discusses forests from an economic perspective, which is an appropriate basis for analysis for this section of the DEIR. Section 3.5, “Biological Resources,” provides extensive information on the natural communities, habitats, and species present in the project area. No further revisions are necessary.

O5B-15 *The commenter states that the Humboldt General Plan’s goals are to reduce GHG and lists the policies. The commenter claims the project’s plan to replace trees in accordance with standard timber harvesting practices is inconsistent with the DEIR’s assertion that “The Humboldt Wind Energy Project is not a covered activity in the Humboldt Redwood Company’s HCP, and the project applicant is not participatory to the HCP.”*

Please see Master Response 8, “Conflict with Adopted HCP,” and Master Response 9, “Adequacy of the Greenhouse Gas Analysis.”

O5B-16 *The commenter states that the DEIR proposes to remove or degrade over 1,000 acres of sensitive vegetation communities but proposes no equivalent compensatory mitigation and lists the sensitive vegetation communities found throughout the project. The commenter recommends that the DEIR address this issue and provide compensatory mitigation for the loss of habitat.*

The commenter mischaracterizes the extent of impacts on sensitive vegetation communities. As discussed in Master Response 7, “Special-Status Plants and Sensitive Communities,” and as shown in the revised Table 3.5-15 in Chapter 9 of this FEIR, the total extent of impacts on sensitive plant communities with the refined project footprint is 352.13 acres (320.63 acres of temporary impacts, 31.5 acres of permanent impacts). Temporary and permanent impacts on sensitive vegetation communities will be mitigated as described in the *Reclamation, Revegetation and Weed Control Plan* in Appendix B of this FEIR. No further revisions are necessary.

O5B-17 *The commenter states that the DEIR forest habitat mitigation and GHG offsets cannot be presumed to be consistent with the management of trees on “active timberlands” and that removal of these trees will incur GHG emissions caused by construction of up to 60 WTGs, over 25 miles of gen-tie line, and 17 miles of new roads, not caused by theoretical future silviculture.*

Please see Master Response 9, “Adequacy of the Greenhouse Gas Analysis.”

O5B-18 *The commenter states that the project site is not viewed from a biological perspective but more as lands to be used for timber harvesting and livestock grazing. The commenter provides an exhibit of HRC's High Conservation Value Forests and Representative Sample Areas, including marbled murrelet habitat, old growth stands, and spotted owl activity centers. The commenter states that the area is comprised of a wealth of habitat and species biodiversity, and states that the DEIR does not provide maps of the proposed sites of turbines relative to the location of vegetation communities, protected species, or critical habitats.*

As discussed in the response to Comment O5B-14 above, the commenter is referring to the discussion of timber harvesting and livestock grazing in Chapter 3.3, "Agriculture and Forestry Resources," which addresses forests from an economic perspective. Chapter 3.5, "Biological Resources," of the DEIR provides a thorough and complete discussion of habitats and biodiversity in and around the project site. Appendix C of this FEIR provides maps depicting the location of sensitive biological resources (including marbled murrelet and spotted owl activity centers) in relation to proposed turbine locations and other project features. These maps are provided for informational purposes and to substantiate the impact conclusions presented in the DEIR. They do not result in changes to any of the previously presented impact conclusions.

O5B-19 *The commenter discusses climate change, the disruptive effects of climate change on ecosystem services, and provides opinions and quotes on wind energy and its impacts. The commenter states that the proposed project should focus more on the overall environmental impacts rather than the smaller profits it may gain.*

The commenter expresses opinions on climate change and wind energy but does not raise specific questions or request information that pertains to the adequacy of the DEIR for addressing adverse physical impacts associated with the project, nor does it contain an argument raising significant environmental issues. No further response is required.

O5B-20 *The commenter discusses the special-status fish species with the potential to occur in the project area and states that the DEIR fails to adequately analyze and reduce impacts to fish and other aquatic species.*

Please see the response to Comment O5-9 above.

O5B-21 *The commenter states that the DEIR fails to address water quality and that degradation to water quality can impact salmonid populations and the recreational value of the rivers post construction.*

Please see the response to Comment O5-9 above.

O5B-22 *The commenter states that the DEIR is vague in describing mitigation and restoration plans during and post-construction and that it postpones the details of these plans to the future, making them unavailable for public review. The commenter states that the DEIR discusses disturbance to areas along the Eel River and will cross multiple drainages, stating that actual acreage of the disturbance areas will be refined. The commenter also states that the DEIR presents no adaptive management plans for aquatic species and water quality impacts.*

As discussed in Section 3.1, 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 refer to the “*Refinement to the Project Description Since Circulation of the DEIR*,” in Chapter 1 of this FEIR for details. The project refinements include a reduction of the disturbance area from 900 acres to approximately 655 acres (due to the narrowing of the 500-foot corridor), and an overhead crossing of the gen-tie over Eel River rather than an underground crossing created with horizontal directional drilling.

Please see the *Reclamation, Revegetation and Weed Control Plan* in Appendix B of this FEIR for a discussion of performance metrics (timelines, success criteria, protocol details) for the restoration and revegetation of vegetation communities disturbed during construction.

With respect to the commenter’s concern about and an adaptive management approach for aquatic species and water quality, please note that monitoring would be conducted to determine the effectiveness of BMPs. In addition to submitting water quality monitoring data to the Regional Water Quality Control Board, monitoring results will be also be submitted to the County. If monitoring shows an exceedance of any standards in the SWPPP, the County has the ability to impose a temporary shutdown of construction. No further revisions are necessary.

O5B-23 *The commenter recommends that the applicant conduct standardized assays of fish populations within the system using a stratified random design for at least one to two years.*

Please see the response to Comment O5-9 above.

O5B-24 *The commenter recommends that the DEIR provide water quality data for the tributaries to be impacted.*

Please see the response to Comment O5-9 above.

O5B-25 *The commenter recommends that the proposed mitigation should clarify strong erosion control measures.*

Please see the response to Comment O5-9 above.

O5B-26 *The commenter recommends that the DEIR should include clear metrics for the revegetation of cleared areas, including timeline and adaptive management plans.*

Please see the *Reclamation, Revegetation and Weed Control Plan* in Appendix B of this FEIR for the desired information.

O5B-27 *The commenter recommends that the DEIR should indicate better mechanisms of reducing runoff from the project site into streams, including measures to reduce phosphates in water used in dust suppression.*

Please see the response to Comment O5-10 above.

O5B-28 *The commenter recommends that the applicant verify pikeminnow presence and develop a control plan.*

Please see the response to Comment O5-10 above.

*O5B-29 The commenter recommends more public meetings and outreach.*

Multiple opportunities for public comment have been provided over the course of this environmental review process and more will be offered when the project is considered for approval by the Planning Commission at a public hearing.

The first opportunity for public input was during the scoping period. On July 31, 2018, the County issued a notice of preparation (NOP) to inform agencies and the general public that an EIR was being prepared. The County invited comments on the scope and content of the document and participation at two public scoping meetings. The NOP was filed with the State Clearinghouse, posted with the County Clerk, and mailed to property owners adjacent to the project boundary and to 13 state agencies. It was also posted on the County's website for a 30-day comment period.

The County held two public scoping meetings to solicit input from the community and public agencies. The meetings were held on Tuesday, August 14, 2018, at the Sequoia Conference Center in Eureka, California, and on Wednesday, August 15, 2018, at the Winema Theater in Scotia, California. The purpose was to solicit input on the scope and content of the DEIR, including suggested alternatives and mitigation measures.

In addition, a 60-day public review period was provided for the DEIR.

*O5B-30 The commenter provides an overview of the prevailing considerations when analyzing impacts on marbled murrelets, and states that a wind energy project has never been constructed in the vicinity of marbled murrelet habitat; therefore, the impacts are not known. The commenter also states that the population is in decline and that nesting individuals are difficult to observe, resulting in gaps in the knowledge of breeding ecology and behavior.*

The commenter provides a general discussion of marbled murrelet legal status and data gaps to be considered when analyzing the impacts of a wind energy project on marbled murrelets. This discussion does not raise specific questions or request information that pertains to the adequacy of the DEIR for addressing adverse physical impacts associated with the project, nor does it contain an argument raising significant environmental issues. No further response is required.

*O5B-31 The commenter states that similar wind projects in the Pacific Northwest in similar marbled murrelet habitat were withdrawn due to the unavoidable impacts to marbled murrelets.*

This discussion 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.

*O5B-32 The commenter states that the USFWS and CDFW recommended alternate sites for the proposed project based on anticipated impacts on marbled murrelets. The commenter states that CDFW commented that it would be extremely difficult to fully mitigate project-related take of marbled murrelets.*

Please see Master Response 1, "Site Planning and Avoidance Measures," and Master Response 2, "Marbled Murrelet," for a discussion of how the project footprint has been refined to minimize impacts

on marbled murrelets. These refinements include eliminating three turbines that were determined to be in areas characterized by high passage rates for marbled murrelets and reducing the number of turbines from 60 to 47. Please also see the response to Comment S4-4 for specific responses to comments provided by CDFW.

O5B-33 *The commenter states that mitigation plans for marbled murrelets and other plans were inappropriately deferred and that the DEIR did not provide sufficient detail, which denies reviewers the opportunity to adequately analyze the efficacy of the mitigation measures and leaves the mitigation vulnerable to changes after the project is completed.*

Since circulation of the DEIR, the proposed mitigation for marbled murrelets, northern spotted owl, and other special-status species and sensitive resources have been further refined, based on the reduced footprint and additional data collected. Please see the *Compensatory Mitigation Strategy for Marbled Murrelets Impacted by Operation of the Humboldt Wind Project*, prepared by H. T. Harvey & Associates, dated September 2019, and the *Reclamation, Revegetation and Weed Control Plan* prepared by Stantec Consulting Services, Inc., dated September 23, 2019. These reports are provided in Appendix B of this FEIR. Please also see Master Response 2, “*Marbled Murrelet*,” and Master Response 3, “*Northern Spotted Owl*,” for more details about proposed mitigation for these species.

Regarding the other plans listed by the commenter, specific performance standards are provided in the mitigation measures that will guide the development of these reports and plans. Please note that the specific design of mitigation can be permissibly deferred where mitigation is known to be feasible, but practical considerations prevent a lead agency from establishing specific standards early in the development process. Such deferral of the specific design of mitigation is permissible when the lead agency commits itself to devising mitigation measures that will satisfy specific performance standards for evaluating the efficacy of the measures and the project implementation is contingent upon the mitigation measures being in place (*Oakland Heritage Alliance v. City of Oakland* (2011) 195 Cal.App.4th 884; *Poet, LLC v. California Air Resources Board* (2013) 218 Cal.App.4th 681, 735-738; *Sacramento Old City Association v. City Council* (1991) 229 Cal.App.3d 1011, 1028-1029).

O5B-34 *The commenter states that the DEIR relied heavily on models (collision risk model and northern spotted owl habitat assessment) rather than direct observation for its assessment of potential impacts on these species, and points out the shortcomings of this approach, in particular the probability of avoidance.*

The analysis of impacts on marbled murrelets refined in this FEIR is based on two years of radar data, as described in *Humboldt Wind Energy Project Marbled Murrelet Radar Survey Report—Year 2: October 2018–September 2019* in Appendix B of this FEIR. Please see the response to Comments S4-6 and O9-25 for a discussion of the marbled murrelet collision risk model and avoidance rates.

Between March and August 2019, northern spotted owl surveys were conducted in all suitable habitat within 0.25 mile of the project area. Please see *Northern Spotted Owl Survey Results 2019: Humboldt Wind Energy Project, Humboldt County, California* prepared by ICF, dated September 2019, and *Humboldt Wind Energy Project—Northern Spotted Owl Activity Center Occurrences Discussion and Figures*, prepared by Stantec Consulting Services, Inc., dated September 3, 2019, both in Appendix B of this FEIR.

Please also see the responses to Comments S-O4 and O9-25 for a discussion of the marbled murrelet collision risk model and the use of avoidance rates in the model.

O5B-35 *The commenter states that the DEIR presents an incomplete baseline and analysis of project impacts on marbled murrelets and asserts that the use of desktop analysis such as reliance on HRC reports and CNDDDB is not adequate to assess marbled murrelet habitat and analyze construction impacts on this species. The commenter expressed the opinion that the DEIR's conclusion was unsupported by evidence and that significant impacts on nesting marbled murrelets throughout the life of the project were underestimated.*

The mapping for marbled murrelet habitat used in support of the DEIR was based on information in the *Humboldt Wind Energy Project Marbled Murrelet Habitat Assessment and Auditory and Visual Disturbance Analysis Report*, prepared by Stantec Consulting Services Inc, dated November 5, 2018, which was provided as an Appendix to the DEIR. The data collection methodology for the habitat assessment described in this assessment followed an agency-approved protocol: *Methods for Surveying Marbled Murrelet in Forests: A Revised Protocol for Land Management and Research* (Evans Mack et al. 2003).

Stantec also performed an auditory and visual disturbance assessment following the guidelines provided in *Estimating the Effects of Auditory and Visual Disturbance to Northern Spotted Owls and Marbled Murrelets in Northwestern California* (USFWS 2006). A *Supplement to Humboldt Wind Energy Project Marbled Murrelet Habitat Assessment and Auditory and Visual Disturbance Analysis Report*, prepared by Stantec Consulting Services Inc, dated September 18, 2019 also provided updated information from a site visit.

The DEIR concluded that no old growth forest or marbled murrelet nesting habitat will be directly affected by construction. However, five stands that could provide nesting habitat for marbled murrelets occur within 0.25 miles of the project. Mitigation Measure 3.5-1b (Avoid Indirect Impacts on Nesting Marbled Murrelet) provides for the implementation of buffers that would prevent visual or auditory impacts on marbled murrelets during construction.

O5B-36 *The commenter states that the DEIR did not conduct the requisite two years of surveys for marbled murrelets and therefore does not have an adequate baseline from which to address impacts.*

Please see *Humboldt Wind Energy Project Marbled Murrelet Radar Survey Report – Year 2: October 2018–September 2019* in Appendix B of this FEIR. Two breeding seasons of radar data are now available to assess passage rates and collision risk. The second year of radar data confirms the conclusions drawn from the first year of data. The second year of survey data does not change the analysis or conclusions of the DEIR. Please also see the response to Comment O7-28.

O5B-37 *The commenter states that the DEIR has underestimated collision risk, especially for marbled murrelet, because of inadequate surveys and the use of untested models and inappropriate assumptions based on other species. The commenter further states that the collision risk model does not account for low visibility and foggy conditions.*

Please see Master Response 2, “*Marbled Murrelet*,” for detailed information on the model used to determine impacts.

O5B-38 *The commenter states that the marbled murrelet collision risk model is highly sensitive to the avoidance rate and cites literature describing how avoidance behavior varies depending on species and conditions.*

Please see Master Response 2, “*Marbled Murrelet*,” and the response to Comment O9-25.

O5B-39 *The commenter states that the marbled murrelet collision risk model should use a more conservative avoidance probability and states that for full disclosure, the DEIR should provide the actual model formula so that the public can independently assess how the model was applied.*

Please see Master Response 2, “*Marbled Murrelet*,” and the response to Comment O9-25. Regarding the commenter’s request to supply the actual formula for the model, please note that the *Marbled Murrelet Collision Risk Assessment Associated with the Humboldt Wind Project Proposed for Humboldt County, California: 2-Year Report*, prepared by H.T. Harvey & Associates, dated September 2019, in Appendix B of this FEIR, provides sufficient information for any knowledgeable reviewer to assess the validity of the model. Furthermore, the probabilistic model incorporates variability around the collision probability estimate to generate a fatality estimate that accounts for a range of possible collision probability estimates using a Bayesian modeling approach. The probabilistic model generated a range of fatality estimates that were based on the range of possible parameter values, and the 95% upper credible interval fatality estimate represents a conservative estimate based on the model output, for which the model predicted a higher fatality estimate in only 5% of cases.

O5B-40 *The commenter states that the requirement in Mitigation Measure 3.5-1a (Minimize the Construction Footprint to Avoid Impacts on All Suitable Marbled Murrelet Nesting Habitat) to provide an exhibit depicting the location of project improvements and marbled murrelet nesting buffers is inadequate because it allows the buffer to be adjusted. The commenter states that the exhibit should be provided now for public review.*

Please see Master Response 2, “*Marbled Murrelet*,” and *Figure C-5 (Marbled Murrelet Stands Map)* in *Appendix C* of this FEIR.

O5B-41 *The commenter states that the Worker Environmental Awareness Program (WEAP) should be developed now so that the public could comment on the proposed WEAP.*

Worker Environmental Awareness Programs are not typically included in EIRs, nor does CEQA include such a requirement. Mitigation Measure 3.5-1c (Develop and Implement a Worker Environmental Awareness Program) provides a detailed summary of the required measures that must be included in the program. The mitigation measure requires that the program be submitted to the County and the regulatory agencies whose permits are addressed in the training for their review and approval before ground-disturbing activities begin. The commenter does not offer any evidence that providing the program for public review during the EIR review process would improve the WEAP.

O5B-42 *The commenter states that the proposed compensatory mitigation for marbled murrelets does not provide sufficient information to assess whether the program would be effective, and questions the efficacy of corvid management programs in actually enhancing the marbled murrelet population.*

Please see Master Response 2, “*Marbled Murrelet*,” and the response to Comment O9-26.

O5B-43 *The commenter states that the proposed compensatory mitigation for marbled murrelets does not provide sufficient monitoring to determine the effectiveness of the plan, and that does not constitute actual mitigation. The commenter also mentions that the DEIR should assess whether the program would be effective and questions the efficacy of corvid management programs in actually enhancing the marbled murrelet population. The commenter also states that one of the measures described in Mitigation Measure 3.5-2c regarding removal of derelict fishing gear may not be effective for marbled murrelets.*

Please see Master Response 2, “*Marbled Murrelet*,” and the response to Comments O9-26 and O9-29. The discussion of removal of derelict fishing gear was included along with several other adaptive management options for compensatory mitigation if action was needed to rectify a shortfall in the production of sufficient marbled murrelets to offset take. The mitigation measure makes it clear that any such actions would involve consultation with CDFW and USFWS to further develop details of the mitigation and assess its effectiveness and feasibility as an adaptive management measure. Please also see response to Comment O7-28.

O5B-44 *The commenter suggests that proposed mitigation for marbled murrelets is inadequate and that the applicant be required to provide offsite compensatory mitigation in the form of land purchase and protection and implement curtailment to avoid impacts on marbled murrelets.*

Please see Master Response 2, “*Marbled Murrelet*.”

O5B-45 *The commenter states that the environmental baseline for northern spotted owls is inadequate and that surveys have not been conducted.*

Please see Master Response 3, “*Northern Spotted Owl*.”

O5B-46 *The commenter expresses the opinion that the habitat assessment for northern spotted owl is inadequate and that a 1.3-mile buffer from project boundaries was necessary for the habitat impact analysis. The commenter states that the sources of information for evaluating northern spotted owl habitat (HRC data, CDFW data, and USFWS online critical habitat) were inadequate to develop a habitat assessment.*

Please see Master Response 3, “*Northern Spotted Owl*,” and the response to Comment O5B-35.

O5B-47 *The commenter states that the DEIR fails to address California’s Fully Protected Species take avoidance.*

Please see Master Response 5, “*Migratory and Special-Status Birds*,” and Master Response 6, “*Eagles and Other Raptors*” and the responses to Comments O5B-35 and S4-16.

O5B-48 *The commenter states that the DEIR fails to adequately analyze and mitigate for project impacts on bats, noting that CDFW specifically recommended installing acoustic monitoring stations at an appropriate height to detect bats.*

Please see Master Response 6, “Bats,” and the response to Comments O7-21 and O9-12.

O5B-49 *The commenter notes that the DEIR describes hoary and red bats as expected to occur in the project area in high numbers, stating that hoary bats demonstrate swarming behavior that could put them at higher collision risk, and states that the DEIR fails to adequately describe how it would avoid impacting hoary bats.*

Please see Master Response 6, “Bats,” and the response to Comment O9-12.

O5B-50 *The commenter expresses the opinion that Mitigation Measure 3.5-15 (Avoid and Compensate for Impacts on Bat Roosts) is inadequate for the purposes of CEQA review and expresses the opinion that the recommended measures are unscientific and inadequate.*

Mitigation Measure 3.5-15 provides feasible and scientifically sound mitigation measures to avoid and minimize construction impacts on bat roosts and is consistent with guidance provided by state and federal agencies for the protection of bat roosts (Caltrans 2004, FHWA 2018).

O5B-51 *The commenter states that Mitigation Measure 3.5-18a (Preclude Operational Impacts on Bat Population Level Decline through Consultation with a Technical Advisory Committee) is deferred mitigation and inadequate for CEQA review.*

Please see Master Response 6, “Bats,” and the response to Comment O9-12.

O5B-52 *The commenter states that the DEIR fails to analyze impacts on special-status mammals such as Sonoma tree vole, ringtail, Pacific fisher, and American badger.*

Please see the responses to Comments O9-5, O7-39, and O7-75 for a discussion of the impact analysis and mitigation for special-status mammals.

O5B-53 *The commenter states that the project fails to adequately mitigate for impacts on bald and golden eagles, asks how the pre-construction survey requirement fits with the timeline of construction, and asserts that the WEAP requirement to monitor compliance with eagle buffers during construction is enforceable. The commenter states that the Avian Power Line Interaction Committee (APLIC) guidelines have been updated in 2018 and that these more current guidelines should inform and supplement the APLIC (2006) guidelines. The commenter suggests additional means of mitigation such as compensatory mitigation funding and putting the gen-tie line underground.*

Please see Master Response 6, “Eagles and Other Raptors,” and the response to Comments S4-16 and O7-29. Retrofitting high risk electric utility poles that present a high risk of electrocution to eagles is a proven method for reducing eagle fatalities (USFWS 2018b). The project applicant would monitor eagle fatalities resulting from project operation for the life of the project and would mitigate with pole retrofits as described in Mitigation Measure 3.5-5a (Avoid, Minimize, and Compensate for Operational Impacts on Eagles).

O5B-54 *The commenter suggests that the project should implement operational mitigation measures such as curtailment to avoid and minimize impacts on birds and bats. The commenter notes that Mitigation Measure 3.5-18b (Conduct Bat Surveys and Mortality Monitoring) was not actual mitigation and*

*discussed the effectiveness of curtailment to avoid collision risk to bats. The commenter also requested more details on the post-construction monitoring plans and suggested the use of detection dogs to assist with monitoring.*

Please see Master Response 6, “Bats,” and the responses to Comments O9-12, O9-14, O9-15, and O9-17. Please see Master Response 2, “Marbled Murrelet,” for a discussion of curtailment and why it is not a feasible mitigation option for birds.

O5B-55 *The commenter asserts that compensatory mitigation in the form of land purchase and conservation is necessary to compensate for direct and indirect impacts of the project and for cumulative impacts. The commenter states that the cumulative impact discussion provides insufficient detail in light of climate change disruption, pest invasions, drought, and wildfire.*

Please see *Potential Sites for Off-Site Mitigation of Loss of Northern Spotted Owl Habitat* prepared by Stantec Consulting Services, Inc., dated October 17, 2019 in Appendix B of this FEIR, which describes off-site mitigation lands under consideration to provide compensatory mitigation for northern spotted owls, as well as implementation of a barred owl mitigation program. These mitigation lands also provide opportunities for mitigation for sensitive vegetation communities and special-status plants.

With respect to the commenter’s statements about cumulative impacts, as stated in Chapter 4, “Cumulative Impacts,” the cumulative impact analysis is based on the State CEQA Guidelines (in Section 15130[b]) that provide the following guidance for conducting an adequate cumulative impact analysis: “The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.” The DEIR’s section 4.4.4, “Biological Resources,” meets these standards.

O5B-56 *The commenter states that the Mitigation Measure 3.5-19c (Develop and Implement a Preconstruction Survey Plan for Special-Status Plants), Mitigation Measure 3.5-19e (Restore Special-Status Mammal Habitat), Mitigation Measure 3.5-3 (Develop and Implement a Worker Environmental Awareness Program), Mitigation Measure 3.5-21a (Avoid and Minimize Impacts on Aquatic, Riparian, and Upland Habitats), Mitigation Measure 3.5-22a (Avoid and Minimize Impacts on Aquatic Resources), Mitigation Measure 3.5-22b (Implement Siting Constraint Measures to Delineate and Protect Aquatic Resources), and Mitigation Measure 3.5-23e (Develop and Submit a Reclamation, Revegetation, and Weed Control Plan) defer mitigation and fail to provide mitigation for cumulative impacts.*

As described in Section 3.5, “Biological Resources,” the DEIR has provided a complete and thorough evaluation of all potentially affected sensitive biological resources and committed the County to the required mitigation measures. The DEIR has presented clear performance standards that have been further refined in this FEIR, and has described means of mitigating impacts that would achieve the performance standards. Please also see Master Responses 2 through 8 for additional details related to the analysis of impacts on biological resources, a discussion on additional surveys conducted since circulation of the

DEIR, and additional refinements to the mitigation measures in the DEIR. The mitigation measures will mitigate the direct, indirect, and cumulative impacts of the project on biological resources.

Since circulation of the DEIR, additional information about proposed mitigation has been provided, including the *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 Services, Inc., dated October 3, 2019, and *Potential Sites for Off-Site Mitigation of Loss of Northern Spotted Owl Habitat* prepared by Stantec Consulting Services, Inc., dated October 17, 2019, and the *Reclamation, Revegetation, and Weed Control Plan* prepared by Stantec Consulting Services Inc., dated September 23, 2019. These mitigation plans also provide mitigation for the project's contributions to cumulative impacts.

*O5B-57 The commenter concludes with a statement that the DEIR has not met the obligations of CEQA, that the project would result in significant and unmitigated impacts to several sensitive biological resources, and that the DEIR must be revised and resubmitted.*

The commenter expresses an opinion about the adequacy of the DEIR but does not raise specific questions or request information that pertains to the adequacy of the DEIR for addressing adverse physical impacts associated with the project, nor does it contain an argument raising significant environmental issues. No further response is required.