RESOLUTION OF THE PLANNING COMMISSION
OF THE COUNTY OF HUMBOLDT
Resolution Number 19-

Case Number CUP-18-002
Record Number PLN-13999-CUP
Assessor's Parcel Numbers: 102-132-004 et al.

FINDINGS FOR CERTIFICATION OF EIR AND ADOPTION OF STATEMENTS OF OVERRIDING CONSIDERATIONS

1. FINDING: **CEQA (EIR) -** The County of Humboldt has completed an Environmental Impact Report (EIR) in compliance with CEQA.

EVIDENCE: a) The California Environmental Quality Act (CEQA) requires preparation of an environmental impact report if there is substantial evidence in light of the whole record that the project may have a significant effect on the environment.

b) A Notice of Preparation (NOP) was prepared on July 31, 2018, in accordance with CEQA Guidelines Section 15082 to inform interested parties of the County's determination that an EIR would be required for the project, solicit input about the desired content and scope of the DEIR, announce the dates and times of two public scoping meetings, and provide information on where documents about the project were available for review and where comments could be sent on the project. The NOP was posted at the County Recorder's office; mailed to property owners and tenants of parcels within project area and parcels adjacent to/just outside of the project area boundary, all property owners/tenants within the Town of Scotia, and to relevant agencies within the region; circulated through State Clearinghouse; and published in the Times Standard on August 2, 2018. The NOP was circulated for a period of 30 days, ending on August 30, 2018.

c) Pursuant to CEQA Guidelines Section 15083, prior to completing the Draft EIR, the County of Humboldt held two scoping meetings on August 14 and 15, 2018, to solicit input from the regulatory agencies and public. Appendix A of the Draft EIR includes a summary of the public scoping process and summarizes the comments received in writing and during the scoping meetings.

Areas of potential controversy known to the County include the following:

- Visual impacts, including effects on views from Rio Dell and Scotia and generation of light pollution;
- Potential take of at-risk species such as the marbled murrelet and northern spotted owl, risks of bird and bat fatalities from collisions with wind turbine generators (WTG or turbines), displacement from nesting habitat, and other project effects on critical habitats;

- Effects on cultural resources, including tribal cultural resources;
- Noise effects from WTG operation;
- Potential traffic congestion during construction and effects of oversize loads on area roadways; and
- Effects on the environment related to the ultimate decommissioning of the project.

These issues were considered during preparation of the Draft EIR and, where appropriate, are addressed in the environmental impact analyses of the Draft EIR.

d) The Planning and Building Department engaged in early consultation with state and federal agencies, in accordance with CEQA Guidelines Section 15083, including the development of the project has included active consultation with the United States Fish and Wildlife Service (USFWS), the California Department of Fish and Wildlife (CDFW) and California Coastal Commission (CCC). The National Oceanic and Atmospheric Administration (NOAA) also received notice regarding the project. CDFW and USFWS participated in multiple meetings regarding biological resource concerns. CDFW has provided recommendations regarding project design and project mitigation measures and these recommendations have been considered in the final design and mitigation measures.

e) The Draft Environmental Impact Report ("DEIR") for Humboldt Wind's Application PLN13999-CUP was prepared in accordance with CEQA and circulated for public review initially from April 15, 2019 through June 5, 2019 (SCH#: 201872076), a 50 day review period, in compliance with CEQA guidelines section 15105 which requires a minimum of 45 days and a period which does not exceed 60 days. In an effort to facilitate public understanding of the project and comment on the DEIR the comment period was extended to June 14, 2019.

f) For purposes of the findings contained in this resolution, the "project" refers to the revisions submitted by the applicant which include:

- up to 47 WTGs (capable of generating 2–5 MW of electricity each) erected on tubular steel towers set on concrete foundations, as well as the associated WTG pads, temporary staging areas, and transformers;
- temporary construction access roads and permanent service roads, as well as temporary improvements to public roads at two locations along U.S. 101 to facilitate the delivery of WTGs from the Fields Landing Drive delivery site to the staging yard at Jordan Creek;
- an up to 22-mile, 115 kV gen-tie that extends north from Monument Ridge, crosses Eel River via the Richard Fleisch Memorial Bridge, and

ultimately connects to the existing PG&E transmission system at the Bridgeville substation;

- Bridgeville substation expansion of up to 3 acres for switchyard modifications;
- a project substation located on-site (approximately 2.5 acres);
- an underground electrical collection system linking WTGs to each other and to the project substation;
- an underground communication system (fiber optic cable) adjacent to the collection system;
- a Supervisory Control and Data Acquisition (SCADA) system between each WTG and the substation and between the project substation and the Bridgeville substation to monitor and control project output and the transmission of energy into the system;
- an up to 5-acre operations and maintenance facility, including an operations building, a parking area, and an outdoor storage area with perimeter fencing;
- a 10-acre temporary staging area and a construction trailer and parking area located within the operations and maintenance facility;
- a component offloading location at Fields Landing;
- two temporary bypasses off U.S. 101 (Hookton Overpass and 12th Street Bypass) for transporting oversize loads;
- up to six permanent meteorological towers;
- three 5-acre, temporary staging areas distributed throughout the project site, one of which would include one temporary concrete batch plant on Monument Ridge; and
- up to 17 miles of new 24-foot wide access roads.

The project site represents an approximately 2,218-acre area study corridor within which the WTGs and associated infrastructure would be placed. Within that study corridor, a representative project footprint was developed that conservatively includes approximately 655 acres of temporary or permanent impacts. The study area was defined based on a 1,000-foot-wide corridor centered on the representative locations of WTGs; a 200-foot-wide corridor centered on project roadways, the electrical collection line, and the generation transmission line (gen-tie); and a 500-foot-wide buffer around proposed staging areas, temporary impact areas, and the project substation.

The exact footprint of individual WTGs within the project site would be determined during final engineering design but would generally be placed along Monument Ridge and Bear River Ridge. Turbine heights could reach up to 600 feet, with a rotor diameter of 492 feet. The gen-tie would be generally located along Shively Ridge.

g) SUMMARY OF IMPACTS

Issues that were analyzed in the Draft EIR include aesthetic resources, agricultural and forestry resources, air quality, biological resources, cultural and tribal resources, geology and soils, greenhouse gas emissions, hazards hazardous materials, land use and planning, mineral resources, hydrology/water quality, noise, paleontological resources, population and housing, public services, recreation, transportation and traffic, utilities, wildfire and cumulative impacts. Land use and planning, population and housing, utilities, recreation, public services, energy, mineral resources and paleontological resources were impacts found not to be significant and not discussed further in the DEIR. The DEIR identified potential significant impacts that are either less than significant or can be mitigated to less than significant levels on aesthetics, air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology/ water quality noise, transportation and traffic, wildfire. The DEIR identified significant impacts on aesthetics, air quality, biological resources, cultural and tribal resources, and cumulative effects on these same resources that cannot be mitigated to less than significant levels.

h) All project changes required to avoid significant effects on the environment have been incorporated into the project and/or are made conditions of approval. A Mitigation Monitoring and Reporting Plan has been prepared in accordance with Humboldt County regulations and is designed to ensure compliance during project implementation and is recommended to be adopted in conjunction with project approval. The applicant must enter into an "Agreement to Implement a Mitigation Monitoring and Reporting Plan as a condition of project approval (Condition of Approval No. 2)

i) Evidence that has been received and considered includes: the application, technical studies/reports that have been peer reviewed and reflect the County's independent judgment and the FEIR, and information and testimony presented during public hearings before the Planning Commission. These documents are on file in the Planning and Building Department (PLN-13999-CUP) and are hereby incorporated herein by reference.

j) DEPARTMENT OF FISH AND GAME FEES.

For purposes of the Fish and Game Code, the project will have a significant adverse impact on the fish and wildlife resources upon which the wildlife depends. State Department of Fish and Game reviewed the DEIR to comment and recommended necessary mitigations to protect biological

resources in this area. Therefore, the project will be required to pay the State fee in effect at the time of the recordation of the Notice of Determination to the Humboldt County Clerk/Recorder for processing said fee and posting the Notice of Determination (NOD).

k) FINAL EIR -- RESPONSE TO COMMENTS.
The County prepared a FEIR including responses to comments on the "Humboldt Wind Draft EIR". The Responses to Comments respond to comments that were received during the Draft EIR circulation period. The Responses to Comments document (FEIR) was released to the public on November 1, 2019 and responded to all environmental points raised by persons and organizations that commented on the DEIR. The FEIR was introduced to the Planning Commission on November 7, 2019, but in order to comply with CEQA Guidelines Section 15088(b) the Planning Commission was not scheduled to act on the FEIR prior to November 14, 2019. The Planning Commission continued the hearing to the meeting of November 14, 2019 and subsequently to November 21, 2019.

Electronic copies of the FEIR were provided to all agencies that provided comments and were provided a minimum of 10 days to review the document (November 4, 2019 to November 14, 2019). The County received extensive public comment letters (389 letters consisting of over 1,000 pages) on the DEIR. The FEIR considered the comments received during the public review period for the Draft EIR and provided appropriate responses. In order to better address repetitive comments, the FEIR used Master Responses to address 11 different topics. The Master Comment allows a more complete response to the comments made rather than individually responding to all the comments. The FEIR also included a refined project description to clearly identify where changes had been made to more clearly demonstrate how impacts were being addressed. The refinements included a reduction in the number of wind turbines from 60 to 47 and a realignment of the Gen Tie line. Together, the DEIR, the Responses to Comments, the Revisions to the DEIR, the References, the FEIR Errata, and the Appendices constitute the Final EIR on the project.

l) During the course of the Public Hearings on November 7, 14, and 21, 2019 the Planning Commission listened to testimony of over 100 speakers.

m) The Humboldt County Planning and Building Department, located at 3015 H Street, Eureka, CA 95501 is the custodian of documents and other materials that constitute the record of proceedings upon which the decision to certify the EIR is based.

2. FINDING: The EIR was presented to the Board of Supervisors in its entirety and the Board of Supervisors reviewed and considered it before approving the project.

EVIDENCE: a) The Board of Supervisors received a copy of the DEIR on April 15, 2019 and was provided a copy of the FEIR on November 4, 2019.

b) The Board of Supervisors considered the entire EIR at public hearings on December 16, 2019 and December 17, 2019, where the Board of Supervisors considered the contents of the EIR and received over 500 public and public agency comments prior to rendering a decision on the FEIR.

3. FINDING: The Final EIR reflects the County of Humboldt's independent judgment and analysis.

EVIDENCE: a) The EIR (DEIR/FEIR) was prepared by AECOM under contract to the County of Humboldt. Technical studies were provided by the applicant which were peer reviewed by the county's consultant prior to incorporation into the environmental analysis.

b) The Board of Supervisors considered the information presented in the record relative to the FEIR and considered the public comment on the FEIR prior to rendering its decision. The Board of Supervisors considered all public comments, including those made by subject manner experts. Based on the evidence in the public record, the Board of Supervisors finds that the FEIR adequately addresses all potential environmental impacts and presents adequate feasible mitigation to reduce impacts to a less than significant level where possible. For those impacts that cannot be mitigated to a level less than significant, all feasible mitigation has been presented and considered.

4. FINDING: **RECIRCULATION of the DEIR IS NOT REQUIRED**. While new information was included in the FEIR as part of responding to the comments on the DEIR, the new information has not changed the impact identification or mitigations in such a way that the public would be deprived of a meaningful opportunity to comment on a substantial adverse environmental effect of the project or a feasible way to mitigate such effect because no new information has been added that identifies a new significant environmental impact not previously disclosed, no substantial increase in the severity of the identified environmental impacts would result from implementation of the approved project or implementation of the mitigation measures, no feasible project alternative or mitigation measures considerably different from those analyzed in the DEIR have been identified and the DEIR is fundamentally adequate allowing for meaningful public review and comment during the statutory comment period. The new information added in the FEIR merely clarifies and amplifies and did not make significant modifications to an adequate DEIR (CEQA Guidelines 15088.5).

EVIDENCE: a) The applicant's proposed project refinements reduce the overall ground disturbance, realigning and shortening the gen-tie, reducing the number of

turbines, crossing the Eel River overhead at the Highway 101 overcrossing, and realigning access roads to decrease the overall impacts. The reduced size and scale of the project and altered the location of the gen-tie, do not pose any new impacts not already addressed in the EIR.

b) The information submitted after completion and circulation of the DEIR has been incorporated into the FEIR and fully disclosed to the public. The FEIR was made available on the County Planning and Building website on November 1, 2019, was made available to commenting public agencies and other interested citizens on November 4, 2019.The public had an opportunity to review and comment on the information before and during public hearings on the project. No action was scheduled before November 14, 2019 to allow time for review of the FEIR. The Planning Commission took action on November 21, 2019, first by deadlocking, and then, at the applicant's request, one commissioner changed his vote from a yes to a no vote so that the project could be denied thereby allowing for an appeal. The appeal was heard by the Board of Supervisors of December 16, 2019 and December 17, 2019, over forty-five days after the FEIR was published on the Department's website. The public had the opportunity to review the FEIR for a time period slightly longer than the statutory timeframe required for circulation of a DEIR. Therefore, the public has not been deprived of a meaningful opportunity to review and comment on the information. (CEQA Guidelines 15088.5(a)(4))

c) Northern Spotted Owl:
The project has been refined to protect Northern Spotted Owl based upon information which clarifies the environmental context and the mitigation has been clarified from the DEIR. The areas of Northern Spotted Owl habitat in the project area have been studied and monitored as a component of the Humboldt Redwood Company HCP and Timber Harvest Plans for the other affected properties. The DEIR identified nesting, roosting and foraging habitat for Northern Spotted Owls. For the FEIR, this information was supplemented by northern spotted owl surveys were conducted in all suitable habitat within 0.25-mile of the project area between March and August of 2019. The 2019 surveys, were compared to existing survey data about activity centers on land managed by HRC, activity centers documented in the California Department of Fish and Wildlife's (CDFW's) Spotted Owl Observations Database (the database query included reported data between 1996–2018) to present a complete record of where all activity centers are located in relation to the project.

The 2019 surveys identified 23 northern spotted owls attributed to 12 activity centers. Ten (10) of the 12 activity centers were pre-existing, and two are identified in 2019.

The gen-tie alignment has been refined to co-locate with existing roads wherever possible and to maintain a 1,000-foot buffer around activity centers except the Goat Rock activity center. No construction work will

occur during the northern spotted owl breeding season (March 1–August 31) within the 1,000-foot buffer; the closest work outside of the breeding season would occur approximately 800 feet from this activity center. The 1,000 foot buffer was used to be consistent with the HRC HCP and was used for both survey purposes and buffer purposes.

Project refinements since circulation of the DEIR have resulted in a 26 percent reduction in the total acreage of northern spotted owl habitat area affected by the project.

Mitigation Measure 3.5-7 has been refined to include a detailed mitigation ratio for foraging, roosting, and nesting habitat in relation to permanent, temporary, and edge effects. The gen-tie is classified as a permanent effect requiring compensatory mitigation. Compensatory mitigation was modified to include the gen-tie habitat loss and the edge effects associated with placing the gen-tie line within Northern Spotted Owl habitat. The mitigation has been modified to encourage barred owl management. As pointed out by commenters including CDFW the barred owl is the biggest threat to Northern Spotted Owl habitat. If determined feasible a provision has been included for this mitigation measure to be satisfied through barred owl management.

The impact conclusion continues to be less than significant with mitigation incorporated. The project refinements and more precise mitigation measure provide increased clarity that the impact to Northern Spotted Owl will be less than significant consistent with the findings of the DEIR. No new significant environmental effects have been identified in relation to the northern spotted owl and there is not a substantial increase in the severity of an identified effect to the northern spotted owl based on the new information provided.

d) Marbled Murrelet

The modeling completed for the marbled murrelet impact assessment in the DEIR was from a single year of radar surveys showing the number of marbled murrelets flying over the areas where wind turbines are proposed. Prior to preparation of the FEIR, a second year of marbled murrelet radar surveys were completed between October 25, 2018 and September 6, 2019 from seven radar stations located along Bear River Ridge and Monument Ridge. Marbled murrelet activity and flight patterns in 2019 were similar to those observed in 2018. The radar data shows 55 marbled murrelet ridge crossing events in 2018 and 82 in 2019.

The 2018 and 2019 radar data were used to identify passage areas frequently used by marbled murrelets and the project was refined to remove 5 turbines from these locations reducing the total number of turbines from 60 to 47. Based upon the revised project and in consultation with CDFW, the applicant prepared both a “deterministic”

and "probabilistic" model to determine the likely mortality of marbled murrelet from the revised project.

The updated modeling indicated 7.77 marbled murrelets would collide with the wind turbines over the life of the project. This is reduced from the 20.86 murrelets that were identified in the DEIR.

The applicant submitted 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, Inc., dated October 3, 2019 after the publication of the DIER. This report provides a calculation of the benefits of corvid management to the number of marbled murrelets. The corvid management program is projected to result in reproductive success for 48 to 97 murrelets over the life of the project, resulting in a net benefit to the species. Because overcompensation is anticipated as a result of the proposed corvid management efforts at Van Duzen County Park, additional mitigation measures are not anticipated to be necessary. However, in the unlikely event that impacts on murrelets far exceed model predictions, or if the proposed mitigation strategy fails for unforeseen reasons, other feasible mitigation options as outlined in the DEIR remain to be implemented as part of an adaptive management approach.

The new information related to marbled murrelets has shown that impacts will be reduced from what was contemplated in the DEIR and the new details related to mitigation strategies demonstrate the effectiveness of the proposed mitigation. However, because any loss of such a rare species is considered significant, and because of the uncertainty in confirming the actual take of marbled murrelets and the numbers of marbled murrelets produced by the mitigation, the conservative conclusion of significant unavoidable effects remains unchanged.

e) BATS

The DEIR identified that Hoary bats are particularly susceptible to wind generation facilities. Swarming bat behavior is documented in Redwood National Park, but it is unknown whether that behavior extends to the ridgetops where the wind turbines will be. In order to preclude an impact to the population of this unlisted species the DEIR identified a Technical Advisory Committee to review the monitoring reports and provide guidance for addressing potential impacts. In the FEIR, the mitigation measure requiring the TAC was expanded to identify the TAC formation, how it would operate and provided an additional mitigation measure that included adaptive operational modifications to be taken in the event that the bat mortality exceeds the national average associated with wind farms.

f) Raptors

The DEIR raptor impact analysis presented a broad range (between four and 114 fatalities/year) and, based on information presented in the DEIR, suggested conservatively that the actual number of annual raptor fatalities could be near the upper end of this range. Revisions to the raptor impact assessment in the FIER incorporates new information to develop a more refined fatality estimate. The applicant contracted Western Ecosystems Technology (WEST) to conduct an assessment of potential operational impacts to raptors at the Humboldt Wind Project. In their analysis, WEST concluded that the number of annual raptor mortality rate at the project would be closer to 25 raptor fatalities per year.

The additional analysis was based on a large raptor mortality dataset and information about rates of raptor use at the project site relative to other sites where both raptor use rates and mortality rates were known. Although raptor use rates alone do not predict operational impacts, the weight of evidence based on habitat, climate, and observed rates of raptor use at the project site suggest the number of annual raptor fatalities resulting from operational impacts would likely be closer to the lower end (4-29 fatalities/year) than the upper end (114 fatalities/year) of the ranges stated in the DEIR. The fact that no single wind energy site can be considered an ideal proxy to predict risk to raptors at the project site, a conservative estimate would be to predict up to 50 raptor fatalities per year. The FEIR also included two added mitigation provisions including undergrounding of 6 miles of overhead transmission lines which removes an existing collision and electrocution hazard and payment of $600.00 per raptor mortality to a raptor rehabilitation facility and the addition of a bird Technical Advisory Committee to monitor mortality of birds including raptors and to provide guidance when unanticipated mortality occurs.

The reduction to the estimated raptor fatality rate is documented in the FEIR. Although the impact is less than what was anticipated in the DIER the conclusion of a significant unavoidable effect has not been changed.

g) Eelgrass

The DEIR contained a mitigation measure requiring avoidance of eelgrass habitat during project component offloading. The applicant has since submitted *Eelgrass Avoidance Recommendations for the Humboldt Wind Energy Project* by Merkel & Associates, Inc., dated June 2019. This document contains specific recommendations for eelgrass impact avoidance. Implementing these recommendations will avoid impacts to eelgrass will be avoided. This information has been incorporated into Mitigation Measure MM3.5-22c.

By incorporating the new information received related to eelgrass the mitigation measure requiring avoidance will be more effective, but no

new mitigation is required and no increase of the severity of an impact has occurred.

h) Bridgeville Substation – Archaeological Impacts
Archaeological impacts are avoided in the DEIR by not excavating known archaeological sites. There is a known archaeological site at the Bridgeville substation site. Since the release of the DEIR, the applicant has determined that excavation will be required at the Bridgeville substation within the footprint that was identified in the DEIR. Because of this change, the site has been subjected to surface and subsurface investigations to determine whether significant cultural resources are present in the area of expansion. These studies resulted in data that indicated that while significant cultural resources are present at Bridgeville, the portion of the site that occurs in the expansion area lacks integrity and is not eligible for inclusion in the California Register of Historic Resources/National Register of Historic Places. Mitigation Measure 3.6-1b has been revised to strike the reference to the Bridgeville substation expansion area because with the additional study that has been undertaken, it is determined conclusively that eligible resources are not present.

No new impacts have been identified and the severity of an identified impact has not been increased.

i) REVISED MITIGATION MEASURES.
Mitigation Measure Nos. 3.5-1b, 3.5-2a, 3.5-2b, 3.5-2c, 3.5-3, 3.5-5a, 3.5-5b, 3.5-5c, 3.5-7, 3.5-11, 3.5-12, 3.5-13, 3.5-14, 3.5-18a, 3.5-19e, 3.5-21e, 3.5-22c, 3.5-23a, 3.5-23d, 3.5-22e, 3.5-25a, 3.6-1a, 3.6-1b, 3.6-4, and 3.13-2a have been revised as described below. The revised measures are equivalent or more effective in mitigating or avoiding potential significant effects and themselves will not cause any potentially significant effect on the environment:

i. MM-3.5-1b has been revised to require a biological monitor be present to ensure compliance with marbled murrelet nesting buffers and provide that the high and very high noise buffers are not applicable where marbled murrelet nesting habitat is separated from construction activity by Highway 101 or directly adjacent to Highway 101. Alternative buffers are presented for these areas. The monitor will ensure buffers are maintained, and the areas adjacent to Highway 101 are already impacted by noise from the freeway;

ii. MM 2.5-2a has been revised to clarify high passage rate areas for murrelets are as shown in the *Marbled Murrelet Collision Risk Assessment Associated with the Humboldt Wind Project Proposed for Humboldt County, California: 2-Year Repor*t, and to require the gen-tie be designed to increase visibility to marbled murrelets in addition

to the other siting criteria contained in the mitigation measure rather than only being required if the other criteria were found infeasible. This change defines areas where turbines will not be placed to minimize impacts to murrelets;

iii. MM 3.5-2b has been revised to clarify how the post construction mortality monitoring plan will meet minimum detection probability standards;

iv. MM 3.5-2c has been revised to modify the expected marbled murrelet mortality and establish the compensatory mitigation strategy including performance standards and to require adaptive mitigation if the primary mitigation strategy does not accomplish the required results;

v. MM 3.5-3 has been revised to clarify the timing of surveys and monitoring during construction and operation activities;

vi. MM 3.5-5a has been revised to eliminate the requirement of a prey management program which is unnecessary as the project is required to maintain the area around the turbines to keep rodent populations at a low level;

vii. MM 3.5-5b has been revised to clarify post construction mortality detection probability for eagles and the methods for estimating project related loss which brings greater clarity to the mitigation measure;

viii. MM 3.5-5c has been revised to include details of undergrounding 5 miles of distribution line within the project footprint, this further mitigates impacts;

ix. MM 3.5-7 has been revised to specify mitigation ratios for impacts to permanent and fragmentation of Northern Spotted Owl foraging, roosting, and nesting habitat. Revisions to the mitigation also include incentives to encourage barred owl management as a component of the mitigation or the primary mitigation. This clarifies the compensatory mitigation requirement;

x. MM 3.5-11 has been revised to require formation of a TAC to review protocols for post-construction bird fatality monitoring, assess whether bird mortality attributable to the project may pose the potential for any bird population, particularly special-status birds, to drop below self-sustaining levels, strategically identify operational minimization measures, and identify compensatory mitigation that would offset operational impacts on local or regional populations of special-status raptors and other special-status bird species and to include the compensatory mitigation of undergrounding 5 miles of distribution line within the project footprint, and paying $600 per raptor to a raptor rehabilitation center for operational impacts on raptors;

xi. MM 3.5-12 has been revised to clarify that compensatory mitigation would include grassland habitat impacts where the grassland qualifies as a sensitive natural community and to clarify the horned lark impact avoidance plan timing (prior to issuance of grading permits);

xii. MM 3.5-13 has been revised to clarify that a qualified biologist may modify the construction exclusion zone for nesting birds in consultation with CDFW and USFWS;

xiii. MM 3.5-14 has been revised to include a requirement that if USFWS or CDFW requires actions that involve compensatory mitigation for operational impacts to non-raptor birds, it shall occur within 1 year of documented take. The reference to horned lark mitigation timing was deleted as the horned lark is not a listed species. This measure has also been revised to incorporate input from the bird Technical Advisory Committee described in 3.5-11. This TAC will provide guidance on adaptive management for both raptors and non-raptors (i.e., songbirds, waterfowl, and another bird groups).

xiv. MM 3.5-18a has been revised to clarify the timing of formation and composition of the bat technical advisory committee, their reporting structure, and thresholds for implementing operational minimization measures;

xv. MM 3.5-19e has been revised to delete the sentence that states if restoration is selected as a mitigation strategy, and simply state that the applicant shall implement the mitigation measure;

xvi. MM3.5-21e has been revised to clarify that migration for other sensitive habitats such as riparian and wetlands can be counted towards fulfillment of mitigation for impacts on aquatic and upland habitat for foothill yellow legged frog;

xvii. MM3.5-22c has been modified to include specific avoidance and monitoring measures to ensure avoidance of impacts to eelgrass. The timing of the eelgrass monitoring, and protection plan was also changed to be 90 days prior to component delivery;

xviii. MM3.5-23a has been revised to require a qualified biologist be present during construction activities to ensure special-status plants are flagged for avoidance during pre-construction surveys;

xix. MM3.5-23d has been revised to include reference to the Humboldt Wind Revegetation, Reclamation and Weed Control Plan;

xx. MM 3.5-22e has been revised to update the reference to the Humboldt Wind Revegetation, Reclamation and Weed Control Plan, and clarify that the applicant shall incorporate agency comments addressing permit requirements into the plan;

xxi. MM 3.5-25a has been revised to delete the reference to MM 3.5-22e which will no longer be required due to project design revisions;

xxii. MM3.6-1a has been revised to delete the reference to previously recorded site P-12-003314 needing to be identified in the field. After publication of the DIER this site has been identified in the field.

xxiii. MM 3.6-1b has been revised to delete the reference to the Bridgeville substation expansion area. After publication of the DIER the expansion area has been subject to further investigation and found not to contain resources eligible for listing in the California Register of Historic Resources.

xxiv. MM3.6-4 has been revised to include more specific details about condor transmitters and to remove the 6 month timeframe for implementation of the condor curtailment plan instead requiring it for the duration of project operations; and

xxv. MM3.13-2a has been revised to add more detail to fire prevention strategies and to add sections related to using metrics to track system performance related to the number of elevated fire danger days, conducting an annual review of industry practices that reduce the likelihood of fire and vegetation management standards.

The revised mitigation measures are incorporated into the mitigation measures contained in the FEIR and the Mitigation Monitoring and Reporting Plan implemented as part of project approval.

j) ADDITIONAL MITIGATION MEASURES

i. New Mitigation Measure Nos. 3.5-18d and 3.5-18e have been added as follows to better mitigate potentially significant impacts to bats:

a. MM 3.5-18d has been added to specify a stepwise adaptive management strategy that the Bat Technical Advisory Committee will implement if hoary bat mortality exceeds 1.7 bats /MW within a one-year period;

b. MM 3.5-18e has been added to require the project to implement the American Wind Energy Association best management practices for feathering below normal cut in speeds to reduce the chance of bat collisions with blades.

The new mitigation measures are incorporated into project approval or made a condition of project approval.

k) IMPACT REDUCTION IN PROJECT REFINEMENT.

The applicant has proposed project refinements for the wind energy project in response to comments on DEIR. These refinements reduce potential environmental impacts. The revisions to the project include:

- A reduction in ground disturbance from approximately 900 acres to 655 acres. The reduction in project footprint correlates to a reduction in impacts to habitat area impacts, less earth work, and a reduction in other related.

- The gen-tie alignment has been reduced from 25 to 22 miles long. The gen-tie has been re-aligned to avoid northern spotted owl activity centers and nesting and roosting habitat. Where possible, the realigned gen-tie corridor has been co-located with existing access roads to avoid and minimize site disturbance.
- Reduction in the number of turbines from 60 to 47. Turbines on Bear River Ridge are reduced from 23 to 20 and on Monument Ridge from 37 to 27. The reduction in turbines allows avoidance of known cultural resource sites, avoidance of known high passage areas for marbled murrelet high passage areas, and elimination of significant noise impacts on sensitive receptors.
- The gen-tie line crossing of the Eel River overhead corresponding to the height of the Highway 101 Bridge eliminating the need for horizontal directional drilling under the Eel River and the potential impacts associated with directional drilling and does not constitute a hazard to birds flying up the Eel River Valley.
- Realignment of access roads. Since publication of the DEIR, the applicant has agreed to incorporate into the project the "realigned Jordan Creek access" at the Jordan Creek staging area that is described in Alternative 2 in the DEIR, which will completely avoid northern spotted owl activity centers and minimize impacts on northern spotted owl nesting, roosting, and foraging habitat.
- Reduced project substation footprint from 5 to 2.5 acres which reduces overall site disturbance.

These design changes eliminate the need for Mitigation Measures 3.5-22d and 5.5-22e which were intended to mitigate potential effects from horizontal directional drilling. As a result, these mitigation measures are not included in the Mitigation Monitoring and Reporting Plan Matrix.

l) MITIGATION MEASURES REMOVED
As noted in item (l), Mitigation Measures 3.5-22d and 5.5-22e were removed because they address horizontal directional drilling which is no longer proposed. As a result, these mitigation measures are not included in the Mitigation Monitoring/Condition Compliance Matrix.

5. FINDING: **EIR- ENVIRONMENTAL IMPACTS FOUND NOT TO BE SIGNIFICANT. -**The EIR identified impacts that would not be significant. These include land use and planning, population and housing, utilities (water supply, wastewater, stormwater facilities, and solid waste), recreation, public services (schools, parks and other public facilities, police protection services), energy, mineral resources and paleontological resources). These impacts are found not to be significant.

EVIDENCE: There is no evidence of an impact to land use and planning, population and housing, utilities (water supply, wastewater, stormwater facilities, and solid waste), recreation, public services (schools, parks and other public facilities, police protection services), energy, mineral resources and paleontological resources based on the project as proposed at this proposed location.

6. FINDING: **EIR- ENVIRONMENTAL IMPACTS FOUND NOT TO BE LESS THAN SIGNIFICANT- NO MITIGATION REQUIRED.**
The following impacts have been found to be less than significant and mitigation is not required to reduce project related impacts.

- **Aesthetics**
  - Impact 3.2-2: Project Impacts on Scenic Resources along a State Scenic Highway
  - Impact 3.2-4: Shadow Flicker Effects

- **Air Quality**
  - Impact 3.4-2: Long-Term, Operational (Regional) Emissions of Criteria Air Pollutants
  - Impact 3.4-3: Inconsistency of the Project with Air Quality Planning Efforts
  - Impact 3.4-4: Exposure of Sensitive Receptors to Toxic Air Contaminants
  - Impact 3.4-5: Exposure of Sensitive Receptors to Odorous Emissions

- **Biological Resources**
  - Impact 3.5-4: Construction Impacts on Bald and Golden Eagle Foraging and Nesting Habitat
  - Impact 3.5-10: Removal and Modification of Special-Status Raptor Nesting and Foraging Habitat during Construction
  - Impact 3.5-16: Construction Disturbance of Bachelor Groups, Migratory Roosts, or Solitary Bats
  - Impact 3.5-17: Loss of Bat Foraging Habitat and Nonessential Roosts
  - Impact 3.5-20: Operational Impacts on Special-Status Mammals
  - Impact 3.5-26: Impacts on Migratory Corridors during Project Construction and Operation
  - Impact 3.5-27: Impacts on Nursery Sites

- **Cultural Resources, Including Tribal Cultural Resources**
  - Impact 3.6-3: Change to the Significance of a Historical Resource (Scotia Historic District)

- **Geology and Soils**
  - Impact 3.7-1: Surface Rupture Along a Known Earthquake Fault
  - Impact 3.7-2: Possible Risks to People and Structures Caused by Strong Seismic Ground Shaking
  - Impact 3.7-3: Possible Risks to People and Structures Caused by Seismic-Related Ground Failure, Liquefaction, and Landslides
  - Impact 3.7-4: Erosion during Project Construction and Operation
  - Impact 3.7-5: Potential Geologic Hazards Related to Construction in Expansive Soils
  - Impact 3.7-6: Potential Insuitability of Soils for Use with Septic Systems

- **Greenhouse Gas Emissions**
  - Impact 3.8-1: Generation of Greenhouse Gas Emissions
  - Impact 3.8-2: Consistency with Applicable Plans, Policies, and Regulations Adopted for the Purpose of Reducing the Emissions of GHGs

- **Hazards and Hazardous Materials**
  - Impact 3.9-1: Accidental Spills of Hazardous Materials from Routine Transport, Use, or Disposal of Hazardous Materials
  - Impact 3.9-4: Potential Hazards Associated with Operation of Wind Turbine Generators
  - Impact 3.9-5: Interference with Air Navigation
  - Impact 3.9-6: Release and Handling of Hazardous Materials within One-Quarter Mile of Existing Schools

- **Hydrology and Water Quality**
  - Impact 3.10-2: Potential to Increase the Rate or Amount of Surface Runoff in a Manner that Would Result in Flooding On- or Off-site
  - Impact 3.10-3: Potential Water Quality Impacts from Project Operations
  - Impact 3.10-4: Potential to Deplete Groundwater Supplies or Interfere Substantially with Groundwater Recharge Such that the Project May Impede Sustainable Groundwater Management

- **Noise**
  - Impact 3.11-1: Generation of a Substantial Temporary Increase in Ambient Noise Levels in the Vicinity of the

Project in Excess of Standards Established in the Local General Plan or Noise Ordinance, or Applicable Standards of Other Agencies (Note: this impact was determined to be less than significant, the project applicant has voluntarily agreed to implement Mitigation Measure 3.11-1 as an enforceable condition of approval.)
    - Impact 3.11-2: Temporary and Short-Term Exposure of Sensitive Receptors to, or Temporary and Short-Term Generation of, Excessive Groundborne Vibration
    - Impact 3.11-3: Long-Term Increases in Project-Generated Noise

- **Transportation and Traffic**
    - Impact 3.12-1: Potential to Conflict with a Program, Plan, Ordinance, or Policy
    - Impact 3.12-3: Potential to Impede Emergency Access (Note: this impact was determined to be less than significant, the project applicant has voluntarily agreed to implement Mitigation Measure 3.12-3 as an enforceable condition of approval.)

EVIDENCE: For the impacts noted above, in Finding 6, there is no evidence the project will have significant impacts or that mitigation is required to reduce impacts to a less than significant level based on the project as proposed at this proposed location.

7. FINDING: **EIR-ENVIRONMENTAL IMPACTS MITIGATED TO LESS THAN SIGNIFICANT –** The EIR identified potentially significant impacts to biological resources, cultural resources, hazards and hazardous materials, hydrology and water quality, noise, transportation and traffic, and wildfire which could result from the project as originally submitted. Changes are incorporated into the project which avoid or substantially lessen the potentially significant environmental effects identified in the Final EIR. The applicant's proposed changes to reduce the overall ground disturbance, realign and shorten the gen-tie, reduce the number of turbines, cross the Eel River overhead, and realign access roads, and the incorporation of mitigation measures from the EIR (as modified in the FEIR) into the conditions of project approval will reduce these impacts to a less that significant level. (15091(a)(1).)

EVIDENCE: a) Potentially significant impacts on biological resources, with the exception of operational impacts on marbled murrelets and operational impacts on raptors have been mitigated to less than significant levels with incorporation of mitigation measures as refined in the FEIR and project changes proposed by the applicant including to reduce the overall ground disturbance, realign and shorten the gen-tie, reduce the number of

turbines, crossing the Eel River overhead, and realignment of access roads. Proposed project changes have resulted in avoidance of some impacts such as avoiding spotted owl activity centers, and high passage areas for marbled murrelets. Mitigation includes pre-construction surveys and avoidance where feasible, post construction mortality monitoring, and where necessary compensatory mitigation to offset potential impacts. Those mitigated to a less than significant level can be summarized as follows:

i. Construction impacts on Marbled Murrelet Nesting is mitigated through a prohibition on removal of any old growth forest, establishment of auditory buffers, and implementation of a worker awareness program.

ii. Construction impacts on Bald and Golden Eagle Nesting Activity is mitigated through preconstruction surveys to determine if nests are present, and establishment of avoidance buffers.

iii. Operational impacts on Bald and Golden Eagles are mitigated through avoidance and minimization measures which require design components to not attract eagles, post construction mortality monitoring, and implementation of compensatory mitigation for eagles which are lost due to operation of the project.

iv. Disturbance of roosting and nesting of Northern Spotted Owl by construction activities has been mitigated through project design which avoids all but one identified activity center and maintains auditory and visual buffers from activity centers.

v. Removal, fragmentation and modification of Northern Spotted Owl habitat has been mitigated by requiring compensatory mitigation which may also include a Barred Owl Management Plan.

vi. Operational impacts on Northern Spotted Owl have been mitigated through mitigation previously identified for mitigation of eagles including design to minimize rodent activity and mortality monitoring.

vii. Construction impacts on nesting raptors are mitigated through not removing vegetation in potential nesting habitat during nesting season, conducting preconstruction surveys, and maintaining exclusion zones to occupied nests.

viii. Construction impacts on avian and nesting habitat are mitigated by measures requiring minimization of impacts to riparian and wetland habitats and implementation of a worker awareness program.

ix. Construction impacts to nesting birds are mitigated through implementation of the worker awareness program, conducting preconstruction surveys and maintaining construction buffers around nests.

x. Operational impacts to nonraptor birds are mitigated through formation of a bird TAC and implementation of avoidance and minimization measures recommended by the TAC, and by minimizing the construction footprint, mortality monitoring.

xi. Construction impacts on Bat Maternity Roosts or Hibernacula and loss of essential roost habitat is mitigated a habitat assessment prior to construction to identify potential roost sites, avoidance of all significant roost sites, only conducting tree removal during the fall season, providing compensation for loss of essential Townsend's big-eared bat roost habitat and avoiding temporary impacts on roost sites during construction

xii. Operational impacts on bat are mitigated through formation of a TAC which will monitor bat mortality and as necessary adaptively require operational modifications to minimize bat mortality. Mitigation is also included to require design and operation considerations to avoid attracting bats into the rotor path.

xiii. Construction impacts on special status mammals will be mitigated through having a biological monitor on site, closing excavation areas to preclude mammal entrapment and limiting vehicle speeds. Other mitigation including worker awareness plan, minimizing construction footprint, implementation of the reclamation plan and conducting preconstruction surveys will all mitigate this impact.

xiv. Construction impacts on Special-Status amphibians and reptiles will be mitigated through a worker awareness plan, minimizing construction footprint, implementation of the reclamation plan and conducting preconstruction surveys voiding impacts to riparian and other wet areas.

xv. Impacts of project construction on Special-status fish will be mitigated worker awareness plan, minimizing construction footprint, implementation of the reclamation plan and implementation of wet weather BMPs.

xvi. Impacts on Special-Status plants during project construction will be mitigated through conduction preconstruction surveys, flagging special status plants prior to construction activities, compensating for removal of special status species including Siskiyou Checkerbloom and preparation of a reclamation and revegetation and weed control plan.

xvii. Loss or disturbance of sensitive natural community and riparian habitat is mitigated through developing a worker awareness program. Minimizing the construction footprint, minimizing construction footprint, implementing a reclamation plan and compensating for loss of habitat area.

xviii. Loss of wetlands and other wet areas is mitigated through developing a worker awareness program. Minimizing the construction footprint, minimizing construction footprint, implementing a reclamation plan and compensating for loss of habitat area.

xix. The project's potential inconsistency with the Humboldt Redwood Company Habitat Conservation Plan is mitigated by implementing performance standards either contained in the project description or in mitigation measures.

b) Under the cultural resources section potentially significant impacts were identified to archaeological resources. This potential impact was mitigated through requiring avoidance of known deposits, capping known deposits and requiring a monitor on site during all excavation activity. Subsequent to release of the DEIR the known site at the location of the Bridgeville Substation expansion was surveyed to determine of there was the potential to disturb intact deposits. Capping is consistent with Humboldt County General Plan Policies and Public Resources Code section 21083.2 for preservation in place of archaeological resources. It was determined that this area does not contain deposit which could be listed with the CRHR. In addition, if any unexpected resources or human remains are found, all work in the area must stop until it can be adequately examined.

c) Potentially significant impacts on hazards and hazardous materials associated with the project's possible need to use explosive devise to move rock have been mitigated to a less than significant level through a mitigation measure which provides performance standards for preparation of a required blasting plan to be developed in the event blasting is necessary.

d) Potentially significant impacts on hydrology and water quality have been mitigated to a less than significant level through mitigation measures that require implantation of wet weather construction best management practices consistent with the Humboldt Redwood Company Habitat Conservation Plan. Additional protections to water quality and hydrology will be required as part of the grading permit issued in compliance with the County grading ordinance.

e) Potentially significant impacts to noise have been mitigated to a less than significant level through applicant proposed changes to reduce the number of turbines and mitigation measures that require noise reducing construction practices and a setback from sensitive receptors.

f) Potentially significant impacts on transportation and traffic have been mitigated to a less than significant level through mitigation measures that require the applicant to rehabilitate and reconstruct county maintained

roads damaged by truck traffic, and to create a traffic control plan and notify the public of anticipated roadway obstructions during construction.

g) Potentially significant impacts on fire protection services and wildfire have been mitigated to a less than significant level through mitigation measures which require preparing and implementing a fire services financing plan in coordination with the Humboldt County Fire Chiefs' Association and the Rio Dell Fire Protection District, a fall protection and rescue plan and provides performance criteria for a fire safety management plan to reduce the risk of wildfire.

8. **FINDING:** **EIR-ENVIRONMENTAL IMPACTS NOT MITIGATED TO LESS THAN SIGNIFICANT –** The proposed wind energy project would result in significant and unavoidable impacts that would not be mitigated to a less than significant level even with incorporation of mitigation measures from the EIR into the conditions of project approval, as further described in the evidence below. There are specific economic, legal, social, technological or other considerations which make infeasible mitigating these impacts to a less than significant level. (15091(a)(3).)

EVIDENCE: a) The DEIR found that project impacts to aesthetic resources could not be mitigated to a less than significant level. Bear River and Monument Ridges are highly visible. Bear River Ridge in particular can be seen from locations around Humboldt Bay. The WTGs would be visible from Scotia, Rio Dell, areas of Fortuna, Hydesville, the Ferndale bottoms, Highway 101, and Mattole Road. Mitigation is required to reduce the impacts, such as ensuring that turbines will be painted off-white or grey and have low reflectivity, which will assist in muting the visual impacts, but they cannot be avoided. The turbines will require lighting compliant with the Federal Aviation Administration (FAA) standards. It is expected that each of the WTGs will have lights on them. No feasible mitigation has been identified.

b) The DEIR found that the project will result in an exceedance of the daily threshold of NO_x (oxides of nitrogen) established by the North Coast Unified Air Quality Management District (NUAQMD). The threshold is 50 pounds of NO_x per day and during the construction phase, the project could emit as much as 321.42 pounds per day. However, this is for a short duration and the annual threshold of 40 tons of NO_x per year would not be exceeded. Mitigation has been required to have all heavy-duty diesel engines used during construction be compliant with Air Resources Board current-phase equipment standards. This mitigation would reduce construction-related emissions and NO_X, but would still exceed NCUAQMD daily threshold of significance. No other feasible mitigations have been identified. NO_x is an ozone precursor which can have health effects associated with reduced lung function. Ozone is a regional pollutant that affects large areas and it takes a large amount of NO_x with other ozone precursors to result in an increase in ambient ozone levels over a region.

This level to be produced by this project may not even be detectable in regional air quality monitoring and is thus not at a level to result in adverse health effects.

c) The DEIR found that operational impact to the marbled murrelet could not be mitigated to a less than significant level. Since circulation of the Draft EIR, the project footprint was refined to reduce the total number of turbines from 60 to 47 and to eliminate turbines from the areas of the project with the highest marbled murrelet passage rates. With these revisions, the project is anticipated to result in the loss of 7.77 marbled murrelets over the life of the project (reduced from 20 found in the DIER). Compensatory mitigation is required and will come in the form of a corvid management plan at Van Duzen County Park. The corvid management program is projected to result in reproductive success for 48 to 97 murrelets over the life of the project, resulting in a net gain in marbled murrelets. Once the project is operational, post construction mortality monitoring would occur along with monitoring for the success of the corvid management plan. In the unlikely event that the mortality monitoring indicated higher take levels than anticipated or the corvid management plan is not as successful as anticipated, additional mitigations such as relocation of recreational facilities out of murrelet habitat, habitat enhancement on buffer forests, and removal of derelict fishing gear would be implemented.

Curtailment was proposed by DEIR commenters and commenters at public hearings before the Planning Commission and Board of Supervisors as way to further mitigate impacts to marbled murrelet. As cited by commenters, the Skookumchuck wind project in the state of Washington curtails 10 turbines for marbled murrelet. In contrast this project has completely removed 13 turbines from high risk passage areas. The reduction in turbines from high passage areas is considered a higher level of mitigation than curtailment because it completely removes a potential obstruction from an identified passage area.

The County is not requiring curtailment as an additional avoidance measure, above and beyond the avoidance achieved by eliminating high-risk turbines, because it would render the project economically infeasible. A project such as this is expected to have a rate of return of 7.5 percent as shown in the Financial Feasibility Analysis of Proposed Humboldt Wind Energy Project prepared for the applicant by Economic and Planning Systems. This feasibility analysis identified three different price points for Power Purchase Agreement scenarios (low: $45/MWH; Mid: $50/MWH, and High: $55/MWH.) At the High PPA the project would produce a 7.55 percent rate of return. The 2019 pricing for power is equivalent to the Mid PPA studied. Because it is likely that any PPA will be in the mid-range and not a high PPA, the rate of return is expected to be below 7.0 percent which renders the project marginal with respect to financial feasibility. Curtailment would

reduce the number of hours the project has to produce electricity which would reduce revenue and thus adversely affect the rate of return making the project financially infeasible. The applicant has provided evidence that the loss of three hours of energy production per day from the beginning of May through the end of August. Terra-Gen estimated that this would result in loss of energy production of 23,732 mega-watt hours (mWh) annually, about 4.6 of the expected annual energy production. This reduces average annual energy production from about 515,400 mWh to about 491,700 mWh. This reduction in energy production results in a loss of Project revenues of about $38.6 million in nominal dollar terms over the 25-year period, including $31.4 million in lost energy sales revenues and $7.2 million in lost production tax credits. This revenue loss reduces the After-Tax IRRs by about 0.75 percent, pushing the Proposed Project further below the hurdle rate. The loss of 0.75% IRR would be a significant reduction in revenue and make the project financially infeasible. (Financial Feasibility Analysis of Humboldt Wind Energy Project with Additional Mitigation Options; EPS #191085, 2019).

With the avoidance, minimization, compensatory mitigation, and adaptive management discussed above, the overall benefit to the marbled murrelet is expected to be positive. However, because the marbled murrelet is an extremely rare species that is hard to monitor because of its remote habitat (open ocean and old-growth canopy high above the ground) and elusive habits (flying at high speed at dawn and dusk), verifying the estimate of operational take predicted by the model is therefore difficult, as is verifying the number of marbled murrelets produced as a result of implementing corvid management. Because any loss of such a rare species is considered significant, and because of the uncertainty in confirming the actual mortality of marbled murrelets and the numbers of marbled murrelets produced by the mitigation, there is a conservative conclusion of significant unavoidable effects.

d) The DEIR found that operational impacts to raptors could not be mitigated to a less than significant level. The DEIR provided an analysis of operational impacts to raptors. The analysis included looking at raptor mortality data from other operating wind farms and concluded that the low range of impacts would be 4-29 raptor fatalities per year and the high range could be up to 114 raptors per year.

During the FEIR process, the applicant submitted additional information relating to the potential mortality rates of raptors. This additional analysis indicated that the actual mortality rate would likely be approximately 25 raptors per year. However, due to remaining information gaps and the fact that no single wind energy site can be considered an ideal proxy to predict risk to raptors at the project site, a conservative estimate would be to predict up to 50 raptor fatalities per year.

Feasible mitigation is included to avoid, minimize, and ultimately compensate for operational impacts to raptors including eagles. This includes implementing specific WTG tower and gen-tie design guidelines that reduce the impacts to raptors, and compensatory mitigation in the form of pole retrofits or pole reframing, or a donation to raptor rehabilitation center, to reduce potential impacts. Additionally, the project now includes undergrounding of 5 miles of existing PG&E distribution lines occurring within the project site that poses a hazard to raptors and other birds. Even with the feasible mitigation measures and the reduced estimate of raptor fatalities, the impact still has the potential to be significant and unavoidable.

e) The DEIR found that impacts to the Bear River Ridge and Valley Historic Landscape could not be mitigated to a less than significant level. The proposed project would construct access roads and WTGs within the Bear River Ridge and Valley Historic Landscape, which is assumed eligible for the California Register of Historic Resources. None of the historic-age ranching properties within the historic landscape would be directly adversely affected by the project, although, of the identified historic-age ranching properties, the existing historic-age hay barn on the R. M. Ranch is sited in close proximity to a proposed WTG, and a new access road would be cut through two existing dirt roadways leading into the property from the north side of Bear River Road. Construction of the WTGs would negatively affect the design, setting, feeling, and association of the rural agricultural setting of the historic landscape during the 30-year life span of the project, and possibly longer if a separate repowering permit is approved, at which time the WTGs, cables, and other infrastructure support facilities would be removed.

Section 15064.5 of the State CEQA Guidelines defines “substantial adverse change” as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings. No proposed components of the wind generation facility would directly affect individual resources within the Bear River Ridge and Valley Historic Landscape; however, as designed, construction of the WTGs and access roads would result in a significant impact on the immediate surroundings and setting of the historic landscape.

Feasible mitigation includes preparing an Historic American Landscape Survey Report to fully document the resource prior to construction. However, preparing this report does not fully mitigate for the impact and no other feasible mitigation is available. Therefore, this impact was found to be significant and unavoidable.

f) The DEIR found that impacts to the identified Tribal Cultural Resource of Bear River Ridge area could not be mitigated to a less than significant level.

Bear River Ridge is understood to have been a sacred high prayer spot to the Wiyot People. The ridgeline itself is now in private ownership but is visible from all of the ancestral Wiyot territory. The Wiyot Tribe has expressed that placing WTGs on the ridge will impact this resource. Project refinements since the release of the DEIR have resulted in a reduction in the number of turbines that would be placed on Bear River Ridge and have reduced the project's disturbance area on the ridge, but they do not eliminate the impact.

Alternative 5 which would avoid placement of turbines on Bear River Ridge was found to be infeasible. The DEIR alternative suggested that 37 turbines could be placed on Monument Ridge, however based on micro-siting efforts only 27 turbines can be placed on Monument Ridge. This would not be enough turbines to finance and operate the project and therefore it was found to be infeasible. (Please see financial feasibility discussion above under Marbled Murrelet.) Alternative 5 would result in a 4.56 percent rate of return which is below the 7.5 discussed above in the Marbled Murrelet discussion (Humboldt Wind Energy Project EIR Alternatives Financial Feasibility Analysis; EPS #191085, 2019 The impact is significant and unavoidable and no feasible mitigation has been identified.

The property owner for on Bear River Ridge testified in the November 14, 2019 hearing that this large area has remained intact under one ownership for over 100 years. There is the ability to break the parcels up after cancelation of existing Williamson Act contracts due to underlying patent parcels but the lease income from the wind turbines will make keeping the site under common ownership more desirable and feasible.

g) The DEIR found that impacts to the identified Historical Resource of Bear River Ridge ethnobotanical area could not be mitigated to a less than significant level. The ethnobotanical area has evidence of historic Wiyot land management. Feasible mitigation includes incorporating plants from the "Wiyot List of Plant Species of Environmental and Cultural Concern" into the Reclamation, Revegetation, and Weed Control Plan for the project. Even with feasible mitigation incorporated, the impact to the ethnobotanical area remains significant and unavoidable.

h) The DEIR found that impacts to the identified Tribal Cultural Resource of the California condor could not be mitigated to a less than significant level. Although condors do not currently occupy the project area, the National Park Service, USFWS, and Yurok Tribe are partnering to reintroduce California condors in the Bald Hills region of Redwood National Park. Condors released from this location will have a range that includes the Humboldt Bay region and the project location. Although the condors have not yet been released, the reintroduction program is reasonably foreseeable in the near future, and certainly within the 30-year project time frame. To

minimize the impact to condors, mitigation is required to detect the presence of condors and curtail operations to avoid collision. The original mitigation measure in the DEIR allowed for a 6-month period to initiate the curtailment regime after the release. In the Final EIR this mitigation measure has been refined to require that the curtailment be in place for the duration of the project. This detection and curtailment system has been used successfully at other wind farms in California, and to date no condors fatalities have occurred. With implementation of this curtailment program, the potential collision risk to condors will be very low, and this potential impact will have been reduced to the extent feasible. Nonetheless, the DEIR identifies the impact on condors as significant and unavoidable due to the spiritual significance of the species.

7. **FINDING:** **MITIGATION MEASURES NOT IMPOSED** – Mitigation measures have been requested by commenters either in response to the DEIR or during the public hearings at both the Planning Commission and at the Board of Supervisors. These comments have not been included either because the mitigation is already applied, the mitigation is not more effective that the mitigation being applied or because the mitigation is not feasible.

EVIDENCE:

a) For marbled murrelet curtailment was proposed by DEIR commenters and commenters at public hearings before the Planning Commission and Board of Supervisors as way to further mitigate impacts to marbled murrelet. As cited by commenters, the Skookumchuck wind project in the state of Washington curtails 10 turbines for marbled murrelet for three hours a day from May to August 9th. In contrast this project has completely removed 13 turbines from high risk passage areas. The removal of turbines from high passage areas is considered a higher level of mitigation than curtailment because it completely removes a potential obstruction from an identified passage area. Further, curtailment for three hours per day from May through August (as in Skookumchuck) (would result in estimated lost revenues of $38,600,000 over the life of the project, thus rendering the project financially infeasible. (Financial Feasibility Analysis of Humboldt Wind Energy Project with Additional Mitigation Options, EPS #191085, 2019.) The Skookumchuck Wind curtailment would reduce estimated fatalities from 30 to 26 marbled murrelets (13% reduction) while the Humboldt Wind removal of high-risk turbines reduced projected marbled murrelet fatalities from 10.43 to 7.7 (25% reduction).

b) Request for a five year operational mortality monitoring plan approved by the department prior to the start of operations. Mitigation Measure 3.5-2b requires a Post Construction Mortality Monitoring plan that will last for the life of the project. The first 3 years will involve intensive surveys followed by subsequent less intensive “road and pad” searches.

If during those three years the monitoring has not achieved the detection probabilities for the target species (e.g., marbled murrelet, bats, eagles) that were specified in the Post-Construction Monitoring Plan then additional monitoring would be implemented, as guided by the bird and bat TACs. The bird and bat TACs will also review, and modify as needed, the proposed bird and bat Post-Construction Monitoring Plan before operation of the project.

c) Request for a higher cut in speed at the onset of operations to minimize bat mortality. MM 3.5-18e requires the project to implement the American Wind Energy Association best management practices for feathering below normal cut in speeds to reduce the chance of bat collisions with blades. In addition, the Bat TAC has the ability to modify cut in speeds if it is determined appropriate.

d) Use of a lower bat mortality threshold (1.7 bats/MW/year) to trigger operational adaptive management. The TAC can modify the 1.7 threshold if determined appropriate. A significant consideration relative to the Hoary Bat is the relative lack of data, including population data. Setting fatality thresholds and allowing the TAC to interpret monitoring data and then modify those thresholds and implement appropriate adaptive management based upon actual data is deemed most effective

e) Not setting limits on operational curtailment for hoary bats as imposed by the TAC, however the County finds this option to be infeasible as it would render the project too financially uncertain for funding purposes.

f) Identified a Natural Communities Conservation Plan pursuant to Fish and Game Code 2800 as an avenue to address impacts to Fully Protected Species (bald and golden eagles, peregrine falcons, and white-tailed kites). An NCCP identifies and provides for the regional protection of plants, animals, and their habitats, while allowing compatible and appropriate economic activity. This is a project within a limited geographic context and impacts to the target species are the result of operations rather than habitat loss. Therefore a NCCP, which is a habitat-based mitigation approach, would not be an appropriate mechanism to address impacts.

g) Use of IdentiFlight (a camera-based detection system used to inform turbine curtailment) as a mitigation measure for eagles and other raptors, but finds that imposing that mitigation measure would render the project financially infeasible because it would result in an increased cost of $19,950,000, which would not allow the project to meet the hurdle rate of financial feasibility, thus rendering the project financially

infeasible. (Financial Feasibility Analysis of Humboldt Wind Energy Project with Additional Mitigation Options, EPS #191085, 2019.) IdentiFlight is included as one of the tools available to the bird TAC to implement on an as-needed and limited basis if warranted based post-construction monitoring data, but wholesale installation and maintenance of IdentiFlight throughout the entire project area is financially infeasibly.

8. **FINDING:** AB 52 CONSULTATION – AB 52 Consultation occurred for the project as described in Public Resources Code Section 21080.3.1. The Bear River Ridge Ethnobotanical/Cultural Landscape was properly classified as a Historical Resource. A lead agency may certify an EIR for a project that will have a significant impact on a tribal cultural resource if consultation has occurred and been concluded.

EVIDENCE:

a) The County initiated AB 52 Consultation via letter on July 13, 2018 with the Big Lagoon Rancheria, the Hoopa Valley Tribe, the Bear River Band of the Rohnerville Rancheria, the Wiyot Tribe, and the Cher-Ae Heights Indian Community of the Trinidad Rancheria. The letter served as formal invitation to the tribes to consult with the County regarding the conditional use permit application for the project.

b) Bear River accepted the invitation on July 13, 2018.

c) The Wiyot Tribe accepted the invitation for consultation in a message dated July 13, 2019, stating that the Wiyot Tribe has concerns about the project location and locations of project sites.

d) The Tribes were provided with a copy of the Cultural Resources Phase I inventory Report on December 12, 2018.They received a follow up notice on January 15, 2019.

e) A meeting was held with the Tribal Historical Preservation Officers from the Wiyot Tribe and the Bear River Band on February 13, 2019. The primary concerns identified pertained to ethnobotanical landscapes, the possible future release of condors in Humboldt County, and how to address important archaeological sites.

f) A follow up meeting was held with Bear River on February 22, 2019.

g) Government-to-government tribal consultation was held between the County and the Wiyot Tribal Council on March 25, 2019.

h) The Wiyot Tribe followed up with a letter dated March 29, 2019 in which the Tribe outlined three issues of importance to the Tribe which included: Bear River Ridge, known as *Tsakiyuwit*, is a defining feature of the larger Wiyot cultural landscape, the southern boundary of Wiyot ancestral territory, and a coastal prairie that supports numerous ethnobotanical resources critical to the survival and culture of the Wiyot people; a list of ethnobotanical species; and stating that tribal elders indicated that Bear River Ridge was most likely used as a high prayer spot.

i) Government-to-government tribal consultation was held between the County and the Bear River Band of the Rohnerville Rancheria Tribal Council on March 26, 2019. Consultation occurred in good faith.

j) No mitigation measures were agreed to as a result of consultation. The Tribes did not suggest any mitigation and no feasible mitigation other than the mitigation identified in the EIR were identified.

k) The AB 52 consultation process has concluded with both tribes. Consultation was concluded when the County concluded, after reasonable effort, that mutual agreement could not be reached. (Public Resources Code § 21080.3.2(b).) Consultation Conclusion Letters were sent to Ted Hernandez, Chairman of the Wiyot Tribe, and Barry Brenard, Chairman of the Bear River Band of the Rohnerville Rancheria, on October 24, 2019.

l) In the EIR, the Bear River Ridge Ethnobotanical/Cultural Landscape was properly classified as a Historical Resource rather than a tribal cultural resource due to the historic lack of access by the Tribe to the site as it has been held in private ownership for many years.

m) The California Condor and Bear River Ridge were classified as Tribal cultural resources and the impacts of the projects on those resources were found to be significant and unavoidable.

n) A lead agency may certify an EIR for a project that will have a significant impact on a tribal cultural resource if consultation has occurred and been concluded. (Public Resources Code § 21082.3(d)(1).) This requires adoption of a statement of overriding considerations.

9. **FINDING:** **EIR-CEQA ALTERNATIVES TO THE PROPOSED PROJECT** - In compliance with CEQA Guidelines section 15126.6,

the DEIR considered several alternatives to the 60 turbine wind energy project originally proposed. The EIR considered the alternatives described below which are more fully described in the DEIR. There are specific economic, legal, social, technological or other considerations which make infeasible the project alternatives identified in the EIR for reasons discussed below. The applicant's proposed changes to reduce the overall ground disturbance, realign and shorten the gen-tie, reduce the number of turbines, cross the Eel River overhead, and realignment of access roads, incorporates portions of Alternative 2 Realigned Gen-Tie and Access Road and Alternative 4 Reduced Turbine Count.

a) Alternative No. 1: No Project Alternative.
The No Project Alternative assumes that the proposed project would not be implemented and that the project site would remain in its existing condition and used primarily for timber production. If Alternative 1 were selected, no change from existing conditions would occur.

The No Project Alternative would not meet any of the basic project objectives:

i. Contribute to a diversified statewide energy portfolio that will reduce exposure to price volatility associated with electricity and natural gas, while assisting the state in meeting the renewable-energy requirements established in SB 350 and SB 100, including assisting in directly achieving the state's Renewable Portfolio Standard of 100 percent zero carbon energy by 2045.
ii. Develop a wind project that is feasible to finance, construct, and operate.
iii. Develop a wind energy project that can meet the criteria to achieve the maximum federal tax credit requiring placement into operation by December 30, 2020, which is intended to decrease the cost of renewable energy generation and delivery, promote the diversity of energy supply, and decrease the dependence of the United States on foreign energy supplies.
iv. Promote sustainable energy and utilization of alternative energy systems throughout the county in compliance with the Open Space and Conservation Element of the *Humboldt County General Plan*.
v. Develop a wind energy facility as near as possible to existing transmission infrastructure.
vi. Develop a wind energy facility in Humboldt County that supports the economy by creating short- and long term employment opportunities and increasing tax revenue.
vii. Displace emissions of approximately 372,000 metric tons per year of carbon dioxide (a greenhouse gas) that would otherwise be required to generate the same amount of electricity as this 155-megawatt (MW) project.

Alternative 1 would result in greater use of nonrenewable energy than the proposed project. The no project alternative would also not support Humboldt County General Plan policies which encourage wind energy and increased local energy production.

b) Alternative 2- Realigned Gen-Tie and Access Road

Under this alternative, the number and location of WTGs would be the same as the proposed project, but the gen-tie line would be rerouted to an alternative ridge directly above the town of Stafford, the line would continue overhead as it crosses the Eel River at a height equal to or less than the deck of the Richard Fleisch Memorial Bridge. Once on the east side of the river the realigned gen-tie route of Alternative 2 would be consistent with the proposed gen-tie corridor until Alderpoint Road. At Alderpoint Road, the realigned gen-tie route would proceed northeast, while the proposed line would deviate south before rejoining the proposed gen-tie 0.3 mile south of the Bridgeville Substation.

Alternative 2 also includes an alternate access road alignment at the Jordan Creek staging area (the "realigned Jordan Creek access") to avoid impacts on a northern spotted owl flyway near Jordan Creek. From the Jordan Creek laydown area, the access road would continue in an easterly direction, roughly paralleling Demonstration Forest Road Left (DEMO-Left) and a PG&E service road. About 0.16 mile east of the junction of DEMO-Left and the PG&E service road, the alignment would turn south along a new alignment up Monument Ridge. This new alignment would continue for 0.4 mile before rejoining DEMO-Left. The alignment would follow DEMO-Left for an additional 1.5 miles before rejoining the proposed alignment. The access road would be slightly longer (approximately 1 mile) but would follow an existing road in places, reducing the impacts of creating new access roads.

Alternative 2 would reduce the risk of frac-out during boring under the Eel River, make better use of existing roads (minimizing timber harvesting), and increase the distance of project infrastructure from Scotia. This alternative would meet project objectives to the same extent as the proposed project. With the applicant's proposed changes to the project description portions of Alternative 2 are being implemented. Including placing the gen- tie Eel River crossing overhead, realigning the Jordan Creek access and overall realigning the gen-tie to make better use of existing roads and infrastructure.

c) Alternative 3- Reduced Turbine Footprint- Avoidance of Monument Ridge

Alternative 3 would reduce the total number of WTGs from 60 to 23 and would avoid placing WTGs on Monument Ridge. Based on a marbled murrelet risk assessment, this alternative would also likely

reduce impacts on known marbled murrelet flyways although it would not eliminate all murrelet risk and the impact would remain significant and unavoidable. Alternative 3 would result in less ground disturbance and related impacts than the proposed project, and fewer visual impacts although it would not reduce the visual impact to a less than significant level. This alternative is also expected to reduce mortality of birds and bats from collisions with rotor blades, relative to the proposed project simply due to a reduction in the number of turbines.

Alternative 3 would not go as far as the proposed project toward meeting the project objectives because it would not be capable of generating 155 MW of energy. Alternative 3 would likely result in greater use of nonrenewable energy than the proposed project. At 23 turbines the alternative was also found to be financially infeasible to construct and operate. (Please see financial feasibility discussion above under Marbled Murrelet.) This alternative would result in a 3.88 percent rate of return which is below the 7.5 discussed above in the Marbled Murrelet discussion (Humboldt Wind Energy Project EIR Alternatives Financial Feasibility Analysis; EPS #191085, 2019). For this reason the alternative is found to not be technically or financially feasible.

d) Alternative 4- Reduced Turbine Count (31 total) would place 31 WTGs within the same study corridor as the proposed project. Access to the WTG site would be provided from the planned road at the Jordan Creek Staging Area and the gen-tie would extend to the Bridgeville Substation using the same alignment as under the proposed project. Because the turbine count would be reduced, the WTGs selected for installation would be the largest (600-foot maximum height). Based on a marbled murrelet risk assessment, this alternative would likely reduce impacts on known marbled murrelet flyways. Compared to the proposed project, Alternative 4 would result in less ground disturbance during the placement of individual WTGs and fewer related impacts, and would place fewer WTGs in areas visible from surrounding lands. This alternative is also expected to reduce the mortality of birds from collisions with rotor blades by avoiding areas with high concentrations of birds. Alternative 4 would also reduce but not eliminate direct impacts to historic cultural landscapes and tribal cultural resources identified along Bear River Ridge.

Alternative 4 would not go as far as the proposed project toward meeting the project objectives because it would not be capable of generating 155 MW of energy. Alternative 4 would likely result in greater use of nonrenewable energy than the proposed project. At 31 turbines the alternative was also found to be financially infeasible to construct and operate. (Please see financial feasibility discussion above under Marbled Murrelet.) This alternative would result in a 5.09 percent rate of return which is below the 7.5 discussed above in the Marbled

Murrelet discussion (Humboldt Wind Energy Project EIR Alternatives Financial Feasibility Analysis; EPS #191085, 2019). For this reason, the alternative is found to not be technically or financially feasible.

e) Alternative 5- Reduced Turbine Footprint- Avoidance of Bear River Ridge
Alternative 5 would reduce the total number of WTGs from 60 to 37 and would avoid placing WTGs on Bear River Ridge. Because the turbine count would be reduced, the WTGs selected would likely be the largest (600 foot maximum height). Fewer WTGs would provide greater spacing from sensitive areas identified in the project corridor. This alternative would avoid impacts on Bear River Ridge, which is considered a tribal cultural resource, and would reduce indirect effects on the Scotia historic district. Alternative 5 would result in less ground disturbance and related impacts than the proposed project, and fewer visual impacts. Relative to the proposed project, this alternative is also expected to reduce mortality of birds and bats from collisions with rotor blades.

Alternative 5 would not go as far as the proposed project toward meeting the project objectives because it would not be capable of generating 155 MW of energy. Alternative 5 would likely result in greater use of nonrenewable energy than the proposed project. At 37 turbines the alternative was also found to be financially infeasible to construct and operate. (Please see financial feasibility discussion above under Marbled Murrelet.) This alternative would result in a 4.56 percent rate of return which is below the 7.5 discussed above in the Marbled Murrelet discussion (Humboldt Wind Energy Project EIR Alternatives Financial Feasibility Analysis; EPS #191085, 2019). For this reason, the alternative is found to not be technically or financially feasible.

f) Alternative Location CEQA Guidelines section 15126.6(2)(A) discusses that the key question in an alternative location analysis is whether any of the significant effects of the proposed project would be avoided or substantially lessened by placing it in an alternative location need be considered for inclusion in the EIR. If the lead agency concludes that no feasible alternative location exists it must disclose the reasons for this conclusion. California has a limited number of suitable sites for wind energy development. Prior to application submittal the applicant's completed an analysis across Rainbow Ridge, Long Ridge, Bear River Ridge, Monument Ridge, Shively Ridge, and north of Bridgeville. The other sites were ruled out because they would not reduce impacts or they were not feasible. The fundamentals that drove the selection of Monument and Bear River Ridge as the Proposed Project Site include 1) the availability of high-quality wind resources in comparison to other sites in Humboldt County, 2) the ability to deliver turbines and other project components to the project site via Highway

101, 3) the accessibility of the site via existing access roads or after improvements are made to those roads, 4) the existing use of the property and associated disturbance given ongoing timber operations, 5) the ability to access transmission capacity at the Bridgeville Substation, and 6) the ability to obtain site control over a sufficiently large area. Because of the limited nature of wind resources and uncertainty that other locations would reduce impacts, an alternative location was not selected as an alternative in the DEIR. In fact other locations were rejected prior to application submittal based upon consultation with resource agencies.

DEIR commenters suggested that offshore locations should have been an alternative however, this alterative was not considered because off-shore wind development remains speculative in California. Offshore wind projects are more expensive to build and operate than those on land, requiring considerably greater capital outlays per MW installed. This is particularly true in California where deeper water requires additional design considerations. No off-shore wind projects are operational in California and the environmental impacts of such a facility are unknown.

g) Environmentally Superior Alternative. Each of the alternatives either avoided or minimized to a greater extent the impacts associated with the proposed project. When all the alternatives were considered, Alternative 5-Reduced Turbine Footprint- Avoidance of Bear River Ridge is considered to be the Environmentally Superior Alternative in the EIR. As noted above this alternative is not feasible.

However, impacts to Tribal Cultural Resources, the Bear River Ridge and Valley Historical Landscape would remain significant and unavoidable as compared to Alternative 5- Reduced Turbine Footprint-Avoidance of Bear River Ridge, where these impacts would be avoided. Reducing the turbine count would also have incrementally less environmental impacts to aesthetics, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, and traffic and transportation. Although there may be incremental reduction to many impacts only Tribal Cultural Resource (Bear River Ridge and ethnobotanical area) and the Bear River Ridge and Valley Historical Landscape would be fully avoided. All other impacts would still require the proposed mitigation. It would somewhat reduce aesthetic impacts but not to a level that was less than significant.

Since the release of the DEIR, the project applicant conducted micro-siting efforts and found that only 27 turbines could feasibly be located on Monument Ridge. The chief reasons for this are wake effect,

interference with existing microwave beam paths, and the steepness of the terrain.

In order to harness the free flow of wind on Monument Ridge, which is strong but inconsistent in direction, WTGs must be spaced at a greater distance apart to avoid waking and the loss of energy. In assuming 37 WTGs, Alternative 5 did not take wake effect into account.

This alternative would fail to meet the project objective to produce 155 MW of power. It would also, at the 37 turbines originally contemplated, and certainly the reduction to 27 turbines, be too few turbines to feasibly implement the project.

The applicant's proposed changes to reduce the overall ground disturbance, realign and shorten the gen-tie, reduce the number of turbines, cross the Eel River overhead, and the realignment of access roads, further reduce some impact including impacts to Northern Spotted Owl Habitat, and operational impacts to Marbled Murrelet.

11. FINDING **OTHER ISSUES RAISED BY COMMENTERS- TRIBAL CULTURAL RESOURCES** While state law contains policies designed to promote consultation regarding tribal cultural resources and archaeological resources in the land use context, the legislature has also adopted a broad set of laws regarding climate change and renewable energy. The state's aggressive climate change initiatives require adoption of a significant number of green energy projects to be achieved. Further, the state has incentivized green energy projects with tax credits, underlining the public policy importance of achievement of the adopted goals.

EVIDENCE: California Global Warming Solutions Act of 2006 (AB 32); SB; Senate Bill 350; SB 100.

12. FINDING **OTHER ISSUES RAISED BY COMMENTERS- FEIR UPDATED TECHNICAL DATA** The FEIR contains updated technical data that corroborates the technical data provided in the DEIR, and confirms the significance of the conclusions drawn in the DEIR.

EVIDENCE: The data consist of the results of studies that were on-going at the time of the release of the Draft and which, in all cases, confirm the conclusions of the studies attached to the Draft EIR and confirm the accuracy and soundness of the analysis in the draft EIR. In no case did the updated data show evidence of new impacts not already disclosed. In several cases, the additional data showed reduced impacts from that projected in the Draft, such as in the case of impacts to raptors, marbled murrelets and acres of impact to northern spotted owl habitat. In other cases, analysis was provided to explain technical data for a lay audience

in response to requests to do so. (See for example "Summary of Collision Risk Modelling for a General Audience," Appendix B, Updated Technical Information.) Confirmatory data that amplifies and clarifies the significance conclusions and analysis in the Draft EIR does not qualify as "new significant information" for purposes of recirculation. The Draft EIR was neither conclusory nor so fundamentally inadequate as to preclude meaningful public comments.

13. FINDING **OTHER ISSUES RAISED BY COMMENTERS- FEIR UPDATED TECHNICAL STUDIES** Updated technical studies provided in Appendix B of the FEIR were included to satisfy requests from stakeholders and the public in their comments on the DEIR and do not require recirculation.

EVIDENCE: Commenters requested another year of data on special-status plants, vegetation communities and aquatic resources, bats, eagles, murrelets, and northern spotted owl, all which are provided in Appendix B. The information in those studies is consistent with the analysis and discussion in the DEIR and did not change the analysis or significance conclusions of the DEIR. Commenters requested more detail and analysis on the marbled murrelet collision risk model and compensatory mitigation strategy for marbled murrelets, both of which were supplied in Appendix B. Commenters asked for more detail on the location of eelgrass in Humboldt Bay, and for more specifics on criteria air pollution and GHG emission's calculations, both of which were provided in Appendix B. This information did not change any of the significance conclusions in the DEIR, or any mitigation or avoidance and minimization measures, but rather satisfied commenter's requests for this information. Commenters requested that the project be refined to minimize impacts on sensitive biological resources, and that applicant responded to that request with a reduction in the number of turbines and in the project footprint.

14. FINDING **OTHER ISSUES RAISED BY COMMENTERS- PUBLIC COMMENTS ADDRESSED-** The County addressed public comments to the DEIR in good faith and with factual analysis.

EVIDENCE: One commenter stated that the FEIR fails to provide the require responses and argues that Response O7-2 is non-responsive because it did not answer the commenter's request for information about vegetation management activities in the gen-tie. Typical measures for vegetation maintenance are discussed at p. 2-39 and 2-40 of the DEIR, and construction of the gen-tie corridor is discussed at p. 2-29 of the DEIR. Rules governing maintenance of transmission corridors are discussed at pp. 3.13-8 and 3.13-9 and 3.13-13 of the DEIR. Additional detail, explanation and tests requested by the commenter are not

required for the public and decision makers to understand the environmental consequences of the project. The information provided about the vegetation management activities in the gen-tie corridor, the mapping of habitat for special status species and the EIR's forecasts about bird fatalities at this project in comparison to other projects is sufficient for the public and the decision makers to understand the project's environmental impacts.

A lead agency need not conduct every recommended test or perform all requested research. An EIR's evaluation need not be exhaustive or perfect. Indeed, to be adequate, an EIR need not respond to every comment at all. See California Oak Found. v Regents of Univ. of Cal. (2010) 188 CA4th 227, 265 (rejecting claim that EIR was inadequate for not discussing specific geologists' letters that suggested further study was appropriate). Most importantly, commenters have not identified any resource category they believe the EIR failed to address although they suggest they would have approached certain topics differently.

All comments received on the DEIR were addressed in good faith and with factual analysis. Because of the volume of comments received in the DEIR, the FEIR used a series of Master Responses to present more in-depth analysis on certain topics of interest to many commenters. In some instances, such as the one cited by the commenter, the request for specific information goes far beyond information required in an EIR to analyze impacts and reach impact conclusion and mitigation recommendations.

15. FINDING

OTHER ISSUES RAISED BY COMMENTERS- CALIFORNIA ENERGY COMMISSION AND CDFW GUIDELINES- The Project will be located on a Category 3 Site pursuant to the California Energy Commission (CEC) and CDFW California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development (Guidelines) (Project Sites with High or Uncertain Potential for Wildlife Impact). The Board finds that risks to bat or birds are not unacceptable given the mitigation measures imposed and that the economic, legal, social, technological, and other benefits of the project discussed in the Statement of Overriding Considerations below make such risks acceptable. The Board finds that the site is a Category 3 site due to the special-status species occurring on or adjacent to the site. The Board finds that mitigation for the project has been studied extensively to determine ways to reduce the number of fatalities, and that early consultation has occurred. Further, the project has been mitigated and redesigned to avoid and reduce impacts. The County believes that the project does not pose an unacceptable risk to species and that the site is not inappropriate for wind development.

EVIDENCE: Category 4 sites are defined as sites where (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." The proposed project site is on privately-owned land, predominantly 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 project applicant has studied the area extensively, collected data from the Humboldt Redwood Company regarding special status species, and engaged in intensive surveying. The applicant has consulted with resource agencies, local environmental groups, scientists, and other stakeholders, Further, the project was refined to reduce the number of turbines from 60 to 47, specifically removing turbines that were located in the areas of highest risk to documented bird passage. The gen-tie was sited to avoid all old growth forest and northern spotted owl core activity centers. Based on these factors, the County determined that the project does not pose an unacceptable risk to species and is not inappropriate for wind development.

16. FINDING **OTHER ISSUES RAISED BY COMMENTERS- TAX CREDIT ELGIBILITY** The project applicant does not have to commence physical work at the project site prior to December 31, 2019, to qualify the Project for federal Production Tax Credits.

EVIDENCE: The IRS test for start of construction includes meeting a safe harbor test by incurring five percent or more of the total costs of the project before certain milestone dates. The project's prior acquisition of wind turbine components can satisfy the safe harbor test. Thus, Humboldt Wind, LLC, does not have to commence physical work at the Project site prior to December 31, 2019, to qualify the Project for federal Production Tax Credits as commenter implies.

17. FINDING **OTHER ISSUES RAISED BY COMMENTERS- POTENTIAL IMPACTS OF WIND TURBINES ON INSECT POPULATIONS –** The County has considered impacts to insect populations and finds there is a lack of evidence to determine there would be population level impacts to insects from this project proposed at this location.

EVIDENCE: Planning Commissioner McCavour and other commenters expressed concerns about the impacts of the project on insect populations. Both noted that insect collisions with turbine blades can result in reduced energy production (they suggested up to 50%) from the accumulation of

dead insects creating drag on the blade surfaces. Both cited a study by Dr. Franz Trieb, a researcher at the Energy Systems Analysis Department of the German Aerospace Center (Deutsches Zentrum für Luft-und Raumfahrt) (Trieb 2018). This study described a model which estimated that approximately 1200 billion flying insects are struck each year as they fly through the rotors of wind farms in Germany. The model input was the total rotor area of wind turbines installed in Germany in the past three decades that were of a height between 20 and 220 meters above ground.

No information is available regarding what percentage of the insect population this represents, or whether wind energy would have a substantial impact on insect populations. The author noted that no estimates are available of the percentage of insects lost due to use of pesticides, intensive agriculture, climate change or urbanization, so it is not possible to compare the impacts of wind turbines on insect populations to other influences. The study notes that the purpose of the study was to raise awareness about the potential impacts of wind energy on insect populations, and also states that no conclusions can be drawn as to whether wind energy plays a significant role in the reduction of insect numbers, or that it has no impact. The study also discusses approaches that could be used to verify the study's modelled impact estimates with empirical data collected in the field.

The commenters are correct in noting that worldwide declines in insect populations are a source of great concern to conservation biologists. A 2019 study undertook a comprehensive review of 73 historical reports of insect declines from across the globe, and systematically assessed the underlying drivers of those declines (Sánchez-Bayoa & Wyckhuys 2019). The study concluded that those drivers, in order of importance, are habitat loss and conversion to intensive agriculture and urbanization; pollution, mainly by synthetic pesticides and fertilizers; biological factors, including pathogens and introduced species; and climate change. Wind energy development or other forms of energy production are not mentioned as one of the sources of insect declines. It is possible that insect collisions with turbines may be a contributor to the ongoing decline in insect populations, but no evidence is currently available to confirm or refute this assumption, nor is the County aware of any environmental impact analysis for proposed wind projects in North America or elsewhere that include an assessment of the impacts of wind energy development on insect populations due to turbine collisions. Future research on this topic may provide additional insight into the impacts of wind energy development on insect populations in the context of other factors such as habitat loss and pollution, and may also provide feasible methodology to collect field data (including measuring insect densities at rotor height) which would allow

researchers to empirically document wind turbine impacts on insects. Until that time, any attempt to assess the impacts of the project on insect populations would be speculative. It is also far beyond the scope of CEQA.

18. FINDING **OTHER ISSUES RAISED BY COMMENTERS- IMPACTS TO HYDROMETEOROLOGICAL CONDITIONS** The County has considered impacts to local meteorological conditions as a result of the project and finds there is a lack of evidence to determine there would be an adverse impact to hydrometeorological conditions from this project proposed at this location.

EVIDENCE: Observational scientific studies suggest that large wind farms can modify surface-atmosphere exchanges locally through mixing up the air and slow wind speeds. The 2011 paper (Simulating impacts of wind farms on local hydrometeorology, Journal of Wind Engineering and Industrial Aerodynamics, Vol. 99, Issue 4) that was referenced by many of the commenters is not an observational study but a simulation one, which presented the findings via numerical modeling based on a series of assumptions. Although the current state-of-art meteorological models can handle the short-period weather forecasting, there still exist shortcomings for boundary layer modeling and extending the results to longer periods (e.g., year to decadal). No available studies have been done at that would be applicable to a project of this size, in this type of location. There has been no evidence presented that the proposed project at this location would have an adverse impact to local hydrometeorological conditions.

19. FINDING **EIR-STATEMENT OF OVERRIDING CONSIDERATIONS** In accordance with Section 15093 of the CEQA Guidelines, the County has evaluated the economic, legal, social, technological, or other benefits, including regionwide or statewide environmental benefits, of the project against its unavoidable environmental risks in determining whether to approve the project, and has determined that the specific economic, legal, social, technological, or other benefits, including regionwide or statewide environmental benefits, of the project outweigh its unavoidable, adverse environmental impacts so that the identified significant unavoidable impact(s) may be considered acceptable. The proposed project will result in a net environmental gain and will provide benefits described herein to the surrounding community and the County as a whole. Each benefit set forth below constitutes a separate, independent, and severable overriding consideration warranting approval of the project, despite the unavoidable impact. Substantial

evidence in the record demonstrates that the County would derive the following benefits from the project:

EVIDENCE

a) ENVIRONMENTAL BENEFITS
Statewide Environmental Benefits:

The Legislature passed the California Global Warming Solutions Act of 2006 (AB 32) creating a multi-year program to reduce greenhouse gas emissions in California. The California Air Resources Board (ARB) was delegated the task of developing a Scoping Plan to develop the approach to reduce GHGs to achieve the goal of reducing emissions to 1990 levels by 2020. In 2016, the Legislature passed SB 32 and adopted a GHG reduction target of 40 percent below 1990 levels by 2030. Senate Bill 350, signed into law in 2015, requires a statewide portfolio standard to ensure that renewable resources account for 50 percent of California's electrical load by 2030. The recently enacted SB 100 moves up the deadline for reaching the 50 percent milestone to 2026, stepping to 60 percent by 2030. Further, the state has a goal of reducing GHG emissions by 80 percent below 1990 levels by the year 2050. ARB established a Scoping Plan detailing the requirements for renewable energy targets. (California Air Resources Board, AB 32 Scoping Plan, available at https://ww3.arb.ca.gov/cc/scopingplan/scopingplan.htm, Accessed: 6 November 2019; California Climate Policy Dashboard, BerkeleyLaw, University of California, https://www.law.berkeley.edu/research/clee/research/climate/climate-policy-dashboard/, Accessed: 6 November 2019.)

California's Renewables Portfolio Standard (RPS) requires all electricity retailers in the state, including publicly owned utilities (POUs), investor-owned utilities, electricity service providers, and community choice aggregators, to adopt RPS goals of obtaining 50 percent of the state's electricity from eligible renewable energy resources by 2030. (RPS Eligibility Guidebook, (Ninth Edition, Revised), available at California Energy Commission, https://www.energy.ca.gov/programs-and-topics/programs/renewables-portfolio-standard (Accessed 6 November 2019).) Wind facilities that generate electricity may qualify for RPS certification. (*Id.*)

Wind energy is a renewable energy source. (*See, e.g.*, American Wind Energy Association, https://www.awea.org/wind-101/benefits-of-wind, Accessed: 6 November 2019.) The project will assist California in meeting the ambitious RPS goals of 50 percent of the state's electricity from eligible renewable energy resources by 2030.

The project would contribute to a diversified statewide energy portfolio that will reduce exposure to price volatility associated with electricity and natural gas. The California Independent System Operator (CAISO) balances supply versus demand and prioritizes supply by costs. Pursuant to law, wind energy is ordered dispatched first and ordered curtailed last, thus it is able to bid into the grid at a lower price and will directly displace fossil fuel generation.

Further, the project would replace outdated energy sources such as the Potter Valley Dam and the Klamath River Dam which are being decommissioned.

The project would displace emissions of approximately 384,068 metric tons per year of carbon dioxide that would otherwise be required to generate the same amount of electricity as this 147 MW project.

Carbon Neutrality: Within the first year of operations, the benefit of energy production using the greenhouse gas (GHG)-free source of wind power would exceed the potential impacts of carbon sequestration loss and GHG emissions generated from project construction and operations.

The Project would provide the following benefits:

- The project will result in $13,912,000 in local grid improvements paid for by the applicant; and
- $5 million undergrounding of high-risk PG&E distribution lines; and
- The project will improve and update old infrastructure in Humboldt, Cottonwood, and Bridgeville; and
- The transmission lines from Bridgeville to Cottonwood will be updated; and
- The project will result in a $2.2 million decoupling Humboldt Wind from Cottonwood and the broader grid; and
- The project would reduce use of and reliance on local natural gas; and
- The project is sufficient to power 70,000 households; and
- Assuming the turbines operate at a net capacity factor of 40%, the project could remove the equivalent of:
    - Greenhouse gas emissions from: 81,543 passenger vehicles driven for one year or 939,041,201 miles driven by an average passenger vehicle; or
    - CO2 emissions from 43,216,817 gallons of gasoline consumed or 37,727,687 gallons of diesel consumed, or 419,872,936 pounds of coal burned; or

- 2,095 railcars' worth of coal burned, or 889,198 barrels of oil consumed, or 15,700,582 propane cylinders used for home barbeques; or
- .099 power plants in one year or 48,973,382,083 smartphones charged; or
- Greenhouse gas emissions avoided by: 133,961 tons of waste recycled instead of landfilled, or 19,136 garbage trucks of waste recycled instead of landfilled, or 16,757,618 trash bags of waste recycled instead of landfilled, or 81.4 wind turbines running for a year, or 14,588,364 incandescent lamps switched to LEDs; or
- Carbon sequestered by: 6,350,643 tree seedlings grown for 10 years, or 452,018 acres of U.S. forests in one year, or 3,117 acres of US forests preserved from conversion to cropland in one year.
- (Greenhouse Gas Equivalencies Calculator, US EPA printout, https://www.epa.gov/sites/production/files/widgets/ghg-calc/calculator, Accessed: 12 November 2019.)

Local and Regional Environmental Benefits:

Approval of the project will aid the County in meeting energy needs in an efficient and environmentally sound manner, as provided in the County General Plan, which encourages utilization of renewable energy resources. Specifically, the project would allow the County to further the following Policy Goals as stated in Chapter 12, Energy Element, of the General Plan:

Policy E-G3, Supply of Energy from Local Renewable Sources, which calls for increased local energy supply from a distributed and diverse array of renewable energy sources and providers available for local purchase and export. The project would increase local energy supply for a distributed and diverse array of renewable energy sources and providers available for local purchase and export. The project will increase locally produced renewable energy for local consumption and export. The project will be privately owned and operated, and although it will feed into the PG&E grid, it will be controlled by a separate energy provider.

The Project would further Policy E-P3, Local Renewable Energy Supply, which calls for the County to support renewable energy development projects including biomass, wind, solar, "run of the river" hydroelectric, and ocean energy that increases local energy supply. This is a renewable energy wind project that increases local energy supply.

This Project would also further Policy E-P13, Incentives for Using Alternative Energy which calls for the County to encourage the use of renewable energy and environmentally preferable distributed energy generation systems in the county. The Project would produce 147 MW of renewable energy in the County.

The Redwood Coast Energy Authority (RCEA), a local government Joint Powers Agency whose members include the County of Humboldt, the Cities of Arcata, Blue Lake, Eureka, Ferndale, Fortuna, Rio Dell, and Trinidad, and the Humboldt Bay Municipal Water District, has set a target of 100% clean and renewable electricity by 2025. (Stephenson, Nancy, 100% Clean and Renewable Electricity by 2025, Redwood Coast Energy Authority, April 8, 2019, https://redwoodenergy.org/100-clean-and-renewable-electricity-by-2025/, Accessed: 8 November 2019.) This Project would help RCEA and its members to achieve that goal.

According to Michael Winkler, Chair of the Board of RCEA, in statements made to the Planning Commission on November 14, 2019, producing a similar amount of solar energy would cost at least $800 million dollars (and possibly up to 1.5 billion dollars), more than four times the cost of this project. Further, solar production peaks in the summer, six months out of sync with maximum local demand which occurs in winter. Mr. Winkler also stated that RCEA staff is concluding negotiations with Terra-Gen for three quarters of the output of the project. If approved, the Terra-Gen project will produce more than 60% of the electricity used by RCEA's customers who represent more than 90% of the electricity customers in Humboldt County.

RCEA issued its RFP for long-term renewable energy contracts (to meet its mandatory renewable energy portfolio for 2021 through 2024), it got 40 proposals from 13 companies, the Terra-Gen proposal was the only one for a local Humboldt project and was one of the highest scoring proposals pursuant to the criteria used by the RCEA review team. The other alternative would be to enter into long-term contracts for power from outside Humboldt County, which would prevent RCEA from reaching its goal of all local power by 2030. (Comment from Richard Engel, Employee of RCEA, writing as a private citizen.)

The average wind speed on the ridges sough of the lower Eel River Valley (where the current project is proposed) is sufficient to meet the commercially developable threshold for wind energy. The only other locations in the County meeting the criteria are roadless areas along the Lost Coast where access to grid connection is not considered feasible, and/or the areas fall under federal protection. (Comment from Richard Engel, Employee of RCEA, writing as a private citizen.)

Jim Zoellick, an Energy Research Engineer with Humboldt State University, Department of Environmental Resources Engineering, provided testimony at the November 14, 2019 Planning Commission hearing that the proposed power project would help meet local energy demand. The RCEA carbon free energy portfolio would allow power to be produced locally at the time when the County is islanded from the rest of the state's energy grid and could operate independently. As it currently stands, the major transmission lines coming from the Central Valley cannot meet average, let alone peak, demands of the County. Mr. Zoellick also stated that if the power is contractually sold, the physics are such that most of the power will be consumed locally. He also stated that rooftop solar cannot realistically supplant wind energy.

b) ECONOMIC BENEFITS

The project would develop a wind energy facility in Humboldt County that supports the local and regional economy by creating short- and long-term employment opportunities and increasing tax revenue. The project anticipates creating 15 full-time employment positions and approximately 300 construction jobs. The project will provide economic benefits to the County and its residents by increased spending in the community as a result of construction and development related work.

Over the life of the project, the project would result in tax revenue estimated at $50,554,000 in property tax as well as $9,138,000 in sales tax. Of the sales tax, approximately $3,448,301 would be the local tax revenue.

c) RESOURCE BENEFITS:

The income from the Project will help the Russ family to continue to manage the Russ ranch as contiguous prairie grasslands surrounded by forest in a large tract that is not fragmented or subdivided. (Testimony of Lane Russ, Planning Commission hearing November 14, 2019.) The land is held in patent parcels and would not need to be formally subdivided to be developed; it could be developed with building permits during the life of the project after cancellation of Williamson Act contracts. Lane Russ testified that the Project would provide the landowners with an alternative source of income and allow them to maintain the current character of the property as grazing and agricultural land instead of developing it as residential units.

d) BENEFITS TO THE KNOWLEDGE BASE:

Mitigation Measure 3.5-18a calls for the formation of a Technical Advisory Committee to minimize the risk of bat mortality and to preclude the project's contribution to significant impacts on local and

regional bat populations. The TAC is tasked with evaluation of postconstruction monitoring data to determine whether bat mortality attributable to the project poses a potential for significant impact on the local and regional bat population if left unabated. The formation and operation of the TAC will allow the local (and national) scientific community to study specific populations of bats known to occur in the region, including the hoary bat, and to understand population trends in general, as well as the impacts of the project on the population. This will contribute to the greater scientific knowledge base and support future environmental analyses and mitigations.

In addition, MM 3.5-11 and MM 3.5-14 calls for formation of a bird TAC which will provide a similar level of scientific knowledge for avian species.

DECISION

NOW, THEREFORE, based on the above findings and evidence, the Humboldt County Board of Supervisors does hereby:

1. Adopt the finding set forth in this resolution; and

2. Certify that the Final Environmental Impact Report for the Humboldt Wind Energy Project (SCH#: 201872076) has been completed in compliance with CEQA, that the Final EIR was presented to the Board of Supervisors and the Board of Supervisors has reviewed and considered the information contained in the FEIR before approving the project, and that the FEIR reflects the County's independent judgment and analysis; and

3. Adopt the Statement of Overriding Considerations; and

4. Adopt the Mitigation Monitoring and Reporting Program.

Adopted after review and consideration of all the evidence on December 16 and 17, 2019.

The motion was made by SUPERVISOR _____and second by SUPERVISOR _____ and the following ROLL CALL vote:

AYES: SUPERVISORS:
NOES: SUPERVISORS:
ABSENT: SUPERVISORS:
ABSTAIN:SUPERVISORS:
DECISION:

_____
Rex Bohn, Chair

I, Kathy Hayes, Clerk to the Board of Supervisors of the County of Humboldt, do hereby certify the foregoing to be a true and correct record of the action taken on the above entitled matter by said Board of Supervisors at a meeting held on the date noted above.

_____
Kathy Hayes, Clerk