Shasta County Department of Resource Management
Planning Division

FOUNTAIN WIND PROJECT

FINAL ENVIRONMENTAL IMPACT REPORT – VOLUME 1

April 2021

Use Permit No. UP 16-007
State Clearinghouse No. 2019012029

Prepared for:
Department of Resource Management
Planning Division

Prepared by:
Environmental Science Associates

Shasta County Department of Resource Management
Planning Division

FOUNTAIN WIND PROJECT

FINAL ENVIRONMENTAL IMPACT REPORT – VOLUME 1

April 2021

Use Permit No. UP 16-007
State Clearinghouse No. 2019012029

Prepared for:
Shasta County Department of Resource Management, Planning Division

Prepared by:
Environmental Science Associates

ESA

TABLE OF CONTENTS

Fountain Wind Project
Final Environmental Impact Report

Page

Appendices (provided on included USB device)

Tables

The Draft EIR for the Project is provided on the USB device enclosed with printed versions of this Final EIR. It also is available on the County's website: https://www.co.shasta.ca.us/index/drm/planning/eir/fountain-wind-project.

CHAPTER 1
Introduction

1.1 Purpose

This Final Environmental Impact Report (EIR) is an informational document that discloses the potential environmental impacts of the Fountain Wind Project (Project). The Shasta County (County) Department of Resource Management, Planning Division, as the lead agency under the California Environmental Quality Act (CEQA),[1] has prepared this EIR to document its analysis of the potential direct, indirect, and cumulative impacts of the Project. The County will use this EIR, in conjunction with other information developed in the County's formal record, when considering whether to certify the EIR and whether to approve, approve with modifications, or disapprove Use Permit (UP 16-007), which has been requested to authorize the construction, operation and maintenance, and ultimately the decommissioning of the Project.

This Final EIR consists of the Draft EIR published August 3, 2020, together with the analysis of Applicant-proposed changes to the Project (which changes are analyzed in this Chapter 1), responses to comments provided in Chapter 2, revisions to the Draft EIR identified in Chapter 3, and additional or updated technical information that has become available since circulation of the Draft EIR. This Final EIR includes seven appendices:

> **Appendix A** contains supplemental information and technical studies, including Applicant-proposed refinements to the Project Description that have been submitted since the Draft EIR was issued (Appendix A1), a biological resources survey report for extended survey areas extended (Appendix A2), an updated shadow flicker analysis that considers the proposed design refinements (Appendix A3), an updated visual resources technical report that removes the word "draft" and includes larger-format simulations as compared to the version that was included as an appendix to the Draft EIR (Appendix A4), the eDNA Foothill Yellow-legged Frog Report that inadvertently was omitted from appendices to the Draft EIR (Appendix A5), and technical input provided regarding the Moose Camp Helipad (Appendix A6).
>
> **Appendix B** contains copies of public notices issued in connection with the Draft EIR.

[1] This analysis is being prepared CEQA (Pub. Res. Code §21000 et seq.) and its implementing regulations, the CEQA Guidelines (14 Cal. Code Regs. §15000 et seq.).

Appendix C contains copies of letters received that were not included in Chapter 2, *Responses to Comments*, because the contents do not require a response for the reasons described in Section 2.1.1 of this Final EIR.

Appendix D contains exhibits provided with comment letters that, due to their volume, are being provided separately.

Appendix E contains a confidential appendix that will be available to decision-makers but otherwise is being protected from public disclosure at the request of the Pit River Tribe.

Appendix F contains a list of the recipients of the Final EIR, including the agencies, branches of the Shasta County Public Libraries and other designated locations that received printed copies and others who received notice of the availability of the Final EIR with information about how to access it for review.

Appendix G contains a draft mitigation monitoring and reporting program (MMRP) that, if the Project is approved, will be finalized, implemented and enforced for the Project.

Appendix H contains new and revised figures pertinent to this Final EIR

The Draft EIR is contained on the USB device provided with printed copies of this Final EIR, is available on the County's website,[2] and is available for viewing at the Shasta County Department of Resource Management, Planning Division, branches of the Shasta Public Libraries, Cottonwood Community Library, and Hill Country Community Clinic (Round Mountain). The Draft EIR details the Project, discloses and evaluates the potential environmental impacts of Project, identifies those impacts that could be significant, and presents mitigation measures that, if adopted, could avoid or minimize these impacts. The Draft EIR also evaluates alternatives to the Project, including Alternative 1, which limits proposal-related wind energy development to the area south of California State Route 299 (SR 299); Alternative 2, which increases setbacks of proposed infrastructure from residences and roadways; and the CEQA-required No Project Alternative.

1.2 Project Overview

Fountain Wind LLC (Applicant) has applied for a Use Permit (UP 16-007) to construct, operate, maintain, and decommission a wind energy generation project (wind turbines and related infrastructure) in an unincorporated area of Shasta County. This section provides an overview of the Project Site, and summarizes the Project and changes to the Project that have been proposed since the Draft EIR was circulated.

[2] The County's project-specific website is as follows: https://www.co.shasta.ca.us/index/drm/planning/eir/fountain-wind-project.

1.2.1 Project Site

The approximately 4,464-acre Project Site consists exclusively of private property operated as managed forest timberlands. It also is within a geographic area that is traditionally and culturally affiliated with the Pit River Tribe. The property is located approximately 1 mile west of the existing Hatchet Ridge Wind Project, 6 miles west of Burney, 35 miles northeast of Redding, immediately north and south of SR 299, and near the private recreational facility of Moose Camp and other private inholdings. Other nearby communities include Montgomery Creek, Round Mountain, Wengler, and Big Bend. Access to the Project Site would be provided regionally and locally by Interstate 5 (I-5), approximately 35 miles to the west of the Project Site; State Route (SR) 139, approximately 60 miles to the east of the Project Site; SR 299; and via three existing, gated logging roads that would be used to enter and leave the Project Site.

1.2.2 Project Summary

The Project includes up to 72 wind turbines and associated transformers together with associated infrastructure and ancillary facilities that, collectively, would have a maximum total nameplate generating capacity of up to 216 MW. Associated infrastructure and facilities would include: a 34.5-kilovolt (kV) overhead and underground electrical collector system to connect turbines together and to an onsite collector substation; overhead and underground fiber-optic communication lines; an onsite switching station to connect the Project to the regional grid operated by Pacific Gas and Electric Company (PG&E); a temporary construction and equipment laydown area; 14 temporary laydown areas distributed throughout the Project Site to store and stage building materials and equipment, an operation and maintenance (O&M) facility; up to four permanent meteorological (MET) towers; temporary, episodic deployment of mobile Sonic Detection and Ranging (SoDAR) or Light Detection and Ranging (LiDAR) systems within identified disturbance areas (e.g., at meteorological evaluation [MET] tower locations); two storage sheds; and three temporary batch plants. New access roads would be constructed within the Project Site, and existing roads would be improved. The Project would operate year-round.

1.2.3 Changes to the Project Since Issuance of the Draft EIR

Since the County's issuance of the Draft EIR, the Applicant has refined the Project Description relative to the description provided in the Draft EIR. The proposed changes are described in Section 1.2.3.1, *Project Changes*. See also Final EIR Appendix A1. Section 1.2.3.2, *Analysis of Project Changes*, evaluates whether the proposed changes would result in either a new significant impact relative to those disclosed in the Draft EIR, or a substantial increase in the severity of an earlier-disclosed environmental impact unless mitigation measures are adopted that reduce the impact to a less-than-significant level. The analysis considers input provided on the Applicant's behalf, including the supplemental analyses of impacts provided in Final EIR Appendix A2 (regarding biological resources) and Appendix A3 (regarding shadow flicker). While Applicant input was considered, the analysis in Section 1.2.3.2 relies on the independent judgment of the County and its consultants.

1.2.3.1 Project Changes

Since the County's issuance of the Draft EIR, the Project layout has been refined based primarily on the presence of sensitive resources and the availability of updated turbine models that were not commercially available when the use permit application was submitted. Most of the changes occur within the Project Site as shown in Draft EIR Figure 2-2, *Site Plan* (Draft EIR at page 2-4). Some of the adjustments, however, occur outside of but within 500 feet of the previously identified site boundary. All of the adjustments occur within the leasehold area. The locations of refinements are shown in Figure 1, *Project Location*, and Figure 2, *Fiber Optic Runs*, in Final EIR Appendix A1. All of the changes are described below.

Project Layout Refinements

The Project layout has been refined in the six study areas shown in Appendix A1, *Project Description Refinements*. In Survey Area 1, the Project layout has been refined to move the overhead collection line and associated access road up to approximately 250 feet west to avoid existing drainage and associated aquatic features including a perennial stream, intermittent stream, and riparian wetland segments. In Survey Area 2, the access road has been moved up to approximately 130 feet northeast to utilize an existing crossing of a nearby perennial stream and associated adjacent wetlands. In Survey Area 3, the access road has been moved up to approximately 125 feet east and straightened. In Survey Area 4, the access road has been moved up to approximately 275 feet east to utilize an existing access road. In Survey Area 5 and Survey Area 6, the overhead collection line has been moved up to approximately 250 feet west to avoid construction of the collection line on sloping terrain and to align the collection line with an existing access road corridor.

As a seventh change, a collection line has been moved underground approximately 100 feet west of the initially proposed undergrounding location to avoid cultural resource site FW11.

Elimination of Turbine Location M03

As shown on Draft EIR Figure 2-2, *Site Plan*, the Applicant initially proposed turbine location M03 at the western end of the M-string. The Year 1 Avian Use Study Report and Risk Assessment for the Fountain Wind Project (Draft EIR Appendix C4) describes area at that location on page 17 as "a large, incised drainage where the landscape transitions from forest to shrub/scrub, and offers ideal habitat for soaring birds." That study suggested that proposed turbine location M03 was visited at a higher frequency by raptor species than other turbine locations. Although the Year 2 Avian Study did not show any higher frequency of use, the Applicant has eliminated site M03 from further consideration as a potential turbine siting location, thereby eliminating its potential to impact birds or bats.

Clarification of Fiber Optic Cable Installation

Draft EIR Section 2.4.2 explains that the Project would install a communication system within the same footprint as the proposed electrical collection system. It describes the communication system (at page 2-10 et seq.) as consisting "of fiber optic communication cabling for the Supervisory Control and Data Acquisition (SCADA) system, which provides communication

capabilities between turbine locations, substation, and operations and maintenance facilities. Most of the collector system would be located underground and adjacent to onsite access roads."

To clarify this description, fiber optic cabling would be installed within the footprint of the electrical collection system as well as within approximately 4.5 miles of existing access roads in the northeastern portion of the Project Site. The approximately 4.5 miles of fiber optic cabling co-located with the existing roads would connect the proposed electrical system to the operations and maintenance facility, and to the existing fiber optic system located off of SR 299. See Figure 2 in Final EIR Appendix A1, and Revised Draft EIR Figure 2-5 in Final EIR Appendix H.

Clarification of PG&E Infrastructure

Draft EIR Section 2.4.3 (at page 2-12) and Section 3.1.2.4 (at page 3.1-3) describe the Pacific Gas and Electric Company (PG&E) upgrades that would be necessitated by construction of the new substation and switching station. EIR Section 2.4.3 (at page 2-12) says:

> "Upgrades to PG&E facilities are anticipated to include construction or reconfiguration of utility line structures and transmission line circuits involving four to six new transmission poles. If required, the new poles would be located adjacent to the proposed substation and switching station...The Applicant would construct the switching station; PG&E would construct the electrical connections to its facility. PG&E ultimately would own and operate the switching station and interconnection components."

The following clarifications are in order: First, in addition to the four to six new poles described to facilitate interconnection, up to four replacement poles could be associated with replacement or reconfiguration of the existing utility line structures within the existing right of way. Second, a stormwater retention basin is planned for the proposed switching station facility and would be constructed within the switching station permanent footprint. An updated design of the proposed switching station is shown in Final EIR Appendix A1. Third, the switching station would be electrically connected to the substation. Finally, the Applicant would build and own the Project substation while PG&E will own and operate the switching station and interconnection lines.

New Design Features and Applicant Proposed Measures

The newly proposed design features and APMs, set forth below, would be implemented as part of the Project and would be enforceable if adopted by County decision-makers as conditions of use permit approval. These additional measures are not "mitigation measures" as that term is defined for purposes of CEQA. The newly proposed measures include:

1. Preparation of a worker environmental awareness training program (WEAP) to be implemented during construction;
2. Continued application of relevant provisions from USFWS's Land-Based Wind Energy Guidelines (WEGs)[3] during construction and operation of the Project;

[3] USFWS, 2012. U.S. Fish and Wildlife Service Land-Based Wind Energy Guidelines. https://www.fws.gov/ecological-services/es-library/pdfs/WEG_final.pdf. March 23, 2012.

3. Preparation and implementation of a Bird and Bat Conservation Strategy (BBCS), which would detail measures to be taken during Project operations to reduce impacts to birds and bats. Measures include post-construction mortality monitoring, prey reduction techniques, and adaptive management strategies;
4. Development of a Nesting Bird Management Plan (NBMP) in coordination with CDFW to avoid or minimize adverse impacts to nesting birds during construction. The NBMP would establish nesting seasons, species-specific avoidance buffers, and measures to reduce disturbance to nests;
5. Application of measures described in the Avian Power Line Interaction Committee (APLIC) guidelines[4,5] to reduce avian collisions and electrocution with Project infrastructure, including installation of bird flight diverters and electrical design recommendations;
6. Adoption of a Federal Aviation Administration (FAA)-approved lighting plan for MET towers, and downward-facing and shielded lighting on other Project components in consideration of the USFWS Communication Tower Guidance,[6] to reduce the potential for nocturnal bird collisions;
7. Implementation of an Invasive Species Management Plan prior to construction, to include invasive weed control measures and best practices to reduce introduction or limit the spread of noxious weed species; and
8. Avoidance of sensitive habitats and waterways during application of dust palliatives.

Additional (6.2 MW Capacity) Turbine Option

As explained in Draft EIR Sections ES.2.1, 1.2 and 2.1, *Project Overview*, the Applicant initially proposed to construct, operate, maintain, and ultimately decommission up to 72 wind turbines, each of which would be no more than 679 feet tall, as measured from ground level to vertical blade tip (total tip height), and would have a generating capacity of 3.0 to 5.7 megawatts (MW). Draft EIR Section 2.4.1, *Wind Turbine Generators*, further explains: "The 72 turbine sites represent feasible locations for a range of turbine models, each with different dimensions, generating capacity, and layout requirements." Prior to construction, the Applicant would determine which model(s) would be installed based on component availability from the manufacturer, data on onsite wind resources, and other Project-specific factors. Regardless of the turbine model(s) ultimately selected, the Project would have the capacity to generate up to 216 MW. Thus, selection of a higher capacity turbine would require fewer turbines than if a lower-capacity turbine were selected for use.

Since issuance of the Draft EIR, an additional, higher-capacity turbine model has become commercially available. The newer model offers up to 6.2 MW in capacity and would have

4 Avian Power Line Interaction Committee (APLIC), 2012. Reducing Avian Collisions with Power Lines: The State of the Art in 2012. October 2012.

5 APLIC, 2006. Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006. PIER Final Project Report CEC-500-2006-022.

6 USFWS, 2018. Recommended Best Practices for Communication Tower Design, Siting, Construction, Operation, Maintenance, and Decommissioning. https://www.fws.gov/migratorybirds/pdf/management/usfwscommtowerguidance.pdf. April 2018.

different dimensions than those described and analyzed in the Draft EIR. **Table 1-1** compares the specifications of the turbine model options.

Further, as explained in the Applicant's description of proposed changes to the Project (Final EIR Appendix A1), "recent advancements in turbine technology have trended toward increasing the generating capacity and efficiency of individual turbines, resulting in the potential to install fewer turbines with higher rated nameplate generating capacities…. For instance, advanced software applications may allow a 5.7 MW turbine to operate at a 6.0 MW capacity without physical changes to the turbine." The proposed, expanded capacity range captures any capacity upgrades that manufacturers could release for the originally proposed turbine models prior to construction and includes a new model that was not commercially available when the Draft EIR was issued.

TABLE 1-1
COMPARISON OF TURBINE OPTIONS

Turbine Specifications	Turbine Models Proposed in Draft EIR		Proposed New Option	Percent Change from maximum Assumed in Draft EIR
	3.0 MW	5.7 MW	6.2 MW	
Number of Turbine Towers[1]	72	37	34	--
Rotor Diameter	417 ft (127 m)	531 ft (162 m)	558 ft (170 m)	+5%
Blade Length	186 ft (62 m)	237 ft (79 m)	250 ft (83 m)	+5%
Hub Height	292 ft (89 m)	410 ft (125 m)	377 ft (115 m)	-8%
Total Turbine Height	500 ft (152.5 m)	679 ft (206 m)	656 ft (200 m)	-3%
Rotor-swept Area per Turbine	136,572 sq ft	221,452 sq ft	244,545 sq ft	+10%
Total Rotor-swept Area	9,833,184 sq ft	8,193,724 sq ft	8,314,530 sq ft	-15%

NOTE:

1 The EIR assumes the Project could include up to 72 turbines. The actual total number of wind turbines deployed at the site would depend on the turbine models selected for the final design, including the potential for a mix of turbine sizes based on the factors described above. Calculations are estimations that are illustrative of the range of variation from the maximum number to the least number of wind turbines that could potentially be deployed at the site.

SOURCE:

Table 1 in Final EIR Appendix A1

1.2.3.2 Analysis of Project Changes

This analysis evaluates whether the proposed changes to the Project would result in either a new significant impact relative to those disclosed in the Draft EIR, or (unless mitigated) a substantial increase in the severity of an earlier-disclosed impact. The analysis considers input provided on the Applicant's behalf (Final EIR Appendix A1), but relies on the independent judgment of the County and its consultants. As detailed below, the proposed changes in the Project would not result in any new or substantially more severe environmental impacts beyond those that were disclosed in the Draft EIR. To the contrary, analysis of the changes shows that the changes result in either no change to the conclusions reached in the Draft EIR or would result in reduced potential for an adverse impact to occur. Accordingly, the proposed changes are not considered "significant new information" requiring recirculation under CEQA Guidelines Section 15088.5.

Aesthetics

The Draft EIR analyzes the direct and indirect effects of the Project on Aesthetics in Section 3.2.4.2, *Direct and Indirect Effects of the Project*, and its cumulative effects in Section 3.2.5, *Cumulative Analysis*.

Scenic Vistas Character or Visual Quality of Publicly Accessible Views

The Draft EIR's analysis of Impact 3.2-1 concludes that the Project would, unless mitigated, have a substantial adverse effect on a scenic vista or substantially degrade the character or visual quality of views from publicly accessible vantage points. With the implementation of Mitigation Measure 3.2-1 (Project Design to Reduce Aesthetic Impacts at KOP 1), the impact would remain significance and unavoidable. See Draft EIR Table ES-2, *Summary of Impacts and Mitigation Measures*. Proposed realignments of access roads and electric collection lines would not change the less-than-significant determination in the Draft EIR during Project construction. The proposed 6.2 MW turbine model would be 6 meters (20 feet) shorter than the tallest turbine proposed in the Draft EIR (5.7 MW) and the hub height would be 10 meters (33 feet) shorter. The rotor-swept area of the 6.2 MW turbine would be 8 meters (26 feet) wider because the blade length would be 4 meters (13 feet) longer compared to the 5.7 MW model. The proposed turbines would remain visible and largely indistinguishable from the 5.7 MW turbines shown in visual simulations from KOPs 1 through 5 within the Mountain Communities area along SR 299 (see Draft EIR Figures 3.2-7 through 3.2-11). Shorter hub heights may reduce the visibility of the nacelles of some turbines so that they would not be visible above selected ridgelines. This may reduce some sources of night lighting, however, rotor blades would remain a source of contrast along the ridgeline in terms of form, color, and motion. View of the proposed turbines from KOP 6 and 7 (see Draft EIR Figures 3.2-12a though 3.2-13b) would remain indistinguishable from these distances (approximately 19 and 28 miles from the nearest turbine, respectively). Because the new proposed turbines would be virtually indistinguishable from the models analyzed in the Draft EIR, the visual impact would remain significant and unavoidable.

Scenic Resources within a State Scenic Highway

The Draft EIR's analysis of Impact 3.2-2 concludes that the Project would have a less-than-significant impact relating to potential damage to scenic resources within a state scenic highway. The proposed turbines would be located in the same potential locations as the turbines analyzed in the Draft EIR. No new or substantially more severe impacts would result from this Project change.

Light or Glare

The Draft EIR's analysis of Impact 3.2-3 concludes that the Project would have a less-than-significant impact relating to its potential to create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area. Some sources of night lighting may be reduced due to the shorter hub height of the new proposed turbines. The proposed adoption of a FAA-approved lighting plan for meteorological towers and downward-facing and shielded lighting on other project components would further reduce nighttime lighting. The less-than-significant impact determination in the Draft EIR would remain unchanged.

Air Quality

The Draft EIR analyzes the direct and indirect effects of the Project on Air Quality in Section 3.3.3.2, *Direct and Indirect Effects of the Project*, and its cumulative effects in Section 3.3.4, *Cumulative Analysis*. The proposed changes in the Project would not result in any new or substantially more severe environmental impacts beyond those that were disclosed in the Draft EIR for Air Quality Impacts 3.3-1 through 3.3-4, listed below. If the new proposed 6.2 MW turbine model was selected for the Project, fewer turbine locations would be used, which would likely result in somewhat reduced construction-related and decommissioning-related impacts. It is not anticipated that any associated reductions would change the impact conclusions for Air Quality.

Summaries of impact conclusions disclosed in the Draft EIR are as follows:

- The Draft EIR's analysis of Impact 3.3-1 concludes that the Project would, unless mitigated, generate pollutant emissions that could conflict or obstruct implementation of the applicable air quality plan. With the implementation of Mitigation Measure 3.3-1a (Tier 4 Final Emission Standards for Off-road Construction Equipment) and 3.3-1b (Idling Restrictions and Fuel Use), the impact would be less-than-significant.
- The Draft EIR's analysis of Impact 3.3-2a concludes that the Project would result in a less-than-significant impact relating to the emission of reactive organic gasses (ROG) that could result in a cumulatively considerable net increase of ozone, for which the Project region is non-attainment of State ambient air quality standards.
- The Draft EIR's analysis of Impact 3.3-2b concludes that the Project would, unless mitigated, generate NOx emissions that could result in a cumulatively considerable net increase of ozone, for which the Project region is non-attainment of State ambient air quality standards. With the implementation of Mitigation Measure 3.3-2b ([Mitigation Measure 3.3-1a] Tier 4 Final Emission Standards for Off-road Construction Equipment and [Mitigation Measure 3.3-1b] Idling Restrictions and Fuel Use), the impact would be less-than-significant.
- The Draft EIR's analysis of Impact 3.3-2c concludes that the Project would, unless mitigated, generate PM10 emissions that would result in a cumulatively considerable net increase of PM10, for which the Project region is non-attainment of State ambient air quality standards. With the implementation of Mitigation Measure 3.3-2c (Fugitive Dust Controls), the impact would remain significant and unavoidable.
- The Draft EIR's analysis of Impact 3.3-2d concludes that the Project would result in a less-than-significant impact relating to the cumulatively considerable net increases of criteria pollutants in other air district jurisdictions.
- The Draft EIR's analysis of Impact 3.3-3 concludes that the Project would result in a less-than-significant impact regarding the generation of pollutant emissions resulting in a cumulatively considerable net increase of criteria pollutants, for which the Project region is non-attainment of State ambient air quality standards.
- The Draft EIR's analysis of Impact 3.3-4 concludes that the Project would result in a less-than-significant impact regarding the generation of emissions of toxic air contaminants, potentially exposing sensitive receptors to harmful pollutant concentrations.

Biological Resources

The Draft EIR analyzes the direct and indirect effects of the Project on Biological Resources in Section 3.4.3.2, *Direct and Indirect Effects of the Project*, and its cumulative effects in Section 3.4.4, *Cumulative Analysis*.

Special-Status Plant Species

The Draft EIR's analysis of Impact 3.4-1 concludes that the Project could, unless mitigated, cause a significant impact to special-status plant species. With the implementation of Mitigation Measure 3.4-1 (Avoid and Minimize Construction Impacts on Special-Status Plants), the impact would be less-than-significant. Proposed realignments of access roads and electric connection lines would occur in the six "Study Areas" described in Section 1.2.3.1. Vegetation communities within these locations are consistent with those described in the Draft EIR. There are no unique soil types, new vegetation assemblages, or rock outcrops in these areas. No special-status plant or new sensitive natural communities were observed during surveys. Mitigation Measure 3.4-1 (Avoid and Minimize Construction Impacts on Special-Status Plants) would require preconstruction surveys of locations that have not been previously surveyed and implementation of the described measure if special status plant species are observed. Therefore, proposed Project changes would not result in new or substantially more severe impacts regarding special-status plant species.

Bald and Golden Eagles

The Draft EIR's analysis of Impact 3.4-2 concludes that the Project could, unless mitigated, cause a significant impact on nesting bald and golden eagles. With the implementation of Mitigation Measure 3.4-2 (Avoid and minimize construction-related impacts to nesting eagles), the impact would be less-than-significant.

The Draft EIR's analysis of Impact 3.4-3 concludes that the Project could, unless mitigated, result in significant adverse impacts to or direct mortality of bald and golden eagles. With the implementation of Mitigation Measures 3.4-3a (Avoid and minimize operational impacts on avian and bat species), 3.4-3b (Monitor avian and bat mortality rates during project operations), and 3.4-3c (Offset operational impacts on eagles through compensatory mitigation, if necessary), the impact would remain significant and unavoidable. The proposed 6.2 MW turbine model would have a larger rotor-swept area than both of the models analyzed in the Draft EIR, which could result in a greater strike risk to birds and bats. As shown in Table 1-1, *Comparison of Turbine Options*, the new turbine option would increase the rotor swept area relative to the largest rotor swept area analyzed in the Draft EIR; however, since fewer turbines would be required to generate 216 MW, the Project's overall rotor-swept area would be reduced. The potential use of the proposed 6.2 MW turbine in turbine type would not change the impact conclusion reached in the Draft EIR, and so would not result in a new or substantially more severe impact to bald and golden eagles. The additional APMs identified in Section 1.2.3.1 would further reduce impacts to eagles, but the impact would remain significant and unavoidable.

The Draft EIR's analysis of Impact 3.4-4 concludes that decommissioning of the Project could result in adverse impacts to nesting bald and golden eagles. With the implementation of

Mitigation Measure 3.4-2 (Avoid and minimize construction-related impacts to nesting eagles), the impact would be less-than-significant.

California Spotted Owl

The Draft EIR's analysis of Impact 3.4-5 concludes that the Project would have a less-than-significant impact regarding California spotted owls. For the reasons described above in connection with bald and golden eagles, changes in the total rotor-swept area resulting from the 6.2 MW turbine would not result in a new or substantially more severe impact to spotted owls. Additional applicant proposed measures would further reduce the less-than-significant impact.

Migratory and Resident Raptors (excluding Eagles)

The Draft EIR's analysis of Impact 3.4-6 concludes that the Project could, unless mitigated, result in adverse impacts on nesting raptors (other than goshawks). With the implementation of Mitigation Measure 3.4-6 (Avoid and minimize construction-related impacts on nesting raptors), the impact would be less than significant.

The Draft EIR's analysis of Impact 3.4-7 concludes that the Project could, unless mitigated, result in adverse impacts on nesting goshawks. With the implementation of Mitigation Measure 3.4-7a ([Mitigation Measure 3.4-6] Avoid and minimize construction-related impacts on nesting raptors) and 3.4-7b (Avoid and minimize construction-related impacts to nesting goshawks), the impact would be less than significant.

The Draft EIR's analysis of Impact 3.4-8 concludes that the Project could, unless mitigated, result in mortality and injury to raptors (including goshawk), as a result of collisions with wind turbines and electrical transmission lines. With the implementation of Mitigation Measure 3.4-8 ([Mitigation Measure 3.4-3b] Monitor avian and bat mortality rates during project operations), the impact would remain significant and unavoidable. Similar to the discussion under Impact 3.4-3 regarding bald and golden eagles, use of the proposed 6.2 MW turbine would not result in a new or substantially more severe impact to other raptors. The proposed removal of turbine location M03 and the additional APMs identified in Section 1.2.3.1 would further reduce impacts to raptors; however, the impact would remain significant and unavoidable.

Waterfowl

The Draft EIR's analysis of Impact 3.4-9 concludes that the Project would have a less-than-significant impact regarding mortality and injury to waterfowl as a result of collisions with wind turbines and electrical transmission lines. For the reasons described above in connection with bald and golden eagles, changes in the total rotor-swept area resulting from the 6.2 MW turbine would not result in a new or substantially more severe impact to waterfowl. The additional APMs identified in Section 1.2.3.1 would further reduce the less-than-significant impact.

Sandhill Crane

The Draft EIR's analysis of Impact 3.4-10 concludes that the Project would have a less-than-significant impact regarding sandhill cranes during migratory movements in fall and spring. For

the reasons described above in connection with bald and golden eagles, changes in the total rotor-swept area resulting from the 6.2 MW turbine would not result in a new or substantially more severe impact to sandhill cranes. The additional APMs identified in Section 1.2.3.1 would further reduce the less-than-significant impacts.

Nesting Songbirds

The Draft EIR's analysis of Impact 3.4-11 concludes that the Project would have a less-than-significant impact regarding nesting songbirds, potentially including special-status species. For the reasons described above in connection with bald and golden eagles, changes in the total rotor-swept area resulting from the 6.2 MW turbine would not result in a new or substantially more severe impact to nesting songbirds. The additional APMs identified in Section 1.2.3.1 would further reduce the less-than-significant impacts.

Pit Roach, Amphibians and Western Pond Turtle

The Draft EIR's analysis of Impact 3.4-12 concludes that the Project could, unless mitigated, result in habitat loss and water quality impacts on pit roach, special-status amphibians and western pond turtle. With the implementation of Mitigation Measure 3.4-12 ([Mitigation Measure 3.12-1] Water Quality Best Management Practices during Activities in and near Water) and 3.4-16b (Avoid or Minimize Impacts to Wetlands and Other Waters), the impact would be less than significant. Surveys of proposed realigned access roads and connection lines indicate that these areas are consistent with the description of habitats identified in the Draft EIR. Therefore, potential impacts to these species would be substantially similar to those of the Project, and the significance conclusions would remain unchanged.

Bats

The Draft EIR's analysis of Impact 3.4-13 concludes that the Project could, unless mitigated, result in direct mortality and injury to bats, including special-status species. With the implementation of Mitigation Measure 3.4-13 ([Mitigation Measure 3.4-3b] Monitor avian and bat mortality rates during project operations), the impact would remain significant and unavoidable. Similar to the discussion under Impact 3.4-3 regarding bald and golden eagles, use of the proposed 6.2 MW turbine would not result in a new or substantially more severe impact to bats. Additional APMs would further reduce impacts to raptors, but the impact would remain significant and unavoidable.

Terrestrial Mammals

The Draft EIR's analysis of Impact 3.4-14 concludes that the Project would have a less-than-significant impact regarding temporary adverse impacts to special-status mammals. Surveys of proposed realigned access roads and connection lines indicate that these areas are consistent with the description of habitats identified in the Draft EIR. No new or substantially more severe impacts to terrestrial mammals would result from the Project changes.

Rocky Mountain Maple Riparian Scrub

The Draft EIR's analysis of Impact 3.4-15 concludes that the Project would, unless mitigated, result in adverse impacts to riparian habitat or other sensitive vegetation communities. With the

implementation of Mitigation Measures 3.4-15a ([Mitigation Measure 3.4-16b] Avoid and minimize impacts to wetland and other waters) and 3.4-15b (Compensate for Impacts to Rocky Mountain Maple Riparian Scrub Habitat), the impact would be less-than-significant. No new or substantially more severe impacts to riparian habitat or other sensitive vegetation communities would result from the Project changes.

Wetlands

The Draft EIR's analysis of Impact 3.4-16 concludes that the Project could, unless mitigated, result in adverse impacts to wetlands and other waters. With the implementation of Mitigation Measures 3.4-16a ([Mitigation Measure 3.12-1] Water Quality Best Management Practices during Activities in and near Water), 3.4-16b (Avoid and Minimize Impacts to Wetlands and Other Waters) and 3.4-16c (Compensate for Impacts to Wetlands and other Waters), the impact would be less than significant. Proposed realignments of access roads and electric connection lines would occur as described in Section 1.2.3.1 and shown in Final EIR Appendix A1. In one location, the revised Project would move the overhead collection line and associated access road up to approximately 250 feet west in order to avoid existing drainage and associated aquatic features, including a perennial stream, intermittent stream, and riparian wetland. While impacts to this location would be reduced, potential adverse impacts would remain in other areas of the Project Site. No new or substantially more severe wetlands impacts would result from the Project changes.

Migratory Species

The Draft EIR's analysis of Impact 3.4-17 concludes that the Project would have a less-than-significant impact regarding movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. The Draft EIR fully acknowledges the Project Site location within the Pacific Flyway and expressly considers bird migration, including the seasonality of avian activity. No new or substantially more severe impacts to riparian habitat or other sensitive vegetation communities would result from the Project changes.

Cumulative Impacts

The Draft EIR's analysis of Impact 3.4-18 concludes that the Project could cause a cumulatively considerable contribution to a significant cumulative impact to avian and bat species from collisions with Project infrastructure. No new or substantially more severe cumulative impact would result, and the Project's contributes to cumulative impacts would remain substantially the same as result of the Project changes.

Communications Interference

The Draft EIR analyzes the direct and indirect effects of the Project on Communications Interference in Section 3.5.3.2, *Direct and Indirect Effects of the Project*, and its cumulative effects in Section 3.5.4, *Cumulative Analysis*. The proposed changes in the Project would not result in any new or substantially more severe environmental impacts beyond those that were disclosed in the Draft EIR for Communications Interference Impacts 3.5-1 through 3.5-3, listed below. As noted in in the technical report provided in Draft EIR Appendix D, the analysis of

potential impacts relating to communications interference relies on the potential turbine locations, which are the same but for removal of location M03, and turbine dimensions including hub height, total turbine height, and rotor diameter. As shown in Table 1-1, above, the hub height of the new turbine option would be shorter than analyzed in the Draft EIR (115 meters [m] above ground surface rather than 125 m), the total turbine height would be reduced (200 m instead of 106 m), and the rotor diameter would be increased (170 m instead of 162 m). Overall, these changes would not result in any new or substantially more severe impacts related to communications interference riparian habitat or other sensitive vegetation communities would result from the Project changes than disclosed in the Draft EIR.

Summaries of impact conclusions disclosed in the Draft EIR are as follows:

- The Draft EIR's analysis of Impact 3.5-1 concludes that the Project could, unless mitigated, cause intermittent interference to or freezing of television reception at some residences in the service area of the stations that broadcast over the Project Site. With the implementation of Mitigation Measure 3.5-1 (Correct or mitigate conflicts with television signals), the impact would be less-than-significant.
- The Draft EIR's analysis of Impact 3.5-2 concludes that the Project would have a less-than-significant impact regarding interference with existing navigational systems operated by the FAA or the U.S. military.
- The Draft EIR's analysis of Impact 3.5-3 concludes that the Project could, unless mitigated, cause microwave relay interference due to turbine location adjustments or currently unknown transmissions. With the implementation of Mitigation Measure 3.5-3 (Correct or mitigate conflicts with microwave signals), the impact would be less than significant.

Cultural Resources and Tribal Cultural Resources

The Draft EIR analyzes the direct and indirect effects of the Project on Cultural Resources and Tribal Cultural Resources in Section 3.6.3.2, *Direct and Indirect Effects of the Project*, and its cumulative effects in Section 3.6.4, *Cumulative Analysis*.

The Draft EIR's analysis of Impact 3.6-1 concludes that the Project could, unless mitigated, cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. With the implementation of Mitigation Measure 3.6-1 (Archaeological Research Design and Treatment Plan), the impact would be less than significant. The Project as revised would avoid impacts to resource FW11. Because the footprint of the collection line would no longer intersect FW 11, no substantial adverse change to this archaeological resource would occur and Mitigation Measure 3.6-1 would not be required.

Proposed realignments of other collection lines and access roads would occur in the six Study Areas described in Section 1.2.3.1 and shown in Figures 1 and 2 in Final EIR Appendix A1. The Applicant prepared a supplemental cultural resources survey that evaluated potential impacts of the proposed changes to the Project that have occurred since the County issued the Draft EIR. The County and its consultant independently reviewed the supplemental study and found it to be supported by credible science-based research, reference materials, and informed professional judgments of qualified scientists. It concludes that the "[e]nvironmental conditions in Survey

Areas 1-6 closely match those described during previous surveys conducted for the Project…. Ground disturbances associated with logging activities, including tracks, pits, and ruts consistent with the use of trucks and large tracked equipment, were observed in all locations. Understory management in Survey Areas 4, 5, and 6 appeared to have occurred recently. No cultural resources were observed, and Survey Areas 1-6 do not possess heightened potential for the presence of buried cultural resources relative to the adjacent, previously surveyed areas." Therefore, the project changes would not result in a new or substantially more severe impact than described in the Draft EIR.

The Draft EIR's analysis of Impact 3.6-2 concludes that the Project could, unless mitigated, disturb human remains, including those interred outside of formal cemeteries. With the implementation of Mitigation Measure 3.6-2 (Inadvertent Discovery of Human Remains), the impact would be less-than-significant. Surveys of proposed realignments of access roads and collection lines did not identify areas used for human burial purposes. However, as discussed in Impact 3.6-2, the possibility of encountering human remains within the Project area cannot be discounted. Mitigation Measure 3.6-2 would therefore be applied to these six locations as well. Disturbance of these new locations would not result in a new or substantially more severe archaeological resources impact than described in the Draft EIR.

The Draft EIR's analysis of Impact 3.6-3 concludes that the Project would, unless mitigated, cause a substantial adverse change in the significance of a tribal cultural resource. With the implementation of Mitigation Measures 3.6-3a ([Mitigation Measure 3.6-1] Archaeological Research Design and Treatment Plan), 3.6-3b (Coordination with the Pit River Tribe during Project Development), 3.6-3c (Detailed Recordation of Features Considered Culturally Significant to the Pit River Tribe), and 3.6-3d (Cultural Resources Monitoring Program with the Pit River Tribe during Construction), the impact would remain significant and unavoidable. The revised Project would avoid potential impacts to FW 11, a recommended tribal cultural resource. New access road and collection line alignments could be located within tribal cultural resource areas. Potential impacts to tribal cultural resources would therefore remain significant and unavoidable.

Energy

The Draft EIR analyzes the direct and indirect effects of the Project on Energy in Section 3.7.3.2, *Direct and Indirect Effects of the Project*, and its cumulative effects in Section 3.7.4, *Cumulative Analysis*. The Draft EIR's analysis of Impact 3.7-1 concludes that the Project would have a less-than-significant impact regarding the wasteful, inefficient, or unnecessary consumption or use of energy. The proposed changes in the Project would not result in any new or substantially more severe environmental impacts beyond those that were disclosed in the Draft EIR for Energy Impact 3.7-1, listed below. If the new proposed 6.2 MW turbine model was selected for the Project, fewer turbine locations would be used, which would likely result in somewhat reduced construction-related and decommissioning-related impacts. It is not anticipated that any associated reductions would change the impact conclusion for Energy.

Forestry Resources

The Draft EIR analyzes the direct and indirect effects of the Project on Forestry Resources in Section 3.8.3.2, *Direct and Indirect Effects of the Project*, and its cumulative effects in Section 3.8.4, *Cumulative Analysis*. The Draft EIR's analysis of Impact 3.8-1 concludes that the Project would have a less-than-significant impact regarding the loss of forest land or conversion of forest land to non-forest use. The proposed changes in the Project would not result in any new or substantially more severe environmental impacts beyond those that were disclosed in the Draft EIR for Forestry Resources Impact 3.8-1, listed below. If the new proposed 6.2 MW turbine model was selected for the Project, fewer turbine locations would be used, which would likely result in reduced impacts. It is not anticipated that any associated reductions would change the impact conclusion for Forestry Resources.

Geology, Soils, and Paleontological Resources

The Draft EIR analyzes the direct and indirect effects of the Project on Geology, Soils, and Paleontological Resources in Section 3.9.3.2, *Direct and Indirect Effects of the Project*, and its cumulative effects in Section 3.9.4, *Cumulative Analysis*. The proposed changes in the Project would not result in any new or substantially more severe environmental impacts beyond those that were disclosed in the Draft EIR for Geology, Soils, and Paleontological Resources Impacts 3.9-1 through 3.9-7, listed below. If the new proposed 6.2 MW turbine model was selected for the Project, fewer turbine locations would be used, which would likely result in somewhat reduced construction-related and decommissioning-related impacts. It is not anticipated that any associated reductions would change the impact conclusions for Geology, Soils, and Paleontological Resources. Summaries of impact conclusions disclosed in the Draft EIR are as follows:

- The Draft EIR's analysis of Impact 3.9-1 concludes that the Project would have a less-than-significant impact regarding the risk of loss, injury, or death involving strong seismic ground shaking.
- The Draft EIR's analysis of Impact 3.9-2 concludes that the Project would have a less-than-significant impact regarding the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction.
- The Draft EIR's analysis of Impact 3.9-3 concludes that the Project would have a less-than-significant impact regarding the risk of loss, injury, or death involving landslides.
- The Draft EIR's analysis of Impact 3.9-4 concludes that the Project would have a less-than-significant impact regarding substantial soil erosion or the loss of topsoil.
- The Draft EIR's analysis of Impact 3.9-5 concludes that the Project would have a less-than-significant impact regarding its location on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.
- The Draft EIR's analysis of Impact 3.9-6 concludes that the Project would have a less-than-significant impact regarding its location on expansive or corrosive soil, as defined in California Building Code Section 1803.5.3, creating substantial direct or indirect risks to life or property.

- The Draft EIR's analysis of Impact 3.9-7 concludes that the Project would have a less-than-significant impact regarding soils incapable of adequately supporting the use of a septic tank.

Greenhouse Gas Emissions

The Draft EIR analyzes the direct and indirect effects of the Project on Greenhouse Gas Emissions in Section 3.10.3.2, *Direct and Indirect Effects of the Project*, and its cumulative effects in Section 3.10.4, *Cumulative Analysis*. The proposed changes in the Project would not result in any new or substantially more severe environmental impacts beyond those that were disclosed in the Draft EIR for Greenhouse Gas Emission Impacts 3.10-1 and 3.10-2, listed below. If the new proposed 6.2 MW turbine model was selected for the Project, fewer turbine locations would be used, which would likely result in somewhat reduced construction-related and decommissioning-related impacts. It is not anticipated that any associated reductions would change the impact conclusions for Greenhouse Gas Emissions. Summaries of impact conclusions disclosed in the Draft EIR are as follows:

- The Draft EIR's analysis of Impact 3.10-1 concludes that the Project would have a less-than-significant impact regarding the generation of GHG emissions, directly and indirectly.
- The Draft EIR's analysis of Impact 3.10-2 concludes that the Project would have a less-than-significant impact regarding conflicts with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

Hazards and Hazardous Materials

The Draft EIR analyzes the direct and indirect effects of the Project on Hazards and Hazardous Materials in Section 3.11.3.2, *Direct and Indirect Effects of the Project*, and its cumulative effects in Section 3.11.4, *Cumulative Analysis*. The proposed changes in the Project would not result in any new or substantially more severe environmental impacts beyond those that were disclosed in the Draft EIR for Hazards and Hazardous Materials Impacts 3.11-1 through 3.11-5 and 3.11-7, listed below. If the new proposed 6.2 MW turbine model was selected for the Project, fewer turbine locations would be used, which would likely result in somewhat reduced construction-related and decommissioning-related impacts. It is not anticipated that any associated reductions would change the impact conclusions for Hazards and Hazardous Materials. Summaries of impact conclusions disclosed in the Draft EIR are as follows:

- The Draft EIR's analysis of Impact 3.11-1 concludes that the Project would have a less-than-significant impact regarding the creation of a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials or wastes.
- The Draft EIR's analysis of Impact 3.11-2 concludes that the Project would have a less-than-significant impact regarding the creation of a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- The Draft EIR's analysis of Impact 3.11-3 concludes that the Project could, unless mitigated, lead to turbine failure, resulting in a potential hazard. With the implementation of Mitigation Measure 3.11-3 (Mandatory Setbacks), the impact would be less-than-significant.

- The Draft EIR's analysis of Impact 3.11-4 concludes that the Project would have a less-than-significant impact regarding ice shed from turbine blades.
- The Draft EIR's analysis of Impact 3.11-5 concludes that the Project would have a less-than-significant impact regarding applications of certain pesticides.
- The Draft EIR's analysis of Impact 3.11-7 concludes that the Project could, unless mitigated, impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. With the implementation of Mitigation Measure 3.11-7 ([Mitigation Measure 3.14-3] Traffic Management Plan), the impact would be less-than-significant.

The Draft EIR's analysis of Impact 3.11-6 concludes that the Project would have a less-than-significant impact regarding alternating changes in light intensity that could occur when turbine blades are rotating. A revised shadow flicker analysis was prepared by EDR on behalf of the Applicant in order to account for the newly-proposed 6.2 MW turbine (Final EIR Appendix A3). The analysis included a hypothetical Project layout of 72 higher capacity models to provide a conservative assessment of potential shadow flicker if the 6.2 MW turbine model was used by the Project. To be clear, the study used a hypothetical scenario only - under no circumstance would 72 6.2 MW turbines be constructed on the Project Site under actual Project conditions because the resulting capacity generated would far exceed the proposed maximum 216 MW output. The updated analysis determined that three new receptors would be added to the "0-1 hours/year" exposure category and five existing receptors could experience up to 20 additional hours of shadow flicker per year. No new receptors would be exposed to more than 30 hours of shadow flicker per year, which is the threshold for occupied structures recommended by the National Association of Regulatory Utility Commissioners (NARUC).[7] One of the two receptors that, according to the modeling, would be exposed to more than 30 hours of shadow flicker per year, is located near turbine locations D04, D05 and E01 on the western side of the Project Site; the other is located near turbine locations N02, N02A, N05, M08, and M10 (turbine locations are shown on Revised Draft EIR Figure 2-5 in Final EIR Appendix H). Therefore, the Project changes would result in no new or substantially more severe shadow flicker impacts than were disclosed in the Draft EIR.

Hydrology and Water Quality

The Draft EIR analyzes the direct and indirect effects of the Project on Hydrology and Water Quality in Section 3.12.3.2, *Direct and Indirect Effects of the Project*, and its cumulative effects in Section 3.12.4, *Cumulative Analysis*. The proposed changes in the Project would not result in any new or substantially more severe environmental impacts beyond those that were disclosed in the Draft EIR for Hydrology and Water Quality Impacts 3.12-2, 3.12-3, and 3.12-5, listed below. If the new proposed 6.2 MW turbine model was selected for the Project, fewer turbine locations would be used, which would likely result in somewhat reduced construction-related and decommissioning-related impacts. It is not anticipated that any associated reductions would change the impact conclusions for Hydrology and Water Quality.

[7] NARUC, 2012. Wind Energy & Wind Park Siting and Zoning Best Practices and Guidance for States. https://pubs.naruc.org/pub/FA8663AC-A840-E8B3-FC1D-C7AFEC3ED9D6. January 2012.

The Draft EIR's analysis of Impact 3.12-1 concludes that the Project would, unless mitigated, violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality during construction and decommissioning. With the implementation of Mitigation Measure 3.12-1 (Water Quality Best Management Practices during Activities in and near Water), the impact would be less-than-significant. Proposed realignments of access roads and electric connection lines would occur in six locations, some of which would occur outside, but within 500 feet of, the Project Site boundary. In one location the revised Project would move the overhead collection line and associated access road up to approximately 250 feet west in order to avoid existing drainage and associated aquatic features, including a perennial stream, intermittent stream, and riparian wetland. Potential water quality impacts (e.g., erosion and sedimentation, reduced water quality, runoff) would therefore be reduced at this location. Potential adverse water quality impacts would remain in other areas of the Project Site. No new or substantially more severe water quality impacts would result from Project changes.

The Draft EIR's analysis of Impact 3.12-4 concludes that the Project would, unless mitigated, substantially increase siltation of waterways or provide substantial additional sources of polluted runoff during construction and decommissioning. With the implementation of Mitigation Measure 3.12-4 ([Mitigation Measure 3.12-1] Water Quality Best Management Practices during Activities in and near Water), the impact would be less-than-significant. As discussed above under Impact 3.12-1, although potential siltation and polluted runoff effects would be reduced at one location as a result of Project changes, the Project as a whole would still require implementation of Mitigation Measure 3.12-4 to reduce impacts to less-than-significant. No new or substantially more severe impacts would result from Project changes.

Summaries of the remaining impact conclusions disclosed in the Draft EIR, none of which would be made to be more severe than previously disclosed, are as follows:

- The Draft EIR's analysis of Impact 3.12-2 concludes that the Project could, unless mitigated, substantially degrade groundwater quality as a result of blasting. With the implementation of Mitigation Measure 3.12-2 (Best Management Practices for Blasting), the impact would be less-than-significant.
- The Draft EIR's analysis of Impact 3.12-3 concludes that the Project would have a less-than-significant impact regarding decreasing groundwater supplies or interfering with groundwater recharge such that the project may impede sustainable groundwater management of the basin
- The Draft EIR's analysis of Impact 3.12-5 concludes that the Project would, unless mitigated, conflict with implementation of the Central Valley Basin Plan. With the implementation of Mitigation Measure 3.12-5a ([Mitigation Measure 3.12-1] Water Quality Best Management Practices during Activities in and near Water) and 3.12-5b ([Mitigation Measure 3.12-2] Best Management Practices for Blasting), the impact would be less-than-significant.

Noise and Vibration

The Draft EIR analyzes the direct and indirect effects of the Project on Noise and Vibration in Section 3.13.3.2, *Direct and Indirect Effects of the Project*, and its cumulative effects in Section 3.13.4, *Cumulative Analysis*. The proposed changes in the Project would not result in any new or substantially more severe environmental impacts beyond those that were disclosed in the

Draft EIR for Noise and Vibration Impacts 3.13-2 and 3.13-3, listed below. If the new proposed 6.2 MW turbine model was selected for the Project, fewer turbine locations would be used, which would likely result in somewhat reduced construction-related and decommissioning-related impacts. It is not anticipated that any associated reductions would change the impact conclusions for Noise and Vibration.

The Draft EIR's analysis of Impact 3.13-1 concludes that the Project would have a less-than-significant impact regarding the generation of a substantial permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the Shasta County General Plan or the applicable standards of other agencies. As noted in Impact 3.13-1, the worst-case, loudest turbine proposed by the Project would have a maximum sound power level of 109.2 dBA. The newly-proposed 6.2 MW turbine model would operate at a noise level within the range of the worst-case model analyzed in the Draft EIR (between 99 and 105.5 dBA). The 6.2 MW model also have the ability to reduce noise levels by adjusting the turbine controller settings, i.e., an optimization of rpm and pitch. Therefore, use of the 6.2 MW turbine would not alter the less-than-significant impact conclusion of the Draft EIR.

Summaries of the remaining impact conclusions disclosed in the Draft EIR, neither of which would be made to be more severe than previously disclosed, are as follows:

- The Draft EIR's analysis of Impact 3.13-2 concludes that the Project could, unless mitigated, result in the generation of a substantial temporary increase in ambient noise levels on and near the Project Site in excess of standards established in the Shasta County General Plan or the applicable standards of other agencies. With the implementation of Mitigation Measure 3.13-2 (Noise-Reducing Construction Practices), the impact would be less-than-significant.
- The Draft EIR's analysis of Impact 3.13-3 concludes that the Project could, unless mitigated, generate groundborne vibration. With the implementation of Mitigation Measure 3.13-3 (Charge Weight Limits on Blasting Activities), the impact would be less-than-significant.

Transportation

The Draft EIR analyzes the direct and indirect effects of the Project on Transportation in Section 3.14.3.2, *Direct and Indirect Effects of the Project*, and its cumulative effects in Section 3.14.4, *Cumulative Analysis*. The proposed changes in the Project would not result in any new or substantially more severe environmental impacts beyond those that were disclosed in the Draft EIR for Transportation Impacts 3.14-1 through 3.14-4, listed below. If the new proposed 6.2 MW turbine model was selected for the Project, fewer turbine locations would be used, which would likely result in somewhat reduced construction and decommissioning-related impacts. It is not anticipated that any associated reductions would change the impact conclusions for Transportation.

Summaries of the impact conclusions disclosed in the Draft EIR are as follows:

- The Draft EIR's analysis of Impact 3.14-1 concludes that the Project would have a less-than-significant impact regarding conflicts with a program plan, ordinance or policy addressing the circulation system.

- The Draft EIR's analysis of Impact 3.14-2 concludes that the Project would have a less-than-significant impact regarding conflicts or inconsistency with CEQA Guidelines Section 15064.3(b).
- The Draft EIR's analysis of Impact 3.14-3 concludes that the Project would, unless mitigated, substantially increase safety hazards. With the implementation of Mitigation Measure 3.14-3 (Traffic Management Plan), the impact would be less-than-significant.
- The Draft EIR's analysis of Impact 3.14-4 concludes that the Project would, unless mitigated, result in inadequate emergency access. With the implementation of Mitigation Measure 3.14-4 ([Mitigation Measure 3.14-3] Traffic Management Plan), the impact would be less-than-significant.

Utilities and Service Systems

The Draft EIR analyzes the direct and indirect effects of the Project on Utilities and Service Systems in Section 3.15.3.2, *Direct and Indirect Effects of the Project*, and its cumulative effects in Section 3.15.4, *Cumulative Analysis*. The proposed changes in the Project would not result in any new or substantially more severe environmental impacts beyond those that were disclosed in the Draft EIR for Utilities and Service Systems Impacts 3.15-1 through 3.15-3, listed below. If the new proposed 6.2 MW turbine model was selected for the Project, fewer turbine locations would be used, which would likely result in somewhat reduced construction-related and decommissioning-related impacts. It is not anticipated that any associated reductions would change the impact conclusions for Utilities and Service Systems.

Summaries of the impact conclusions disclosed in the Draft EIR are as follows:

- The Draft EIR's analysis of Impact 3.15-1 concludes that the Project would have a less-than-significant impact regarding sufficient water supplies available to serve the Project for the reasonable and foreseeable future development during normal, dry, and multiple dry years.
- The Draft EIR's analysis of Impact 3.15-2 concludes that the Project would have a less-than-significant impact regarding determination by a wastewater treatment provider that it has inadequate capacity to serve the Project's projected demand in addition to the provider's existing commitments.
- The Draft EIR's analysis of Impact 3.15-3 concludes that the Project would have a less-than-significant impact regarding determination by a wastewater treatment provider that it has inadequate capacity to serve the Project's projected demand in addition to the provider's existing commitments.

Wildfire

The Draft EIR analyzes the direct and indirect effects of the Project on Wildfire in Section 3.16.3.2, *Direct and Indirect Effects of the Project*, and its cumulative effects in Section 3.16.4, *Cumulative Analysis*. The proposed changes in the Project would not result in any new or substantially more severe environmental impacts beyond those that were disclosed in the Draft EIR for Wildfire Impacts 3.16-1 through 3.16-4, listed below. If the new proposed 6.2 MW turbine model was selected for the Project, fewer turbine locations would be used, which may

result in reduced impacts. It is not anticipated that any associated reductions would change the impact conclusions for Wildfire.

Summaries of the impact conclusions disclosed in the Draft EIR are as follows:

- The Draft EIR's analysis of Impact 3.16-1 concludes that the Project would, unless mitigated, substantially impair an adopted emergency response plan or emergency evacuation plan. With the implementation of Mitigation Measure 3.16-1a ([Mitigation Measure 3.14-3] Traffic Management Plan) and 3.16-1b (Pre-Construction Coordination with CAL FIRE), the impact would be less-than-significant.
- The Draft EIR's analysis of Impact 3.16-2 concludes that the Project would, unless mitigated, exacerbate wildfire risks and expose people to pollutant concentrations or a significant risk of loss, injury or death from a wildfire or the uncontrolled spread of a wildfire. With the implementation of Mitigation Measure 3.16-2a (Fire Safety), 3.16-2b (Nacelle Fire Risk Reduction), and 3.16-2c (Emergency Response Plan), the impact would be less-than-significant.
- The Draft EIR's analysis of Impact 3.16-3 concludes that the Project would have a less-than-significant impact regarding installation and maintenance of Project-related infrastructure (such as roads and power lines) that may exacerbate fire risk, and the installation and maintenance of fire suppression infrastructure (such as vegetation clearances and emergency water sources) that may result in temporary or ongoing impacts to the environment.

The Draft EIR's analysis of Impact 3.16-4 concludes that the Project would, unless mitigated, expose people or structures to significant risks, including adverse water quality effects or downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. With the implementation of Mitigation Measure 3.16-4 ([Mitigation Measure 3.16-2a] (Fire Safety), [Mitigation Measure 3.16-2b] (Nacelle Fire Risk Reduction), and [Mitigation Measure 3.16-2c] (Emergency Response Plan), the impact would be less-than-significant.

1.2.3.2 List of Applicant-Proposed Conservation Measures

In addition to the new design features proposed in Section 1.2.3.1, *Project Changes*, to reduce anticipated impacts of the Project, the Applicant also has volunteered to implement conservation measures that also would reduce potential impacts of the Project. They are as follows:

- California Spotted Owl Conservation Measures (see Draft EIR at page 3.4-47)
- Sandhill Crane Conservation Measures (see Final EIR Section 3.2.4.4)
- Conservation Measure for Nesting Songbirds (see Final EIR Section 3.2.4.4)
- Conservation Measure for Vaux's Swift (see Draft EIR at page 3.4-56 et seq.)
- Conservation Measure for Willow Flycatcher and Yellow Warbler (see Draft EIR at page 3.4-57 et seq.)
- Bat Conservation Measure (see Final EIR Section 3.2.4.4)
- Terrestrial Species Conservation Measure (see Final EIR Section 3.2.4.4)

1.3 Agency and Public Involvement

1.3.1 Agency and Public Review of the Draft EIR

The Draft EIR was made available for agency and public review for 79 days. The comment period began on August 3, 2020, was extended twice, and ultimately concluded on October 21, 2020. The Draft EIR was provided to the State Clearinghouse for circulation to interested state agencies. Printed copies of the Draft EIR and electronic copies of all appendices and all documents referenced in the Draft EIR were available for public review during normal hours at the branches of the Shasta County Public Libraries in Redding, Anderson, and Burney and also were made available for review by members of the public at the Cottonwood Community Library in Cottonwood, the Hill County Community Clinic in Round Mountain, and the Shasta County Department of Resource Management office by appointment. An electronic copy of the Draft EIR was available for all-hours access on the County's website: https://www.co.shasta.ca.us/index/drm_index/planning_index/eirs/fountain-wind-project.

Notifications and updates of the availability of the Draft EIR and information about how to access it were sent directly to responsible, trustee, and local agencies; the Shasta County Clerk's office; and to Tribal entities and members, organizations, individuals by U.S. Post and via the FountainWind411 Project-specific email listserv. Notice of the availability of the Draft EIR also was published in the Record Searchlight, and in the Intermountain News. See **Appendix B**, Notices.

1.3.2 Availability of the Final EIR

An electronic copy of the Final EIR (including this Response to Comments document) is being provided to all public agencies who commented on the Draft EIR (see Table 2-1, Commenting Parties). Notice of the availability of this Final EIR and details about how to access it are also being provided to others on the distribution list for the Project (see Appendix G, Recipients of the Final EIR). An electronic version will be posted on the County's website: https://www.co.shasta.ca.us/index/drm_index/planning_index/eirs/fountain-wind-project.

The Final EIR is also available for public review during normal working hours at the following locations, at least until the County decides whether to certify the EIR and approve, approve with modifications, or deny the Project:

Shasta County Department of Resource Management Planning Division
Attention: Lio Salazar, Senior Planner
1855 Placer Street, Suite 103
Redding, CA 96001
(530) 347-4818
lsalazar@co.shasta.ca.us

Branches of the Shasta County Public Libraries

Anderson Branch
3200 West Center St.
Anderson, CA 96007
(530) 365-7685

Redding Branch
1100 Parkview Ave.
Redding, CA 96001
(530) 245-7250

Burney Branch
37116 Main St.
Burney, CA 96013
(530) 335-4317

Other locations

Cottonwood Community Library
3427 Main St.
Cottonwood, CA 96022
(530) 347-4818

Hill County Community Clinic (Round Mountain)
37116 State Highway 299 East
Round Mountain, CA 96084
(530) 337-5750

Future notifications regarding scheduled Planning Commission hearings on this proposed project will be published and distributed in accordance with law. For general questions and assistance, please contact Lio Salazar, Senior Planner, by telephone at (530) 225-5532 or e-mail at lsalazar@co.shasta.ca.us.

CHAPTER 2
Responses to Comments

2.1 Approach to Comment Responses

2.1.1 Input Received

Shasta County received more than 2,000 pages of emails, letters, and a petition in response to the Draft EIR. A list of those who provided input on the Draft EIR is provided in alphabetical order by last name in Table 2-1, *Commenting Parties*. All written communications received are included in the County's formal record for this Project, and will be available for consideration as part of decision-making process.

Under CEQA, the lead agency "shall evaluate comments on environmental issues" received from commenters who have reviewed a draft EIR, and prepare written responses that "describe the disposition of each significant environmental issue that is raised by commenters" (Public Resources Code §21091(d); CEQA Guidelines §15088(c)). Although CEQA does not require that responses be provided for comments that do not address the adequacy or accuracy of the environmental analysis or that do not identify an environmental issue (Id.; see also CEQA Guidelines §15204(a)), the County provides a limited response to such comments in this Final EIR. Regardless of whether a detailed response is provided, the County acknowledges receipt of all comments received and has included them as part of the record of information that will be considered during its decision-making process.

In general, CEQA does not require a detailed response to comments of the following types:

1. Those that merely acknowledge the opportunity to review the Draft EIR, without providing further input.
2. Summaries of project components (e.g., numbers of turbines proposed, number of jobs that would be created) or quotations from the Draft EIR's analysis or conclusions, including those that acknowledge that the Project would, if implemented, result in significant and in some cases significant and unavoidable impacts. Such comments do not meet CEQA's threshold for receipt of a detailed response unless they explain whether, how, or why the Draft EIR is believed to be inaccurate or inadequate, and provide supporting evidence.
3. Comments that do not mention, or are not specific to the Draft EIR or the CEQA process for this Project, including comments that express a preference for a particular alternative or different mitigation measures without explaining whether or how the analysis documented in the Draft EIR is believed to be inadequate or inaccurate.

4. Quotations or summaries of the requirements of the County's General Plan, zoning ordinance, or CEQA without mentioning whether or how the Project is consistent or whether or how EIR complies.
5. Suggestions of compliance or noncompliance with other statutes or regulations (compliance with which would be independently enforceable by other agencies) or the avenues for consultation under federal law that would accrue if a federal agency determined that a "major federal action" was required to authorize the project.
6. Whether the findings could be made that would be necessary before the County could issue a Conditional Use Permit (Shasta County Code §17.92.020). These issues will be evaluated by County decision-makers in the context of their deliberations about whether or not to approve the requested use permit rather than as part of the CEQA process documented in this EIR.
7. Comments that are beyond the scope of this Project, such as a request that the County undertake a landscape-level (Countywide) planning effort, such as a General Plan or zoning amendment, specific to the siting of wind energy generation projects.
8. Comments that are beyond the scope of CEQA, which is concerned with the potential significance of impacts on the physical environment. Examples of concerns that are beyond the scope of CEQA that were received by the County relate to:
    a. Social and economic impacts that do not have a corresponding impact on the physical environment (e.g., community feeling, disruptions to a way of life, property values and assertions of condemnation, ecotourism, and opportunities for economic development);
    b. Who would benefit from the Project;
    c. Where the Applicant is based or questions about how much Project construction would cost or how long it would have to operate to become profitable;
    d. Requests for a lifecycle analysis of impacts associated with the manufacture of components and other materials that would be used to construct the Project.
    e. Comments about non-operational projects (i.e., Covanta Energy's Burney Mountain biomass facility) that are not continuing to cause impacts that could combine with the impacts of the Project to cause or contribute to potential significant cumulative effects; and
    f. Environmental justice considerations, which decision-makers can factor into their decisions but which are not within the purview of CEQA.

The County received numerous, thoughtful, personal letters in opposition to the Project. Each of these letters has been included in the formal record so that it may be considered as part of the decision-making process. However, general statements, petitions, or resolutions of opposition to the Project, to renewable energy generally or to wind energy in particular; general statements of environmental concern that are not related to the adequacy of the Draft EIR; and opinions provided without supporting data, facts, other evidence based on facts that do not comment on the adequacy or accuracy of the analysis or conclusions in the Draft EIR for purposes of CEQA do not meet CEQA's threshold for receipt of a detailed response. Although such input receives a limited response in this EIR, all such input will be available for consideration as part of the County's decision-making process on the requested CUP.

The County also received letters in support of the Project. These letters, to the extent they do not comment on the adequacy or accuracy of the analysis or conclusions in the Draft EIR for

purposes of CEQA, also do not meet CEQA's threshold for receipt of a detailed response. Accordingly, they too receive a limited response in this EIR.

These responses are provided in the following subsections:

Section 2.2.1, Responses to Comments from Agencies

Section 2.2.2, Responses to Comments from Tribal Entities and Members

Section 2.2.3, Responses to Comments from Organizations and Individuals

TABLE 2-1
COMMENTING PARTIES

Name	Date(s)	Signatory	Response to Comment
Agencies			
City of Anderson	8/4/2020	Russ Wenham, Director of Engineering and Development	The City's participation in the process is acknowledged. A copy of this letter is included in Appendix C.
California Department of Fish and Wildlife	10/5/2020	Curt Babcock, Habitat Conservation Program Manager	Responses are provided in Section 2.3.1, Responses to Comments from Agencies. See Letter A3.
State Water Resources Control Board, Division of Drinking Water	8/28/2020	Stephen W. Watson, Lassen District Engineer, Drinking Water Field Operations Branch	Responses are provided in Section 2.3.1, Responses to Comments from Agencies. See Letter A1.
United States Department of the Interior, Lassen National Park	9/15/2020	Jim Richardson, Superintendent	Responses are provided in Section 2.3.1, Responses to Comments from Agencies. See Letter A2.
United States Fish and Wildlife Service	10/21/2020	Thomas Leeman, Deputy Chief Migratory Birds Program	Responses are provided in Section 2.3.1, Responses to Comments from Agencies. See Letter A4.
Tribes and Tribal Interests			
Baga, Angel	10/21/2020		Responses are provided in Section 2.3.2 Responses to Comments from Tribal Entities and Members. See Letter T3.
Baker, Zalynn	10/19/2020		The commenter's concern regarding tribal cultural resources and preference for a No Project Alternative is acknowledged. A copy of this letter is included in Appendix C.
Cantrell, Lawrence	10/21/2020		Responses are provided in Section 2.3.2 Responses to Comments from Tribal Entities and Members. See Letter T4.
Cawken, Sonna	10/19/2020		The commenter's concern regarding tribal cultural resources and preference for a No Project Alternative is acknowledged. A copy of this letter is included in Appendix C.
Davis, Radley	10/21/2020		Responses are provided in Section 2.3.2 Responses to Comments from Tribal Entities and Members. See Letter T5.
DiMaio, Joan M.	10/11/2020, 10/19/20		The commenter's concern regarding tribal cultural resources and preference for a No Project Alternative is acknowledged. A copy of this letter is included in Appendix C.
Dunn, Agnes	10/6/2020		Responses are provided in Section 2.3.2 Responses to Comments from Tribal Entities and Members. See Letter T1.
Forrest, Daniel	10/21/2020		The commenter's concern regarding tribal cultural resources and preference for a No Project Alternative is acknowledged. A copy of this letter is included in Appendix C.

TABLE 2-1 (CONTINUED)
COMMENTING PARTIES

Name	Date(s)	Signatory	Response to Comment
Tribes and Tribal Interests (cont.)			
Forrest, Oliver	10/21/2020		The commenter's concern regarding tribal cultural resources and preference for a No Project Alternative are acknowledged. A copy of this letter is included in Appendix C.
Forrest, Perez	10/21/2020		The commenter's concern regarding tribal cultural resources and preference for a No Project Alternative are acknowledged. A copy of this letter is included in Appendix C.
Freeman, Jonathan	10/21/2020		The commenter's concern regarding tribal cultural resources and preference for a No Project Alternative are acknowledged. A copy of this letter is included in Appendix C.
Gemmill, Renee	10/20/2020		The commenter's concern regarding tribal cultural resources and preference for a No Project Alternative are acknowledged. A copy of this letter is included in Appendix C.
Harrison, Madison	10/19/2020		The commenter's concern regarding tribal cultural resources and preference for a No Project Alternative are acknowledged. A copy of this letter is included in Appendix C.
Hayward, James	10/21/2020		The commenter's concern regarding tribal cultural resources and preference for a No Project Alternative are acknowledged. A copy of this letter is included in Appendix C.
MacDonald, Lisa	10/21/2020		The commenter's concern regarding tribal cultural resources and preference for a No Project Alternative are acknowledged. A copy of this letter is included in Appendix C.
McDaniels, Brandy	10/21/2020		Responses are provided in Section 2.3.2 Responses to Comments from Tribal Entities and Members. See Letter T6.
Mount Shasta Bioregional Ecology Center	10/20/2020	Michelle Berditschevsky, Founder, Staff Conservation Consultant	The commenter's concern regarding tribal cultural resources and preference for a No Project Alternative are acknowledged. A copy of this letter is included in Appendix C.
Pala Band of Mission Indians	10/21/2020	Shasta C. Guaghen, PhD, Tribal Historic Preservation Officer	The commenter's concern regarding tribal cultural resources and preference for a No Project Alternative are acknowledged. A copy of this letter is included in Appendix C.
Pit River Tribe	10/21/2020	Agnes Gonzalez, Pit River Tribal Chairperson	A copy of this letter and responses to the CEQA comments it contains are provided in Confidential Appendix D, which, at the request of the Tribe, is not being disclosed to the public.
Riggins, Ada	10/19/2020		The commenter's concern regarding tribal cultural resources and preference for a No Project Alternative are acknowledged. A copy of this letter is included in Appendix C.

TABLE 2-1 (CONTINUED)
COMMENTING PARTIES

Name	Date(s)	Signatory	Response to Comment
Tribes and Tribal Interests (cont.)			
Riggins, W.	10/19/2020		The commenter's concern regarding tribal cultural resources and preference for a No Project Alternative are acknowledged. A copy of this letter is included in Appendix C.
Riggins, Ishnur C.	10/19/2020		The commenter's concern regarding tribal cultural resources and preference for a No Project Alternative are acknowledged. A copy of this letter is included in Appendix C.
Scofield, Charis	8/15/2020		The commenter's concern regarding tribal cultural resources and preference for a No Project Alternative are acknowledged. A copy of this letter is included in Appendix C.
Silver, Jose	10/19/2020		The commenter's concern regarding tribal cultural resources and preference for a No Project Alternative are acknowledged. A copy of this letter is included in Appendix C.
Ward, Buzz	10/19/2020		The commenter's concern regarding tribal cultural resources and preference for a No Project Alternative are acknowledged. A copy of this letter is included in Appendix C.
Wilkes, Wanda	10/21/2020		The commenter's concern regarding tribal cultural resources and preference for a No Project Alternative are acknowledged. A copy of this letter is included in Appendix C.
Winnemem Wintu Tribe	10/21/2020	Mark Miyoshi, Tribal Historic Preservation Officer and Luisa Navejas, OHP Administrator	Responses are provided in Section 2.3.2 Responses to Comments from Tribal Entities and Members. See Letter T7.
Yiamkis, Tony	10/18/2020		Responses are provided in Section 2.3.2 Responses to Comments from Tribal Entities and Members. See Letter T2.
Organizations and Individuals			
Alward, Lon	10/23/2020 9/9/2020		The commenter's concern regarding residential areas near the Project Site is acknowledged. A copy of this letter is included in Appendix C.
Alward, Lyda	9/8/2020 10/20/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P4.
American Bird Conservancy	10/19/2020	Joel Merriman, Director Bird-Smart Wind Energy Campaign	Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P16.
Armstrong, Bev	9/15/2020		The commenter's objection to the Project is acknowledged. A copy of this letter is included in Appendix C.

TABLE 2-1 (CONTINUED)
COMMENTING PARTIES

Name	Date(s)	Signatory	Response to Comment
Organizations and Individuals (cont.)			
Baker, Erin	9/24/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P8.
Bates, Linda and Clay	10/10/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P10.
Bauer, Sharon	9/18/2020		The commenter's concern regarding wildfire and objection to the Project are acknowledged. A copy of this letter is included in Appendix C.
Baugh, Kandace	9/14/2020		The commenter's objection to the Project is acknowledged. A copy of this letter is included in Appendix C.
Blake, Tammy	8/14/2020		The commenter's objection to the Project is acknowledged. A copy of this letter is included in Appendix C.
Bloom, Don M.	10/12/2020		The commenter's objection to the Project is acknowledged. A copy of this letter is included in Appendix C.
Boyan, Barbara Stanford	8/31/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P1.
Bryant, Stu	9/14/2020		The commenter's support of Mr. Osa's comments and opposition to the Project are acknowledged. A copy of this letter is included in Appendix C.
Buelow, Teri	9/13/2020, 9/13/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P5.
Buffum, Charlene	8/30/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P2.
California Pilots Association	10/20/2020	Gill Wright, GAA Aircraft Dispatcher #3658363 VP Region 2	Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P19.
California Wildlife Foundation/California Oaks, Californians for Western Wilderness, Endangered Habitats Conservancy, River Ridge Institute, and Shasta Environmental Alliance	10/21/2020	Janet Cobb and Angela Moskow	Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P30.
Camacho, Chris	8/26/2020		The commenter's concern regarding wildlife and opposition to the Project are acknowledged. A copy of this letter is included in Appendix C.

TABLE 2-1 (CONTINUED)
COMMENTING PARTIES

Name	Date(s)	Signatory	Response to Comment
Organizations and Individuals (cont.)			
Chamberlain, Mark	10/14/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P11.
Clifford, Joelle	9/18/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P6.
Danielson, Jeanne	10/19/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P17.
Dogwood Acres, LLC	10/21/2020	Tim Mallory	Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P31.
Dyas, Samantha	9/18/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P7.
Edmonds, Leon	8/11/2020		The commenter's opposition to the Project is acknowledged. A copy of this letter is included in Appendix C.
Ferguson, John	10/21/2020, 10/21/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P32.
Ferguson, Lynn	10/18/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P14.
Henrich, Pedro H.	10/8/2020		The commenter's opposition to the Project and concerns regarding property value, aesthetics, and biological resources are acknowledged. A copy of this letter is included in Appendix C.
Holden, Amy	8/10/2020		The commenter's opposition to the Project and concerns regarding property value, aesthetics, and biological resources are acknowledged. A copy of this letter is included in Appendix C.
Holden, Rebecca	10/20/2020		The commenter's opposition to the Project and concerns regarding property value, aesthetics, and biological resources are acknowledged. A copy of this letter is included in Appendix C.
Holden, Richard	9/13/2020		The commenter's opposition to the Project and concerns regarding property value, cultural resources, wildfire, aesthetics, and biological resources is acknowledged. A copy of this letter is included in Appendix C.
Hultgren, Arne	8/31/2020		The commenter's support of the Project is acknowledged. A copy of this letter is included in Appendix C.
Johnson, Steven J.	10/20/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P20.

TABLE 2-1 (CONTINUED)
COMMENTING PARTIES

Name	Date(s)	Signatory	Response to Comment
Organizations and Individuals (cont.)			
Kauer, Rick	10/21/2020, 10/21/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P33.
Kersten, Sharon	9/17/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P3.
Kersten, Tim	9/1/2020, 9/27/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P3.
Knight, Michael	8/14/2020		The commenter's opposition to the Project is acknowledged. A copy of this letter is included in Appendix C.
Larson, Pam	10/2/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P9.
Messick-Lattin, Elizabeth L.	10/20/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P21.
Loe, Bob	10/21/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P34.
Loveness, Linda M.	10/21/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P35.
Mahoney, Lee	10/21/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P36.
Martin, Lindsay	10/15/2020		The commenter's opposition to the Project and concern regarding noise and property value are acknowledged. A copy of this letter is included in Appendix C.
McVey, Susan	10/16/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P13.
Moore, Robyn	9/15/2020		The commenter's opposition to the Project and concern regarding wildlife are acknowledged. A copy of this letter is included in Appendix C.
Moose Recreational Camp	10/18/2020	John Gable	Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P15.
Murphy, Douglas	10/20/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P24.
Murphy, Elizabeth	10/20/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P23.

TABLE 2-1 (CONTINUED)
COMMENTING PARTIES

Name	Date(s)	Signatory	Response to Comment
Organizations and Individuals (cont.)			
Murphy, Hannah	10/21/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P37.
Murphy, Morgan	10/21/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P38.
Murphy, Spencer	10/20/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P25.
North State Builds	10/21/2020	Andrew Meredith, Executive Director	The commenters support of the Project and the environmental analysis is acknowledged. A copy of this letter is included in Appendix C.
Osa, Joe	10/20/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P26.
Osa, Maggie	10/20/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P27.
Ostrom, Bailey	10/20/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P28.
Owens, Lynn	9/9/2020		The commenter's opposition to the Project and concern regarding property value are acknowledged. A copy of this letter is included in Appendix C.
Pattern Energy	10/21/2020	Dyann Blaine	Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P39.
Phelps, Virginia	8/30/2020, 9/14/2020		The commenter's request for a life cycle analysis of the proposed turbines is acknowledged. A copy of this letter is included in Appendix C.
Pressey, Brianna	10/22/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P44.
Rasmussen, Victoria	9/11/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P22.
Rosales, Carlos	8/27/2020		The commenter's opposition to the Project and concern regarding aesthetics are acknowledged. A copy of this letter is included in Appendix C.
Shasta Builder's Exchange	10/21/2020	Chad Scott, Executive Director	The commenter's support of the Project is acknowledged. A copy of this letter is included in Appendix C.

TABLE 2-1 (CONTINUED)
COMMENTING PARTIES

Name	Date(s)	Signatory	Response to Comment
Organizations and Individuals (cont.)			
Shasta Environmental Alliance	10/19/2020	David Ledger, President	Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P18.
Shasta Voices	10/21/2020	Mary B. Machado, Executive Director	The commenter's letter and plan to present at the Planning Commission meeting are acknowledged. A copy of this letter is included in Appendix C.
Shaw, Steve	8/14/2020		The commenter's opposition to the Project is acknowledged. A copy of this letter is included in Appendix C.
Sierra Club	10/15/2020	John Livingston, Chair of the Executive Committee of the Shasta Group of the Sierra Club	Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P40.
Smith-Power, Doreen Louise	10/21/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P40.
Snavely, Laura	8/28/2020		The commenter's opposition to the Project if it requires cutting down thousands of acres of trees is acknowledged. A copy of this letter is included in Appendix C.
Stanford, David	10/21/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P41.
State Building and Construction Trades Council	10/21/2020	Robbie Hunter, President	The stated support of the Project is acknowledged. A copy of this letter is included in Appendix C.
Stuarts Stremple, Maria	8/28/2020		The commenter's request that turbines D1-D5 be removed from the proposed Project is acknowledged. A copy of this letter is included in Appendix C.
Sturgeon, Olen	8/28/2020		The commenter's opposition to the Project is acknowledged. A copy of this letter is included in Appendix C.
Sublette, Karen	10/21/2020		The commenter's opposition to the Project is acknowledged. A copy of this letter is included in Appendix C.
Venema, Dennis	No date		The commenter's opposition to the Project and concern regarding the forest and aesthetics are acknowledged. A copy of this letter is included in Appendix C.
Westrup, Susan	8/17/2020		The commenter's opposition to the Project and concern regarding property value, water, traffic, and biological resources are acknowledged. A copy of this letter is included in Appendix C.
Wiegand, John	10/21/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P29.

TABLE 2-1 (CONTINUED)
COMMENTING PARTIES

Name	Date(s)	Signatory	Response to Comment
Organizations and Individuals (cont.)			
Wilburn, Sandra	9/18/2020		The commenter's opposition to the Project and concern regarding property value, and biological resources is acknowledged. A copy of this letter is included in Appendix C.
Willet Tanner, Kelly	No date		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P45.
Willett, Kathy	10/21/2020, 10/26/2020		Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P42.
Wintu Audubon Society	10/21/2020 10/26/2020	Bruce Webb and Janet Wall, Co-Chairs Conservation Wintu Audubon Society	Responses are provided in Section 2.3.3 Responses to Comments from Organizations and Individuals. See Letter P43.
Woodward, Anne Marie	No Date, No Date		The commenter's opposition to the Project and concern regarding property value, and biological resources are acknowledged. A copy of this letter is included in Appendix C.
Woodward, David	8/31/2020		The commenter's opposition to the Project and concern regarding aesthetics is acknowledged. A copy of this letter is included in Appendix C.

2.1.2 Comment Coding

Comment letters are organized with public agency letters first, followed by comments received from Tribal entities and members second, followed by comments received from organizations and individuals third. Within each grouping, letters are further organized chronologically by date and, within dates, alphabetically by last name. Where multiple letters were received from a single commenter, the letters are grouped such that all the comments from and responses to that commenter are provided together as of the date of the first communication.

Each comment letter has been assigned a corresponding alphabet letter designation, as well as a unique number. Letters from agencies are designated with a capital "A," letters from Tribal entities and members are designated "T," and letters from organizations and individual members of the public are designated "P." Individual comments within letters are marked sequentially with numbers, such as A1-1, A1-2, et cetera. For example, the County received the first agency letter from the State Water Resources Control Board Division of Drinking Water, dated August 28, 2020. It is identified as letter A1; individual comments within the letter are signified as Comment A1-1, A1-2, and so forth.

2.2 Individual Responses

2.2.1 Responses to Comments from Agencies

Comment Letter A1

CALIFORNIA Water Boards

GAVIN NEWSOM GOVERNOR

JARED BLUMENFELD SECRETARY FOR ENVIRONMENTAL PROTECTION

State Water Resources Control Board
Division of Drinking Water

August 28, 2020

Shasta County Department of Resource Management
Planning Division
1855 Placer Street, Suite 103
Redding, CA 96001

Attn: Lio Salazar, Associate Planner *(via email)*

Subject: Fountain Wind Project, ConnectGen LLC., Use Permit 16-007, July 2020 Draft Environmental Impact Report, SCH # 2019012029

The Division of Drinking Water (DDW) has reviewed the July 2020 Draft Environmental Impact Report (EIR) prepared for ConnectGen, LLC. to operate the Fountain Wind Project under Shasta County Use Permit 16-007.

The Fountain Wind Project is described as a renewable wind energy generation development proposed on approximately 4,464 acres 6 miles west of Burney in eastern Shasta County. The project proponent intends to construct, operate, maintain, and ultimately decommission up to 72 wind turbines and associated transformers, infrastructure and ancillary facilities. The project would have a maximum generating capacity of up to 216 megawatts, and a 34.5-kilovolt overhead and underground electrical collector system. The project would include a permanent operation and maintenance (O&M) facility, storage yard, and parking area within an approximately 5-acre fenced area. The O&M facility would be served by an onsite septic system.

The Draft EIR states on-site operation and maintenance water needs to be:

- Approximately 5,000 gallons per day of water for vehicle and equipment washing and maintenance,
- Potable water supplies for 12 full-time employees, and
- Water storage to meet Shasta County fire flow requirements.

Domestic water would be provided by either a new or existing groundwater well(s), or water trucked periodically from Burney Water District and stored in an on-site tank. The Draft EIR states that any wells installed onsite would be constructed in accordance with the rules and regulations of the Shasta County Environmental Health Division.

Based on the information provided in the Draft EIR, the Fountain Wind Project would not be considered a public water system, as defined by Health and Safety Code Section 116275.

However, should the number of individuals onsite increase to exceed 24 people daily for at least 60 days out of the year, the facility would meet the definition of a public water system. As such, it would be overseen by the Shasta County Environmental Health Division and subject to the regulations for public water systems contained in California Code of Regulations, Title 22. Individuals counted to determine public water system status would include full or part-time employees, individuals providing delivery, occasional or regular contract or repair workers, guests, and visitors. In this determination, the persons counted do not need to be same individuals each day, and the days exceeding 24 people do not need to be consecutive. This designation as a public water system would apply regardless of whether the facility is supplied potable water by its own onsite well(s) or by trucked water from Burney Water District. A1-1

Given the potential that this facility could meet the definition of a public water system, we recommend that any well drilled for potable water be constructed to meet the standards of a public water system supply well, including appropriate setbacks and a minimum 50-ft sanitary seal with a minimum 3-inch radial annular thickness. Any waiver request to allow a 2-inch radial thickness must be submitted to this office stating the need for this thickness and describing the method to be used to place the sanitary seal. Additionally, wells that serve public water systems are to be drilled and constructed per the California Department of Water Resources Bulletins 74-81 and 74-90 and in accordance with the American Water Works Association Standard A100-06 (Water Wells). A1-2

If you have any questions or would like additional information, please contact the Shasta County Environmental Health Division at 530-225-5787, or Mey Bunte of my staff at 530-224-3265 or mey.bunte@waterboards.ca.gov.

Stephen W. Watson, P.E.
Lassen District Engineer
Drinking Water Field Operations Branch

cc: Christy Gilbreath, Shasta County Environmental Health Division *(via email)*

mewb: File: Shasta County CEQA/Fountain Wind Project

Letter A1: State Water Resources Control Board Division of Drinking Water

A1-1 As explained in Draft EIR Section 2.4.6, *Operation and Maintenance*, up to a maximum of 12 people would be employed full-time on the Project site during the operation and maintenance period. It is not expected that 25 people would be on-site daily for 60 or more days per year. (See Health and Safety Code §116275.) Nonetheless, the County acknowledges that the facility would meet the definition of a public water system if that should occur.

A1-2 As explained in Draft EIR Section 2.4.4.3, *Operation and Maintenance Facility*, and Section 2.4.8.1, *Water and Wastewater*, any domestic well(s) drilled for the Project would be subject to compliance with the rules and regulations of the Shasta County Department of Resource Management's Environmental Health Division. As explained in Response A1-1, it is not expected that the facility would meet the definition of a public water system. Nonetheless, the Division would evaluate any new well permit application and would require compliance with the appropriate standards at that time. See Draft EIR Section 1.3, *Use of this Document by Agencies*, and Table 2-8, *Summary of Permits and Approvals*).

Comment Letter A2

United States Department of the Interior

Lassen Volcanic National Park
Region 8,9,10, and 12
38050 Hwy 36 E
Mineral, CA 96063

IN REPLY REFER TO:

(LAVO-L76)

September 15, 2020

Lio Salazar, Senior Planner
Department of Resource Management, Planning Division
1855 Placer Street, Suite 103
Redding, California 96001

Dear Senior Planner Salazar:

Lassen Volcanic National Park (park) is within potential maximum viewshed of the proposed Fountain Wind Project. We would like to collaborate with you to develop measures that would protect night skies within the park from possible impacts associated with this development. Protection of night skies is important to the visitor experience at the park, as well as for surrounding public lands and nearby communities.

At the park, protecting photic resources, lightscapes, and naturally dark skies is related to the following park priorities:

- ability to enhance visitor experience;
- interpretive programs to highlight night sky resources; and
- nighttime setting in the park as experienced by hikers, campers, and stargazers.

A2-1

Lassen Volcanic National Park is a great place to learn about and enjoy the dark night sky. Stargazing events are the most popular ranger-led activity in the park, and the significance of preserving the night sky is further demonstrated in the park's annual Dark Skies Festival that attracts thousands of visitors, scientists, and partners.

One of the biggest threats to dark night skies at Lassen Volcanic National Park is artificial lighting from nearby developments. Flashing red lights at the Hatchet Ridge Wind Project have caused some impacts to the night sky viewing experience at the park, and we are concerned that the proposed Fountain Wind Project could introduce more impacts with the addition of artificial lights. We understand the requirement for safety lights to be included as required by the Federal Aviation Administration and look forward to working with you to explore mutually satisfactory measures that can help reduce impacts.

Sincerely,

Jim Richardson
Superintendent

Letter A2: United States Department of the Interior Lassen Volcanic National Park

A2-1 This comment identifies protecting naturally dark sky resources as related to Park priorities and values, and recognizes the Federal Aviation Administration (FAA) requirements regarding safety lighting for wind energy projects. However, the comment does not raise a concern that relates to the analysis of effects of the Fountain Wind Project as disclosed in the Draft EIR. Instead, it generally asks for "measures that would protect night skies within the park from possible impacts associated with this development."

In Draft EIR Section 3.2.4.2, regarding direct and indirect effects of the Project on Aesthetics, Impact 3.2-3 considers the potential for the Project to create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area. As noted on Draft EIR page 3.2-43, the visibility of the FAA-required nighttime lighting and the impact of nighttime views would vary depending on the proximity of the key observation point (KOP) to the turbines, the extent of existing light pollution at the KOP, and the frequency of viewers during nighttime hours. The Stargazing portion of the Lassen National Park webpage was reviewed to see key stargazing or night-sky viewing locations, as a particular focus of this comment. The locations shown included trailhead parking areas, visitor center parking areas, lakeshores, roadside pullouts, and the Lassen Peak and Cinder Cone trails.[1] Most of these identified areas would not include views of the Project. However, as shown on Draft EIR Figure 3.2-6 (at page 3.2-19), from areas around Lassen Peak that face the Project Site, 1 to 5 hubs turbine hubs (where lighting would be placed on the turbine nacelle) may be visible, and from a small area immediately northwest of Lassen Peak more than 10 hubs may be visible at a distance of almost 30 miles. Draft EIR page 3.2-45, paragraph 2 considers nighttime views from KOPs 4 through 7, which are a similar distance to the site as the Park; but with more direct views of the Project area than the Park. As discussed, the additional nighttime lighting of the Project turbines would extend the nighttime lighting of the existing Hatchet Ridge Wind Project. If alternating blinking lighting between the Hatchet Ridge turbines and the proposed turbines were to occur the visual impact of the nighttime lighting would increase. However, at these locations, the Project would not introduce a significant new source of nighttime lighting that would contrast with existing nighttime lighting conditions. The EIR concludes that, in these views, due to existing sources of lighting, the space between the viewer and the turbines, and the few turbines visible from each of the KOPs, the additional source of nighttime lighting would not have a substantial impact on nighttime views. Therefore, impacts under the criterion related to potential light and glare effects would be less than significant. The Applicant's more recently proposed adoption of a FAA-approved lighting plan for meteorological towers and downward-facing and shielded lighting on other project components would further reduce

[1] National Park Service, 2020. "Stargazing - Lassen Volcanic National Park (U.S. National Park Service)". Last updated August 11, 2020. Available online: https://www.nps.gov/lavo/planyourvisit/stargazing.htmAccessed January 11, 2021.

nighttime lighting. See Final EIR Section 1.2.3.1, *Project Changes*, for details. Other night-sky viewing locations identified on the Lassen National Park website are located at lower elevations than Lassen Peak. Therefore, the impacts described above would be reduced at other night-sky viewing locations in the park. At some locations, the Fountain Wind Project would have no impact on night-sky viewing.

However, in terms of cumulative light and glare effects, see Draft EIR page 3.2-49. As indicated, due to the Hatchet Ridge Wind Project, there is an existing significant and adverse cumulative impact to the nighttime lighting environment. From certain locations, the lighting from the proposed turbines would be viewed as an extension of the lighting from the existing project. From certain locations, the number of turbines visible would double, resulting in a doubling of the lights visible across ridgelines. While the impact of the Project alone at these viewing locations would not be significant, the Project's extension of turbine lighting across ridgelines would be significant in the cumulative context because it would result in a cumulatively considerable contribution to an existing adverse cumulative condition. No reasonable, feasible mitigation measures are available to reduce the Project's incremental contribution to a level that it would not be cumulatively considerable (i.e., a less than significant contributor to cumulative conditions). From other locations, Project lighting would be visible cumulatively, as one drives along SR 299, decreasing the area along SR 299 where no turbine lighting is visible. As shown in views from KOP 1, 2, and 3 few turbines would be visible from SR 299. This would result in additional locations along SR 299 where a few safety lights would be visible. The Project would result in an extension of areas along SR 299 where turbine lighting is visible, resulting in turbine lighting in areas with very limited nighttime lighting. Therefore, the Project would have cumulative considerable contribution to an adverse cumulative condition. No reasonable, feasible mitigation measures are available to reduce the Project's incremental contribution to a level that it would not be cumulatively considerable.

Comment Letter A3

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Northern Region
601 Locust Street
Redding, CA 96001
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

October 5, 2020

Lio Salazar
Senior Planner
Shasta County Department of Resource Management
1855 Placer Street, Suite 103
Redding, CA 96001
fw.comments@co.shasta.ca.us

Subject: Draft Environmental Impact Report for the Fountain Wind Project, Shasta County, State Clearinghouse No. 2019012029

Dear Mr. Salazar:

On August 4, 2020, the California Department of Fish and Wildlife (CDFW) received the Notice of Availability for the Draft Environmental Impact Report (DEIR) from the Shasta County Department of Resource Management (Lead Agency) for the Fountain Wind Project, Use Permit 16-007 (Project) pursuant to the California Environmental Quality Act (CEQA) and Guidelines (Pub. Resources Code § 21000 et seq. and Cal. Code Regs., tit. 14 § 15000 et seq.). CDFW understands that the Lead Agency will accept comments on the DEIR through October 5, 2020.

CDFW recognizes producing energy from renewable resources such as wind provides multiple and significant benefits to California's environment and economy including: improving local air quality and reducing global warming pollution, diversifying energy supply, improving energy security, enhancing economic development, and creating jobs. To achieve these goals while maintaining California's diverse natural resources and meeting CDFW's mission, we have consulted with the Project team during project development and provide these comments and recommendations in order to address potential natural resource impacts.

CDFW TRUSTEE AND RESPONSIBLE AGENCY ROLE

CDFW is the Trustee Agency for the State's fish and wildlife resources and holds those resources in trust by statute for all the people of the State, pursuant to Fish and Game Code sections 711.7(a) and 1802 and CEQA sections 15386(a) and 21070. As such, CDFW has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and their habitat.

A3-1

CDFW is also a Responsible Agency pursuant to CEQA. As such, CDFW administers the California Endangered Species Act (CESA) (Fish & G. Code § 2050 et seq.), the Lake and Streambed Alteration program (LSA) (Fish & G. Code § 1600 et seq.) and other provisions of Fish and Game Code that conserve the State's fish and wildlife

Comment Letter A3

public trust resources. CDFW offers the following comments and recommendations on this Project in our role as a Trustee and Responsible Agency pursuant to CEQA. A3-1 cont.

PROJECT DESCRIPTION

The Project consists of construction, operation, maintenance, and decommissioning of a wind energy facility with a nameplate generating capacity of up to 216 megawatts (MW). The Project would be developed within a 4,464-acre area (Project site) located within an approximately 29,500-acre leased area that encompasses 74 parcels of private property. Parcels within the Project site are zoned Timber Production (approximately 4,457 acres) and Unclassified (approximately 6 acres). Within the Project site, the Project would have approximately 1,384 acres of temporary impacts and 713 acres of permanent impacts, including permanent removal or filling of 3.44 acres of wetlands and other waters, and temporary impacts to 1.48 acres of wetlands and 0.64 acres of other waters. The Project term is 40 years.

The Project is located approximately 1 mile west of the existing Hatchet Ridge Wind Project, 6 miles west of Burney, 35 miles northeast of Redding, immediately north and south of State Route 299, Shasta County, CA. According to the DEIR's Project Description, Project components include:

- Up to 72 turbines, each up to 679 feet in height measured from ground level to vertical blade tip with a generating capacity of 3 to 5.7 MW. The Project would use three-bladed, horizontal-axis turbines with the rotor shaft and nacelle mounted at the top of a cylindrical tower. Each turbine tower would be mounted on a concrete pedestal supported by a permanent foundation. Each turbine is expected to be lit with two flashing red lights. Spread footing foundations would be buried underground to a depth of approximately 15 to 20 feet with a pedestal that extends approximately one foot above ground. The widest underground portion of the turbine spread footing would be between 50 to 80 feet in diameter. Each turbine would have temporary disturbance area of up to 5-acres and up to 2.5-acres of permanent disturbance.
- Up to 51 miles of underground collector system consisting of cables buried in trenches, generally co-located with turbine access roads. In areas where trenches cannot be co-located, a temporary 50-foot wide disturbance area and permanent 30-foot wide area maintained clear of woody vegetation would be required. Blasting may be required prior to trenching in rocky areas.
- Road crossings at 32 streams, including 24 new road crossings at 5 perennial streams, 12 ephemeral and intermittent streams, and 7 non-vegetated ditches. Eight crossings may require improvement or replacement at 3 perennial streams and 5 ephemeral and intermittent streams.
- Up to 12 miles of 34.5 kV overhead electrical line installed on wood poles with a maximum height of 90 feet. A temporary 100-foot-wide corridor and permanent 80-foot-wide corridor maintained clear of tall woody vegetation would be required.

Comment Letter A3

- Communication system collocated with collector lines consisting of fiber optic cable for the Supervisory Control and Data Acquisition system.
- Onsite collector substation, switching station, and interconnection facilities including temporary disturbance of up to 19 acres and permanent disturbance of up to 5 acres for the collector substation and 8 acres for the switching station.
- Up to 24 miles of new access roads and widening of up to 33 miles of existing roads, including the replacement of existing culverts. Roads would consist of a temporary 80-foot-wide disturbance area and a permanent 20-foot-wide drivable surface with 1-foot shoulder and additional 10 feet on either side for stormwater drainage, with potential maximum widths of 200 feet.
- 10-acre temporary construction and equipment area, construction trailer area, and associated parking area.
- Fourteen two-acre temporary laydown (staging areas).
- Permanent 5-acre operation and maintenance (O&M) facility consisting of the O&M building, storage yard, and parking area.
- Up to four permanent, unguyed 394-foot-tall meteorological towers.
- Up to three temporary concrete batch plants.
- Timber clearance and harvesting.
- Potential blasting to loosen rock for excavation.
- Potential installation of new domestic wells.
- Decommissioning of existing facilities and infrastructure and restoration of Project site upon cessation of Project operations.

According to the DEIR, construction is projected to last 18 to 24 months. Proposed decommissioning of existing facilities and infrastructure and site restoration would require approximately 18 to 24 months.

CONSULTATION HISTORY

CDFW provided preliminary comments on the Project's Biological Resources Work Plan presented at the June 2017 consultation meeting in a letter dated July 25, 2017. CDFW also provided comments during early consultation in a letter dated March 2, 2018 and on the Notice of Preparation in a letter dated February 19, 2019. Here we provide additional comments specific to the DEIR and Project as currently proposed. A3-2

CDFW PRIMARY CONCERNS

CDFW's primary concerns regarding the DEIR and proposed Project are as follows: A3-3

- Wind turbine siting and operation is likely to result in take over the 40 year Project period via collisions with turbines and overhead electrical transmission lines for numerous special status species that are State-and Federally-listed, Fully Protected, and/or State Species of Special Concern.
- CDFW recommends that additional mitigation schemes and compensatory mitigation options for special status species, birds, and bats, including ongoing

Comment Letter A3

monitoring and a suite of adaptive management strategies, be included and analyzed in the DEIR.

- The formation of a Technical Advisory Committee is necessary to inform a scientifically robust post-construction monitoring program and ensure enforcement of mitigation measures.
- Mitigation measures for operational impacts to many special status avian species are not included in the DEIR.
- Mitigation measures for construction impacts to bats and several special status mammal species are not included in the DEIR.
- Invasive species control measures are not proposed in the DEIR.

A3-3 cont.

COMMENTS AND RECOMMENDATIONS

Regulatory Requirements

California Endangered Species Act

Please be advised that a CESA permit must be obtained if the Project has the potential to result in "take" of plants or animals listed under CESA, either during construction or over the life of the Project. Issuance of a CESA permit is subject to CEQA documentation; the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the Project will impact CESA listed species, early consultation is encouraged, as significant modification to the Project and mitigation measures may be required in order to obtain a CESA permit.

CEQA requires a Mandatory Finding of Significance if a project is likely to substantially restrict the range or reduce a population of a threatened or endangered species. (Pub. Resources Code §§ 21001, subd. (c), 21083; CEQA Guidelines §§ 15380, 15064, and 15065). Impacts must be avoided or mitigated to less-than-significant levels unless the CEQA Lead Agency makes and supports Findings of Overriding Consideration (FOC). The CEQA Lead Agency's FOC does not eliminate the Project proponent's obligation to comply with Fish and Game Code section 2080.

A3-4

Lake and Streambed Alteration

An LSA Notification pursuant to Fish and Game Code section 1600 et seq., is required for Project activities affecting lakes or streams and associated riparian habitat. Notification is required for any activity that may substantially divert or obstruct the natural flow; change or use material from the bed, channel, or bank including associated riparian or wetland resources; or deposit or dispose of material where it may pass into a river, lake, or stream. Work within ephemeral streams, washes, watercourses with subsurface flow, and floodplains are subject to notification requirements. CDFW will consider the CEQA document for the Project and may issue an LSA Agreement. CDFW may not execute the final LSA Agreement (or CESA Permit) until it has complied with CEQA as a Responsible Agency.

A3-5

Comment Letter A3

Nesting and Migratory Birds
Fish and Game Code covers actions that may result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections protecting birds, their eggs and nests include 3503 (regarding unlawful take, possession or needless destruction of the nests or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird). Fully Protected Species may not be taken or possessed at any time (Fish & G. Code § 3511).

A3-6

Technical Advisory Committee (TAC)

Given the complexities of developing strong, science-based monitoring plans and identifying species specific approaches and strategies, CDFW strongly recommends the formation of a TAC, prior to Project implementation (**Recommendation 1**). As the development of many monitoring plans described in the DEIR are deferred to a future date and are not available for public review at this time, formation of a TAC to develop these plans would be the appropriate strategy to ensure their adequacy. The TAC will serve to assist with reviewing the design of PCMM studies, reviewing and interpreting post-construction fatality data, and identifying operational minimization measures that will most efficiently minimize impacts on bird and bat populations, thereby ensuring the enforcement of Mitigation Measures 3.4-3b and 3.4-3c. A well-designed and effectively implemented TAC will assist the Lead Agency in developing performance standards and feasible measures to meet those standards. Given the substantial uncertainties regarding the magnitude of mortality of avian species and bats, CDFW suggests implementation of a TAC with clear roles, responsibilities, and authority outlined in the DEIR.

A3-7

At a minimum, the TAC should be comprised of multiple third-party subject matter experts, such as organizations dedicated bird and bat conservation and research, scientists familiar with post-construction survey protocols, the U.S. Fish and Wildlife Service (USFWS), and CDFW. The TAC's structure and authority must be clearly defined to clarify how TAC recommendations are made, to whom, and whether these recommendations are binding and enforceable by the Lead Agency. The TAC, in consultation with wildlife agencies and the Lead Agency, should provide input and concurrence on monitoring, and should evaluate impacts and propose solutions for bird and bat related mortalities. The TAC should be given authority to require additional post-construction monitoring should unforeseen impacts or high levels of unanticipated fatalities occur.

Final Turbine Siting Considerations

The California Energy Commission (CEC) and CDFW developed the California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development (CEC Guidelines) (CEC 2007) to address coexisting and sometimes conflicting objectives: to encourage the development of wind energy in the state while minimizing

Comment Letter A3

and mitigating harm to birds and bats. As stated in the CEC Guidelines, wind energy developers and Lead Agencies who use the methods described in the CEC Guidelines will secure information on impact assessment and mitigation that would apply to CEQA and to the other wildlife protection laws and will demonstrate a good faith effort to develop and operate their projects in a fashion consistent with the intent of local, state, and federal laws.

Additionally, the USFWS Wind Energy Guidelines (WEG) help wind energy project developers avoid and minimize impacts of land-based wind projects on wildlife and their habitats. The WEG provide a structured, scientific process for addressing wildlife conservation concerns at all stages of land-based wind energy development. The goal of the WEG is smart siting, design, and operation of wind energy projects.

The CEC Guidelines and WEG identify multiple considerations for site selection, turbine layout, and infrastructure design. These considerations include minimizing habitat fragmentation and disturbance, establishing buffer zones to minimize collision hazards by avoiding placement of turbines within 100 meters of a riparian area, establishing buffer zones to protect sensitive habitats, utilizing native species when seeding or planting during restoration, reducing the introduction and spread of invasive species, avoiding lighting that attracts birds and bats, reducing artificial habitat for prey at turbine base areas, and minimizing power line impacts by placing lines underground whenever possible. CDFW recommends implementing the considerations outlined in the CEC Guidelines and WEG in determining final Project designs (**Recommendation 2**). For example, *the Year 1 Avian Use Study Report and Risk Assessment for the Fountain Wind Project* discusses Survey Point 30 as having a higher number of raptor flight paths than other survey points. This Survey Point is "*adjacent to a large, incised drainage where the landscape transitions from forest to shrub/scrub, and offers ideal habitat for soaring birds*." In order to decrease potential impacts to raptors, final siting considerations should include the removal of turbines M03 and M04 located in the vicinity of Survey Point 30 (**Recommendation 3**). A3-8 A3-9

State-Listed, Not Fully Protected Species

The Project area supports, or has the potential to support, CESA-listed species, CESA candidate species, and Native Plant Protection Act listed species such as willow flycatcher (*Empidonax trailii*, State Endangered), Swainson's hawk (*Buteo swainsoni,* State Threatened), gray wolf (*Canis lupus*, State Endangered), Shasta snow-wreath (*Neviusia cliftonii*, Candidate for listing as State Endangered), and Tracy's eriastrum (*Eristrum tracyi*, State Rare). As stated in our previous letters (2018 early consultation and 2019 NOP), take of species of plants or animals listed as endangered or threatened under CESA is unlawful unless authorized by CDFW. Given the 40 year length of the Project term and the expected changes in habitat conditions over the life of the Project due to forest maturation, ongoing timber operations, and revegetation efforts, there is a high likelihood that take of a CESA-listed species may occur during that time. If take cannot be fully avoided, CDFW recommends the Project seek a CESA section 2081 (b) ITP to authorize A3-10

Comment Letter A3

incidental take during Project construction and over the life of the Project (**Recommendation 4**). A3-10 cont.

Fully Protected Avian Species

Bald eagle (*Haliaeetus leucocephalus*, State Endangered), golden eagle (*Aquila chrysaetos*), greater sandhill crane (*Antigone canadensis tabida,* State Threatened), white-tailed kite (*Elanus leucurus*) and American peregrine falcon (*Falco peregrinus anatum*) are all Fully Protected species pursuant to Fish and Game Code. All of these species have been detected in the Project area or have potential to occur within the Project Site.

Pursuant to Fish and Game Code section 3511, Fully Protected species may not be taken or possessed at any time, except in accordance with the Natural Community Conservation Planning Act. The Fish and Game Code includes no other specific authorization for take of Fully Protected species even where related impacts of the taking would be less than significant with compensatory mitigation required as part of the Project approval pursuant to CEQA. In prior CEQA comments, CDFW discussed the need for operational avoidance measures such as "informed curtailment" (rapid shutdown of turbines when raptors are seen approaching) and additional biological monitoring. These type of measures should be included to avoid take and impacts to these species. If take of Fully Protected species is unavoidable, CDFW recommends the Project develop a Natural Community Conservation Plan (NCCP) that would authorize this take (**Recommendation 5**). A3-11

Based on the DEIR analysis, the Project may result in significant and unavoidable impacts to bald eagle, golden eagle and other raptors. If significant impacts cannot be avoided, the DEIR should include additional mitigation, including compensatory measures (**Recommendation 6**). A3-12

Significant and Unavoidable Impacts

The DEIR recognizes that operational impacts to bald and golden eagle, raptors (including goshawk), and bats are significant and unavoidable and concludes that: "*Because no additional reasonable, feasible mitigation measures are available that, if implemented, would reduce the Project's contribution below the established level of significance, the Project's contribution to this impact would remain significant and unavoidable*." CDFW concurs that impacts to these species will be significant; however, CDFW does not agree that the full range of options for mitigation of significant impacts have been analyzed in the DEIR or that no additional reasonable, feasible mitigation measures are available to further reduce impacts. The WEG outlines actions to avoid or compensate for impacts such as altering locations of turbines or turbine arrays, operational changes, and/or compensatory mitigation through protection, enhancement, or restoration of nearby habitat that could mitigate impacts to these species. In addition, CEC Guidelines provide that compensatory mitigation for mortality at wind farms could A3-13

Comment Letter A3

include onsite or offsite conservation, protection, restoration, or enhancement of essential habitat, or some combination of these. As stated in the WEG: "*The general terms and funding commitments for future mitigation and the triggers or thresholds for implementing such compensation should be developed at the earliest possible stage in project development. Any mitigation implemented after a project is operational should be well defined, bounded, technically feasible, and commensurate with the project effects*." CDFW recommends that other mitigation schemes and compensatory mitigation options, including ongoing monitoring of project impacts, and a suite of adaptive management strategies, be included in the DEIR as discussed further below (**Recommendation 7**).

A3-13 cont.

Cumulative Impacts Analysis

Section 3.4.4 of the DEIR concludes with the statement: "*When considered in combination with the impacts of other projects in the cumulative scenario, the Project's incremental contribution to avian and bat mortality and impacts to sensitive natural communities would not be cumulatively considerable because implementation of Project's mitigation measures would reduce the impacts to less than significant under CEQA*." This conclusion is inconsistent with other findings in the DEIR. Multiple statements in the DEIR reference that impacts to eagles, raptors, and bats are significant and unavoidable, even with implementation of the proposed mitigation measures. For example, DEIR Section 3.4.4 also states that Project-level impacts resulting from raptor and bat collisions with Project infrastructure are "*considered a significant cumulative impact to these bird and bat species because the impacts have the potential to limit the populations of the species within the cumulative impacts analysis area*. *For this reason, the cumulative impact is considered significant.*"

A3-14

Further, this section states: "*As discussed below, the Project's incremental contribution to this significant cumulative effect would not be cumulatively considerable*", but goes on to state: "*the Project could have a cumulatively considerable (significant) contribution to a significant cumulative effect to eagles, other raptors and bat species based on the uncertainty associated with mortality estimates and the potential for unexpectedly high mortality rates and the uncertainty regarding whether cumulative impacts could result in population-level declines in these species*." The inconsistency between these two statements would indicate that the impact should be considered potentially cumulatively significant unless additional monitoring and/or modeling of fatality estimates occur that would assist in an evidence based decision, as discussed elsewhere in this letter.

Additionally, Section 3.4.4.2 discusses existing cumulative impacts towards avian species, but does not include a discussion of existing impacts to bat species. The existing impacts to bat species from operations at the Hatchet Ridge Wind Project should be included in this section.

Comment Letter A3

Based on the inconsistent analysis presented in this section, CDFW recommends revising and clarifying this section to reflect the analysis throughout the DEIR that impacts may be cumulatively significant (**Recommendation 8)**. A3-14 cont.

Migratory Birds

Songbirds

The DEIR does not identify and mitigate for impacts to songbirds (which includes other descriptors used interchangeably in the DEIR, this letter, and references, such as passerines, landbirds, and small birds) as a result of Project operations, nor does it include estimates of take over the life of the Project. The only analysis of impacts to songbirds is in regard to impacts to nesting birds. The DEIR concludes that construction and decommissioning of the Project will result in a less than significant impact to nesting songbirds, including special status species. DEIR page 3.4-14 states: "*the Project Site contains stopover habitat for songbirds, waterfowl, and shorebirds in the form of conifer forest, scrub-shrub, and riparian and wetland habitats*", and correctly recognizes that the Project site is located within the Pacific Flyway and numerous birds migrate through the region. Additionally, the DEIR concludes that songbird "*use is moderate and relatively consistent across seasons and across the Project site*." A3-15

Willow flycatcher breeding habitat exists within the Project site in the form of "*dense deciduous riparian shrub and willow thickets*" as acknowledge in the DEIR. Additionally, the DEIR recognizes that the Project site "*could be used as stop-over and foraging habitat for migrating willow flycatchers during spring and fall*". The DEIR concludes that potential for the species to occur onsite is low based on no detections during avian point count surveys and one year of protocol-level surveys; however 2 unidentified *Empidonax* species, 5 unidentified flycatcher, and 74 unidentified passerines were documented during the first year of avian point count surveys. In year two of avian point count surveys 7 additional passerines were unidentified. The DEIR also states that the nearest known occupied territories are located approximately 20 miles to the northeast of the Project site. However, CDFW is aware of two occurrences of willow flycatcher territories less than 0.5 miles and approximately 4 miles to the east of the Project site. This information was previously provided to the Project Team. A3-16

In addition to willow flycatcher, several Species of Special Concern and USFWS Birds of Conservation Concern were observed on the Project site. These include yellow warbler (*Setophaga petechia*), olive-sided flycatcher (*Contopus cooperi*), Vaux's swift (*Chaetura vauxi*), Cassin's finch (*Haemorhous cassinii*), and Lewis' woodpecker (*Melanerpes lewis*). Both yellow warbler and Vaux's swift were documented in post-construction mortality monitoring studies at the Hatchet Ridge Wind Project. Species are designated as Species of Special Concern because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction. CDFW considers impacts to Species of Special Concern to be potentially significant. Species on the USFWS Bird Species of Conservation Concern list represent species A3-17

Comment Letter A3

beyond those already designated as Federally Threatened or Endangered with the highest conservation priorities and species in need of conservation action. A3-17 cont.

Olive-sided flycatcher, Cassin's finch, and Lewis' woodpecker are identified in the 2016 Partners in Flight Landbird Conservation Plan (Rosenberg et al. 2016) as "*D Yellow Watch List*" species, a designation for species of highest conservation concern. The purpose of the Partner's in Flight (PIF) Watch List is to foster proactive attention to the conservation needs of the continent's most vulnerable landbird species. Species on the "D" Yellow Watch List have declining populations. Many of the species on this list lost 50-90 percent of their population in the 44 years between 1970 and 2014. Olive-sided flycatcher lost over 78 percent of its population, while Lewis' woodpecker and Cassin's finch populations declined by 72 percent and 69 percent, respectively. While not on the Watch List, PIF documents that willow flycatcher and yellow warbler populations have declined by 46 and 20 percent, respectively. Further, PIF estimates that olive-sided flycatcher populations could decline an additional 50 percent in the next 24 years if current population trends continue. A3-18

Many songbird species migrate at night, including warblers, flycatchers, vireos, and thrushes. The DEIR does not address Project impacts on nocturnal migrants. Due to the lack of nocturnal bird surveys for this Project, it is unclear what the full impacts to migrating songbirds will be due to Project operations. If turbines are to be operated at night, CDFW recommends continued survey and analysis of the impact of nighttime operations of nocturnal migrants to determine the magnitude of nocturnal migration in the Project area, the altitude of migration, environmental factors, such as weather, that influence nocturnal migration in the area and help inform flight paths in the vicinity (**Recommendation 9**). A3-19

Uncertainties exist regarding operational impacts to songbirds due to larger turbine sizes and rotor-swept areas of the proposed Project when compared to the Hatchet Ridge Wind Project. In order to address this uncertainty as it relates to the above referenced special status species, CDFW recommends that the DEIR quantify potential fatality estimates for the Project using robust bird and bat fatality monitoring above and beyond what was conducted at the Hatchet Ridge Wind Project using an approach such as the Golden Hills Wind Energy Center monitoring study (**Recommendation 10**). The first-year results of this statistically robust bird and bat fatality monitoring study for the 85.92 MW Golden Hills Wind Energy Center (Golden Hills) in Alameda County, were released in February 2018 (H. T. Harvey 2018). This study incorporated 1) comprehensive bat and bird carcass surveys of all turbines using scent-detection dogs, 2) randomized 7-day and 28-day interval searches, 3) compared both human and scent detection dog survey effectiveness, and 4) extensive integrated searcher efficiency and carcass persistence bias trials for deriving annual fatality estimates. A3-20

This study derived an adjusted annual fatality estimate (using a 7-day search interval) of 11.88 "*small birds*" per turbine, with a 95 percent confidence interval of 7.85 – 18.14 small birds per turbine. Using this fatality rate as a general comparison

Comment Letter A3

for this Project would result in an annual operational mortality of 855.36 birds (95 percent confidence interval of 565.2 – 1306), or 34,214 birds (95 percent confidence interval 22,608 – 52,243) killed over the 40-year life of the project. This estimate indicates a significant impact to special status bird species. CDFW recognizes that the Hatchet Ridge Wind Project detected lower fatality rates than those in the example above. However, carcass searches at Hatchet Ridge were conducted at two-week intervals without the use of scent detection dogs and based on conversations with researchers involved in additional studies at Hatchet Ridge, higher mortalities were detected during additional monitoring involving more frequent searches. Additionally, as stated in the DEIR, the Fountain Wind Project covers a much larger and varied topographic area than the Hatchet Ridge Wind Project and proposes turbines up to 62 percent taller with 70 percent larger blade diameters spaced over a much larger area.

A3-20 cont.

In discussing impacts to yellow warbler, the DEIR states that the loss of 115.2 acres of riparian habitat on the Project site could adversely affect migratory populations of yellow warbler. However, the DEIR goes on to state: "*because there is an abundance of riparian habitat in the region, the loss of 115.2 acres of riparian habitat would not result in a decline in yellow warbler populations*." The DEIR lacks additional analysis to support this conclusion and should provide an analysis of riparian habitat quality, location, or occupancy within the region in order to support this conclusion. Many songbirds, including yellow warbler, establish territories and actively defend those territories against intruders. Species evicted by the loss of 115.2 acres of suitable riparian nesting habitat may not necessarily be able to move into adjacent riparian areas if they are already occupied, which would result in a net decline in breeding success for the species. CDFW recommends that the final Project siting and design seek to maximize the avoidance of riparian habitat, and when riparian habitat cannot be avoided, the loss be mitigated at an appropriate ratio through riparian habitat acquisition, conservation, and/or enhancement and restoration (**Recommendation 11**).

A3-21

Based on the limited and incomplete impact analysis, and the lack of detailed mitigation measures, the determination of less than significant for impacts to songbirds would be conclusory. Evidence suggests that operational impacts to songbirds warrant additional analysis and mitigation. CDFW recommends the development of a threshold for small birds in Mitigation Measure 3.4-3b as well as the development of further mitigation alternatives (**Recommendation 12**). These mitigation measures should be "*fully enforceable through permit conditions, agreements, or other legally-binding instruments*," (CEQA § 15126.4(a)(2)) and "*roughly proportional"* to the impacts of the project (CEQA § 15126.4(a)(4)(B)).

Given the uncertainties regarding the magnitude of mortality of songbirds, CDFW recommends the inclusion of small birds in a in robust TAC/CDFW-approved post-construction bird and bat fatality monitoring plan incorporating scent detection dogs and utilizing the best available science, as a requirement of the Lead Agency's conditional use permit for this Project (**Recommendation 13**). A well-designed and effectively

A3-22

Comment Letter A3

implemented TAC could assist the Lead Agency in developing performance standards and feasible measures to meet those standards. A3-22 cont.

Proposed Conservation Measures for Nesting Songbirds

The DEIR concludes that construction and decommissioning of the Project will result in a less than significant impact to nesting songbirds, including special status species. For the reasons discussed above and in order further reduce impacts and to comply with Fish and Game Code sections 3503 and 3513, CDFW recommends the inclusion of the DEIR proposed Conservation Measure for Nesting Songbirds, Conservation Measure for Vaux's Swift, and Conservation Measure for Willow Flycatcher and Yellow Warbler as mitigation measures for the Project, with the following changes.

CDFW recommends utilizing an alternate version of the proposed Conservation Measure for Nesting Songbirds. The proposed measure reads:

> "***Conservation Measure for Nesting Songbirds:*** *Avoid and minimize construction related impacts to nesting songbirds.*
>
> *Prior to any disturbance of nesting habitat during breeding season (March 1 to August 15), a qualified biologist will survey the area to be impacted to locate any active bird nests. Active nests will be avoided by a suitable buffer distance (e.g., 100 to 250 feet).*"

A3-23

CDFW recommends the use of the following measure instead (**Recommendation 14**):

> In order to avoid impacts to nesting migratory birds protected under the federal Migratory Bird Treaty Act and California Fish and Game Code section 3503, including their nests and eggs, one of the following shall be implemented:
>
> a. Vegetation removal and other ground-disturbance activities associated with construction shall occur between September 1 and January 31 when birds are not nesting; or
>
> b. If vegetation removal or ground disturbance activities occur during the nesting season (February 1 through August 31), a pre-construction nesting survey shall be conducted by a qualified biologist to identify active nests in and adjacent to the work area. Surveys shall begin prior to sunrise and continue until vegetation and nests have been sufficiently observed. The survey shall take into account acoustic impacts and line-of sight disturbances occurring as a result of the project in order to determine a sufficient survey radius to avoid nesting birds. At a minimum, the survey report shall include a description of the area surveyed, date and time of the survey, ambient conditions, bird species observed in the area, a description of any active nests observed, any evidence of breeding behaviors (e.g., courtship, carrying nest materials or food, etc.), and a description

Comment Letter A3

of any outstanding conditions that may have impacted the survey results (e.g., weather conditions, excess noise, the presence of predators, etc.).

The results of the survey shall be submitted to the CDFW upon completion. The surveyshall be conducted no more than one week prior to the initiation of construction. If construction activities are delayed or suspended for more than one week after the preconstruction survey, the site shall be resurveyed.

If active nests are found, the applicant shall consult with CDFW and the USFWS regarding appropriate action to comply with the Migratory Bird Treaty Act and California Fish and Game Code section 3503. Compliance measures may include, but are not limited to, exclusion buffers, sound-attenuation measures, seasonal work closures based on the known biology and life history of the species identified in the survey, as well as ongoing monitoring by biologists.

A3-23 cont.

Conservation Measure for Vaux's Swift 2d states: "*As an alternative to implementing the above listed measures, all highly suitable roost habitat may be surveyed and assessed, and the qualified biologist can make the determination that survey approaches and results are sufficient to indicate an absence of roosting Vaux's swift in the Project Site*." This section should include a statement that the determination of sufficiency of survey approaches and results will be based on coordination with CDFW and USFWS.

A3-24

Conservation Measure for Willow Flycatcher and Yellow Warbler should reference yellow warbler habitat in addition to willow flycatcher habitat and include clarification as to the areas subject to protocol-level preconstruction surveys. The measure states: "*For all willow flycatcher habitat identified to be impacted within the final Project Site, conduct pre-construction protocol surveys during the breeding season (June 15 to August 15) using the most recent CDFW survey guidelines (Bombay et al., 2003). Survey results will be provided to the Shasta County Department of Resource Management Planning Division and CDFW. If additional areas of potentially suitable habitat than those already surveyed will not be directly impacted during Project construction, then no further willow flycatcher surveys will be required.*" Based on the last sentence, it is unclear whether or not additional surveys will be required and where. Surveys for willow flycatcher must be conducted in any area where adverse impacts, including indirect impacts such as visual disturbance and noise, to the species could occur. If take could occur, including through nest abandonment due to indirect impacts, an ITP would be necessary, as discussed above. Additionally, the measure states: "*Any active nest sites shall be monitored periodically throughout the nesting season to identify any sign of disturbance and to document nest status*." Monitoring of nest sites with potential for disturbance due to construction activities, especially for willow flycatcher, must occur regularly in order to ensure direct and indirect impacts to not occur.

A3-25

Eagles

Several occurrences of bald eagle and golden eagle were documented during avian use surveys and eagle nest surveys conducted for this Project. The DEIR incorrectly states

A3-26

Comment Letter A3

that golden eagle observations occurred during the spring migration season; detections of golden eagles in March are actually during the early egg laying and courtship period, indicating the possibility of a breeding territory near the Project. A3-26 cont.

The DEIR correctly recognizes that direct impacts to bald and golden eagles "*through collision with power lines or operating wind turbine generators, or electrocution from energized components*" could occur during operation of the Project. The DEIR concludes that impacts to bald and golden eagles due to operation of the Project are significant and unavoidable and that uncertainty exists regarding impacts due to larger turbine sizes and rotor-swept areas as compared to the Hatchet Ridge Wind Project. Mitigation Measure 3.4-3a, 3-4-3b, and 3.4-3c are proposed to reduce impacts to eagles, raptors, and bats. Mitigation Measure 3.4-3a requires coordination with the USFWS and demonstration of compliance with the Bald and Golden Eagle Protection Act and USFWS Eagle Conservation Plan Guidance. CDFW recommends close coordination with the USFWS and the development of an Eagle Conservation Plan that outlines the project development process and includes conservation and monitoring plans, as recommended in the USFWS's Eagle Conservation Plan Guidance (USFWS 2013) and WEG. As part of this process a Bird and Bat Conservation Strategy should also be developed (**Recommendation 15**). A Bird and Bat Conservation Strategy is a life-of-a-project framework for identifying and implementing actions to conserve birds and bats during wind energy project planning, construction, operation, maintenance, and decommissioning. A3-27

California Spotted Owl

The DEIR proposes additional conservation measures to further reduce potential impacts of construction, operation, and decommissioning to California spotted owl (*Strix occidentalis occidentalis*). CDFW recommends the inclusion of these measures as mitigation in the DEIR along with a schedule for when pre-construction presence/absence surveys for California spotted owl will occur (**Recommendation 16**). The one-year survey should be conducted within two years prior to the initiation of construction activities. A3-28

Section 3.4.3.2 and Appendix C15, California Spotted Owl Risk Assessment, both state that approximately 995 acres of suitable spotted owl habitat exists within the southeast portion of the Project area, and that only a portion of this may be removed via Project-related operations. However, without having an accurate estimate of the expected loss of habitat, it is difficult to assess how this Project may impact California spotted owl and its habitat long-term. An approximate numerical amount of suitable habitat both pre- and post-construction for the Project area should be discussed in the DEIR. A3-29

Appendix C15 states that areas of high suitability are present in very small, isolated patches within the Project area that may limit the potential for occurrences of California spotted owl. This is typically not the case on managed timberlands in the North Interior of California. Several California spotted owl breeding pairs have been documented

Comment Letter A3

nesting in small patches of high-quality nesting/roosting habitat, surrounded by nesting and/or foraging habitat. A3-29 cont.

Raptors (Excluding Eagles)

Significant and Unavoidable Impacts

The DEIR estimates on-going Project operations would kill between 4.3 and 53 raptors per year; an estimated potential of 2,210 raptor fatalities over the Project's 40 year life. The DEIR concludes that operational impacts on raptors are significant and unavoidable and proposed mitigation measures would "*reduce operations-related impacts to the maximum extent practicable*." CDFW does not concur that a full suite of feasible measures to avoid and minimize impacts to raptors are proposed in the DEIR. As discussed above, additional options including altering turbine locations, operational changes, compensatory mitigation, and ongoing monitoring of project impacts should be considered with a full suite of adaptive management strategies (**Recommendation 17**). A3-30

Nesting Season

Mitigation measure 3.4-6(a) states that tree and vegetation removal activities shall be avoided, when feasible, within potential raptor nesting habitat from March 1 – August 15 during each year of construction. CDFW recommends utilizing a raptor nesting season (excluding eagles) of February 1 through September 15 to correspond with the California spotted owl nesting season and encompass other nesting raptors that begin or end their nesting seasons before or after the proposed March 1 through August 15 dates (**Recommendation 18**). A3-31

Pre-construction Survey Methods

Mitigation measure 3.4-6(b) requires pre-construction surveys for construction activities occurring during the nesting season; however, the measure does not provide an outline for raptor survey methods. CDFW requests the inclusion of raptor survey method outline/proposed protocol in the DEIR. A3-32

Protection Buffers

Mitigation measure 3.4-6(d) provides a protection buffer of 500 feet for active nest sites until the young have fledged the nest site. Typically, a protection buffer of approximately 1,320 feet (0.25 mile) is a general minimum protection distance for nesting raptors. CDFW recommends utilizing an initial protection buffer of 1,320 feet (**Recommendation 19**). Subsequent consultation with CDFW may occur if the buffer needs to be decreased in size for operational purposes and if the breeding pair shows a level of tolerance towards the existing operational disturbance. As discussed below, larger buffers may be required during blasting activities. A3-33

Comment Letter A3

Northern Goshawk

Mitigation measures 3.4-7(a-b) and 3.4-8 provide mitigation for construction and operational impacts to northern goshawk (*Accipiter gentilis*); however, the DEIR does not provide an analysis for the potential loss of northern goshawk habitat from construction activities associated with the project. An estimate of the total acreage of suitable northern goshawk habitat currently existing within the project area, and subsequently the amount of suitable habitat post-construction should be included in the DEIR. A3-34

Blasting

The Project may require blasting prior to trenching in rocky areas; however, a discussion of impacts of blasting on wildlife species is not included in the DEIR. CDFW recommends including this analysis in the DEIR. In order to avoid impacting nesting birds, CDFW recommends conducting blasting activities outside of avian breeding seasons (**Recommendation 20**). Depending on the timing and location of the blasting and the sensitivity of potentially impacted species to disturbance, even the 1,320-foot protection buffer proposed above may not be sufficient to avoid impacting nesting birds. For example, the USFWS National Bald Eagle Management Guidelines (USFWS 2007) recommends avoiding blasting and other activities that produce extremely loud noises within 0.5 miles (2,640 feet) of active bald eagle nests, unless greater tolerance has been demonstrated by eagles in the nesting area. If blasting activities must occur during the breeding season, larger buffers than those proposed in the DEIR should be required and determined in consultation with CDFW and the USFWS. A3-35

Proposed Reduction of Prey Species Numbers

Mitigation measure 3.4-3a proposes to:

> *"Discourage raptor use of immediate vicinity of wind turbine generators by taking steps to reduce prey species' numbers, such as minimizing creation of prey habitat such as rock piles."*

Additional information is needed about how the Project proposes to reduce availability of prey species beyond the minimization of prey habitat. This mitigation measure could have potentially significant impacts on other non-target species. CDFW is unaware of a feasible prey reduction program that does not utilize rodenticides. Rodenticides have well-documented lethal and sub-lethal impacts on owls, hawks, and other raptor species, as well as mammal Species of Special Concern such as the American badger (*Taxidea taxus*) and the fisher West Coast Distinct Population Segment (*Pekania pennanti)*. These species and others could be poisoned if the Project uses rodenticides. A3-36

Pursuant to CEQA section 15126.4 (a)(1)(D): "*If a mitigation measure would cause one or more significant effects in addition to those that would be caused by the project as*

Comment Letter A3

proposed, the effects of the mitigation measure shall be discussed but, in less detail, than the significant effects of the project as proposed." The DEIR should include detailed information about prey reduction actions and any potentially significant impact that may result from mitigation measure 3.4-3a.

A3-36 cont.

Bats

The DEIR concludes that impacts to bats from Project operation and maintenance will be significant and unavoidable and anticipates that "*operation of the Project would result in adverse effects on bats, potentially affecting bat populations*."

The vast majority of bat fatalities at wind farms in North America are made up of migratory forest roosting bats such as the hoary bat (*Lasiurus cinereus*), silver-haired bat (*Lasionycteris noctivagans*), and the western red bat (*Lasiurus blossevillii*, Species of Special Concern), all of which occur at the Project site. The pallid bat (*Antrozous pallidus*, Species of Special Concern), Townsend's big-eared bat (*Corynorhinus townsendii*, Species of Special Concern), spotted bat (*Euderma maculatum*), and western mastiff bat (*Eumops perotis californicus*) also have potential to occur onsite.

Hoary bats constitute the largest proportion of bat fatalities at wind energy facilities in North America (Arnett and Baerwald 2013). Further, recent research indicates wind development may threaten the population viability of this species (Frick et al. 2017). The DEIR recognizes the uncertainty associated with bat mortalities and that the potential for unexpectedly high mortality rates exists. As discussed above, the DEIR concludes that impacts to bats from Project operation and maintenance will be significant and unavoidable and states that "*no additional, feasible mitigation measures are available that, if implemented, would reduce the Project's contribution below the established level of significance*." CDFW does not concur that the DEIR has analyzed all potentially feasible mitigation measures. For example, habitat acquisition and preservation or restoration of habitat for specific species impacted by the Project may be a feasible mitigation option. However, the DEIR does not describe or analyze these actions. CDFW recommends analysis of additional mitigation options, including compensatory mitigation that is roughly proportional and fully enforceable, should be included in the DEIR along with enforceable mitigation performance standards (**Recommendation 21**).

A3-37

CDFW supports the use of operational modifications proposed in Mitigation Measures 3.4-13 and 3.4-3b, such as curtailment of turbine speed, the use of low-intensity ultraviolet light, and ultrasonic deterrence systems and recommends operational modifications be implemented upon commencement of Project operations. Curtailment of operations during high risk periods for bats (low wind nights) has been shown to reduce bat mortality by up to 93 percent without significant power loss (Arnett et al. 2011). CDFW recommends detailed outline or description of the types of methods that would potentially be utilized for curtailment and deterrence should be included in the DEIR (**Recommendation 22**). Considering that these mitigation measures are

A3-38

Comment Letter A3

proposed to decrease the level of take post-operations, additional details are important to disclose. A3-38 cont.

Additional operational modifications to consider include demand sensitive curtailment systems or altering the timing of turbine operations by operating turbines during daylight hours only, and then shut off at night. This process would remove the wind turbine impact during the nocturnal period when bats are most active. To decrease the potential for take, curtailment and deterrence methods could be focused during the breeding and migration periods for bat species. During the breeding period, several bat species are attracted to the humming sound of wind turbines, increasing the potential for significant mortality rates. In addition, bats will use ridges, forests, riparian zones, etc. as stop over sites during migration. Considering that habitats within the Project area could potentially serve as migration stop over sites, higher rates of bat mortality from wind turbines could be observed during that period. Using curtailment and deterrence techniques during these two temporal periods when bat activity is highest would serve to minimize take of bat species. This would serve to decrease mortality of breeding and migrating avian species as well. A3-39

Based on fatality estimates discussed in the DEIR and from the Hatchet Ridge Wind Project it is highly likely that bat fatalities will exceed proposed thresholds. Therefore, operational curtailment or additional operational modifications should be implemented immediately upon commencement of operations. A3-40

Based on the evidence that the Project as proposed will result in significant impacts to bats, CDFW recommends the development of a robust TAC/CDFW-approved post-construction bird and bat fatality monitoring plan incorporating scent detection dogs and utilizing the best available science (**Recommendation 23**). A3-41

Impacts to Roosting Bats

The DEIR recognizes that the Project site contains "*ample forest that could provide roosting habitat for bats*"; however, the DEIR does not to analyze impacts of Project construction and habitat removal on bat species, including the impact resulting from the possible loss of maternity roosts and hibernacula. The availability of suitable roosting habitat is often posited as a limiting factor for western bat populations. For example, Pierson (1998) stated "*considerable evidence suggests that roosts are limiting for many bat species*." Hayes (2003) cites several authors that "*hypothesized [roosts] to be the primary factor*" limiting bat populations. That roosts may limit bat populations is a reasonable conclusion, given bats may use multiple roosts sites with different characteristics during the year; that roost site suitability may be based on a narrow range of suitable temperatures, relative humidity, physical dimensions, and so on; and that such sites may occur in low numbers on the landscape. Evidence from long-term studies such as at the Randall House in Marin County (Fellers and Halstead 2015) support this hypothesis – the population there has shown an increase since protections were enacted for the roost site (and while no other factor is thought to have contributed A3-42

Comment Letter A3

to the increase in colony size). Removal of an occupied maternity roost could result in the fatality of an entire colony and could result in population level impacts to local species.

Significance criteria proposed in the DEIR states that "*a project would result in a significant impact to a biological resource if it would …interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites*." CDFW recognizes maternity roosts as wildlife nursery sites and impacts that would result in mortality or injury of bats, particularly to maternity roosts or hibernacula as a significant impact.

A3-42 cont.

CDFW recommends the DEIR be revised to include a full analysis of Project impacts on bats and provide feasible mitigation measures to reduce impacts to roosting bat species, including avoiding impacts during maternity and hibernacula seasons (**Recommendation 24**). For tree removal occurring outside of these seasons, a two-step tree removal process should be utilized under the direction of a qualified bat biologist, as follows:

- Day 1: Remove non-habitat vegetation including shrubs and small diameter trees as well as specific limbs and branches of habitat trees.
- Day 2: Remove the remaining branches on the habitat tree followed by final removal of the main tree trunk.

This process alters the thermal properties of the habitat to be removed and allows for bats to leave roost locations on their own, prior to complete removal of the roost.

A3-43

Western Bat Working Group Species List Correction

Fatality thresholds for bats proposed in Mitigation Measure 3.4-3b, utilize Western Bat Working Group (WBWG) priority rankings in determining fatality thresholds. The threshold correctly lists pallid bat, Townsend's bat, spotted bat, western red bat, and western mastiff bat as high priority (red) species. The WBWG medium priority (yellow) species list correctly includes hoary bat, but incorrectly includes spotted bat again. CDFW believes that spotted bat in this list should be replaced with silver-haired bat, another medium priority species known to occur in the Project area.

A3-44

Post-construction Mortality Monitoring

Mitigation Measure 3.4-3b requires the applicant to design and implement a post-construction mortality monitoring (PCMM) study to assess operational impacts on avian species and bats and ensure the effectiveness of avian protection measures.

A3-45

Comment Letter A3

The measure describes elements required in the PCMM study including the detection of bald and golden eagles and the completion of searcher efficiency trials and carcass persistence trials "*using large raptor carcasses or an appropriate, commercially available proxy*" to "*calculate overall detection probabilities of eagle carcasses.*" Although fatality thresholds are proposed for bats, the PCMM focuses on large birds and eagles, and it is unclear how fatality numbers will be determined for small birds and bats as the measure lacks thresholds for small birds and discussion of bat and small bird fatality monitoring or detection.

In order to determine if Project impacts meet or exceed the proposed fatality thresholds for bats and the to be determined threshold for small birds, PCMM surveys must be scientifically rigorous and designed specifically to find bats and small birds and account for carcass removal by scavengers. Carcass persistence time is significantly lower for bats and small birds than it is for the raptor carcasses proposed for use in the searcher efficiency trials and carcass persistence trials. Bias trials must utilize correctly sized carcasses and be designed to allow for the estimation of searcher efficiency and carcass persistence for small birds and bats.

Smallwood 2020 states: "*More frequent searches for fatalities greatly improves the likelihood of detecting bat fatalities, by more competently competing against vertebrate scavengers at being the first to find carcasses. More frequent searches also allows searchers more opportunities to find bat carcasses before they deteriorate to obscurity*." Smallwood found that search intervals of less than 10 days were, on average, eight times higher than estimates based on longer search intervals. CDFW recommends that carcass searches be conducted at a frequency and spacing to allow for a credible estimate for bat and small bird fatalities (**Recommendation 25**).

PCMM surveys should use the most current and scientifically rigorous estimators for determining accurate and precise estimates of fatality, including estimators that address rare or infrequently detected species. Examples of these estimators include the U.S. Geological Survey Evidence of Absence tool which can be found here: https://www.usgs.gov/centers/fresc/science/statistical-tools-wind-and-solar-energy-development-and-operations?qt-science_center_objects=0#qt-science_center_objects.

In order to improve detection probability, CDFW strongly recommends the use of scent detection dogs as part of the PCMM studies for both bats and birds (**Recommendation 26**). The use of dogs in monitoring has been shown to greatly improve the accuracy of searches, particularly for small-bodied animals (Arnett 2006, Paula et al. 2011). In a blind trial, scent detection dogs located 73 percent of bat carcasses, whereas human searchers detected only 20 percent (Mathews et al. 2013).

A3-45 cont.

Given the 40-year length of the Project term and the expected changes in habitat conditions over the life of the Project due to forest maturation, ongoing timber operations, and associated vegetation changes, CDFW recommends additional monitoring beyond the proposed initial 3 years (**Recommendation 27**). Monitoring

A3-46

Comment Letter A3

could occur at 5-year intervals or more frequently, based on recommendations from a TAC. These additional monitoring periods would enable capture of changing species composition and habitat use as surrounding forest habitat matures or changes occur due to timber harvest operations and would ensure that unexpected fatalities are addressed or avoided.

Additionally, the CEC Guidelines recommend that wind projects located in areas where mortality of protected species is expected due to turbine collisions should include at least one year of bird use counts during project operation. This additional monitoring will serve to provide a context for interpretation of fatality data, to provide insight into turbine-specific fatality patterns and to understand effects of turbines on bird behavior and distribution. CDFW recommends requiring avian use surveys within the first 3-years of full Project operations (**Recommendation 28**).

A3-46 cont.

Overhead Electrical Transmission Lines

The DEIR acknowledges that overhead electrical transmission lines located within the Project may increase the likelihood of collision fatalities or electrocution to eagles, other raptors, including northern goshawk, and sandhill cranes. Mitigation Measure 3.4-3a proposes following the Avian Power Line Interaction Committee (APLIC) Guidelines to minimize electrocution or collision with transmission lines. However, the DEIR lacks further discussion of how these guidelines will be followed and how it will be determined that this measure will reduce impacts to a less than significant level for the purposes of CEQA review. CDFW recommends the DEIR provide specifics regarding guideline implementation and provide an assessment of this measures effectiveness in reducing mortality (**Recommendation 29**).

A3-47

Western Pond Turtle

The habitat description for western pond turtle (*Actinemys marmorata*) in Biological Resources Section 3.4, does not include terrestrial habitat use or breeding/reproductive period. Additionally, it appears terrestrial habitat use and breeding/reproductive period for western pond turtle was not considered in the project's biological impacts analysis.

Considered to be predominantly aquatic, habitat for western pond turtle consists of both aquatic and terrestrial environments and time spent on land may be considerable (Bury and Germano 2008). To endure excessive temperatures or in response to short-term drought, *A. marmorata* may aestivate in upland habitat under leaf litter, logs, or soil up to 500 meters from water (Hayes et al 1999). In perennial lentic habitat, they may hibernate under water in the benthic layer; and in lotic habitat, dependent on stream flow conditions, may hibernate on land, migrating upland in fall and winter months and returning to water in spring (Holland 1994). Nesting occurs on land, five to 400 meters or more from water (Jennings and Hayes 1994). Gravid females leave the water in the months of May through July for nest development and oviposition, typically establishing nests on south or west facing aspects ranging from 0 to 25 degrees in slope (Bury et al

A3-48

Comment Letter A3

2012). Nests are excavated below ground in thermally optimal locations for egg incubation in relatively dry soils, as moisture can induce egg damage, preventing development and successful hatching (Jennings and Hayes 1994). Nests are sealed and camouflaged with surrounding vegetation and are undetectable visually (Geist et al 2015). Egg incubation can range from 73 to 80 days (Feldman 1982). Following incubation, hatchlings may remain (overwinter) in the nest, emerging to migrate to water the subsequent spring (Holland 1994).

For adequate disclosure in the DEIR, CDFW requests a complete habitat description for western pond turtle in the Biological Resources Section 3.4 of the DEIR, along with inclusion of the terrestrial component of their habitat and breeding period in the Project biological impacts analysis (**Recommendation 30**).

A3-48 cont.

According to the Biogeographic Information and Observation System (BIOS) North American Herpetological Education and Research Project (HERP) - Gov [ds1127] layer, there are occurrences of western pond turtle in Willow Creek (Township 34N Range 01W Section 2, Mt. Diablo baseline and meridian) within the project evaluation area depicted in Appendix C1 Site Characterization Study Report. For an accurate account of species occurrences within the project evaluation area, please revise the state sensitive wildlife species map (Figure 11) of Appendix C1 and the DEIR Biological Resources Section 3.4 to include this data.

Special Status Mammals

Several special status mammal species have been documented on the Project site, including gray wolfand Oregon snowshoe hare ((*Lepus americanus klamathensis*, Species of Special Concern). DEIR Table 3.4-3 concludes there is low potential for occurrence of gray wolf, moderate potential of occurrence for Oregon snowshoe hare, but doesn't acknowledge that evidence of gray wolf has been documented on the Project site or that photographic evidence of Oregon snowshoe hare within the Project site were provided to the Project Team. The DEIR acknowledges that site preparation and construction activities may result in adverse impacts to Oregon snowshoe hare and concludes that impacts to these species are less than significant, while also including suggested conservation measures that provide best management practices to reduce impacts to terrestrial mammals. General wildlife and focused mammal surveys were not conducted as part of this Project. Without focused species-specific surveys, an accurate analysis of impacts cannot be conducted and there is not enough evidence to support the finding of less than significant impact. Additionally, impacts to CESA-listed species and Species of Special Concern are considered potentially significant by CDFW. Species of Special Concern status applies to animals generally not listed under the federal Endangered Species Act (ESA) or CESA, but which nonetheless are declining at a rate that could result in listing, or historically occurred at low numbers and known threats to their persistence currently exist.

A3-49

Comment Letter A3

CDFW does not concur with the determination that impacts are less than significant without the inclusion of additional analysis and mitigation measures. The conservation measures proposed in the DEIR should be included as required mitigation measures. In addition, CDFW recommends the following measures to reduce impacts to special status mammal species (**Recommendation 31**):

Gray Wolf

The gray wolf is listed as an endangered species pursuant to both the Federal ESA and CESA. The *Year 1 Avian Use Study Report and Risk Assessment for the Fountain Wind Project* report documents evidence of gray wolf in Project area. To avoid take of gray wolf, if an active den or rendezvous site for this species is observed, all operations within a 0.25-mile radius shall be suspended until CDFW is contacted for further consultation. Incidental gray wolf sightings or evidence shall continue to be reported to CDFW. Information on reporting gray wolf sightings can be found here: https://www.wildlife.ca.gov/Conservation/Mammals/Gray-Wolf/Sighting-Report.

Oregon Snowshoe Hare

Mitigation of impacts to Rocky Mountain Maple Riparian Scrub habitat may be adequate for restoring habitat lost during construction operations that would be utilized by Oregon snowshoe hare. However, CDFW recommends including a discussion in the DEIR regarding Oregon snowshoe hare as a key species that would be negatively impacted by the removal of riparian scrub habitat. Additional discussion should be included regarding how this species will be protected long-term via riparian restoration activities.

A3-49 cont.

Conservation Measures

The DEIR identifies several additional conservation measures that would serve to further reduce impacts to sensitive species. The DEIR states that "*the County may elect to include additional conservation measures, as follows, as a condition of permit approval*." CDFW concurs with the inclusion of these additional measures and recommends that measures proposed for California spotted owl, sandhill crane, nesting songbirds, Vaux's swift, willow flycatcher and yellow warbler, and terrestrial species be included as mitigation for the Project (**Recommendation 32**), including the changes addressed above.

A3-50

Environmental Awareness Training Program

CDFW recommends the preparation of an environmental awareness training program be provided to all personnel working on the Project site during construction and operation (**Recommendation 33**). This program should be reviewed by the TAC, CDFW and the USFWS.

A3-51

Comment Letter A3

Special Status Plants

According to rare plant surveys conducted for the Project, Tracy's eriastrum has the potential to occur on the Project site. Tracy's eriastrum is listed in the *2019 Rare Plant Surveys and Natural Vegetation Community Mapping* report as a California Rare Plant Rank 3.2 species. While this is correct, this species is also a State-listed Rare plant under the Native Plant Protection Act (NPPA) (Fish & G. Code § 1900 et seq). A3-52

The NPPA was enacted in 1977 and established the listing categories *rare* and *endangered*. CESA, enacted in 1984, established the listing categories *threatened* and *endangered*. When CESA was implemented, all plants which had previously been listed as endangered under NPPA were automatically listed as endangered under the newer law. However, plants listed as rare under NPPA were not automatically listed as threatened under CESA. Thus, there are currently three listing categories for plants under California law – rare, threatened, and endangered. Although no plants have been listed pursuant to NPPA since 1988, it remains a part of the Fish and Game Code. Plants determined to be endangered, threatened, or rare are listed at 14 CCR section 670.2. CEQA Guidelines section 15380(b) define the terms "rare" and "endangered" for the purposes of CEQA. These definitions are separate from, and not contingent upon, the definitions provided in CESA, NPPA, or the federal ESA. Adverse impacts to rare and endangered plants are among the impacts defined in the CEQA Guidelines that *"may have a significant effect on the environment"* (CEQA § 15065). All plants listed under CESA, NPPA, or ESA should be treated as rare and endangered for CEQA purposes (CEQA §§ 15065(a) and 15380). While most species State-listed pursuant to CESA or NPPA are California Rare Plant Rank 1 or 2, there are a few exceptions. *Eriastrum tracyi* is California Rare Plant Rank 3.2 (i.e. "list 3") and is one of these unusual exceptions of a State-listed species that is not California Rare Plant Rank list 1 or 2. A3-53

Shasta snow-wreath is documented as having potential to occur on the Project site according to the *2019 Rare Plant Surveys and Natural Vegetation Community Mapping* report. Based on findings published in the California Regulatory Notice Register by the Office of Administrative Law on May 1, 2020, Shasta snow-wreath was designated as a State Candidate for listing as endangered under CESA, and the preparation of a Status Review has been initiated to determine whether listing is warranted. During the Status Review period, Fish and Game Code section 2085 confers full legal protection of an endangered or threatened species on a candidate species. This includes the general prohibition on "take" of the species, as defined in Fish and Game Code section 86 as to "hunt, pursue, catch, capture or kill" or to attempt to engage in any of these activities unless authorized by CDFW as discussed above. Take authorization pursuant to CESA requires Project- and species-specific avoidance and minimization measures, as well as full mitigation for Project related impacts. Species subject to CESA take authorizations require robust surveys, often with multiple years of survey effort. A3-54

Comment Letter A3

As currently written, Mitigation Measure 3.4-1 may not be sufficient to protect these species from adverse impacts, including the proposed potential transplantation. CDFW generally does not support the use of relocation, salvage, and/or transplantation as mitigation for most impacts to rare, threatened, or endangered species. Studies have shown that these efforts are experimental in nature and largely unsuccessful. If considered, these types of mitigation measures must be discussed with CDFW as described in the DEIR. If impacts to these species cannot be avoided, an ITP will be required, as discussed above. A3-55

The DEIR states that rare plant surveys are typically valid for up to five years per CDFW protocol. While footnote 14 of the *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* does reference that surveys at intervals of five years may be adequate in forested areas, it also discusses that habitats with annual and short-lived perennial plants as a major floristic component may require annual surveys. Due to the potential for many sensitive plant species to occupy the Project area, including the State Rare Tracy's eriastrum and CESA candidate Shasta snow-wreath, CDFW recommends the completion of additional pre-construction surveys prior to the five year time window discussed in Mitigation Measure 3.4-1 with focus on habitats with potential for sensitive species to occur (**Recommendation 34**). A3-56

In Appendix B (Plant Species Encountered within the Fountain Wind Project) of the *2018 Rare Plant Surveys and Natural Vegetation Community Mapping* report, *Carex comosa* (bristly sedge) is listed as observed. This species is also mentioned in the discussion of Wet Montane Meadow in Appendix C and is listed in the scoping list in Appendix A. As discussed in previous comments, *Carex comosa* is a California Rare Plant Rank 2B.1 species. CDFW previously requested documentation of the occurrence locations for this species, along with the numbers of plants observed, and a discussion on the proximity of occurrences to the Project footprint/areas of disturbance. No additional discussion of the species was included in the DEIR. This information is essential for determining if a significant impact will occur to this species. CDFW requests clarification regarding impacts to *Carex comosa*. A3-57

The *2019 Rare Plant Surveys and Natural Vegetation Community Mapping* report Plant Species Encountered list (Appendix C) includes *Carex* species and *Castilleja* species. Both of these genera include sensitive species; however, no further discussion is included regarding whether or not the species observed have potential to be sensitive species. CDFW requests clarification regarding the status of these two species. A3-58

In a discussion regarding California Rare Plant Ranks, the DEIR states that "*CDFW recommends and local governments may require that CEQA review of proposed projects address plants on Lists 1A, 1B, and 2.*" California Rare Plant Ranked plants either meet the definitions of CESA and are eligible for state listing (Rank 1, and 2 species) or may be declining or significant locally (Rank 3 and 4 species). Impacts to species listed as California Rare Plant Rank 1, and 2 or their habitat must be analyzed A3-59

Comment Letter A3

during preparation of environmental documents relating to CEQA, as they meet the definition of rare or endangered under CEQA Guidelines section 15125 (c) and/or section 15380. Impacts to species listed as California Rare Plant Ranks 3 and 4 should be analyzed when impacts will occur to populations at the periphery of a species' range, in areas where the taxon is uncommon or has sustained heavy losses, in populations with declining trends, in areas where populations exhibit unusual morphology or occur on unusual substrates, or at the type locality for the population. CDFW emphasizes that impacts to California Rare Plant Rank List 3 and 4 species warrant analysis during environmental review as evidenced by the discussion regarding Tracy's eriastrum above.

A3-59 cont.

Sensitive Natural Communities

Vegetation types are classified into Natural Communities based on their structure, form, and plant species composition. Natural Communities are ranked using NatureServe's Conservation Rank Calculator by CDFW's Vegetation Classification and Mapping Program and the California Native Plant Society. Natural Communities with ranks of S1-S3 are considered Sensitive Natural Communities (SNC) to be addressed during the CEQA environmental review processes.

Page 3.4-15 of the DEIR incorrectly states: "*sensitive natural communities do not occur on the Project site*". Project surveys identified the Rocky Mountain Maple Provisional Shrubland Alliance/Rocky Mountain Riparian Maple Riparian Scrub Habitat (State rarity rank S3?) SNC within the Project site and the DEIR recognizes that up to 107.2 acres could be permanently affected by the Project. In addition to construction impacts, the DEIR recognizes that "*ongoing operations and maintenance impacts to sensitive vegetation communities and riparian habitats could occur through edge effect degradation or introduction of weeds*." The DEIR concludes that edge effect degradation would be unlikely to result in a substantial reduction in the Rocky Mountain Maple Riparian Scrub community but does not analyze impacts related to the introduction of weeds or invasive species. As discussed below, CDFW recommends the inclusion of invasive weed control measures in the DEIR and the development of an Invasive Species Management Plan prior to Project construction as discussed in the DEIR (**Recommendation 35**). This plan should be reviewed by CDFW to ensure adequate protection measures are in place to avoid and minimize impacts to sensitive habitats.

A3-60

Project surveys identified Beaked Sedge Meadows Herbaceous Alliance as occurring within seasonally or permanently saturated emergent wetland areas adjacent to streams and ponds. Although the Beaked Sedge Meadows Herbaceous Alliance is ranked S4, it is a vegetation type associated with wetland habitats which, along with riparian communities, are considered state sensitive due to their rarity, loss throughout the state, and biological importance. The DEIR determined approximately 3.44 acres of wetlands and other waters would be permanently removed or filled and 1.48 acres of wetland and 0.64 acres of other waters would be temporarily affected.

A3-61

Comment Letter A3

CDFW maintains responsibility for wetland and riparian habitats and considers impacts to these habitats as significant. It is the policy of CDFW to strongly discourage development in wetlands or conversion of wetlands to uplands. We oppose any development or conversion which would result in a reduction of wetland acreage or wetland habitat values, unless, at a minimum, Project mitigation assures there will be "no net loss" of either wetland habitat values or acreage.

In 1993, Executive Order W-59-93 established a comprehensive wetlands policy for the State that sought no overall net loss and long-term net gain in the quantity, quality, and permanence of wetlands acreage and values. The Fish and Game Commission also adopted a Wetlands Resources Policy, which recognizes the habitat values of wetlands and the damage to fish and wildlife resources from projects resulting from net loss of wetland acreage or habitat values. The Policy states:

> "*it is the policy for the Fish and Game Commission to seek to provide for the protection, preservation, restoration, enhancement and expansion of wetland habitat in California. Further, it is the policy of the Fish and Game Commission to strongly discourage development in or conversion of wetlands. It opposes, consistent with its legal authority, any development or conversion which would result in a reduction of wetland acreage or wetland habitat values. To that end, the Commission opposes wetland development proposals unless, at a minimum, project mitigation assures there will be "no net loss" of either wetland habitat values or acreage. The Commission strongly prefers mitigation which would achieve expansion of wetland acreage and enhancement of wetland habitat values*."

A3-62

According to CDFW's Wetland Technical Memorandum (CDFW 2014), numerous studies have shown that wetland mitigation projects often do not meet their required ecological performance standards. Along with the risk of mitigation underperformance or failure, the temporal loss of wetland function from the time of impact to the time a mitigation site is fully functional is also a factor in potentially diminishing the value of compensatory restored wetlands. Such temporal loss may vary depending on habitat type and other factors. Mitigation should account for temporal losses of ecosystem functions and the likelihood of recreating or restoring disturbed habitats to the naturally functioning ecosystem they are meant to replace and propose appropriate mitigation ratios.

Although Mitigation Measures 3.4-15b (Compensate for Impacts to Rocky Mountain Riparian Scrub Habitat) and 3.4-16c (Compensate for Impacts to Wetlands and other Waters) state "*the standard for mitigation shall be no net loss*", the proposed 1:1 mitigation ratio for compensation to permanently removed habitat would require a 100 percent success criteria to not be considered failed mitigation. Therefore, CDFW does not believe that a 1:1 ratio is adequate to successfully comply with no net loss standards. Because these are sensitive communities, with potential to support sensitive species, mitigation for impacts to wetlands and riparian areas will need to be mitigated

Comment Letter A3

at a ratio greater than the proposed 1:1. California has lost much of its original wetland and riparian habitat, with acreage and values continuing to decline (CDFW 2014). A minimum ratio of 3:1 would be more appropriate for the loss of wetland and riparian habitats associated with this Project; out-of-kind mitigation ratios should be greater than 3:1. The DEIR should demonstrate that the Project will not result in a net loss of wetland habitat values or acreage.

A3-62 cont.

Mitigation Measures 3.4-15b (Compensate for Impacts to Rocky Mountain Riparian Scrub Habitat) and 3.4-16c (Compensate for Impacts to Wetlands and other Waters) discuss the development of a reclamation and revegetation plan, riparian mitigation and monitoring plan, and wetland mitigation and monitoring plan, with review and approval oversight given to the Shasta County Department of Resource Management (County). The mitigation measures state that the County "may" consult with CDFW (for riparian impacts) and USACE (for impacts to wetlands) about the adequacy of the plan. CDFW requests that "may" be replaced with "shall" and that CDFW be consulted on the adequacy of both plans as wetland habitats associated with streams fall under CDFW's jurisdiction. Additionally, these mitigation measures should include a timeline for completion of mitigation requirements, require 85 percent success criteria after at least 5 years of monitoring, and maintenance.

A3-63

Discrepancies exist between summary tables of potentially jurisdictional aquatic resources in DEIR Table 3.4-2 and Appendix C2 - Aquatic Resources Survey Report Table 4. Across all features mapped, acreage and linear feet totals are lower in DEIR Table 3.4-2 than totals reported in Aquatic Resources Survey Report Table 4, in many cases the differences are significant. Discrepancies also exist in the text of the DEIR in relation to reporting of mapped acreage and linear feet. For example, the DEIR Aquatic Resources section pages 3.4-7 and 3.4-8 reference acreage and linear feet totals from Table 4 of the Aquatic Resources Survey Report; however, the DEIR Wildlife section on page 3.4-9 references perennial stream acreage and linear feet totals from Table 3.4-2 of the DEIR. These discrepancies cause uncertainty in the accuracy of analysis conducted in sections of the DEIR relating to aquatic resources. In order to allow for an accurate analysis of Project impacts to aquatic resources, CDFW recommends correcting these discrepancies throughout the DEIR (**Recommendation 36**).

A3-64

Invasive Species

Project surveys documented numerous non-native invasive species on the Project site including California Invasive Plant Council (CAL-IPC) designated High, Moderate, and Limited species. The *2019 Rare Plant Surveys and Natural Vegetation Community Mapping* report concludes: "*While Project construction will create some additional disturbance to the landscape, once construction is complete, the Project will have minimal influence on the future distribution of invasive species relative to the influence of ongoing timber operations*." However, the DEIR discusses significant impacts to Rocky Mountain Maple Riparian Scrub habitat through creation of cleared areas, which could facilitate invasion of invasive species, and indirect impacts to wetlands and other waters as a result of introduction of invasive species. Further, the DEIR discusses ongoing operations and

A3-65

Comment Letter A3

maintenance impacts to sensitive vegetation communities and riparian habitat through the introduction of weeds and discusses construction activities including clearing and grubbing, topsoil stripping, grading, compaction, and utility trenching that may result in the colonization of invasive plant species.

A3-65 cont.

The Hatchet Ridge Wind Project required the development and implementation of an invasive species control plan. A baseline noxious and invasive weed species survey was conducted in 2009 prior to construction. Construction was completed in 2010 and post-construction invasive species monitoring commenced in 2011; however, invasive species control measures were delayed until 2013. During this time, a considerable increase in the abundance and distribution of invasive species occurred on the Project site, including colonization by new species (West, Inc 2011 and 2012). For example, invasive species detections increased from three species during baseline surveys to seven species during the 2012 surveys. As a further example, baseline surveys detected low numbers of individual bull thistle (*Cirsium vulgare*) plants, which were subsequently documented to number in the thousands during the 2012 survey. Based on experiences at the Hatchet Ridge Wind Project, CDFW does not concur with the assertation that the Project will have minimal influence on invasive species distributions.

A3-66

Page 2-14 of the DEIR discusses the development of an Invasive Species Management Plan in relation to site restoration activities; however, this plan is not discussed elsewhere in the DEIR, nor are invasive species control measures proposed. CDFW is concerned that invasive species infestations could impact sensitive species and habitats and hinder revegetation and restoration efforts.

Additional information should be included in the DEIR to assist in determining if impacts from invasive species will not cause a significant impact. Because of the presence of non-native invasive species on the Project site and the difficulties with controlling infestations at the Hatchet Ridge Wind Project, CDFW recommends the development of an Invasive Species Management Plan as discussed on page 2-14 of the DEIR (**Recommendation 35**). Best management practices (BMPs) found in the Cal-IPC *Best Management Practices for Transportation and Utility Corridors* publication should be implemented. This resource is available, free of charge at the following website https://www.cal-ipc.org/resources/library/publications/#BMPs and includes a variety of BMPs that can be adapted to this Project. An example of a measure is included below:

A3-67

> Invasive Weed Prevention and Management Program. Prior to start of construction an Invasive Weed Prevention and Management Program shall be developed by a qualified biologist to prevent invasion of native habitat by non-native plant species, especially sensitive natural communities. A list of target species shall be included, along with measures for early detection and eradication. The contractor shall wash all equipment before and after use with every new section of wind turbine installation to help prevent the spread of invasive and noxious weeds within the Project footprint. All disturbed areas shall be hydroseeded with a mix of locally native species upon completion of work in those areas. In

Comment Letter A3

areas where construction is ongoing, hydroseeding shall occur where no construction activities have occurred within six (6) weeks since ground disturbing activities ceased. If exotic species invade these areas prior to hydroseeding, weed removal shall occur in consultation with a qualified biologist and in accordance with the restoration plan. The Project area will be monitored for a minimum of five years annually or until new infestations have been controlled. The Project should conduct annual visual surveys after the initial monitoring to ensure no new infestations or that pre-project infestations are under control and not spreading.

Invasive Species Prevention. Prior to the start of construction, contractor vehicles and equipment will be cleaned inside and out at the start of mobilization.

- Exterior cleaning will consist of washing vehicles and equipment, with attention paid to the tracks, feet, and/or tires and undercarriage, with special emphasis on axles, frame, cross members, motor mounts, and on and underneath steps, running boards, and front bumper/brush guard assemblies. Vehicle cabs will be cleaned, and refuse disposed of in waste receptacles to be disposed of at an approved off-site location. The Contractor will inspect vehicles and equipment to ensure they are free of soil, seeds, and plant parts before entering the Project site.
- Contractors and employees will avoid or minimize all types of off-road travel that may result in the collection and dispersion of non-native vegetation by construction vehicles and equipment.
- Staging and parking areas shall have clear boundaries and will avoid known noxious or invasive plant infestations.
- Equipment/machinery shall be cleaned prior to leaving infested areas to operate in another non-contiguous area of the Project site.
- Erosion control materials shall originate from a certified weed-free source. If not available, extra precautions will need to be implemented to prevent invasive or noxious weeds from investing a new area.

CDFW requests the opportunity to review and provide comments for inclusion in the Invasive Species Management Plan.

A3-67 cont.

Temporary Impacts and Restoration

The DEIR discusses temporary habitat loss due to construction activities and restoration of temporarily disturbed portions of the Project site to preconstruction conditions "*in accordance with applicable plans, such as a Habitat Restoration Plan, Vegetation Management Plan, and Invasive Species Management Plan*." The DEIR further states that these plans "*would be developed by the Applicant prior to initiating onsite activities and*

A3-68

Comment Letter A3

would outline the procedures to be implemented upon the completion of construction to restore and revegetate areas of temporary disturbance and performance standards to measure revegetation success." Discussion of the above-mentioned plans occurs in the Project Description section of the DEIR and is lacking elsewhere in the document.

Pursuant to CEQA section 15126.4 (a)(1)(B), "*Formulation of mitigation measures should not be deferred until some future time. However, measures may specify performance standards which would mitigate the significant effect of the project and which may be accomplished in more than one specified way*." In this case, the DEIR defers creation of performance standards to future plans, lacks specific information on what habitat will be created or restored, how much and where. It is not possible to determine whether potentially significant impacts will occur or if the formulation of the proposed plans will reduce significant impacts to a less than significant level. Without any information about the mitigation strategies, such as identification of responsibility for oversight and corrective action, or triggers for adaptive management, there is no way to determine whether the development of these plans is feasible, enforceable, or would reduce the impacts related to temporary impacts to a less than significant level. CDFW recommends the DEIR include a thorough discussion of restoration of temporary impacts from construction-related impacts (**Recommendation 37**). Additionally, CDFW requests the opportunity to review these plans due to their strong nexus to fish and wildlife resources. A3-68 cont.

Plans for restoration and revegetation should be prepared by persons with expertise in northern California ecosystems and native plant revegetation techniques. Each plan should include, at a minimum: (a) the location of the mitigation site; (b) the plant species to be used, container sizes, and/or seeding rates; (c) a schematic depicting the mitigation area; (d) planting/seeding schedule; (e) a description of the irrigation methodology; (f) measures to control exotic vegetation; (g) specific success criteria; (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met; and (j) identification of the party responsible for meeting the success criteria and providing for long-term conservation of the mitigation site. A3-69

Clearing for the overhead collector system would require an approximately 80-foot-wide corridor to be maintained during operation of the Project. According to the DEIR, this area "*would be kept clear of taller woody vegetation to provide for safe operations and allow access for equipment inspections, vegetation control, and maintenance*." However, the DIER concludes that the permanent impacts associated with the overhead collector system would be limited to individual pole locations. This change in the vegetation community and continued vegetation control and maintenance activities would require this impact to be considered and analyzed as a permanent impact. A3-70

Site Restoration and Decommissioning

Decommissioning of existing facilities and infrastructure, and subsequent restoration of the project site is proposed to occur at the end of the 40-year Project term. The DEIR states: "*some roads no longer needed to access turbines, e.g.,* A3-71

Comment Letter A3

once turbines have been dismantled and removed, would be allowed to naturally revegetate." The extensive initial grading, subsequent regrading and recontouring of the Project site will likely result in impacts to soils that preclude natural revegetation, while facilitating infestation by invasive species. Deep soil disturbance such as grading disrupts the relationship between native plants and complex soil microbial communities resulting in a dramatic loss of microbial species diversity and composition, thus impeding native plant re-establishment efforts (Stromberg et al. 2007). A3-71 cont.

According to the DEIR, site restoration activities would be coordinated with the land owner and have the goal of developing a "*vegetation cover, composition, and diversity similar to the area's ecological setting and consistent with the landowner's current and future land use practices*." CDFW concurs with the goals of returning the site to conditions consistent with the area's ecological setting; however, any areas that are converted based on landowner needs may not meet this goal. As discussed above, changes to vegetation communities should be analyzed as permanent impacts. A3-72

Additionally, the DEIR relies on the preparation of a Draft Decommissioning Plan prior to operation of the Project, which would be revised and finalized prior to Project operations based on review by the Shasta County Director of Resource Management. CDFW requests the opportunity to review the Decommissioning Plan prior to finalization in order to ensure impacts to sensitive species and sensitive natural communities are fully addressed and mitigated.

The Decommissioning Plan should include details regarding road decommissioning, removal of turbine pads and associated infrastructure, minimization of additional disturbance, native plant re-establishment, invasive species management, retention and restoration of topsoil, restoration of natural site hydrology, removal of stream crossings, stream protection measures, and sediment and erosion control measures. Specific performance standards, monitoring, and contingency measures should be discussed. Additionally, best management practices discussed in the USFWS WEG should be followed. A3-73

Fuel Modification

The DEIR states: "*tree removal and maintenance of fire breaks would be disclosed in the CAL FIRE TCP and THP*." Fuel modification impacts on vegetation should be included in the biological resources section of the DEIR, and disclosure of impacts should not be delayed until development of a Timberland Conversion Permit (TCP) or Timber Harvesting Plan (THP). A3-74

The DEIR appears to assume that because timber removal will occur for Project activities, that the permanent and potentially significant impacts associated fuel break maintenance do not need to be mitigated by the Project. This would be improper pursuant to CEQA's definition of a Project (CEQA § 15378) as "*the whole of an action,*

Comment Letter A3

which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment."

All impacts of fuel modification associated with this Project, including future maintenance, should be quantified and described and measures should be included to reduce impacts to sensitive natural communities and species.

A3-74 cont.

Species Status Corrections

The status of several species listed in Table 3.4-3 and elsewhere in the DEIR and appendices are incorrect. These include the following:

- Northern spotted owl – this species is State Threatened, not a Species of Special Concern.
- Foothill yellow-legged frog (*Rana boylii*): this species is no longer a Candidate species. On March 10, 2020, the California Fish and Game Commission published the finding that listing the Northwest/North Coast genetic clade is not warranted at this time. The species retains its Species of Special Concern status.
- American peregrine falcon –species is Fully Protected and not State Endangered.
- Lewis's woodpecker – this species is not a State Species of Special Concern.
- Shasta snow-wreath – designated as a State Candidate for listing as Endangered as of May 1, 2020.
- Tracy's eriastrum – this species is State Rare in addition to being California Rare Plant Rank 3.2.
- Thread-leaved beardtongue (*Penstemon filiformis*) - status has changed from California Rare Plant Rank 1B.3 to 4.3.
- Northern clarkia (*Clarkia borealis* ssp. *borealis*) – status has changed from California Rare Plant Rank 1B.3 to 4.3.

A3-75

Additionally, page 3.4-22 of the DEIR incorrectly states that "In 2018, the willow flycatcher was designated as State Endangered." The willow flycatcher, including all subspecies, was listed as State Endangered in 1991.

Information on the current listing status for animal and plant species listed above can be found on the Fish and Game Commission website at: https://fgc.ca.gov/CESA. Information on the current status of California Rare Plant Rank plant species listed above can be found on the California Native Plant Society Inventory of Rare and Endangered Plants in California website at: https://docs.google.com/spreadsheets/d/1_YOCUbeH_JAA5XrL93rvzrUO0hZTpOUgwIevfUFp7MU/edit?pli=1#gid=893664348.

Turbine and Facility Lighting

The DEIR specifies that flashing red lights will be installed on turbines and meteorological towers to improve nighttime visibility for aviation and comply with Federal Aviation Administration standards. In order to minimize impacts to birds moving

A3-76

Comment Letter A3

across the landscape at night, CDFW recommends following USFWS WEG and Communication Tower Guidance (USFWS 2016) for tower lighting by utilizing the minimum number of lights required (**Recommendation 38**), at the minimum intensity, and the minimum number of flashes per minute (i.e., longest duration between flashes and "dark phase"), with all lights synchronized to flash simultaneously.

CDFW recognizes the effects of artificial lighting on birds and other nocturnal species. The adverse ecological effects of artificial night lighting on terrestrial and aquatic resources such as fish, birds, mammals, and plants are well documented (Johnson and Klemens, 2005; Rich and Longcore, 2006). Some of these effects include altered migration patterns, navigation behavior, and reproductive and development rates; changes in foraging behavior and predator-prey interactions; changes in singing behavior; altered natural community assemblages; and phototaxis (attraction and movement towards light). H. T. Harvey & Associates (2019) articulates the potential for direct or indirect artificial lighting to degrade or eliminate roosts or potential roosting habitat.

To minimize adverse effects of artificial light on wildlife and wildlife habitats, CDFW recommends that exterior lighting fixtures associated with Project construction and operations be downward facing, fully-shielded, and designed and installed to minimize backscatter, reflection, skyward illumination, and illumination of areas outside of the O&M facility or substation (**Recommendation 39**).

A3-76 cont.

Dust Abatement

Mitigation Measure 3.3-2c refers to the application of dust palliatives for the stabilization of dust emissions. In order to avoid impacts to sensitive natural communities or sensitive species inhabiting onsite waterways, CDFW recommends against applying dust palliatives in any location where transmission to a waterway or sensitive habitat could occur (**Recommendation 40**). Many dust palliatives are toxic to fish and wildlife and have adverse effects on the environment. If dust palliatives will be utilized, impacts to fish, wildlife, and sensitive habitats should be addressed and measures proposed to reduce impacts to less than significant.

A3-77

Environmental Data

CEQA requires that information developed in EIRs and negative declarations be incorporated into a database that may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code § 21003, subd. (e).). Accordingly, any special status species and sensitive natural communities detected during Project surveys must be reported to the California Natural Diversity Database (CNDDB). The online submission and PDF CNDDB field survey forms, as well as information on which species are tracked by the CNDDB, can be found under their corresponding tabs at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data.

A3-78

Comment Letter A3

Bat acoustic data should also be submitted to the Bat Acoustic Monitoring Portal (BatAMP). Information on BatAMP and submitting data can be found here: https://batamp.databasin.org/.

In order to inform future wind energy projects, the Lead Agency should include, as a condition of approval for the Project, that all biological monitoring data collected for the life of the Project be made publicly available.

A3-78 cont.

SUMMARY OF RECOMMENDATIONS

1. The County should form a TAC prior to Project implementation. The TAC should serve to assist with reviewing the design of PCMM studies, reviewing and interpreting post-construction fatality data, and identifying operational minimization measures that will most efficiently minimize impacts on bird and bat populations.. A3-79
2. The Project should implement the considerations outlined in the CEC Guidelines and WEG in determining final Project designs. A3-80
3. In order to decrease potential impacts to raptors, final siting considerations should include the removal of turbines M03 and M04 located in the vicinity of Survey Point 30. A3-81
4. If take of CESA-listed or CESA candidate species cannot be fully avoided, the Project must obtain a CESA section 2081(b) ITP to authorize incidental take during Project construction and over the life of the Project. A3-82
5. If take of Fully Protected species is unavoidable, the CDFW recommends the Project develop a Natural Community Conservation Plan that would authorize this take. A3-83
6. The DEIR should include additional mitigation for impacts to Bald eagle, golden eagle, greater sandhill crane, white-tailed kite and American peregrine falcon. A3-84
7. The DEIR should include a full suite of mitigation options, including ongoing monitoring of project impacts, and a suite of adaptive management strategies. A3-85
8. The Cumulative Analysis section 3.4.4 should be revised and clarified to reflect the analysis throughout the DEIR that impacts may be cumulatively considerable and to include impacts to bat species. A3-86
9. Surveys and analysis of the impact of nighttime operations of nocturnal migrants should occur to determine the magnitude of nocturnal migration in the Project area, the altitude of migration, environmental factors, such as weather, that influence nocturnal migration in the area and help inform flight paths in the vicinity. A3-87
10. The DEIR should quantify potential fatality estimates for the Project using robust bird and bat fatality monitoring. A3-88
11. The final Project siting and design should seek to maximize the avoidance of riparian habitat, and when riparian habitat cannot be avoided, the loss should be mitigated at an appropriate ratio through riparian habitat acquisition, conservation, and/or enhancement and restoration. A3-89

Comment Letter A3

12. The DEIR should include the development of a threshold for small birds in Mitigation Measure 3.4-3b, as well as the development of further mitigation alternatives. A3-90
13. Small birds should be included in a robust TAC/CDFW-approved post-construction bird and bat fatality monitoring plan incorporating scent detection dogs and utilizing best available science. A3-91
14. The proposed Conservation Measure for nesting songbirds should be replaced with the CDFW suggested measure. A3-92
15. An Eagle Conservation Plan and Bird and Bat Conservation Strategy should be prepared in coordination with the USFWS. A3-93
16. A schedule for California spotted owl pre-construction presence/absence surveys should be included in the DEIR. A3-94
17. The DEIR should include additional options, including operational changes, compensatory mitigation, and ongoing monitoring of project impacts, along with a full suite of adaptive management strategies to further reduce impacts determined to be significant and unavoidable to raptors. A3-95
18. The raptor nesting season (excluding eagles) should be changed to February 1 through September 15. A3-96
19. An initial protection buffer of 1,320 feet should be utilized for nesting raptors. A3-97
20. The DEIR should include an analysis of blasting activities on wildlife. Blasting activities should occur outside of avian breeding seasons. A3-98
21. The DEIR should include an analysis of additional mitigation options for bats, including compensatory mitigation that is roughly proportional and fully enforceable, along with enforceable mitigation performance standards. A3-99
22. A detailed outline or description of the types of methods that would potentially be utilized for curtailment and deterrence should be included in the DEIR. Operational modifications should be implemented upon commencement of Project operations to avoid impact to birds and bats. A3-100
23. A robust TAC/CDFW-approved post-construction bird and bat fatality monitoring plan incorporating scent detection dogs and utilizing the best available science should be developed. A3-101
24. The DEIR should include a full analysis of Project impacts on bats and provide mitigation measures to reduce impacts to roosting bat species, including avoiding impacts during maternity and hibernacula seasons. A3-102
25. Carcass searches should be conducted at a frequency and spacing to allow for a credible estimate for bat and small bird fatalities. A3-103
26. Scent detection dogs should be utilized as part of the PCMM studies for both bats and birds. A3-104
27. Additional post-construction monitoring beyond the proposed initial 3 years is recommended.. A3-105
28. Avian use surveys should be conducted within the first 3-years of full Project operations. A3-106
29. The DEIR should provide specifics regarding APLIC Guideline implementation and provide an assessment of the effectiveness of Mitigation Measure 3.4-3a in reducing mortality. A3-107

Comment Letter A3

30. A complete habitat description, including the use of terrestrial habitat and inclusion of breeding period for western pond turtle should be included in the DEIR along with additional occurrence data. A3-108
31. The DEIR should include additional measures and discussion regarding gray wolf, and Oregon snowshoe hare. A3-109
32. Additional conservation measures proposed for California spotted owl, sandhill crane, nesting songbirds, Vaux's swift, willow flycatcher and yellow warbler, and terrestrial species should be included as mitigation for the Project. A3-110
33. An environmental awareness training program should be developed and provided to all personnel working on the Project site during construction and operation. A3-111
34. Additional pre-construction surveys for special status plant species are recommended due to the presence of State Rare and CESA candidate species. A3-112 A3-113
35. Invasive weed control measures should be included in the DEIR. The Invasive Species Management Plan should be developed prior to Project construction as discussed in the DEIR. A3-114
36. Correct discrepancies relating to aquatic resources in the DEIR. A3-115
37. The DEIR should include a thorough discussion of restoration of temporary impacts along with the development of the Habitat Restoration Plan and Vegetation Management Plan mentioned in the DEIR. A3-116
38. The USFWS WEG and Communication Tower Guidance (USFWS 2016) should be followed for tower lighting. A3-117
39. Exterior lighting fixtures associated with Project construction and operations should be downward facing, fully-shielded, and designed and installed to minimize backscatter, reflection, skyward illumination, and illumination of areas outside of the O&M facility or substation. A3-118
40. Dust palliatives should not be applied in any location where transmission to a waterway or sensitive habitat could occur. A3-119

CDFW appreciates the opportunity to provide comments to the County on the DEIR for the Project. CDFW staff are available to meet to ensure that potential impacts to sensitive species area avoided, minimized, or mitigated. Questions regarding this letter should be directed to Environmental Scientist Kristin Hubbard at (530) 225-2138 or kristin.hubbard@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Curt Babcock
974D273FEE784E2...

Curt Babcock
Habitat Conservation Program Manager

ec: page 38
References: page 39

Comment Letter A3

ec: Lio Salazar
Shasta County Department of Resource Management
lsalazar@co.shasta.ca.us
fw.comments@co.shasta.ca.us

Heather Beeler, Thomas Leeman
United States Fish and Wildlife Service
heather_beeler@fws.gov, thomas_leeman@fws.gov

Matthew Roberts
United States Army Corps of Engineers
matthew.j.roberts@usace.army.mil

Dannas Berchtold
Central Valley Regional Water Quality Control Board
Dannas.Berchtold@waterboards.ca.gov

State Clearinghouse
State.clearinghouse@opr.ca.gov

Curt Babcock, Adam McKannay, Cary Japp, Kristin Hubbard, David Haynes, Robin Fallscheer, Harvest Vieira
California Department of Fish and Wildlife
Curt.Babcock@wildlife.ca.gov, Adam.McKannay@wildlife.ca.gov, Cary.Japp@Wildlife.ca.gov, Kristin.Hubbard@wildlife.ca.gov, David.Haynes@wildlife.ca.gov, Robin.Fallscheer@wildlife.ca.gov, Harvest.Vieira@wildlife.ca.gov

Comment Letter A3

References

Arnett, E.B. 2006. A preliminary evaluation on the use of dogs to recover bat fatalities at wind energy facilities. Wildlife Society Bulletin 34:1440–1445.

Arnett E.B. and Baerwald E.F. 2013. Impacts of Wind Energy Development on Bats: Implications for Conservation. In: Adams R., Pedersen S. (eds) Bat Evolution, Ecology, and Conservation. Springer, New York, NY.

Arnett, E.B. et al. 2011. Altering turbine speed reduces bat mortality at wind-energy facilities. Front Ecol Environ, 9(4), 209-214.

Bury R.B. and Germano D.J. 2008. Actinemys marmorata (Baird and Girard)—western pond turtle, Pacific pond turtle. The conservation biology of freshwater turtles and tortoises. Chelonian Research Monographs 5: 001.4.

Bury R.B., Welsh Jr., H.H., Germano D.J., and Ashton D.T. 2012. Northwest fauna number 7, western pond turtle: biology, sampling techniques, inventory and monitoring, conservation, and management. Society for Northwestern Vertebrate Biology: Olympia, Washington.

California Department of Fish and Wildlife. 2014. Technical Memorandum. Development, Land Use, and Climate Change Impacts on Wetland and Riparian Habitats – A Summary of Scientifically Supported Conservation Strategies, Mitigation Measures, and Best Management Practices. 53 pages.

California Energy Commission and California Department of Fish and Game. 2007. California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development. Commission Final Report. California Energy Commission, Renewables Committee, and Energy Facilities Siting Division, and California Department of Fish and Game, Resources Management and Policy Division. CEC-700-2007-008-CMF.

Cal-IPC. 2012. Preventing the Spread of Invasive Plants: Best Management Practices For Transportation and Utility Corridors. Cal-IPC Publication 2012-1. California Invasive Plant Council, Berkeley, CA. Available at www.cal-ipc.org.

Feldman M. 1982. Notes on reproduction in Clemmys marmorata. Herp Review, 1982: 13(1).

Fellers, G.M. and B.J. Halstead. 2015. Twenty-five years of monitoring a Townsend's big-eared bat (Corynorhinus townsendii) maternity roost. Northwestern Naturalist 96(1):22-36.

A3-120

Comment Letter A3

Frick, W.F., et al. 2017. Fatalities at wind turbines may threaten population viability of a migratory bat. Biological Conservation. 209:172-177.

Geist N.R., Dallara Z., Gordon R. 2015. The role of incubation temperature and clutch effects in development and phenotype of Head-started western pond turtles (*Emys marmorata*). Herpetological Conservation and Biology 10: 489.

H. T. Harvey & Associates. 2018. Golden Hills Wind Energy Center Postconstruction Fatality Monitoring Report. Year 1. February 2018.

H. T. Harvey & Associates. 2019. Caltrans Bat Mitigation: A Guide to Developing Feasible and Effective Solutions. Prepared for California Department of Transportation.

Hayes D.W., McAllister K.R., Richardson S.A., Stinson D.W. 1999. Washington State recovery plan for the western pond turtle. Olympia, Washington: Washington Department of Fish and Wildlife. 66 p.

Hayes, J.P. 2003. Habitat ecology and conservation of bats in western coniferous forests. In Zabel and Anthony, eds. Mammal Community Dynamics.

Holland D.C. 1994. The western pond turtle: habitat and history. Portland, Oregon: US Department of Energy, Bonneville Power Administration. Final Report DOE/BP-62137-1. 302 p.

Jennings M.R. and Hayes M.P. 1994. Amphibian and reptile species of special concern in California. Rancho Cordova, California: Department of Fish and Game Inland Fisheries Division. Final Report. 240 p.

Johnson, E.A. and M.W. Klemens., 2005. The impacts of sprawl on biodiversity. Pp 18-53. in Johnson and Klemens (eds) Nature in fragments. Columbia University Press, New York, NY.

Mathews, F. et al. 2013. Effectiveness of search dogs compared with human observers in locating bat carcasses at wind-turbine sites: A blinded randomized trial. Wildlife Society Bulletin. 37:34-40.

Paula, J. et al. 2011. Dogs as a tool to improve bird-strike mortality estimates at wind farms. Journal for Nature Conservation 19.4: 202-208.

Pierson, E.D. 1998. Roosting and Foraging Habitats: A Conservation Perspective. In Thomas Kunz and Paul Racey (eds) Bat Biology and Conservation.

Rich, C. and T. Longcore, 2006. Ecological consequences of artificial night lighting. Island Press, Washington, DC.

A3-120 cont.

Comment Letter A3

Rosenberg, K.V. et al. 2016. Partners in Flight Landbird Conservation Plan: 2016 Revision for Canada and Continental United States. Partners in Flight Science Committee.

Smallwood, K.S. 2020 USA Wind Energy-Caused Bat Fatalities Increase with Shorter Fatality Search Intervals. Diversity 2020, *12*, 98.

Stromberg, M.R., et al. 2007. California Grassland Restoration. In Stromberg, M.R., Corbin, J.D., and C.M. D'Antonio (Eds.), California Grasslands: Ecology and Management (pp. 254-280). University of California Press, Berkeley.

Tetra Tech. 2014. Hatchet Ridge Wind Farm Post-Construction Mortality Monitoring Comprehensive Three Year Report. May 2014.

United States Fish and Wildlife Service. 2007. National Bald Eagle Management Guidelines. May 2007.

United States Fish and Wildlife Service. 2012. Land-Based Wind Energy Guidelines. United States Department of the Interior, Fish and Wildlife Service.

United States Fish and Wildlife Service. 2016. Recommended Best Practices for Communication Tower Design, Siting, Construction, Operation, Maintenance, and Decommissioning. United States Department of the Interior, Division of Migratory Bird Management, Fish and Wildlife Service.

Western EcoSystems Technology, Inc. 2011. Hatchet Ridge Invasive Weed Species 2011 Monitoring Report. September 2011.

Western EcoSystems Technology, Inc. 2012. Hatchet Ridge Invasive Weed Species 2012 Monitoring Report. August 2012.

A3-120 cont.

Letter A3: California Department of Fish and Wildlife

A3-1 In the Draft EIR, Section ES.3, *Purpose and Use of the Draft EIR*, and Section 1.1, *Purpose of this Document*, acknowledge CDFW's role and authority as both a trustee and responsible agency. See also, Table ES-1 and Section 2.6, *Permits and Approvals*, regarding CDFW's permitting authority and Section 3.4.1.3, *Regulatory Setting*, in the biological resources section regarding other provisions of the Fish and Game Code that are protective of vegetation and wildlife resources.

A3-2 The County acknowledges receipt of, and has considered, CDFW's input, which was provided during pre-scoping activities and during the formal scoping period for the EIR. See Draft EIR Appendix J (Scoping Report, including Letter A1), and the introduction to Draft EIR Section 3.4 (at page 3.4-2). The additional input provided in this Letter A3 also has been received, considered in this Final EIR, and made available for further consideration by decision-makers by its inclusion in the County's record for the Project.

A3-3 This summary of CDFW's primary concerns is acknowledged. Detailed responses are provided below in response to comments where they were expressed in greater detail.

A3-4 The commenter advises that a California Endangered Species Act (CESA) permit must be obtained if the Project has the potential to result in the "take" of plant or animal species that are listed under CESA, and recommends early consultation with the California Department of Fish and Wildlife (CDFW) if such conditions apply. Permitting for consistency with Fish and Game Code or other statutory and regulatory regimes would occur, if needed, independent of the preparation of an EIR pursuant to CEQA. The commenter correctly notes that CEQA requires a Mandatory Finding of Significance to be made if a project is likely to restrict the range or reduce a population of a threatened or endangered species. Consistent with this requirement, the Draft EIR considers whether the Project could result in a population-level impact. See, e.g., Draft EIR Section 3.4.3.2 (at page 3.4-60) and Section 3.4.4.3 (at page 3.4-76). Shasta County, the Lead Agency for the Project, understands these considerations and recognizes that CEQA Findings of Overriding Consideration do not eliminate the Applicant's obligation to comply with CESA (Fish and Game Code Section 2080).

A3-5 The Draft EIR (at page 3.4-34) acknowledges that CDFW regulates activities that would interfere with the natural flow of, or substantially alter, the channel, bed, or bank of a lake, river, or stream under Fish and Game Code Sections 1600 to 1616; and recognizes that a Streambed Alteration Agreement would be required for actions that affect such habitats. The County understands that CDFW may not issue the final Lake and Streambed Alteration Agreement for the Project until CEQA compliance has been demonstrated.

A3-6 Comment noted. The regulatory setting pertaining to avian biological resources is discussed in detail in Draft EIR Section 3.4 on pages 3.4-33 to 3.4-34 (Fish and Game Code Sections 3503 and 3503.5; protection of nests and eggs, and raptors); and the

regulatory discussion of fully listed species is detailed on detail is provided on page 3.4-33 (Fish and Game Code Sections 3511, 4700, 5050, and 5515).

A3-7 The comment incorrectly suggests, with regard to bird and bat protection, that the development of "many monitoring plans" described in the Draft EIR are deferred to a future date and are not available for public review. Only one avian/bat adaptive management plan is required by the Draft EIR (see Mitigation Measure 3.4-3b, Draft EIR at page 3.4-43), and then only if the required post-construction mortality monitoring (PCMM) study suggests exceedance of avian or bat mortality thresholds that are defined in the Draft EIR. As stated in Mitigation Measure 3.4-3b, under such a scenario, the Applicant would develop a plan using the USFWS *Land-Based Wind Energy Guidelines*[2] in coordination with relevant agencies (i.e., CDFW and the U.S. Fish and Wildlife Service [USFWS]). The plan is not needed if bird and bat mortality thresholds are not exceeded. Therefore, the Project has appropriately anticipated the possible need for adaptive planning. The potential adaptive management plan is required to meet USFWS's Guidelines, which includes feasible mitigation measures that would mitigate potential impacts to less-than-significant levels.

The commenter suggests that a technical advisory committee (TAC) should be formed to assist the Lead Agency in developing performance standards and feasible measures for bird and bat populations, with TAC authority to require additional post-construction monitoring should unforeseen impacts or high levels of unanticipated bird or bat fatalities occur. In the County's experience with the Hatchet Ridge Wind Project and through the myriad biological studies performed for this Project, no known or anticipated extraordinary technical issues or circumstances were identified related to the Project that warrant the formation of a TAC. The County believes that the mitigation measures presented in the Draft EIR relative to avian hazards are sufficiently prescriptive to identify and address potential impacts to avian resources, and the approach includes required coordination with federal and state resources agencies such that a TAC is not needed. Rather than establish a TAC to provide advice on developing performance standards and feasible mitigation measures for birds and bats, the County would continue to coordinate with CDFW and USFWS in assessing post-construction monitoring results and developing adaptive management measures (if needed), and also if needed would engage the services of avian specialists who have expertise in the area of wind-wildlife interactions. A TAC requires the commitment of significant agency resources and it has not been demonstrated that a TAC reduces avian mortality any more than consultation and coordination between the agencies. Formation of a TAC is not required by CEQA or by any other law or regulation. The mitigation measures included in the Final EIR are adequate, legally enforceable, and appropriately mitigate potential impacts to less-than-significant levels.

A3-8 The comment cites the California Energy Commission (CEC) and California Fish and Game (CDFG) *Guidelines for Reducing Impacts to Birds and Bats from Wind Energy*

[2] U.S. Fish and Wildlife Service (USFWS). 2012. Land-Based Wind Energy Guidelines. March 23, 2012. 82 pp. Available online: http://www.fws.gov/cno/pdf/Energy/2012_Wind_Energy_Guidelines_final.pdf.

Development, which were developed in 2007,[3] and the USFWS Wind Energy Guidelines[4] in determining final Project designs, noting these documents identify multiple considerations for site selection, turbine layout, and infrastructure design. They recommend implementing the considerations outlined in the CEC Guidelines and WEG in determining final Project designs. As described in Draft EIR Appendix C7, avian studies performed during the development and review of the Project were designed to address the questions posed under Tier 3 of the USFWS *Land-based Wind Energy Guidelines*[5] and Stage 2 of the USFWS *Eagle Conservation Plan Guidance*,[6] while also collecting data comparable to those recommended in the more dated California Wind Energy Guidelines.[7] The Project had already gone through advance surveys and the siting and design process based on the recommendations in these reports. Consistent with the above guidance documents, following an assessment of risk to migrating or resident raptors (Draft EIR Appendix C6), turbine M03 near Survey Point 30, as cited in the *Year 1 Avian Use Study Report and Risk Assessment for the Fountain Wind Project* (Draft EIR Appendix C7), was eliminated from the Project because it was visited at a higher frequency by raptor species than other turbine locations, thereby eliminating potential impacts to birds and bats at this location. This Project refinement is described and analyzed in Final EIR Section 1.2.3, *Changes to the Project Since Issuance of the Draft EIR*. Each of the above-cited documents assisted in the final Project design for site selection, turbine layout, and infrastructure design, as recommended by the comment.

A3-9 The comment states that because avian survey Point 30 showed a relatively higher number of raptor flight paths than other survey points (1.92 red-tailed hawk observations per 60-minute survey period, per Draft EIR Appendix C7), turbines M03 and M04, located nearby, should be removed from the Project. In preparation of the Draft EIR, the County has considered the risk of individual turbines to different raptor species and the total risk of the Project to raptors-on-the-wing. A detailed Project risk analysis to migrating or resident raptors was provided in Draft EIR Appendix C6. Avian survey Point 30 and nearby Point 31, which are closest proximity to the turbine M03 and M04 locations, showed no eagle activity during monitoring in 2018 and 2019 (Draft EIR Appendix C7, sub-appendix D2). The key concern identified near survey Point 30 in both 2018 and 2019 was red-tailed hawk flights. While avian studies showed extensive diurnal non-eagle flight paths, particularly by red-tailed hawk, were extensive at Point 30, virtually all of the relatively little activity was observed to the

3 California Energy Commission (CEC) and California Department of Fish and Game (CDFG). 2007. California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development. Commission Final Report. CEC, Renewables Committee, and Energy Facilities Siting Division, and CDFG, Resources Management and Policy Division. CEC-700-2007-008-CMF.

4 USFWS, 2012.

5 USFWS, 2012.

6 USFWS, 2013. Eagle Conservation Plan Guidance: Module 1 - Land-Based Wind Energy, Version 2. US Department of the Interior, Fish and Wildlife Service, Division of Migratory Bird Management. April 2013. Executive Summary and frontmatter + 103 pp. Available online: https://www.fws.gov/migratorybirds/pdf/management/eagleconservationplanguidance.pdf

7 CEC and CDFG, 2007.

southeast of Point 30 in the vicinity of turbine M03 (Draft EIR Appendix C7, sub-appendix D1; Final EIR Appendix A2) and not in the vicinity of proposed turbine M04. The higher diurnal raptor use at Point 30 was largely attributed to use by red-tailed hawk, which was observed nearly twice an hour to the northwest of the survey site. Based on survey findings, the Applicant refined the Project to eliminate turbine M03 because it was visited at a higher frequency by raptor species than other turbine locations, thereby eliminating potential impacts to birds and bats at this location. See Final EIR Section 1.2.3, *Changes to the Project Since Issuance of the Draft EIR.* As discussed above, Turbine M04 has not been eliminated from the Project as point count surveys did not reveal the same level of elevated raptor use as M03. Turbine M04 remains as a potential turbine siting location.

Importantly, the County has not established a "zero" mortality threshold for raptors. As described in Response A3-7, should any individual turbine exceed the established mortality thresholds for target species, as defined in Mitigation Measure 3.4-3c, then the Applicant will implement an adaptive plan to address the issue consistent with the USFWS *Land-Based Wind Energy Guidelines.*[8]

A3-10 Based on multiple years of avian surveys, the Draft EIR determined that the likelihood of encountering willow flycatcher is low (Draft EIR Table 3.4-3 at page 3.4-12). Preferred Swainson's hawk habitat is absent from the Project Site and the species was not observed during surveys; however, they may fly by as a migrant species (Draft EIR Appendix C1 at page 52 and Table 10). Suitable gray wolf habitat occurs on the Project Site; however, the likelihood of encountering gray wolf also is considered low (Draft EIR Table 3.4-3 at page 3.4-13). No direct impacts are anticipated to these species; however, if any state-listed wildlife species is identified and "take" occurs as a result of the Project, then the Applicant would be subject to CDFW's permitting and enforcement authority under the California Endangered Species Act (CESA). Potential impacts to willow flycatcher, which are considered low, would mainly occur in association with road construction and pad clearing for turbines. Affected riparian habitats can be expected to recover to near pre-project conditions within several years of construction with no long-lasting effects to this species. The operation of turbines and related site activities is not expected to impact this species. Site suitability for Swainson's hawk, for which suitable habitat is not present, is not expected to change over time. Hence, potential risks to this species would be similar in all years following construction. Project construction is the main potential impact mechanism for gray wolf, which is a terrestrial species. Operation of the Project over its 40-year lifespan and maturation of vegetation on the Project Site would not increase the likelihood of impacts to this species over time.

As stated in Project Site-specific rare plant surveys (Draft EIR Appendix C3, Appendix C4) focused rare plant surveys did not identify Shasta snow-wreath or Tracy's eriastrum within surveyed areas; and, based on current land use activities on

8 USFWS, 2012.

the Project site, occurrence of these species also is not anticipated in the areas that remain to be surveyed. However, this conclusion will be verified through Mitigation Measure 3.4-1, which requires rare plant surveys prior to construction in areas that have yet to be surveyed. If any state-listed or state Rare plant is identified during surveys and cannot be avoided through Project design, then the Applicant would be subject to CDFW's permitting and enforcement authority under CESA. If CESA-listed species, CESA candidate species, and Native Plant Protection Act listed plant species are not present in the Project Site at the time of construction, take would not be anticipated as a result of ongoing routine habitat disturbances during the operations or maintenance phase of the Project. Such areas include cleared work areas, roads, and power line corridors.

If the take of a State-listed species is anticipated or identified, then the Applicant would be required to consult with CDFW under applicable law. In the context of biological resources, the purpose of CEQA is not to analyze take of an endangered species; instead, the analysis under CEQA addresses whether a project will cause a significant adverse impact to a species on a population basis and that all mitigation for those impacts are analyzed. The impact analysis in the EIR for this Project reflects this approach. Based on the biological resources analysis and supporting studies, no direct impacts were identified to State-listed species at this time.

A3-11 This summary regarding fully protected species is acknowledged. See Draft EIR Table 3.4-3 (at page 3.4-11 et seq.), which identifies these species as fully protected, and Section 3.4.1.3 (at page 3.4-33), which summarizes the CESA provisions regarding fully protected species. As the Draft EIR identifies, the nearby Hatchet Ridge Wind Project has had no identified impacts to fully protected species, and similar findings are expected for the proposed Project once operational. As analyzed and disclosed in Draft EIR Section 3.4.3 regarding direct and indirect effects, and Section 3.4.4 regarding cumulative effects, the County does not anticipate unavoidable impacts to greater sandhill crane or American peregrine falcon, but has reached this conclusion with respect to bald and golden eagles based on uncertainty relating to collision risks to these species during Project operation.

Developing a Natural Community Conservation Plan is not necessary to reduce the significance of impacts to these fully protected species. First, the risk of take to these species is low, as described above. Second, authorization to take individuals of a species does not reduce a project's impact of the species as a whole and therefore is not legally required to be imposed as a mitigation measure under CEQA. Third, developing a Natural Community Conservation Plan is a regional effort involving an ecosystem approach and not appropriate for an individual project.

If the USFWS or CDFW approves a take permit for avian species (such as golden eagle [federal] or Swainson's hawk [state]) it is possible that the permit may incorporate CDFW's recommendation to include "informed curtailment," or rapid turbine shutdown in the presence of raptors, as a condition of approval. Based on the comment,

it is expected that CDFW's take permit requirements under the California Endangered Species Act would differ from those presented in the Draft EIR as allowed under CEQA.

The statement of Impact 3.4-3 (page 3.4-41) has been clarified as follows:

> "Impact 3.4-3: Operation of the Project could~~, unless mitigated,~~ result in significant adverse impacts to or direct mortality of bald and golden eagles (Significant and Unavoidable)"

A3-12 Consistent with the comment, the Draft EIR identified the potential for significant and unavoidable impacts to bald eagle and golden eagle. As the Draft EIR identifies (at page 3.4-41), post-construction avian fatality monitoring data from the Hatchet Ridge Wind Project have not identified bald or golden eagle mortalities from project operation. However, due to the uncertainty related to the risks to these species, Mitigation Measures 3.4-3a, 3.4-3b, and 3.4-3c (at pages 3.4-42 to 3.4-45), are required and provide appropriate and robust mitigation to address potential impacts to these species, including possible curtailment. More specific measures were not suggested in the comment. If bald or golden eagle mortality occurs as a result of the Project, Mitigation Measure 3.4-3c requires compensatory mitigation, as recommended by the commenter, consistent with the USFWS *Eagle Conservation Plan Guidance*.

A3-13 The comment concurs with the Draft EIR assessment that impacts to bald eagle, golden eagle, raptors, and bats would be significant; however, it suggests that additional reasonable, feasible mitigation measure are available to further reduce impacts. As an example, the comment references actions in the USFWS *Land-based Wind Energy Guidelines*,[9] which include altering locations of turbines or turbine arrays, operational changes, and/or compensatory mitigation. The Draft EIR includes a suite of reasonably feasible measures intended to avoid, reduce, and mitigate Project impacts to raptors and bats. These specifically include design changes (e.g., the removal of turbine site M03), biological monitoring (e.g., Mitigation Measure 3.4-3b: Monitor avian and bat mortality rates during project operations; page 3.4-43), and operational changes and compensatory mitigation (Mitigation Measure 3.4-3c: Offset operational impacts on eagles and California spotted owl through compensatory mitigation, if necessary; page 3.4-44) to mitigate impacts to these species. As described in Response A3-7, the mitigation measures presented in the Draft EIR relative to avian hazards are sufficiently prescriptive to identify and address potential impacts to avian resources, and the approach includes required coordination with federal and state resources agencies. Based on the comment, it is expected that any CDFW permit requirements would differ from those presented in the Draft EIR as allowed under CEQA.

A3-14 The commenter correctly identifies that avian and bat mortalities are significant and unavoidable, both at the Project level and cumulatively. The subject text described by the commenter is under the heading of *Waters of the U.S. and Sensitive Natural*

9 USFWS, 2012.

Communities discussion for which the summary paragraph inadvertently mentions avian species and bats. The subject sentence (page 3.4-77) follows a prior paragraph, which concludes that mitigation measures would reduce the Project's contribution to cumulative wetland impacts such that it would not be cumulatively considerable. The typographical error in the summary sentence has been revised to clarify the Project-level finding that impacts to waters of the U.S. would be less than significant. The text on Draft EIR page 3.4-77 has been corrected as follows:

> "When considered in combination with the impacts of other projects in the cumulative scenario, the Project's incremental contribution to waters of the U.S. and ~~avian and bat mortality and impacts to~~ sensitive natural communities would not be cumulatively considerable because implementation of Project's mitigation measures would reduce the impacts to less than significant under CEQA."

The cumulative impact risk to bats is discussed page 3.4-76, and as identified in the comment, the Project's contribution to this impact would remain significant and unavoidable.

A3-15 Construction impacts to nesting songbirds are analyzed in Draft EIR Impact 3.4-11. Operational impacts from facilities to migratory songbirds were considered during analysis of the Project and a robust discussion was provided in the appendices; however, this discussion was inadvertently omitted from Section 3.4, *Biological Resources*. In response to the comment, Impact 3.4-9 (at page 3.4-52, et seq.), has been updated as follows with the songbird setting and impact discussion from Draft EIR Appendix C6. Because the updated text was entirely within the Draft EIR and no additional significant impacts are identified, recirculation of the Draft EIR is not warranted. Based on the analysis provided in Draft EIR Appendix C6, this impact is considered less than significant.

> ***Other Resident and Migratory Birds***
>
> **Waterfowl and Other Avian Species**
>
> **Impact 3.4-9: Operation of the proposed project could result in mortality and injury to waterfowl and other avian species as a result of collisions with wind turbines and electrical transmission lines. (*Less than Significant Impact*)**
>
> The majority of waterfowl observations (about 78 percent in Year 1 surveys) comprised three species: snow goose, greater white-fronted goose, and Canada goose, all of which are abundant species in the Pacific flyway (Appendix C7). An analysis of collision risk to birds using the first year of avian data collected within the Project Site was conducted (Appendix C7). During Years 1 and 2 of the avian surveys at the Project Site the mean flight height for waterfowl was 1,679 feet (511.79 meters), with 99.1 percent of observed birds flying higher than 656 feet (200 meters) (Appendix 7, page 7). Under the project, a range of turbine heights are being considered; however, the maximum possible height would be 679 feet from ground level to the vertical turbine blade tip. At Hatchet Ridge,

waterfowl comprised up to 50 percent of bird mortality, primarily attributed to species making localized movements under high wind and/or low visibility conditions which may cause the birds to fly at a lower altitude and encounter turbines (Tetra Tech 2014). Nonetheless, the overall rate of waterfowl mortality at the Hatchet Ridge Wind Project was still comparatively low for the region and nationally, ranging from 0.27 to 0.39 birds/MW/year (Tetra Tech 2014). In addition, because the Project Site, like Hatchet Ridge, is heavily forested, waterfowl would likely fly at a higher altitude over the trees, and it does not appear that waterfowl or waterbirds use the area as migratory stop-over sites.

In the same avian risk of collision review, waterbirds, including the American white pelican, did not appear to be particularly susceptible to collision with wind turbines. In addition, suitable breeding and stopover habitat for American white pelican is also absent from the Project Site. From Project Site-specific studies (Appendix C7), it can be concluded that the majority of waterbirds, including the American white pelican, would fly well above the rotor swept height and height of electrical transmission lines within the Project Site. Based on observed species use of the site and review of species habitats, the potential risk of substantial waterfowl mortality is considered low. Because the level of waterfowl collision related injury or mortality is not anticipated to occur at levels which would adversely affect population levels, operational impacts on waterfowl and waterbirds would be less than significant.

During two years of small bird surveys, 2,408 small bird observations were recorded in Year 1 consisting of 71 species, while in Year 2, 1,711 small bird observations were recorded consisting of 50 species (Draft EIR Appendices C6 and C7). As discussed in the Draft EIR (at page 3.4-24), the most abundant species were common forest birds: dark-eyed junco, mountain chickadee, western bluebird, Steller's jay, and woodpeckers. The seasonal abundance and species richness results in Draft EIR Appendix C6 suggest that small bird use is moderate and relatively consistent across seasons and across the Project Site. To date, overall fatality rates for birds at wind energy facilities in California and the Pacific Northwest with publicly available data have been variable, ranging from 0.16 to 17.44 birds/MW/year (Draft EIR Appendix C7). The only wind energy facility in the western United States with habitats and topography similar to the Project is Hatchet Ridge, located less than 3.2 km (2.0 mi) northeast of the Project Site. During three years of post-construction fatality monitoring conducted at the Hatchet Ridge Wind Project from 2011 to 2013, annual all bird fatality rates ranged from 0.84-2.50 birds/MW/year (Tetra Tech 2014). The results of post-construction monitoring at that site suggest low impacts to non-listed passerines and other small bird species at the facility, and no apparent disproportionate impacts to nocturnal migrants. As cited in the Draft EIR (at page 3.4-55), the majority of songbird species using the Project Site including special-status species, olive-sided flycatcher, Cassin's finch, and Lewis' woodpecker, are generalists that do not require hard to find specialized nesting habitat. Hence, the

analysis (at page 3.4-55) concludes that the potential effect on any individual songbird species population would not be substantial and that the impact on most songbird species including olive-sided flycatcher, Cassin's finch, and Lewis' woodpecker from operation of the project would be less than significant. As summarized in Appendix C6 (at page 32), given the proximity of the Project Site to Hatchet Ridge, as well as similar topographic and habitat characteristics and species assemblages at the two sites, impacts to passerines and other small birds at the Project site, including nocturnal migrants, are expected to be similarly low, and less than significant.

Mitigation: None required.

A3-16 CDFW's scoping comments (which are included in Draft EIR Appendix J) indicated the agency's awareness of known breeding occurrences on or near the Project site and recommended that a qualified biologist conduct willow flycatcher habitat delineation and field surveys at the Project Site to determine site occupancy. On this basis, WEST, Inc. performed a desktop assessment of willow flycatcher occurrence and potentially suitable habitat on the Project Site, followed by field surveys that resulted in no willow flycatcher detections. The survey findings, provided in Draft EIR Appendix C16, indicate that potential willow flycatcher habitat is very limited on the Project Site, being restricted to just three small areas in and near the construction footprint. As stated in the Draft EIR (at page 3.4-57), no direct or indirect impacts were identified to this species due to the lack of breeding populations within the Project site and because no direct removal or loss of habitat would occur at any of the three identified potential willow flycatcher habitat areas on the Project site. Additionally, no cumulative impacts were identified to this species.

Following focused surveys, the Draft EIR conclusion does not change due to the presence of off-site willow flycatcher territories noted in the comment, or due to the presence of unidentified passerine birds that were enumerated in general avian point count surveys. Habitat on the Project Site is largely characterized by upland habitats such as evergreen forest (54% of site), shrub/scrub (38%), herbaceous land cover (4.5%), which do not provide habitat for willow flycatcher. Willow flycatcher habitat includes approximately 115.2 acres of the 32,613-acre study area, or about 0.4 percent. Point count surveys were evenly distributed across the site and therefore favored forested and shrub/scrub habitats that are unsuitable for willow flycatcher; hence, it would be incorrect to presume that unidentified flycatchers or *Empidonax* species on the site are willow flycatchers. None of the unidentified flycatcher observations occurred within willow flycatcher habitat. An unidentified flycatcher species within potential willow flycatcher habitat would have generated further study to characterize the bird to species, or would have been identified as such. Also, it is typical during avian point surveys to note small birds that are too far away to definitively identify. As such, the presence of unidentified passerine birds is expected, and indicates neither a flaw in the focused willow flycatcher survey, nor a shortcoming in the general avian point count survey.

A3-17 The observation of other species on the Project Site and their listing status is acknowledged. See Draft EIR Table 3.4-3, *Special-Status Wildlife Species with Potential to Occur Within the Project Site* (at page 3.4-10 et seq.). Draft EIR Impact 3.4-11 (at page 3.4-55 et seq.), which discusses impacts to nesting songbirds, considered potential Project impacts to each of the species identified in the comment (i.e., yellow warbler, olive-sided flycatcher, Vaux's swift, Cassin's finch, and Lewis' woodpecker. Over the avian 3-year monitoring period at the Hatchet Ridge Wind Project, two species of special concern were found during fatality searches: one Vaux's swift and one yellow warbler (Tetra Tech 2014). Impacts to Vaux's swift and yellow warbler were considered in Draft EIR Impact 3.4-11 (at page 3.4-55 et seq.). There was no seasonal trend in small bird fatalities at Hatchet Ridge, with peak fatalities for songbirds occurring in late spring of year 1, fall of year 2, and winter of year 3 (Tetra Tech 2014). Many of the fatalities recorded were resident species, rather than nocturnal migrants, and increased mortality in spring may have been due to a general increase in spring avian activity. Fatality monitoring results from the Hatchet Ridge Wind Project indicate the Fountain Wind Project area is not a major migratory pathway for nocturnal migrating birds and that the risk to nocturnal migratory birds from wind turbines is generally low. Due to relatively low numbers of small bird fatalities that have occurred at Hatchet Ridge, Project-related impacts to resident and migrating small bird populations are likely to be minimal (Tetra Tech 2014). The expected mortality of small birds for the Project, based on findings from post-construction mortality surveys at the Hatchet Ridge Wind Project site and observations of small bird species' composition and abundance at Fountain Wind Project area, would not create a significant impact on small bird populations, including Vaux's swift and yellow warbler, for which limited mortality was observed at Hatchet Ridge, impacts on these special-status birds were considered be less than significant in the Draft EIR. Neither Vaux's swift nor yellow warbler are state-listed species; hence, no CDFW permit would apply to the potential small incidental take that may occur to these species. See Response A3-15.

A3-18 See Response A3-17.

A3-19 As discussed in Response A3-15 and presented in Draft EIR Appendix C7, the results of post-construction monitoring at the Hatchet Ridge Wind Project suggest that no apparent disproportionate impacts to nocturnal migrants would result from the Project. This discussion is summarized in the revised Impact 3.4-9, and is considered less than significant. Post-construction avian mortality monitoring required by Mitigation Measure 3.4-3b would monitor the mortality of songbirds, including to nocturnal migration. Such monitoring would identify potential impacts to nocturnal migrant species as requested in the comment. To further clarify that Mitigation Measure 3.4-3b (*Monitor avian and bat mortality rates during project operations*) requires mortality inventorying of all avian species, including songbirds, this measure has been updated as follows.

> **Mitigation Measure 3.4-3b: Monitor avian and bat mortality rates during project operations.[5]**

To accurately assess operational Project impacts on all avian species, including bald eagle, golden eagle, other raptors, and bats, and ensure the effectiveness of avian protection measures, the applicant will design and implement a post-construction mortality monitoring (PCMM) study. The PCMM will include the following elements:

a) The duration of PCMM monitoring to assess ongoing impacts of operation will include post-construction monitoring for all avian species, with particular attention to eagles, other raptors, and bats. The PCMM monitoring will commence immediately following the beginning of commercial operation and continue for three years following the incorporation of all planned turbines and power generation.

A3-20 The comment recommends that the Project quantify songbird and bat fatality estimates using robust bird and bat fatality monitoring and beyond what was conducted at the Hatchet Ridge Wind Project, using an approach such as the Golden Hills Wind Energy Center monitoring study in Alameda County. The Golden Hills study incorporated: 1) comprehensive bat and bird carcass surveys of all turbines using scent detection dogs, 2) randomized 7-day and 28-day interval searches, 3) comparison of human and scent detection dog survey effectiveness, and 4) extensive integrated searcher efficiency and carcass persistence bias trials for deriving annual fatality estimates. Elements of the required PCMM study are described in Mitigation Measure 3.4-3b (Draft EIR at pages 3.4-43 and 3.4-44), and include some of the recommendations identified by the commenter such as randomized surveys over all seasons being monitored, and searcher efficiency trials and carcass persistence trials. As required, the Applicant and County, in coordination with responsible and trustee agencies, will evaluate all survey options and choose the methods best suited for attaining the performance standard while maintaining survey integrity. Therefore, the use of scent detection dogs is recognized as one of several methods available that may be used during the fatality surveys to maximize benefit; however, is not an obligatory element the post-construction avian monitoring study design.

A3-21 The habitat loss estimates provided in the Draft EIR included a large study area around proposed facilities to ensure that all species and habitat impacts were accounted for. As described in the aquatic resources study assumptions (Draft EIR at page 3.4-7 et seq.), this large study area included areas within 700 feet of turbines, a 200- to 400-foot corridor centered on Project roads, a 300-foot corridor centered on the electrical collection lines, a 200-foot buffer around Project facilities, and a 100-foot buffer around proposed construction staging areas, as depicted in Draft EIR Figure 3.4-1 (at page 3.4-5). In the absence of construction details within the study area, the impact analysis for yellow warbler habitat removal was based on a conservative estimate of 115.2 acres. This estimate is considered conservative because it includes the entire amount of riparian scrub habitat within the biological inventory area; not the area within the construction footprint. Biological surveys included a 700-foot radius centered on proposed turbine locations, a 200- to 400-foot corridor centered on Project roads, a 300-foot corridor centered on the electrical collection line, a 200-foot buffer around proposed Project facilities, and a 100-foot buffer around proposed construction

staging areas. Most sensitive riparian habitats within these areas would be avoided during construction and would not be impacted during operations or decommissioning. New turbines, for example, are fully compatible with riparian habitat within 700 feet.

It is estimated that the final impact to yellow warbler habitat under the Project may be fewer than 5 to 10 acres based on the Project refinements that have been proposed since circulation of the Draft EIR (see Final EIR Section 1.2.3), and the following assumptions: 1) new roads corridors will not be 400 to 800 feet wide, but perhaps closer to 40 to 60 feet; 2) ground clearing around turbines will not extend 700 feet from turbine pads; 3) the cleared buffer around turbines would include low-growing vegetation, such as riparian scrub habitat, which is well below the wind-swept area; 4) buffers for collection line corridors and facility buffers would avoid clearing of riparian habitat, and; 5) the final Project footprint would be based on a refined Project design that avoids and minimizes impacts to wetlands and riparian habitat (Mitigation Measure 3.4-16b). Since the Draft EIR was published, Project refinements that been proposed that include realigning access roads and electric collection lines to reduce direct impacts on aquatic resources and riparian habitats (Final EIR Section 1.2.3). In addition to habitat protections provided in the Draft EIR, riparian habitat is protected by CDFW; any riparian habitat clearing or removal would be subject to CDFW approval. The precise amount of riparian habitat removal needed within the Project Site, and hence the amount of yellow warbler habitat affected by the Project, would be identified in the applicable 1600 permit. It is expected that the Project would affect a small portion of yellow warbler habitat on the site (e.g., 5-10 acres); however, the precise amount of habitat removal is not known at this time. The greater 29,500-acre leasehold area includes over 1,600 acres of unaffected yellow warbler habitat in the form of woody wetlands and deciduous forest that would not be impacted by the Project (Draft EIR Appendix C1). In addition, all conservation measures in the Draft EIR including the *Conservation Measure for Willow Flycatcher and Yellow Warbler* will be considered by County decision-makers for adoption as conditions of approval (COA) if the requested use permit is granted. This measure provides that any identified yellow warbler nest sites within 250-feet of construction areas would be protected with appropriate buffers to ensure that active nests are not disturbed.

Consistent with the recommendation in the comment, riparian habitat on the Project Site would be avoided to the maximum extent through the implementation of Mitigation Measure 3.4-16b (Draft EIR at page 3.4-65), which seeks to avoid and minimize impacts to wetland and other waters, including associated riparian habitat. The first requirement of this measure is to refine final siting and design to avoid wetland and other waters, and by extension, associated riparian habitat. Under this measure, the Applicant will avoid direct and indirect impacts to wetlands and streams in final siting and design to the maximum extent feasible, consistent with the recommendation in the comment. In addition, compensation for riparian habitat loss shall be provided through a detailed Reclamation and Revegetation Plan that is outlined in Mitigation Measure 3.4-16c (Draft EIR at page 3.4-66), as the comment recommends. The plan would provide for restoration of federal and state jurisdictional

wetland and riparian restoration areas to preconstruction conditions along with associated monitoring and reporting requirements, site management, and the need for remedial measures.

A3-22 See Response A3-15 regarding the development of further mitigation alternatives to address avian impacts. Regarding the recommendation to add a threshold for impacts to small birds in Mitigation Measure 3.4-3b, in the County's experience with the Hatchet Ridge Wind Project and biological studies performed for the proposed Project, no known or anticipated extraordinary technical issues or circumstances were identified that suggest population level impacts to songbirds, including species of special concern. Based on these studies, no operational impacts were identified to the state-listed willow flycatcher. As described in Response A3-45, the recommendation to provide an impact threshold for small birds in Mitigation Measure 3.4-3b was adopted for the Project. Based on the comment, it is expected that CDFW's take permit requirements under the California Endangered Species Act would differ from those presented in the Draft EIR as allowed under CEQA. See Response A3-7 regarding why a TAC is not being recommended for this Project.

A3-23 CDFW recommends inclusion of a mitigation measure for songbirds, and provides the text for a suggested measure. Consistent with the comment, each conservation measure in the Draft EIR (including the *Conservation Measure for Nesting Songbirds, Conservation Measure* for *Vaux's Swift,* and *Conservation Measure for Willow Flycatcher and Yellow Warbler*) will be considered by County decision-makers for adoption as a COA. The comment does not demonstrate that the Draft EIR songbird conservation measure, as written, is inconsistent with Fish and Game Code, nor that the approach is inadequate under CEQA. It is understood that vegetation removal and ground disturbance under the proposed Project may occur at any time of year; hence, recommendation (a) under the comment (i.e., construction shall occur between September 1 and January 31) is not compatible with the construction schedule and is not incorporated into the Final EIR. Hence, the Project, if approved, would rely on preconstruction surveys to avoid impacts to nesting birds. Recommendation (b) states that work performed during the nesting season, defined in the comment as February 1 through August 31, should require a pre-construction nesting survey. It suggests a specific survey and reporting method, and would compel the Applicant to consult with CDFW and the USFWS if any active nests are found. Based on the comment, the County has clarified the conservation measure for nesting songbirds presented in Impact 3.4-11 (Draft EIR at page 3.4-55 et seq.) to include the survey dates and other recommendations in the comment, as follows:

> **Conservation Measure for Nesting Songbirds:** Avoid and minimize construction-related impacts to nesting songbirds
>
> Prior to any disturbance of nesting habitat during breeding season (<u>February 1 through August 31</u>~~March 1 to August 15~~), a qualified biologist will survey the area to be impacted to locate any active bird nests. <u>If construction activities are</u>

> delayed or suspended for more than two weeks after the preconstruction survey, the site shall be resurveyed. Active nests will be avoided by a suitable buffer distance (e.g., 100 to 250 feet). If nests are found and cannot be avoided, construction activities shall cease within the buffer area and the applicant shall coordinate with CDFW and/or the USFWS, as appropriate, to ensure compliance with state and federal regulations.

As modified, the measure would adequately protect these species. No changes were made to other bird protection measures in the Draft EIR, which are consistent with bird protection requirements in the MBTA and Fish and Game Code, and meet CEQA requirements for protecting nesting songbirds.

A3-24 Consistent with the comment, the *Conservation Measure* for *Vaux's Swift* will be considered by County decision-makers for adoption as a COA (Draft EIR Impact 3.4-11 at pages 3.4-56 and 3.4-57). This measure was not otherwise suggested to be inadequate by the comment. As demonstrated during baseline avian studies, qualified avian specialists will survey for Vaux's swift in advance of vegetation removal or construction activities that have the potential to affect this species. As described in Response A3-23, surveys would occur during the updated songbird survey period of February 1 through August 31. If planned activities cannot avoid impacts to occupied Vaux's swift habitat, if identified, then the Applicant will coordinate with CDFW. However, it is anticipated that any impacts to active Vaux's swift nests could be avoided through a combination of advance surveys, seasonal avoidance of active nests, and the use of appropriate nest buffers, as stated in the Draft EIR. Based on the comment, it is expected that CDFW's permit requirements for areas within the agency's jurisdiction would differ from those presented in the Draft EIR as allowed under CEQA.

A3-25 Consistent with the comment, the *Conservation Measure* for *Willow Flycatcher and Yellow Warbler* will be considered by County decision-makers for adoption as a COA. Relative to the conservation measure for willow flycatcher and yellow warbler (Draft EIR at pages 3.4-57 and 3.4-58), the comment states that the measure should require modeling of habitat for yellow warbler and willow flycatcher. Relative to yellow warbler, such habitat modeling is not needed to reach a less than significant impact to this species. A standard preconstruction avian survey and associated avoidance measures stated in the conservation measure for Nesting Songbirds (Draft EIR at pages 3.4-55 and 3.4-56) would identify active nests and avoid impacts to yellow warbler. Areas of identified habitat for willow flycatcher are identified in Draft EIR Appendix C16, *2018 Willow Flycatcher Survey Results, Fountain Wind Project.* These areas would be resurveyed prior to Project activities. No additional habitat for this species was identified within 250 feet of the Project Site; however, if found during preconstruction avian surveys (required for the Conservation Measure for Nesting Songbirds), such areas will also be surveyed following the timing and methodology described in Draft EIR Appendix C16. As the commenter correctly identifies, it is presently unclear as to whether or not additional surveys will be required because

additional willow flycatcher habitat has not been identified. Consistent with the comment, the Applicant would be subject to CDFW's permitting and enforcement authority if an incidental take permit for willow flycatcher is needed. Because any active willow flycatcher nest sites would be avoided by a suitable buffer intended to avoid all direct and indirect impacts, nest monitoring would not be warranted.

A3-26 As stated in this comment, the Draft EIR disclosed on page 3.4-21 that three golden eagle observations were made "during the spring migration season," noting that the observed birds likely indicate resident or breeding golden eagles. This statement was not intended to reduce the significance of these observations or imply that nesting could not occur in the Project region. A thorough analysis of Project risks to golden eagle is presented in the Draft EIR (see Section 3.4, Appendix C7, and Appendix C4b). To clarify any misperception, the subject text on Draft EIR page 3.4-21 has been revised as follows:

> "All three observations of golden eagles were made during the spring and suggest the presence of a breeding territorial pair whose territory overlaps with the proposed wind Project ~~migration season~~ (~~Appendix C4~~ Appendices C6 and C7)."

A3-27 CDFW recommends coordination with the USFWS, and the development of a detailed Eagle Conservation Plan and a Bird and Bat Conservation Strategy. Draft EIR Mitigation Measure 3.4-3a, item d (Draft EIR at page 3.4-42) requires the Applicant to coordinate with USFWS regarding impacts to eagles in compliance with the Bald and Golden Eagle Protection Act and the USFWS Eagle Conservation Plan Guidance. As identified in Mitigation Measure 3.4-3c, if bald or golden eagle mortality occurs as a result of the Project, the Applicant will coordinate with the USFWS and follow the most current USFWS Eagle Conservation Plan Guidance to provide appropriate mitigation that reduces potential impacts. This may include preparation of an eagle take permit, consistent with USFWS requirements.

The comment recommends development of a Bird and Bat Conservation Strategy (BBCS) to identify and implement actions to conserve birds and bats during the life of the Project. Since publication of the Draft EIR, certain new design features have been proposed by the Applicant that will be imposed as enforceable conditions of approval for the Project. See Final EIR Section 1.2.3, which identifies these design features, including the development and implementation of a BBCS as recommended by the comment. The newly proposed BBCS would detail measures to be taken during Project operations to reduce impacts to birds and bats. As recommended by the comment, measures in the BBCS would include post-construction mortality monitoring, prey reduction techniques, and adaptive management strategies. See Response A3-7 regarding the County's continued coordination with CDFW and USFWS and avian specialists (as needed) in assessing post-construction monitoring results and developing adaptive management measures.

A3-28 The comment recommends adoption of California spotted owl (CSO) conservation measures presented in the Draft EIR (at pages 3.4-47 and 3.4-48) as mitigation measures. Based on the impact determination of less-than-significant, CEQA does not authorize the County to impose the identified measures as "mitigation" (Public Resources Code §21002, 21002.1; 14 Cal. Code Regs. §15370). Nonetheless, consistent with the comment, all conservation measures in the Draft EIR including the *California Spotted Owl Conservation Measures* (at page 3.4-47) will be considered by County decision-makers for adoption as COAs. The comment also recommends including a schedule for the timing of CSO surveys and states that the one-year survey should be conducted within two years prior to initiating construction activities. A schedule for the surveys is not available at this time. It is understood from the comment that CDFW will consider negative CSO surveys valid for a period of two years.

A3-29 The comment states that an approximate numerical amount of suitable CSO habitat, both pre- and post-construction, should be discussed in the Draft EIR. The Project Site is located within a larger ownership that encompasses approximately 32,000 acres of private land. The CSO risk assessment and habitat suitability study performed for the Project (Draft EIR Appendix C15) used CDFW's California Wildlife Habitat Relationships (CWHR) model to estimate habitat for this species within the 4,464-acre Project Site. The habitat suitability model found that approximately 945 acres of the Project Site (21.2 percent) have moderate suitability for CSO, with much smaller, isolated patches of high suitability habitat interspersed. These small patches of predicted high suitability habitat amount to only 50 acres, or 1.1 percent of the total Project Site. Hence, 995 acres of moderate to high suitability CSO habitat were described on the Project Site (Draft EIR at page 3.4-46). The CWHR habitat suitability assessment (Draft EIR Appendix C15) found that the majority (about 75 percent) of the Project Site contains vegetation communities unsuitable, or of low suitability, for CSO. As stated on Draft EIR (at page 3.4-46), for the purposes of the Draft EIR analysis it was assumed that the entire 995 acres would be disturbed. The analysis concluded that the 50 acres of predicted high suitability habitat, which are more suitable for nesting and roosting, are present in very small, isolated patches that may limit the potential for these areas to support CSO roosts or nests. CDFW's comment that several CSO breeding pairs have been documented nesting in small patches of high-quality nesting/roosting habitat is noted, but does not change the Draft EIR conclusion that the loss of this potential habitat is not likely to have a significant impact to CSO in the region (see also, Draft EIR Appendix C15 at page 7).

A3-30 See Response A3-9 and Final EIR Section 1.2.3, which explain, based on the risk analysis to migrating or resident raptors provided in Draft EIR Appendix C6, that the Project has been revised since publication of the Draft EIR. These include eliminating turbine location M03 because avian point count surveys demonstrated higher raptor use than other turbine locations, thereby eliminating potential impacts to birds and bats at this location.

The County has not established a "zero" mortality threshold for raptors. As described in Response A3-7, should any individual turbine exceed the established mortality thresholds for target species, as defined in Mitigation Measure 3.4-3b, then the Applicant would implement an adaptive plan to address the issue consistent with the USFWS *Land-Based Wind Energy Guidelines*[10]. The last paragraph of Mitigation Measure 3.4-3b is updated as follows to clarify the types of adaptive measures that may be undertaken if mortality thresholds are exceeded.

> If thresholds are exceeded, the Applicant will implement minimization measures recommended by the~~se~~ County, CDFW, and/or USFWS ~~agencies~~ to limit mortality. ~~Which~~ Precise measures that are applicable will depend upon the type and magnitude of the identified impact, and may include one or more of the following operational modifications, or other identified adaptive actions:
>
> - ~~Specific may include oOperational modifications such as~~"Informed curtailment" of turbine speed (rapid shutdown of turbines when raptors are seen approaching.
> - Curtailment of operations during high risk periods for bats (low wind nights) or birds.
> - The ~~possible~~ use of low-intensity ultraviolet light and ultrasonic deterrence systems to deter birds and bats from approaching (AWWI, 2018).
> - The use of bird-specific visual cues, such as marking/painting, UV coating, reflectors, minimal turbine lighting, visual deterrence or lasers.
> - Habitat alterations that affect habitat quality or food availability on- or off-site, or alter availability of breeding habitat or roosts.
> - Removing select turbines that are problematic for target species.
> - Altering turbine speed to reduce mortality.
> - Temporary shutdown of select turbines during sensitive periods.
> - Operating select turbines only during daylight hours.
> - Acoustic cues such as acoustic harassment or an audible deterrence.
> - Other sensory cues, such as electromagnetism or olfactory cues.

A3-31 The comment suggests using a raptor nesting season of February 1 through September 15, instead of March 1 to August 15, as stated in Draft EIR Mitigation Measure 3.4-6 (at page 3.4-49). Upon reviewing the comment, the County concurs with this change and Mitigation Measure 3.4-6 is updated as follows:

> **Mitigation Measure 3.4-6: Avoid and minimize construction-related impacts on nesting raptors (~~March 1 to August 15~~ February 1 to September 15)**
>
> a) Where feasible, tree and vegetation removal activities shall be avoided in potential raptor nesting habitat during the avian nesting season (~~March 1–August 15~~ February 1 to September 15) during each year of construction.

[10] USFWS, 2012.

If construction is planned to occur during the avian nesting season from ~~March 1 August 15~~ February 1 to September 15, pre-construction raptor nesting surveys shall be conducted by a qualified biologist to identify raptor nests within 500 feet of proposed work areas. …

A3-32 The comment requests an outline of the preconstruction raptor survey protocol in the Draft EIR. This comment refers to Mitigation Measure 3.4-6 (Draft EIR at pages 3.4-49 and 3.4-50), which requires preconstruction raptor surveys within 500 feet of work areas. As stated in Mitigation Measure 3.4-2 (at pages 3.4-40 and 3.4-41), terrestrial surveys will include all suitable eagle nesting habitat within a 2-mile buffer surrounding the Project construction boundary. It is anticipated that preconstruction raptor survey methods will be similar to the ground-based survey methodology presented in Draft EIR Appendix C10. This includes an initial ground-based survey focused on identifying and searching specific habitat features with potential to support raptor nests. As described in Appendix C10, this includes an examination of key habitat features within the survey area that includes cliffs, rock outcrops, incised drainages and canyons, powerline structures, and large/dominant trees. The comment does not describe a deficiency in the Draft EIR analysis and no changes are proposed to the mitigation measure based on the comment.

A3-33 The comment states that the 500-foot raptor protection buffer stated in Mitigation Measure 3.4-6 should be increased to a distance of 1/4-mile (1,320 feet). Other buffer distances are specified in the Draft EIR for special-status species (i.e., eagles, northern goshawk, and CSO). CDFW has not formally adopted standard raptor nest buffer guidance and provides no reference for the assertion that 1,320 feet is a general minimum protection distance for common nesting raptors. The stated buffer distances are considered adequate to avoid direct and indirect Project effects to raptors, particularly given the presence of forested habitat that serves as a visual and acoustic buffer between activities and any active nest sites. The stated buffer distance would be typical to avoid impacts to state-listed raptors such as Swainson's hawk; nesting habitat for listed raptors does not occur on the Project Site. In the absence of nesting state-listed raptors, the 500-foot buffer distance is warranted for common species such as red-tailed hawk, which are relatively less sensitive to disturbance and tolerant of human activities.

A3-34 The comment requests that an estimate of the total acreage of suitable northern goshawk habitat currently existing within the Project area, and subsequently the amount of suitable habitat post-construction be included in the Draft EIR. Goshawk surveys provided in the Draft EIR (Appendix C11) focused on determining species presence within historical nesting sites reported by the California Natural Diversity Database (CNDDB) and not upon the total acreage of habitat for this non-listed species. The 2018 surveys found a lack of goshawk activity in the vicinity of historic nests and concluded the likelihood of nesting goshawks appears to be low within the surveyed areas. Given that the 4,464-acre Project Site encompasses a small portion of the approximately 32,000-acre overall ownership, and that northern goshawk habitat on the

Project Site encompasses fewer than 2,668 acres, the potential habitat loss for this species is expected to be nominal relative to the amount of available habitat in the leasehold area. The biological site characterization study (Draft EIR, Appendix 1, page 10) identified 17,906 acres of evergreen forest habitat and additional mixed forest and deciduous forest habitat within the leasehold area that may support this species. Additionally, mitigation measures reduce potential impacts to this non-listed species to a less-than-significant level.

A3-35 The comment notes that an analysis of blasting impacts on wildlife species is not included in the Draft EIR, and recommends this analysis. It further recommends that blasting activities be conducted outside of avian breeding seasons and that blasting during the nesting season use larger nest avoidance buffers such as the USFWS *National Bald Eagle Management Guidelines*. It is not known if or where blasting may occur under the proposed Project; however, as stated in the Project Description (Draft EIR at page 2-17), all blasting activities would be conducted in compliance with applicable federal, state, and local laws. The County agrees that blasting has the potential to impact nesting birds and has included specific noise-based guidance for Project activities for sensitive species, and the Draft EIR provides a large buffer for special-status avian species. For example, the CSO conservation measure (Draft EIR at page 3.4-47) prohibits noise levels above 90 decibels within 0.25 mile of a CSO nest during the early nesting season (February 1 through July 9). Consistent with the comment, which focuses on potential noise impacts to eagles, Draft EIR Impact 3.4-2 concludes that if bald or golden eagle nests are present within 2 miles of the Project Site, the highest risk to nesting bald and golden eagles during construction activity would be disturbance from noise and human activity. As required by Draft EIR Mitigation Measure 3.4-2(c) (at page 3.4-41), any work including blasting within 2 miles of an active eagle nest would be coordinated with the USFWS Migratory Bird Program and CDFW. The measure also requires that any work within 2 miles of an eagle nest rely on the USFWS 2007 *National Bald Eagle Management Guidelines* and the USFWS 2013 Eagle Conservation Plan Guidance. For example, blasting within 2 miles of an eagle nest would be coordinated with CDFW and the USFWS. The stated requirements in the Draft EIR satisfy the recommendation to provide a larger buffer for eagle nests and coordinate activities within 2 miles of eagle nests with CDFW and the USFWS. Blasting activities that are greater than 2 miles from active eagle nests would not be coordinated with the resource agencies.

With regard to other wildlife species, and specifically nesting songbird and raptors, the County agrees that nest buffers during blasting should be increased to minimize the potential for direct and indirect impacts. The comment further recommends performing blasting outside of the avian nesting season; similar to the recommendation to perform vegetation removal and ground-disturbance activities outside of the nesting season (Comment A3-23). It is anticipated that blasting may occur during the avian breeding season. Hence, this recommendation has not been adopted.

Upon reviewing the comment, the County concurs with this change and the *Conservation Measure for Nesting Songbirds* (page 3.4-55) is updated as follows:

> **Conservation Measure for Nesting Songbirds:** Avoid and minimize construction-related impacts to nesting songbirds.
>
> Prior to any disturbance of nesting habitat during breeding season (March 1 to August 15), a qualified biologist will survey the area to be impacted to locate any active bird nests. Active nests will be avoided by a suitable buffer distance (e.g., 100 to 250 feet). Specific to any proposed blasting activities, a qualified biologist will evaluate areas within 1,320 feet (1/4-mile) of blasting sites to identify nesting songbirds. If active nests are identified, the buffer distance that is applied during blasting activities may range from approximately 500 feet to 1,320 feet, depending upon the time of year, sensitivity of any identified nesting species, and site-specific conditions such as topography or dense vegetation.

Additionally, Mitigation Measure 3.4-6 (Avoid and minimize construction-related impacts on nesting raptors) is updated on page 3.4-50 to include the following requirement, which provides a relatively larger survey and buffer distance during any proposed blasting activities.

> e) Specific to any proposed blasting activities, a qualified biologist will evaluate areas within 1,320 feet (1/4-mile) of blasting sites to identify nesting raptors. If active raptor nests are found during pre-construction surveys nest buffer distance that is applied during blasting activities may range from approximately 500 feet to 1,320 feet, depending upon the time of year, sensitivity of any identified nesting species, and site-specific conditions such as topography or dense vegetation. The determination of fledging or cessation of nesting shall be made by a qualified biologist with experience in monitoring raptor nests. Any sign of nest disturbances shall be reported to the Shasta County Department of Resource Management, CDFW and USFWS. In coordination with CDFW and/or USFWS, the County may modify the size of the exclusion zone depending on the raptor species and type of construction activity occurring near the nest.

A3-36 As a best management practice to minimize raptor prey populations beneath turbines, Mitigation Measure 3.4-3a (Draft EIR at page 3.4-42) states that rock piles be avoided under turbines. This action alone will not substantially reduce raptor prey populations on the Project Site but in combination with site preparation actions such as tree and brush clearing, would avoid the inadvertent creation of small mammal habitat beneath turbines. The Project does not seek to eliminate wildlife habitat beneath turbines, and the occasional presence of small and large mammals beneath turbines would not conflict with operations. The use of rodenticides, as suggested in the comment, is not proposed for the Project. Mitigation Measure 3.4-3a is specific to discouraging raptor use and requires that the Applicant take steps to not create prey habitat (such as rock

piles) in its implementation of the Project. It does not require affirmative action to reduce prey species and therefore concerns that the measure could impact other non-target species are unfounded. In response to the comment, the following shall be considered by County decision-makers for adoption as a COA for the Project:

> **Use of Rodenticides.** The use of rodenticides shall be prohibited as a means to manage small mammal populations on the Project Site.

A3-37 The commenter's disagreement is acknowledged as to whether all potentially feasible mitigation measures have been analyzed that would reduce the Project's impact contribution to bats below the established level of significance. Specifically, the comment states that habitat acquisition and preservation, or restoration of habitat may be a feasible mitigation option. The 4,464-acre Project Site is located within a larger, approximately 32,000-acre ownership that provides habitat for each of the bat species analyzed in the Draft EIR. Although not specifically specified as compensation lands, greater than 27,000 acres immediately adjacent to the Project Site would continue to provide habitat for bats during Project operations and functionally serve as bat habitat. No compensatory mitigation is specifically proposed for potential Project impacts to non-listed bat species, including common and special-status bats. As described in Response A3-27, Final EIR Section 1.2.3 identifies design features to be taken during Project operations to reduce impacts to bats, including the development and implementation of a BBCS. Measures in the BBCS would include post-construction mortality monitoring and adaptive management strategies to benefit all bat species.

A3-38 The comment notes that operational modifications such as curtailment of turbine speed, the use of low-intensity ultraviolet light, and ultrasonic deterrence systems can greatly reduce bat mortalities. On this basis, CDFW recommends a description of the types of methods that would potentially be used for curtailment and deterrence. While a detailed description of the methodology is not available at this time, Response A3-30 revises Mitigation Measure 3.4-3b (at pages 3.4-44 and 3.4-45) to describe the types of methods that could be applied to protect bird and bats. The commenter has provided no evidence to suggest that it is necessary to specify a particular method of curtailment in order to properly assess the impact or the feasibility of success of the mitigation measure. Nonetheless, a variety of responsive actions remain available if an issue is identified.

A3-39 The comment proposes consideration of additional operational modifications, which have been adopted into the Mitigation Measure 3.4-3b as described in Response A3-30.

A3-40 The comment asserts that it is highly likely that bat fatalities will exceed significance thresholds defined in the Draft EIR, suggesting that operational modifications should be implemented upon commencement of operations. While it is possible that thresholds may be exceeded, it is also possible that such thresholds may not be reached. The Project is not required to implement operational modifications until demonstrated thorough monitoring that the impact would exceed the stated significance criteria, i.e.,

three or more bats of a single species identified as Western Bat Working Group (WBWG) high priority (red) species (pallid bat, Townsend's bat, spotted bat, western red bat, or western mastiff bat) in any given year; or injury or mortality to six or more bats of a single species identified as WBWG medium priority (yellow) species (hoary bat or spotted bat), in any given year (Draft EIR page 3.4-44).

A3-41 See Response A3-7 and Response A3-20, regarding the suggested inclusion of a TAC/CDFW-approved post-construction bird and bat fatality monitoring plan that incorporates scent detection dogs.

A3-42 The comment correctly states that the Draft EIR inadvertently omitted from Impact 3.4-13 (at page 3.4-60 et seq.) documentation of the analysis of the impacts of Project construction and habitat removal on bat species, including the possible loss of maternity roosts and hibernacula. Impact 3.4-13 has been revised as follows:

Bats

Impact 3.4-13: Operation and maintenance of the Project could result in direct mortality and injury to bats, including special-status species. (*Significant and Unavoidable*); construction and decommissioning could result in mortality of or injury to bats, including special-status species (*Less than Significant with Mitigation Incorporated*)

Operations. Bats have low reproductive rates and require high adult survivorship to avoid population decline (Thompson et al. 2017). Operation of the Project poses a risk of direct injury and mortality to bats, including special-status species, as a result of wind turbine operation in areas where the flight altitudes of foraging, migrating, and transiting bats coincides with the height of wind turbine blades. Based on the 3-year monitoring completed for the Hatchet Ridge Wind Project (Tetra Tech, 2014) and the Project-specific bat acoustic survey report (Appendix C6), the likelihood of injury risk is considered low for special-status bat species, but risk is higher for other bat species such as hoary bat. Recent mortality estimates (Arnett and Baerwald 2013) and models (Frick et al. 2017), have identified potential population-level effects from wind operations on particular bat species, including hoary bat. Surveys confirm hoary bat as one of the most common species on the Project Site (Appendix C6) and surveys at the Hatchet Ridge Wind Project site confirm that hoary bat are particularly vulnerable to wind operations in the region (Tetra Tech 2014). Based on this date it is anticipated the operation of the Project would result in adverse effects on bats, potentially affecting bat populations. As a result, the injury and mortality of bats resulting from Project collisions with turbines would result in a significant effect.

Maintenance of the Project would be unlikely to result in a significant adverse impact to bat species, unless unforeseen circumstances arise, for example, if repair work is conducted at night under artificial lighting that attracts flying insects.

To monitor any adverse effects to bats, including special-status species, the Project shall implement Mitigation Measure 3.4-13, which would document and report bat mortalities from the Project, identify appropriate mortality minimization measures, and implement all recommended minimization measures to reduce mortality. Implementing this measure would reduce operational impacts on bats, but impacts would remain significant and unavoidable.

Construction and Decommissioning. Roost sites are important habitat features for bats and can be a limiting resource for bat populations. Disturbance to roosts, and loss of roosting and foraging habitats could occur from construction activities. Human disturbances including noise, land clearing, and the level and duration of disturbance activities (approximately 18 to 24 months), could increase stress for day roosting bats, maternal roosting bats, and hibernating bats, potentially leading to roost abandonment, reduced productivity, and increased mortality, respectively. While temporary, the long duration time of construction activities could impact bats over multiple breeding and migratory seasons. Similar impacts would be expected to occur when the Project is decommissioned. The colonial roosting habits of some bat species make local populations more vulnerable during sensitive periods, like winter hibernation. Accidentally removing a maternity roost when in use could cause complete colony failure because bats will abandon rather than return to the roost. If the disturbance level is high enough to cause abandonment, an entire generation of non-volant pups (flightless young) would be lost. Removing or disturbing an occupied hibernaculum and awakening hibernating bats during the winter could deplete their energy reserves and potentially cause mortality. Implementation of the Bat Conservation Measure discussed under Impact 3.4-13, as revised below, would reduce potential impacts to active bat roosts during construction and habitat removal to less than significant levels.

Mitigation Measure 3.4-13: Implement Mitigation Measure 3.4-3b (Monitor Avian and Bat Mortality Rates During Project Operations).

Bat Conservation Measure: Avoid and minimize impacts to active bat roosts during construction and decommissioning.

The Applicant will implement the following measures to minimize and monitor impacts during both construction and decommissioning phases:

1. *Conduct a habitat assessment for potential bat roost sites*. Prior to removing or altering any trees, rock outcroppings, and structures, an assessment for potentially suitable colonial roost habitat will take place. The assessment shall be conducted by an experienced and qualified biologist who is able to identify bat roosts.

2. *Time tree removal to minimize impacts*. When possible, removal of potential roost trees identified during the habitat assessment shall occur in the fall (September 1 to October 31) to minimize impacts on foliage-roosting bat species like the pallid and western red bats, and on any colonial tree-roosting

species not detected during the habitat assessment and surveys. The Applicant shall conduct tree removal of potential roost under the guidance of the qualified biologist who has experience identifying bat roosts. In the absence of identified roosts during surveys, tree removal may occur at other times of year.

3. Delay work around active maternity roosts until spring or fall when all bats would be volant and could fly away from the disturbance area. A 100-foot buffer may suffice, depending on site specifics; although the buffer size may be adjusted upward or downward by the qualified biologist.

4. For active roost trees identified within the Project Site, a two-step process will be used to allow bats to leave on their own prior to full removal of the roost. Initial trimming on Day 1 will remove non-habitat vegetation including shrubs and small diameter trees as well as specific limbs and branches of active roost trees. Final removal of the remaining branches and main tree trunk may proceed on Day 2 or later.

Significance after Mitigation: Implementing Mitigation Measure 3.4-13 would allow the identification of potentially hazardous towers to bat species, if present, which would facilitate adaptive management approaches such as curtailment and deterrence to deter bats if, as a result of post-construction monitoring, it is determined that multiple individuals of a particular bat species are being injured or killed by collisions with turbines consistent with the thresholds identified in Mitigation Measure 3.4-3b. Though implementation of this measure would reduce impacts on bat species, impacts on bats would remain significant and unavoidable.

Implementing the Bat Conservation Measure would further reduce potential impacts to active bat roosts. Direct mortality would be minimized because potential bat roost habitat would be identified and assessed, and disturbance would be avoided or reduced where feasible.

A3-43 See Response A3-42, which outlines the approach to avoid impacts to active maternal roosts and winter hibernacula for non-listed bats and incudes a Bat Conservation Measure that follows the seasonal tree removal methodology and multi-step approach suggested by CDFW.

A3-44 The comment correctly notes that Mitigation Measure 3.4-3b (at page 3.4-43 et seq.) inadvertently named spotted bat twice, and should have named silver-haired bat, which is a WBWG medium priority species. To correct this, the last bullet in Mitigation Measure 3.4-3b is revised as follows:

- Bats – injury or mortality to three or more bats of a single species identified as Western Bat Working Group (WBWG) high priority (red) species (i.e., pallid bat, Townsend's bat, spotted bat, western red bat, or western mastiff bat) in any given year; or injury or mortality to six or more bats of a single species identified as WBWG medium priority (yellow) species (i.e., hoary bat or ~~spotted bat~~ silver-haired bat), in any given year.

A3-45 The comment finds that the PCMM required by Mitigation Measure 3.4-3b is unclear as to how fatality numbers will be determined for small birds and bats, and that the measure lacks thresholds for small birds and discussion of bat and small bird fatality monitoring or detection. Fatality thresholds for bats are presented in the last bullet in Mitigation Measure 3.4-3b, and include three or more bats of a single species identified as WBWG high priority species in a single year, or six or more bats of a single species identified as WBWG medium priority species in a single year. Mitigation Measure 3.4-3b states that carcasses of other birds, which includes small birds, also will be collected and reported. As identified in the comment, The Draft EIR identified no thresholds for small special-status bird fatalities. In response to the comment, the following bullet is added to Mitigation Measure 3.4-3b (page 3.4-44) to clarify the impact threshold for small special-status birds.

- Other special-status birds – documented injury or mortality that suggests a population-level impact to other special status bird species.

As the comment requests, the PCMM study will be conducted using appropriate methodology that provides a credible estimate of bird and bat fatalities and accounts for scavenger removal. As described in Response A3-20, the use of scent detection dogs is recognized as one of several methods available may be used during the fatality surveys to maximize benefit; however, this is not an obligatory element of the post-construction avian monitoring study design.

A3-46 The County will consider the recommendation to monitor avian mortality beyond the three initial years required by the Draft EIR; however, three years of post-construction mortality monitoring is consistent with recommendations in the USFWS's Wind Energy Guidelines. The commenter does not relate how the additional 10 years of Project life (e.g., operational years 31 to 40) relate to the need for more frequent interim post-construction monitoring (i.e., monitoring at 5-year intervals over the 40-year life of the Project) other than a desire to capture changing species composition and habitat use. The commenter also has not explained why three years of monitoring recommended by the USFWS Wind Energy Guidelines may be insufficient. As noted in Response A3-7, the County believes that the mitigation measures presented in the Draft EIR relative to avian hazards are sufficiently prescriptive to identify and address potential impacts to avian resources, and the approach includes required coordination with federal and state resources agencies such that a TAC is not needed.

The comment notes that voluntary CEC Guidelines recommend that wind projects located in areas where mortality of protected species is expected due to turbine collisions should include at least one year of post-construction bird use counts during project operation. The County finds the post-construction requirements identified in the Draft EIR to be sufficient, and so has not adopted this additional, voluntary recommendation.

A3-47 The comment recommends that the Draft EIR describe specific overhead electrical transmission line and pole measures under the Avian Power Line Interaction Committee (APLIC) Guidelines that would reduce raptor mortality as a result of electrocution or collision with transmission lines. Mitigation Measure 3.4-3a(b) (at page 3.4-42) includes the provision to follow APLIC guidance for all energized Project components. Adhering to the APLIC guidelines provide a scientifically based approach to reducing potential avian collisions and electrocution hazards associated with overhead electrical transmission line and power poles to less than significant. The County believes that the mitigation measures referenced above relative to avian hazards are sufficiently prescriptive to identify and address potential impacts to avian resources. The readily available APLIC guidelines are the industry standard for reducing raptor risks associated with energy transmission lines; hence, design specifications for individual pole or tower components are not needed in the Draft EIR. The comment provides no information to demonstrate that a detailed discussion of compliance with these standard practices is necessary to assess impacts.

A3-48 The comment requests inclusion of western pond turtle data from the Biogeographic Information and Observation System (BIOS) in the wildlife map provided in the Site Characterization Study in Draft EIR Appendix C1. The referenced data in BIOS is a government-access data layer that CDFW did not provide to the County for inclusion in the EIR.[11] Based on review of all of the latest available subscription data for the County's GIS as of March 3, 2021, the County's GIS Analyst determined that the information did not include any occurrence of western pond turtle within the larger leasehold area that includes the Project Site. While CDFW's specific dataset is not accessible, the specific location cited in the comment (i.e., Township 34N Range 01W Section 2, Mt. Diablo baseline and meridian) may coincide with the observation from the CNDDB system that is already disclosed in the Draft EIR. Based on data in the CNDDB that is reflected in Appendix C1, Figure 11, the Draft EIR already considers that western pond turtle is considered to have potential to occur on the Project Site. Hence, revision to the 2017 Site Characterization Study (Draft EIR Appendix 11) is not needed.

The Draft EIR recognizes that western pond turtle use upland habitat in proximity to aquatic sites. For this reason, Impact 3.4-12 (at page 3.4-58 et seq.) states that the implementation of the Terrestrial Species Conservation Measure discussed under Impact 3.4-14 (at page 3.4-61 et seq.) would reduce potential impacts on western pond turtle within upland areas.

In response to the portion of the comment requesting that the Draft EIR reflect the local distribution and habitat use of western pond turtle, the setting is updated as follows:

[11] Salazar, 2021. Email of L. Salazar, AICP, Senior Planner, Shasta County, Department of Resource Management, to J. Scott, Environmental Science Associates, including the e-mail thread regarding the County's search for data responsive to Comment A3-48. March 10, 2021.

Western Pond Turtle

The western pond turtle (*Emys marmorata*), a medium-sized turtle, is a California SSC. The species occurs in a variety of aquatic habitats including streams, rivers, irrigation ditches, ponds, and marshes. Western pond turtles prefer habitats containing ample amounts of aquatic vegetation, muddy or rocky bottoms, and sparsely vegetated banks for basking. The species occurs throughout various elevations in northern California, ranging from sea level to nearly 7,000 feet. Suitable habitat is found within the Project Site, though it is limited to small ponds and/or stream pools (Appendix C1). Within the Project Site, a total of 10.04 acres of aquatic habitat resides within ponds, perennial streams, and intermittent streams (Table 3.4-1). These three aquatic habitat types are most likely to contain suitable western pond turtle habitat. Other aquatic habitat types such as riparian wetlands, freshwater emergent wetlands, wetland meadows, and wetland seep/springs may support western pond turtle populations during wetter years. Approximately 27 acres of potentially suitable aquatic habitat types are present on-site (Table 3.4-2).

In perennial lentic habitat, they may hibernate under water in the benthic layer; and in lotic habitat, dependent on stream flow conditions, may hibernate on land, migrating upland in fall and winter months and returning to water in spring.[12] Nesting occurs on land, five to 400 meters or more from water.[13]

While no known populations of the species exist within the Project Site, there is a known CNDDB occurrence from 2004 just outside of the southwestern boundary. This species has a moderate potential to occur within the Project Site.

A3-49 As indicated in Response A3-10, the Draft EIR acknowledges the potential presence of gray wolf on the Project Site. CDFW[14] noted that gray wolves have either passed through or adjacent to the Project Site in recent years, while WEST documented a suspected wolf track at the Project Site in the winter of 2018 (Draft EIR Appendix C14, *Response to Informal Consultation Request for Use Permit 16-007*). The response to CDFW's 2018 comment letter (Draft EIR Appendix C14) identified that while there is potential for gray wolf use of Project area in the future, focused gray wolf surveys were not planned and the Draft EIR presumes presence. While undisturbed habitat exists near the Project Site, the Site and the larger ownership is considered a working commercial forest landscape. While the likelihood of gray wolves within the Project Site increases as the species population increases in Northern California, the tendency of this species to traverse long distances and to avoid disturbance would decrease the likelihood of denning in the Project Site. Due to their wide-ranging nature and low

12 Holland, D. C. 1994. The western pond turtle: habitat and history. Unpublished final report, U. S. Dept. of Energy, Portland, Oregon.

13 Jennings, M. R. and Hayes, M. P. 1994. Amphibian and Reptile Species of Special Concern in California. California Department of Fish and Game, Sacramento, California.

14 California Department of Fish and Wildlife (CDFW), 2018. Letter of Curt Babcock, Habitat Conservation Program Manager, to the Shasta County Department of Resource Management Planning Division. March 2, 2018.

density within the landscape, no specific impacts to individuals were identified to result during Project construction or operations. Additionally, although impacts to this species were not identified, the Terrestrial Species Conservation Measures identified in the context of Impact 3.4-14 (at pages 3.4-61 and 3.4-62) would minimize impacts to this species. Although Project impacts to gray wolves are considered less than significant, in response to this comment, the following measure is added to the Draft EIR Terrestrial Species Conservation Measure to report and avoid any gray wolves found on-site:

i) To avoid take of gray wolf, if an active den or rendezvous site for this species is observed, all operations within a 0.25-mile radius shall be suspended until CDFW is contacted for further consultation. Incidental gray wolf sightings or evidence shall continue to be reported to CDFW at the following website: https://www.wildlife.ca.gov/Conservation/Mammals/Gray-Wolf/Sighting-Report.

The comment states that photographic evidence of Oregon snowshoe hare within the Project Site was provided to the project team; however, no such evidence was found in the Project record, nor does the comment provide any specific details regarding the transmission of such evidence to the project team. The Oregon snowshoe hare is a California species of special concern. The CDFW scoping comment letter[15] (page 7 et seq.) indicated the Project had the potential to affect several state species of special concern, and Oregon snowshoe hare was not one of the identified species. Regardless of the circumstances, the Draft EIR Impact 3.4-14 acknowledges both the potential presence of Oregon snowshoe hare on the Project Site and the potential for adverse impacts to this species and due to temporary disturbance to or permanent loss of habitat. As a result, terrestrial species conservation measures are provided to minimize impacts to this species. The comment notes that the mitigation of impacts to Rocky Mountain Maple Riparian Scrub habitat (Draft EIR page 3.4-63) may be adequate for restoring habitat lost during construction and operations that would be utilized by Oregon snowshoe hare, and requests inclusion of a discussion as to how this species would be protected long-term through riparian restoration activities. If present on-site, adequate measures are identified to avoid direct impacts to this species during Project construction. The Terrestrial Species Conservation Measure (Draft EIR at page 3.4-61), will be considered by County decision-makers for adoption as a COA. In addition, the Oregon snowshoe hare may benefit from planned riparian restoration activities. Long-term Project operations would not occur within habitat for this species (i.e., within riparian scrub); therefore, and existing and restored riparian habitat would ensure the continued presence of habitat for this species that is comparable to existing conditions.

A3-50 The comment concurs with the inclusion of conservation measures identified for CSO, sandhill crane, nesting songbirds, Vaux's swift, willow flycatcher and yellow warbler, and terrestrial species, and recommends that these measures be adopted as mitigation for the Project. Consistent with the comment, all conservation measures in the Draft

15 CDFW, 2018.

EIR including the *California Spotted Owl Conservation Measures, Sandhill Crane Conservation Measures, Conservation Measure for Nesting Songbirds, Conservation Measure* for *Vaux's Swift,* and *Conservation Measure for Willow Flycatcher and Yellow Warbler, and the Terrestrial Species Conservation Measure* will be considered by County decision-makers for adoption as COAs. See Response A3-28 regarding the difference between CEQA mitigation measures and conservation measures. Based on the impact determination of less-than-significant for each of these categories, County decision-makers will consider them for adoption as COAs during construction and operations. See Responses A-28 (California spotted owl), A3-11 (sandhill crane), A3-15 (nesting songbirds), A3-24 and A3-25 (Vaux's swift, willow flycatcher, and yellow warbler), and A3-49 (terrestrial species), among others, regarding each of the species referenced in this comment.

A3-51 The Project changes proposed by the Applicant since the Draft EIR was issued (see final EIR Section 1.2.3) includes a newly proposed Worker Environmental Awareness program (WEAP). However, in response to the comment, additional specificity has been suggested in the Terrestrial Species Conservation Measure as it was provided under Impact 3.4-14. The Terrestrial Species Conservation Measure (Draft EIR at page 3.4-61), which will be considered by County decision-makers for adoption as a COA, is clarified as follows:

a) Applicant will design and implement a Worker Environmental Awareness Plan (WEAP) ~~plan~~ for all construction personnel. The education program shall include the following aspects:

   i. Biology and status of special-status wildlife species that occur on-site;

   ii. CDFW and USFWS regulations relative to wetland, habitat, and species protections;

   iii. A description of mitigation and conservation measures designed to reduce potential impacts on special-status wildlife species, and function of flagging designating authorized work areas;

   iv. Reporting procedures to be used if a special-status wildlife species is encountered during construction; ~~for workers encountering injured or dead special-status terrestrial species during construction,~~ to include a stop-work order within 50 feet, notification of a qualified biologist, and notification of CDFW and/or USFWS as appropriate.

Note that the Mitigation Measure 3.4-3a (at pages 3.4-42 and 3.4-43) already includes a provision to train operations staff on reporting avian and bat wildlife fatalities. As noted in Response A3-7, the County has opted not to convene a TAC for this Project.

A3-52 See Response A3-53.

A3-53 The County appreciates the clarification that Tracy's eriastrum, a California Rare Plant Rank 3.2 species, is also a state Rare species. Focused botanical surveys have not identified this species on the Project Site; however, the 2019 rare plant survey (Draft

EIR Appendix C5) stated that suitable habitat in the form of open areas on shale or alluvium may be present on the Project Site. The nearest reported sighting of this species is 10.9 miles northeast of the Project Site in Lassen National Forest.[16] Although the 2019 rare plant survey identified potential habitat for Tracy's eriastrum on the Project site, appropriately timed surveys performed in 2018 and 2019 did not detect this species. As stated in the Draft EIR Impact 3.4-1, botanical surveys are still pending in an 800-acre portion of the Project Site. If Tracy's eriastrum is identified during required preconstruction surveys, and full avoidance cannot be achieved during construction, Mitigation Measure 3.4-1(c) (Draft EIR at page 3.4-39) provides adequate direction to ensure compliance with the Native Plant Protection Act (Fish and Game Code §1900 et seq.). The measure requires that the Applicant coordinate findings and develop a restoration and mitigation plan in coordination with CDFW. No direct impacts will occur to Tracy's eriastrum without specific take authorization from CDFW.

A3-54 The comment reiterates the statement in the 2019 rare plant survey report (Draft EIR Appendix C5) that habitat for the state candidate species Shasta snow-wreath (i.e., coniferous forest, riparian woodlands, and sandy, sheltered, or north-facing canyons) was identified on the Project Site. Appropriately timed surveys performed in 2018 and 2019 did not detect this species within suitable habitat. The Site Characterization Study (Draft EIR Appendix C1, Figure 11) identified no Shasta snow-wreath populations within 2 miles of the Project Site. Several populations occur approximately 6.2 miles west of the Project Site. As stated in the Draft EIR Impact 3.4-1 (at page 3.4-38), botanical surveys are still pending in an 800-acre portion of the Project Site. If Shasta snow-wreath is identified within this area during required preconstruction surveys, and full avoidance cannot be achieved during construction, Mitigation Measure 3.4-1(c) (Draft EIR at pages 3.4-38 and 3.4-39) provides adequate direction to ensure compliance with the Native Plant Protection Act (Fish and Game Code §1900 et seq.).

A3-55 Mitigation Measure 3.4-1(c) requires that the Applicant coordinate botanical survey findings and develop a restoration and mitigation plan in coordination with CDFW. No direct impacts will occur to Tracy's eriastrum or Shasta snow-wreath without specific take authorization from CDFW. See Response A3-53 and Response A3-54.

A3-56 The comment states that CDFW's published rare plant survey protocol may be inadequate due to the potential for many sensitive plant species to occur on the Project Site. As a result, CDFW recommends performing additional targeted botanical surveys at an unspecified interval within habitats where sensitive species may occur. The County appreciates the explanation; however, results of appropriately timed protocol-level rare plant surveys are not invalidated by the number of rare plants that occur in a given region. No further botanical surveys are planned at this time within the 5-year survey window. Project biologists will be trained in the identification of rare plants, and if additional information such as a newly identified annual or short-lived rare plant

[16] CDFW, 2020. Biogeographic Information and Observation System. Active layers: Spotted owl observations and spotted owl observations spider diagram. Accessed December 23, 2020.

population suggests the need for further data collection to avoid impacts to rare plants, the County may revisit this topic. As stated in Mitigation Measure 3.4-1(c), if special-status plant avoidance cannot be achieved, the Applicant will develop a restoration and mitigation plan in coordination with CDFW. Hence, no direct impacts will occur to special-status or state-listed plants without specific authorization from CDFW.

A3-57 Both the 2018 preliminary rare plant survey report (Draft EIR Appendix C3) and the *final* 2019 rare plant survey report (Draft EIR Appendix C5) accurately documented the potential for bristly sedge (*Carex comosa*) to occur on the Project Site. However, Appendix B of the 2018 report mistakenly reported that bristly sedge was detected during surveys. This error was corrected in the 2019 final report. No impacts are anticipated to this species.

A3-58 The comment states that the 2018 botanical report includes an unidentified paintbrush (*Castilleja*) species and requests a discussion of its potential as a sensitive species. Paintbrush species occur in two distinct plant families: Orobanchaeceae, which includes the locally common hairy Indian paintbrush, which was identified on the Project Site; and Scrophulariaceae. The regionally rare paintbrush species, Lassen paintbrush (*Castilleja lassenesis*), a CRPR 1B.3 species, is in the Orobanchaeceae family; whereas, the unidentified species cited in the 2018 and 2019 botanical survey reports (Draft EIR Appendix C3 and Appendix C5, respectively) is in the Scrophulariaceae family. Therefore, the unidentified *Castilleja* species is not the regionally rare Lassen paintbrush. The 2019 report concluded that this species was unlikely on the Project Site, as it appears restricted to flanks of Lassen and granite substrates that do not occur on-site.

The comment requests discussion of the potential for the unidentified *Carex* species described in the 2018 botanical survey report to be a sensitive species. As described in the 2018 and 2019 botanical survey reports, two CRPR 2B sedges occur in the region and have potential to occur on-site: bristly sedge and woolly-fruited sedge. As characterized in Draft EIR Appendix C5, neither of these distinctive species was documented on-site or within 5 miles of the Project Site. It is clear from the botanical survey reports that the surveying botanists did not consider the unidentified *Carex* species to be either of the two rare sedges; which otherwise would have been acknowledged in the survey report and coupled with a follow-up survey.

A3-59 The County appreciates the explanation that impacts to CRPR List 3 and 4 species warrant analysis during environmental review under some circumstances. The approach for Tracy’s eriastrum is described in Response A3-53 with the finding that no direct impacts would occur to this species without specific authorization from CDFW. No other CRPR List 3 and 4 species are expected to be present on the Project Site. No changes are warranted to the Draft EIR.

A3-60 The comment is correct that the Draft EIR (at page 3.4-15) inadvertently stated that sensitive natural communities do not occur on the Project Site. The extent and

distribution of sensitive natural communities on the Project Site is discussed on Draft EIR (at page 3.4-7). In response to the comment, the statement on Draft EIR page 3.4-15 has been deleted as follows:

> ~~Based on focused rare plant surveys and natural community vegetation mapping performed in 2018 and 2019, sensitive natural communities do not occur on the Project Site (Appendix C3).~~

The comment further states that the Project does not analyze impacts to the Rocky Mountain Maple Riparian Scrub community related to the introduction of weeds or invasive species, and recommends development of an Invasive Species Management Plan that should be reviewed by CDFW prior to construction. In response to the comment, the requirement for invasive species management has been added as an element of the Rocky Mountain Maple Riparian Scrub Habitat mitigation and monitoring plan required by Mitigation Measure 3.4-15b (Draft EIR at page 3.4-63). It is noted that the measure already includes a provision to consult with CDFW regarding the adequacy of the plan; hence, CDFW review of the invasive species management elements is already provided. Note that the following revisions also incorporate suggestions to provide greater detail from Comment A3-69. Portions of Mitigation Measure 3.4-15b (Draft EIR at page 3.4-63) that describe the riparian scrub habitat mitigation requirement are revised as follows:

> "The Rocky Mountain Maple Riparian Scrub Habitat mitigation and monitoring plan shall be written by a qualified biologist and shall include the following elements, at minimum:
>
> a) goals of the plan and permitting requirements satisfied;
>
> b) planned ~~R~~ riparian habitat restoration activities and locations, including the restoration of temporarily affected riparian habitat to preconstruction conditions;
>
> c) monitoring and reporting requirements (including monitoring period), and criteria to measure mitigation success; ~~and~~
>
> d) the plant species to be used, container sizes, and/or seeding rates, and a planting/seeding schedule;
>
> e) a schematic drawing depicting the location of plantings within mitigation areas;
>
> f) a description of the irrigation methodology, if needed;
>
> g) invasive weed control measures within Rocky Mountain Maple Riparian Scrub Habitat mitigation areas;
>
> h) a detailed monitoring program, to initially include quarterly or more frequent visits tapering to annual maintenance;
>
> i) remedial measures, should mitigation efforts fall short of established targets; and

j) identification of the party responsible for meeting the success criteria and providing for long-term conservation of the mitigation site.

The County may consult with CDFW about the adequacy of the plan and may consult with other agencies, if the plan aims to fulfill multiple permitting and mitigation requirements."

A3-61 The comment is correct that beaked sedge meadows are considered sensitive along with other riparian communities. The amount of this wetland habitat type on the Project Site is presented in Draft EIR Table 3.4-1 (at page 3.4-4) and its distribution is presented in Draft EIR Appendix C5. As a wetland community, potential impacts to this vegetation community are discussed in Impact 3.4-16 (at page 3.4-64 et seq.), which considers effect on state and federally protected wetlands.

A3-62 The comment summarizes the Draft EIR wetland impact assessment in Impact 3.4-16, which found that approximately 3.44 acres of wetlands and other waters would be permanently removed or filled and 1.48 acres of wetland and 0.64 acres of other waters would be temporarily affected. The comment states wetland mitigation projects often do not meet their required ecological performance standards and states that the 1:1 mitigation ratio (i.e., no-net-loss) in the Draft EIR should instead require 3:1 mitigation. The County has considered the comment and considers the 1:1 in-kind mitigation ratio to reflect the post-restoration condition of the restored sites that must be achieved to demonstrate conformance with the requirements of the proposed mitigation measure. It is understood that the Applicant must receive a Section 1600 Lake and Streambed Alteration Agreement (LSAA) from CDFW prior to project disturbances within wetland and riparian habitats (see, e.g., Draft EIR Table 2-8, *Summary of Permits and Approvals*, at page 2-41). Based on the comment, it is expected that CDFW's LSAA restoration requirements would differ from those presented in the Draft EIR as allowed under CEQA.

A3-63 The County has considered the request in the comment and concurs that each of the wetland mitigation plans identified in Mitigation Measure 3.4-15b, *Compensate for Impacts to Rocky Mountain Riparian Scrub Habitat* (at page 3.4-63), and Mitigation Measure 3.4-16c, *Compensate for Impacts to Wetlands and other Waters* (at page 3.4-66) would require CDFW coordination and approval as a condition of the Project's LSAA permit. The suggested timeline and success criteria are also amenable to the County to demonstrate success of restored wetland and riparian habitats. In response to the comment, the last sentence of Mitigation Measure 3.4-15b (at page 3.4-63) is revised as follows:

"The ~~County may~~ Applicant shall consult with CDFW about the adequacy of the plan and may consult with other agencies, if the plan aims to fulfill multiple permitting and mitigation requirements."

In addition, the following is added to Mitigation Measure 3.4-16c on pg. 3.4-66:

"e) Restored wetland and riparian habitat shall achieve at least 85 percent survival of individual plants and show progress toward achieving 100 percent of the required mitigation acreage following 5 years of site monitoring and maintenance.

The ~~County may~~ Applicant shall consult with USACE and CDFW about the adequacy of the plan and may consult with other agencies, if the plan aims to fulfill multiple permitting and mitigation requirements."

A3-64 The comment notes differences between summary tables of potentially jurisdictional aquatic resources in Draft EIR Table 3.4-2 (at page 3.4-9) and Appendix C2, *Aquatic Resources Survey Report*, Table 4; noting that the acreage and linear feet totals in the Draft EIR are lower than totals reported in Appendix C2. The table of aquatic resources provided by Stantec (Draft EIR, Appendix C2, Table 4) was updated to include the 2019 proposed Project Site, and excluded areas that were no longer being considered for Project elements. The acreage and linear feet totals in the Draft EIR represent the most current Project setting and impact information.

A3-65 See Final EIR Section 2.1.1, *Input Received*. The comment summarizes the Draft EIR impact analysis for invasive species within riparian habitat, but does not cite any deficiencies in the analysis.

A3-66 See Response A3-67.

A3-67 As discussed in Response A3-60, Mitigation Measure 3.4-15b has been revised to include invasive weed control measures within the Rocky Mountain Maple Riparian Scrub Habitat mitigation and monitoring plan. Regarding invasive species distributions, see Draft EIR (at page 3.4-8), which notes that, independent from the Project, the Project Site and surrounding lands are operated as managed forest timberlands, which creates regular disturbances and traffic from timber harvest, resulting in widespread establishment of invasive plants. Active management of some invasive species is performed on logged sites to reduce competition for conifer seedling establishment. However, many invasive species already are established due to legal and authorized land management activities within the overall ownership that includes the Project Site. It is not feasible to require the eradication of invasive species from the Project Site due to the prevalence of such species on adjacent managed lands; however, the Applicant shall control noxious weeds at wetland and riparian restoration sites as described in the revised Mitigation Measure 3.4-15b (see Response A3-60).

The three plans identified in Draft EIR Chapter 2 (at page 2-14) to reduce the spread of invasive species in the Project Site include a Habitat Restoration Plan, Vegetation Management Plan, and Invasive Species Management Plan. The plans are components of the proposed Project and are not "mitigation" as defined in CEQA Guidelines Section 15370. County decision-makers will consider these for adoption as a COAs. In reviewing the Applicant's development of these plans, the County will consider the

Cal-IPC *Best Management Practices* publication in an effort to minimize the distribution of target invasive weeds within Project Site.

A3-68 As stated in Response A3-67, the three plans identified in Draft EIR Chapter 2 (at page 2-14) to reduce the spread of invasive species in the Project Site are components of the Project that will be considered by decision-makers for adoption as COAs. The Habitat Restoration Plan would be redundant with required plans in the Draft EIR Biological Resources impact analysis. The Habitat Restoration Plan would include the Reclamation and Revegetation Plan required by Mitigation Measures 3.4-15b and 3.4-16c. Mitigation Measures 3.4-15b and 3.4-16c require that the Reclamation and Revegetation Plan include feasible mitigation with specified performance criteria, including compensatory mitigation at a 1:1 level ratio. The Vegetation Management Plan and the Invasive Species Management Plan that are referenced in Draft EIR Chapter 2 would include standard County vegetation management and weed control BMPs similar to those suggested in CDFW Comment A3-66. Criteria for success would be consistent with what the Surface Mining and Reclamation Act requires in the mining context. Specifically:

a) Vegetative cover suitable for the proposed end use and capable of self-regeneration without continued dependence on irrigation, soil amendments or fertilizer shall be established

b) Vegetative cover or density and species-richness shall be, where appropriate, sufficient to stabilize the surface against effects of long-term erosion and shall be similar to naturally occurring habitats in the surrounding area. The vegetative density, cover and species richness of naturally occurring habitats shall be documented in baseline studies carried out prior to the initiation of on-site activities.

c) Success of revegetation shall be judged based upon the effectiveness of the vegetation for post-Project managed timberland use, and by comparing the quantified measures of vegetative cover, density, and species-richness of the restored lands to similar parameters of naturally occurring vegetation in the area. Either baseline data or data from nearby reference areas may be used as the standard for comparison.

d) Quantitative standards for success and the location of the reference area(s) shall be defined in the above approved plans. Comparisons shall be made until performance standards are met provided that, during the last two years, there has been no human intervention, including, for example, irrigation, fertilization, or weeding.

A3-69 Draft EIR Mitigation Measure 3.4-16 has been revised to include suggested measures provided in the comment. See Response A3-60.

A3-70 As the comment states, it is anticipated that tall woody vegetation within Ponderosa Pine Forest and White Fir - Douglas Fir Mixed Forest habitat, which make up the bulk

of the habitat within the Project Site, would be initially cleared within the 80-foot wide corridor. It is expected that any required vegetation control during operations would not include low-growing riparian or wetland habitat. The temporary or permanent loss of Ponderosa Pine Forest and White Fir-Douglas Fir Mixed Forest habitat from the Project is not considered a significant impact. As a result, no compensatory mitigation is proposed for the infrequent vegetation management actions in non-sensitive natural communities within transmission line corridors.

A3-71 The comment is correct that decommissioning is proposed to occur at the end of the 40-year Project term. The comment that site grading may affect soil microbes and facilitate the distribution of invasive plant species is noted. It is likely that the decommissioned Project area will be planted with forest species and actively managed for timber production. The comment does not cite a deficiency in the CEQA analysis or request modifications to the Draft EIR. See also Response A3-68.

A3-72 The comment agrees that the goals of returning the Project Site to conditions consistent with the area's ecological setting; however, disagrees that landowner needs should be factored into site reclamation decisions. As stated in Draft EIR Chapter 2 (at page 2-23), the Project Site would be replanted with trees or other appropriate vegetation with the goal to develop a vegetation cover, composition, and diversity similar to the area's ecological setting and consistent with the landowner's current and future land use practices. Based on current land uses within the larger ownership area, this may include creating managed forest timberlands in upland habitats that would not be subject to the performance standards, monitoring, and contingency measures requested by CDFW. For this reason, the Draft EIR only applies Decommissioning Plan performance standards to aquatic habitat.

A3-73 This summary is consistent with the Project Description (at page 2-23), which says that the Draft Decommissioning Plan would be developed and finalized prior to Project operations. As described in the Draft EIR, the Decommissioning Plan would include provisions to avoid and minimize impacts to sensitive vegetation communities, including riparian habitat or other sensitive vegetation communities. Specific protection measures that would be applied within wetland and riparian habitats are presented in Mitigation Measure 3.4-15b, as modified in Response A3-60. Decommissioning actions include the restoration of impacted Rocky Mountain Maple Riparian Scrub and rehabilitation of adjacent areas as provided in Mitigation Measure 3.4-15b. Any decommissioning actions located within wetland or riparian habitat would be subject to CDFW review and approval; and subject to the mitigation requirements, performance standards, monitoring and contingency requirements described in Mitigation Measure 3.4-15b. Within upland habitats, the Decommissioning Plan will detail the methodology by which disturbed areas would be replanted with trees or other appropriate vegetation to emulate the area's ecological setting and provide adequate assurances that planted areas successfully meet County revegetation standards. The County appreciates and will consider CDFW's offer to review the Draft

Decommissioning Plan to ensure that impacts to biological resources are appropriately mitigated under CEQA.

As mentioned in Response A3-72, site revegetation standards at the time of decommissioning may include accommodation for management actions such as creating managed forest timberlands that would not be subject to the performance standards, monitoring, and contingency measures requested by CDFW. Hence, such details have not been specified at this time for non-sensitive upland habitats. Upon reviewing the Decommissioning Plan, the County will review and consider the requirement to include BMPs discussed in the USFWS *Land-based Wind Energy Guidelines*.[17]

A3-74 The Draft EIR discloses that all habitat within the Project Site, which includes the entire 4,239.3 acres presented in Table 3.4-1 (at page 3.4-4), would be subject to direct physical changes associated with the Project. The Draft EIR biological resources analysis is based on the complete clearing of all vegetation within the Project Site, to include harvesting of timber resources. Hence, the impacts of fuel modification were considered in the biological resource analysis.

A3-75 The comment cites several corrections or revisions to special-species status within the Draft EIR. Each is considered below.

The northern spotted owl is state threatened and is not a state species of special concern. Its status in Draft EIR Table 3.4-3 (at page 3.4-11) has been updated from "SSC" to "ST." This species is not present in Shasta County or in the Project Site.

Since publication of the Draft EIR, the foothill yellow-legged frog is no longer a state candidate for listing. Its status in Draft EIR Table 3.4-3 (at page 3.4-11) has been updated from "SC" to "CSC." The following statement on Draft EIR page 3.4-17 is revised as follows to reflect this update:

> "Foothill yellow-legged frog (*Rana boylii* [FYLF]) is a California SSC~~, a candidate for listing as threatened under the California Endangered Species Act (CESA)~~ and is currently being reviewed for potential listing as threatened or endangered under the FESA."

The status of the American peregrine falcon in Draft EIR Table 3.4-3 (at page 3.4-11) has been updated from "SE" to "--" (i.e., no status). It remains a state fully protected species.

Lewis's woodpecker is a USFWS bird species of conservation concern (BCC) that was mistakenly identified as a California species of special concern. The text on Draft EIR page 3.4-25 has been updated as follows:

[17] USFWS, 2012.

"Lewis's woodpecker (*Melanerpes lewis*) is a ~~California SSC~~ USFWS bird species of conservation concern (CDFW, 2020)."

The comment additionally names four rare plant species that were identified in the Draft EIR appendices that were not identified during focused rare plant surveys and that are not mentioned by name in Section 3.4. The technical botanical survey reports that identified these species are static documents that were finalized in 2018 and 2019 and cannot be updated. However, the following species designations are recognized in the Final EIR:

1) Since publication of the Draft EIR, the Shasta snow-wreath has been identified as state candidate for listing. This species is discussed in Response A3-54.

2) Tracy's eriastrum is recognized as a State Rare species in addition to being CRPR List 3.2 species.

3) The status of thread-leaved beardtongue (*Penstemon filiformis*) has changed from CRPR List 1B.3 to 4.3, indicating that it is more common than previously described.

4) The status of northern clarkia (*Clarkia borealis* ssp. *borealis*) has changed from CRPR List 1B.3 to 4.3, indicating that it is more common than previously described.

The listing date for willow flycatcher was incorrectly listed in the Draft EIR. The text on Draft EIR page 3.4-22 has been updated as follows:

"**Willow Flycatcher**

In ~~2018~~1991, the willow flycatcher was designated as State Endangered ~~(CDFW, 2020)~~."

A3-76 The County is amenable to accommodating the USFWS *Land-based Wind Energy Guidelines*[18] for the placement and operations of towers and turbines. Specific guidance has been incorporated into the Sandhill Crane Conservation Measure (Draft EIR at page 3.4-54), which will be considered by County decision-makers for adoption as a COA and considers night lighting placement and operations on birds. The following text is added to the measure:

3) To minimize impacts on birds moving at night, tower and turbine night lighting shall use the minimum number of required lights at the minimum required lighting intensity, and the minimum number of flashes per minute (i.e., longest duration between flashes and "dark phase"), with lights synchronized to flash simultaneously.

In addition, the following has been added to the Terrestrial Species Conservation Measure (Draft EIR at page 3.4-62), which will be considered for adoption as a COA:

18 USFWS, 2012.

i) Exterior lighting fixtures associated with Project construction and operations will be downward-facing and fully shielded to minimize light trespass beyond the immediate construction area or Project facility.

A3-77 As the comment states, Draft EIR Air Quality Mitigation Measure 3.3-2c (at page 3.3-20 et seq.) requires dust stabilization in all areas with vehicle traffic using either water or dust palliatives. The measure is modified as follows:

- All areas (including unpaved roads) with vehicle traffic should be watered periodically or have dust palliatives applied for stabilization of dust emissions. Use of dust palliatives (e.g., dust suppressant or dust control binder) shall not occur in any location where transmission to a waterway or sensitive habitat could occur, such as within 100 feet of a wetland or body of water.

A3-78 Consistent with the suggestion in the comment, any special-status species detected during surveys will be reported to the CNDDB with the following addition to the Terrestrial Species Conservation Measure, which will be considered for adoption as a COA, on Draft EIR page 3.4-61 et seq.:

i) Any special-status species detected during surveys will be reported to the California Natural Diversity Database at the following link: at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data

PCMM studies may result in the identification of sensitive biological information such as the location of special-status species that are not appropriate for public distribution. Such information will be submitted to the CNDDB, as described above; however, due to the potential for misuse it will not be publicly distributed as requested in the comment. The County is obligated to disclose public records pursuant to the California Public Record Act and will provide such information upon request. Again, however, as discussed above certain elements may be redacted or not disclosed due to their sensitivity.

A3-79 As described in Response A3-7, the recommendation to form a TAC was not adopted for the Project.

A3-80 As described in Response A3-8, the recommendation to implement the considerations outlined in the CEC Guidelines and WEG in determining final designs was partly adopted for the Project.

A3-81 As described in Response A3-9, the recommendation was partly adopted for the Project.

A3-82 As described in Response A3-10, if the take of a state-listed species is anticipated or identified over the life of the Project, then the Applicant would be obligated to comply with the requirements of the Endangered Species Act, including the requirement to consult with CDFW.

A3-83 As described in Response A3-11, the County does not expect unavoidable impacts to fully protected species; hence, the need for a Natural Community Conservation Plan is not anticipated.

A3-84 As described in Response A3-12, existing mitigation measures provide appropriate and robust mitigation to address potential impacts to bald eagle and golden eagle. Hence, the recommendation to include additional mitigation was not adopted.

A3-85 As described in Response A3-13, the Draft EIR already includes a suite of reasonably feasible measures intended to avoid, reduce, and mitigate project impacts to raptors and bats. Therefore, the general recommendation to include more mitigation options and ongoing monitoring was not adopted.

A3-86 As described in Response A3-14, the typographical error in the wetland discussion that identified less than cumulatively considerable impacts on bats (at page 3.4-77) has been removed.

A3-87 As described in Responses A3-15 through A3-19, post-construction avian mortality monitoring required by Mitigation Measure 3.4-3b would assess potential impacts on nocturnal migrant species.

A3-88 As described in Response A3-20, the Applicant and County, in coordination with responsible and Trustee agencies, will evaluate all bat survey options and choose the methods best suited for attaining performance standards while maintaining survey integrity.

A3-89 As described in Response A3-21, the Project seeks to maximize the avoidance of riparian habitat and will provide appropriate mitigation through riparian habitat creation and enhancement and restoration as necessary.

A3-90 As described in Response A3-45, the recommendation to provide an impact threshold for small birds in Mitigation Measure 3.4-3b was adopted for the Project.

A3-91 As described in Response A3-22, a TAC/CDFW-approved post construction bird and bat fatality monitoring plan was not adopted for the Project.

A3-92 As described in Responses A3-23 through A3-36, the proposed conservation Measure for nesting songbirds was partially modified using CDFW's suggested language.

A3-93 As described in Response A3-27, the Draft EIR requires the Applicant to coordinate with the USFWS regarding impacts to eagles and to provide compliance with Bald and Golden Eagle Protection Act and the USFWS Eagle Conservation Plan Guidance.

A3-94 As described in Response A3-28, a schedule for California spotted owl surveys is not available at this time.

A3-95 As described in Responses A3-29 through A3-30, the suggestion was accepted and Mitigation Measure 3.4-3b has been updated to provide a suite of potential operational modifications or other identified adaptive actions to reduce impacts to raptors.

A3-96 As described in Response A3-31, the suggestion was accepted, and Mitigation Measure 3.4-6 updated to reflect raptor survey dates of February 1 to September 15.

A3-97 As described in Response A3-33, the initial protection buffer of 1,320 feet was not adopted for the Project.

A3-98 As described in Response A3-35, the Conservation Measure for Nesting Songbirds was clarified to include blasting impacts, and the recommendation to perform all blasting outside of the avian breeding season was not adopted by the Project.

A3-99 As described in Response A3-37, the recommendation to include an analysis of additional mitigation options for bats, including compensatory mitigation that is roughly proportional and fully enforceable, along with enforceable mitigation performance standards, was not adopted for the Project.

A3-100 As described in Response A3-38, the comment was adopted and Mitigation Measure 3.4-3b was updated to describe the types of methods that could be applied to protect bird and bats.

A3-101 As described in Response A3-41, the recommendation to include TAC/CDFW-approved post-construction bird and bat fatality monitoring plan that incorporates scent detection dogs was not incorporated.

A3-102 As described in Response A3-42, the recommendation to provide a full analysis of impacts on bats was incorporated into the Project.

A3-103 As described in Response A3-20, the use of scent detection dogs is recognized as one of several methods available may be used during the fatality surveys to maximize carcass searches for bats and small birds; however, this remains an optional element of the post-construction avian monitoring study design.

A3-104 See Response A3-103.

A3-105 As described in Response A3-46, the recommendation to provide additional post-construction monitoring beyond the initial 3 years has not been adopted by the Project.

A3-106 As described in Response A3-46, the recommended post-construction avian use surveys have not been adopted for the Project.

A3-107 As described in Response A3-47, the recommendation to provide specifics regarding APLIC Guideline implementation and provide an assessment of the effectiveness of Mitigation Measure 3.4-3a in reducing mortality has not been adopted. Adherence to the APLIC guidelines provide a scientifically based approach to reducing potential avian collisions and electrocution hazards associated with overhead electrical transmission line and power poles to less than significant.

A3-108 As described in Response A3-48, consistent with the recommendation, additional details have been added describing the life history of the western pond turtle.

A3-109 As described in Response A3-49, the recommendation to add additional measures and discussion for gray wolf has been adopted. Comparable changes were not made for Oregon snowshoe hare.

A3-110 As described in Response A3-50, the comment has been partially adopted, as all conservation measures proposed for California spotted owl, sandhill crane, nesting songbirds, Vaux's swift, willow flycatcher and yellow warbler, and terrestrial species will be considered for adoption as COAs.

A3-111 As described in Response A3-51, the comment has been partially adopted. The Terrestrial Species Conservation Measure, which will be considered for adoption as a COA, will provide a detailed environmental awareness training program to all personnel working on the Project site during construction. Mitigation Measure 3.4-3a (at pages 3.4-42 and 3.4-43) already includes a provision to train operations staff on reporting avian and bat wildlife fatalities during operations.

A3-112 As described in Response A3-47, the recommendation to include additional pre-construction surveys for special-status plant species was not adopted.

A3-113 [Intentionally left blank.]

A3-114 As described in Response A3-60, Mitigation Measure 3.4-15b (Draft EIR at page 3.4-63) includes a provision to prepare an invasive species management plan.

A3-115 As described in Response A3-64, tables in the Draft EIR were revised to correct discrepancies related to aquatic resources.

A3-116 As described in Response A3-68, the Vegetation Management Plan and the Invasive Species Management Plan that are referenced in Draft EIR Chapter 2 would include standard County vegetation management and weed control BMPs similar to those suggested in CDFW Comment A3-66.

A3-117 As described in Response A3-76, the USFWS Land-based Wind Energy Guidelines will be followed, and specific measures have been adopted for tower lighting.

A3-118 As described in Response A3-76, the recommendations for exterior lighting have been adopted.

A3-119 As described in Response A3-77, dust palliatives will not be used where transmission to a waterway or sensitive habitat could occur, such as within 100 feet of a wetland or body of water.

A3-120 CDFW's citation to these reference materials is acknowledged. To the extent that copies readily could be located online, the County has obtained and considered them. To the extent that the County was not able to locate the references cited, it assumes that CDFW has provided the relevant information in the text of Comments A3-1 through A3-119.

Comment Letter A4

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Pacific Southwest Region
2800 Cottage Way, Suite W-2606
Sacramento, California 95825

In Response Reply To:
FWS/R8/MB

Lio Salazar
Senior Planner
Shasta County Department of Resource Management
1855 Placer Street, Suite 103
Redding, CA 96001

Subject: Draft Environmental Impact Report for the Fountain Wind Project, Shasta County, State Clearinghouse No. 2019012029

Dear Mr Salazar,

The mission of the US Fish and Wildlife Service (Service) is to work with others to conserve, protect and enhance fish, wildlife, plants and their habitats for the continuing benefit of the American people. As part of our mission, we are charged with implementing various statutes, including the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d; Eagle Act) and the Migratory Bird Treaty Act (16 U.S.C. § 703 et seq.; MBTA). Our review and attached comments on the Draft Environmental Impact Report (EIR) for the Fountain Wind Project (Project) focus on our legal mandate and trust responsibility to maintain healthy bird populations for the benefit of the American public pursuant to the Eagle Act and MBTA. A4-1

As noted in the Draft EIR, the Service has developed permitting regulations under the Eagle Act that allow us to issue permits for take of eagles, and national guidance to help potential applicants through the process of evaluating their risk and applying for a permit. Our guidance document recommends early communication with the Service to facilitate sharing of additional information relevant to assessing the risk of a wind energy project to eagles and other wildlife, to avoid, minimize, and mitigate adverse impacts to wildlife species protected under federal laws. Our Eagle Conservation Plan Guidance is available online: http://www.fws.gov/windenergy/pdf/Eagle%20Conservation%20Plan%20Guidance-Module%201.pdf. A4-2

The Service met with ConnectGen (Project Developer) and their consultant (Western EcoSystems Technology, Inc.) in February 2020 to discuss available information in the proposed project area, and potential impacts to eagles and birds. The previous owner of the Project had also coordinated with us as they considered development of the Project. A4-3

Comment Letter A4

We appreciate Shasta County including proposed measures in the 2020 Draft EIR for the Project to demonstrate compliance with the Eagle Act prior to construction of the project. The Draft EIR also includes proposed measures for mitigation and other measures including to follow the Land-Based Wind Energy Guidelines (USFWS, 2012) and our Eagle Conservation Plan Guidance (2013). A4-4

Below are the topics for which we are providing comments. Please see the attachment to this memorandum for our detailed comments and recommendations: A4-5

- Technical Advisor Committee
- Golden eagle distribution, habitat and occurrence, and impacts in the Project area
- Impacts to eagles
- Golden and bald eagle nest surveys and setbacks- take avoidance recommendations
- Bats
- Bird and Bat Conservation Plan

We look forward to working with your Planning Department on the Fountain Wind Project and other proposed wind projects in the future. If you have any questions regarding this letter or the Service's Eagle Act permitting regulations or processes, please contact Heather Beeler, Eagle Permits Specialist at heather_beeler@fws.gov or by phone at 916-414-6651.

Sincerely,

THOMAS LEEMAN

Digitally signed by THOMAS LEEMAN
Date: 2020.10.21 16:45:25 -07'00'

Deputy Chief, Migratory Birds Program

Attachments:

1. U.S. Fish and Wildlife Service Draft EA Comments
2. Service Recommended Buffer Zones for Activities around Nesting Sites of Bald Eagles in California and Nevada.
3. Service Recommended Buffer Zones for Activities around Nesting Sites of Golden Eagles in California and Nevada

Comment Letter A4

Attachment 1: U.S. Fish and Wildlife Service Draft EIR Comments, Fountain Wind Project

The Service met with ConnectGen (Project Developer) and their consultant (Western EcoSystems Technology, Inc.) in February 2020 to discuss available information in the proposed Project area, and potential impacts to eagles and birds. The previous owner of the Project had also coordinated with us as they considered development of the Project. We are available to provide further technical assistance to Shasta County and the Project. Below are our detailed comments on the draft EIR.

Technical Advisory Committee (TAC)

Shasta County had convened a Technical Advisor Committee (TAC) for the neighboring Hatchet Ridge Wind project, in which we participated. The Hatchet Ridge TAC reviewed and made recommendations regarding monitoring plans and subsequent reports, as well as wildlife impact avoidance and minimization measures. The proposed Fountain Wind Project (Project) would be a much larger wind facility in its overall footprint, number of turbines, and production capacity, with taller turbines and associated wind-swept area compared to the neighboring Hatchet Ridge Wind project. In addition, many of the draft EIR mitigation measures would require the Project to coordinate with, and provide plans and reports to, Shasta County, California Fish and Wildlife Service and to the U.S, Fish and Wildlife Service (Service), for our independent reviews. Given that the proposed Project is much larger and its associated impacts would be greater, and considering the cumulative impacts of the two projects, we recommend Shasta County follow the precedent set by the Hatchet Ridge Wind project and also convene a TAC for the proposed Project. A TAC would facilitate the review process of reports and impacts, and the implementation of mitigation measures consistent with the process that was implemented for the Hatchet Ridge Wind project. A4-6

Golden eagle distribution, habitat, and occurrence and impacts in the Project Area

The draft EIR Table 3.4-3, page 3.4-12, describes golden eagle Habitat as: "Nest on cliffs and escarpments or in tall trees overlooking open country; forages in annual grasslands, chaparral, and oak woodlands with plentiful prey."

While we understand this table is a brief generalization, we would like to be clear that golden eagles may nest in almost any species of tree, and sometimes within dense stands of woodland or forests. They typically construct nests hugging the bole of the tree, beneath the tree's foliage, generally making them difficult to locate visually. A4-7

Table 3.4-3 classifies golden eagle potential for occurrence within the Project site as: *High: Likely to pass through Project Site during migration.* We agree that they are highly likely to occur, although we recommend you update this table to make it clear that golden eagles are year-round residents within the area as clearly indicated within the Environmental Analysis section of the draft EIR. A4-8

Page 3.4-21, within the Environmental Analysis section under the Bald and Golden Eagles subheading, states there were three historical golden eagle nests within 10 miles of the Project boundary. This information clearly indicates that breeding habitat exists within the area. We recommend that you update Table 3.4-3 accordingly. This section also cites observations of golden eagles within the Project footprint during the spring migration season. When we met with the Project Developer earlier this year, they informed us the golden eagle observations on the Project site were at the same location in consecutive A4-9

years during March surveys. The eagle breeding season begins in mid-January, and throughout the western US, juveniles may migrate while the adults remain permanent residents. Therefore, these observations likely indicated the presence of a breeding territorial pair whose territory overlaps with the proposed wind Project. We recommend updating this section and providing more details about the age of the birds observed and the observation locations to support any appropriate conclusions. We acknowledge that based on the Project's surveys, golden eagle use at the Project site appears to be lower than bald eagle use; however, should there be a golden eagle breeding eagle proximate to the Project as the data suggests, risk of collision and impacts to that breeding territory maybe relatively high in that portion of the Project.

A4-9 cont.

We encourage you to expand the draft EIR's discussion on Nesting and Foraging Habitat (page 3.4-40) to account for how the habitat will be altered once turbines are installed. The vegetation removal and management may likely attract golden eagles and other raptors as prey may be more accessible underneath turbines. Also we recommend including a discussion of how the habitat would change over the 40 year life of the project as trees in the surrounding area mature. Use by eagles and other species, and their associated risks, may change over time as the surrounding habitat matures. If instead it is expected timber harvest activities in the area would maintain the surrounding forest at its current stand height and successional stage, please clarify that point.

A4-10

Impacts

The Impacts section (page 3.4-2) evaluates potential nesting disturbance to golden eagles and concludes the risk is low. This determination is based upon the aerial surveys that were conducted that did not locate any nests. We appreciate the Projects efforts to locate golden eagle nests. Unfortunately, aircraft used to locate golden eagle nests from above are not generally as effective at locating nesting eagles in woodland/forested habitats compared to early season ground based observational surveys. Being able to visually locate nests from the air is dependent upon on nest tree species, branching patterns, leaf characteristics, and topographical location on the landscape. If the proper protocols are not implemented for a given habitat, breeding golden eagles can be difficult to detect and their nests hard to locate. We recommend implementing our updated Eagle Survey protocol (Service 2020a) (Attachment 1) which reduces the survey distance recommendations form 10 miles of a project's boundary, to 2 miles. In addition, we recommend ground based surveys be conducted early in the breeding season during courtship (approximately January 15–March 15). As described in Wiens et al. 2015, nesting golden eagles are increasingly secretive later in the breeding season. The researchers found that in central California, detection probability of tree-nesting territorial golden eagle pairs is highest in January and February (≥0.75) and lowest in mid-June to late July (<0.50) (Wiens et al. 2020). Thus, surveying during courtship is very important, as surveys conducted later in the season, when they are actually present but secretive and difficult to detect, often result in erroneous results that indicate nesting golden eagles are absent. .

A4-11

Golden and Bald Eagle Nest Surveys and Setbacks- take avoidance recommendations

Mitigation Measure 3.4-2 is intended to avoid and minimize construction-related impacts to nesting eagles (January 1 to August 31). This measure commits to conducting terrestrial preconstruction eagle nesting surveys of known previously active nest sites within 2 miles of the Project construction boundary. Exact nesting locations for both bald and golden eagles can be dynamic and shift from year to year. While both bald and golden eagles frequently reuse existing nest sites, they also commonly construct new nests within their territories too. Therefore, we recommend implementing early season surveys within 2 miles of the Project area following our updated protocol (Attachment 1) (USFWS 2020a) that evaluates all nesting habitat, and is not limited to only the monitoring of previously known nesting locations.

A4-12

Comment Letter A4

The draft EIR states that blasting may be required prior to trenching in rocky areas. We appreciate that Shasta County would require a Blasting Plan that is sensitive to environmental impacts. Our recommended no disturbance nest buffers differ for bald eagles, and the more sensitive golden eagle. Our recommendations for each species are available on our Region's eagle permit webpage and attached to our comment letter (Attachment 2 & 3) (USFWS 2017, USFWS 2020b). To minimize the likelihood of take from disturbance, we recommend a 1-mile buffer to protect nesting golden eagles for most activities. Since bald eagles are typically more tolerant of activity near their nests, a nest buffer of 660 feet is adequate. Our buffer distance recommendations are greater (2 miles and ½-mile, respectively) for blasting activities. A4-13

Bats

We recommend including consideration of potential impacts to hoary bats. Hoary bats are the most frequently killed species at wind projects across the country. Increased fatalities because of wind energy development is a concern for bats generally. Given their low reproductive rate—generally just one birth per year and a single pup for most species—bats cannot simply bounce back from a population decline as can many other taxa. Although hoary bats have been historically difficult to study and assess their population status, there is widespread concern that wind energy development may be seriously affecting this species. A 2017 study that modeled population impacts from existing wind energy generation found that the cumulative effects of wind energy (at 2014 levels) could result in a 90% species decline in the next 50 years. (Frick et al. 2017) A multi-year field survey of bat populations in the Pacific Northwest published in 2019 likewise shows a decline of hoary bat populations in the Pacific Northwest consistent with previously modeled predictions. (Rodhouse et al 2019)

Data from nearby Hatchet Ridge shows that bat fatalities have a strong late summer/early fall seasonal pattern and that hoary bat is the most common fatality, followed by silver-haired bat (another migratory tree roosting species) and Mexican free-tailed bat (Tetra Tech 2014). Fountain Wind could have a similar pattern of bat fatalities. A4-14

Curtailment has been shown to significantly reduce bat mortalities around the country, including in California (Smallwood and Bell 2020). Although there are very few studies on acoustic deterrents at wind facilities, there is recent evidence from a study in Texas that they may work for some species, including hoary bats and Mexican free-tailed bats (Weaver et al 2020).

Operational smart curtailment offers the best opportunity to significantly reduce bat mortality while preserving maximum energy generation. Engaging a TAC prior to operation to develop a smart curtailment plan with an adaptive management strategy would allow a shift to deterrence if acoustic deterrents are shown to be effective in this area. There may be an opportunity to test curtailment and deterrents in order to test both comparative cost and effectiveness. A4-15

Birds

We recommend the Project develop a Bird and Bat Conservation Strategy (BBCS). The BBCS is a tool for project owners to assess risks to migratory birds and bat species that may be impacted by construction or operations. It is helpful to have all the measures within one document which allows the Project managers and agencies to easily find the bird and bat conservation commitments. BBCS's are considered living documents, with a mortality monitoring component and adaptive management strategies to avoid A4-16

Comment Letter A4

and minimize impacts to birds and bats. We recommend that the BBCS be developed and implemented in consultation with Shasta County, California Department of Fish and Wildlife (CDFW), and the Service.

BBCS Content and Recommendations

1. The BBCS should include the following:

    - A description and assessment of the existing habitat, risk characterization, and avian and bat risk minimization measures.
    - A statistically robust, systematic avian and bat mortality and injury monitoring program to: (1) estimate annual mortality by taxa and season using appropriate models and appropriate estimators (this estimate should include mortality associated with all features of the project that are likely to result in injury and mortality – including, for example, fences, ponds, gen-ties); (2) identify collision and other mortality during diurnal and nocturnal times of the day; and (3) assess the spatial distribution and abundance of mortalities [species composition (including rare and sensitive species), abundance, and distribution] on the project site.
    - An adaptive management and decision-making framework for reviewing, characterizing, and responding to monitoring results.
    - Specific conservation measures and/or programs to avoid, minimize, reduce, or eliminate avian and bat injury or mortality over time, and evaluation of the applicability and effectiveness of those measures using results from the monitoring program.

    The avian and bat mortality and injury monitoring program should include:

    - Onsite monitoring to systematically survey representative locations within the facility, at a level that will produce statistically robust data. The monitoring effort will account and correct for potential spatial bias and allow for the extrapolation of survey results to non-surveyed areas within the project site boundary and to tailor the survey interval seasonally based on carcass removal rates.
    - Statistically robust carcass removal and searcher efficiency trials pre and post construction to document the extent to which avian or bat carcasses remain over time (hours/days) and how well searchers can detect carcasses within the project area. The results from these trials are used to adjust the survey frequency and to improve mortality estimates to reflect bias from carcass removal rates and searcher efficiency.
    - Accepted statistical methods from the peer-reviewed literature to generate facility estimates of potential post-construction avian and bat impacts based on the observed number of injury/fatality detections during standardized monitoring.
    - At the end of the monitoring period (we recommend 3 years), the County, in consultation with CDFW and the Service, would discuss whether the survey program will be continued based on whether the data are sufficient to answer monitoring objectives within a predetermined level of statistical certainty.
    - Handling and reporting requirements according to applicable state or federal permits.
    - Development of an injured bird response plan that delineates care and curation of any and all injured birds, and funding for rehabilitation centers for the care and treatment, and eventual release or permanent storage of injured birds.

A4-16 cont.

Comment Letter A4

2. Avoid using lattice-type structures and placing external ladders and platforms on towers to minimize perching and nesting.

3. Avoid using guy wired structures, instead use unguyed mono poles (i.e., MET towers). Alternative to MET tower should also be considered, for example systems that use lidar or acoustic measurements to obtain meteorological data.

4. Minimize use of outdoor lighting. If additional lighting is necessary, it should be focused downward to reduce skyward illumination. Lights should be equipped with motion detectors to reduce continuous illumination.

5. Where feasible, place electric power lines underground or on the surface as insulated, shielded wire to avoid electrocution of birds. Use the most recent recommendations of the Avian Power Line Interaction Committee (APLIC 2006, 2012) for any required above-ground lines, transformers, or conductors to reduce collisions and electrocutions. When transmission lines must be above-ground, avoid placing lines within wetlands and over canyons.

6. Install and replace flight diverters, as needed on transmission lines to render the lines more visible to both resident listed and migratory birds, including night-migrating birds.

A4-16 cont.

References:

Frick, W. F., Baerwald, E. F., Pollock, J. F., Barclay, R. M. R., Szymanski, J. A., Weller, T. J., ... & McGuire, L. P. 2017. Fatalities at wind turbines may threaten population viability of a migratory bat. Biological Conservation, 209, 172-177.

Rodhouse, T. J., Ormsbee, P. C., Irvine, K. M., Vierling, L. A., Szewczak, J. M., & Vierling, K. T. 2015. Establishing conservation baselines with dynamic distribution models for bat populations facing imminent decline. Diversity and Distributions, 21(12), 1401-1413.

Smallwood, K.S. and D. A. Bell. 2020. Effects of Wind Turbine Curtailment on Bird and Bat Fatalities. 84(4), 685-696. https://doi.org/10.1002/jwmg.21844

Tetra Tech, 2014, Hatchet Ridge Wind Farm Post-Construction Mortality Monitoring Comprehensive Three Year Report. May 2014.U.S. Fish and Wildlife Service. 2012. Land-Based Wind Energy Guidelines. OMB Control No, 1018-0148. Available: https://www.fws.gov/ecological-services/es-library/pdfs/weg_final.pdf.

U.S. Fish and Wildlife Service. 2013. Eagle Conservation Plan Guidance Module 1 - Land-based Wind Energy Version 2. Available: https://www.fws.gov/migratorybirds/pdf/management/eagleconservationplanguidance.pdf

U.S. Fish and Wildlife Service. 2016a. Programmatic Environmental Impact Statement for the Eagle Rule Revision. Final. December. https://www.fws.gov/migratorybirds/pdf/management/FINAL-PEIS-Permits-to-Incidentally-Take-Eagles.pdf

U.S. Fish and Wildlife Service. 2017. Recommended Buffer Zones for Human Activities around Nesting Sites of Bald Eagles in California and Nevada. U.S. Fish and Wildlife Service Pacific Southwest Region Migratory Birds Program. https://www.fws.gov/cno/conservation/MigratoryBirds/pdf-files/USFWS_PacificSouthwestRegion_BaldEagle_NestBuffer.pdf

A4-17

Comment Letter A4

U.S. Fish and Wildlife Service. 2020a. Updated Eagle Nest Survey Protocol. https://www.fws.gov/migratorybirds/pdf/management/EagleNestSurveyGuidanceUpdated.pdf

U.S. Fish and Wildlife Service. 2020b. Recommended Buffer Zones for Human Activities around Nesting Sites of Golden Eagles in California and Nevada. U.S. Fish and Wildlife Service Pacific Southwest Region Migratory Birds Program. https://www.fws.gov/cno/conservation/MigratoryBirds/pdf-files/USFWS_PacificSouthwestRegion_GoldenEagle_NestBuffer.pdf

Weaver, S.P., C.D. Hein, T.R. Simpson, J.W. Evans and I. Castro-Arellano. 2020. Ultrasonic acoustic deterrents significantly reduce bat fatalities at wind turbines. Global Ecology and Conservation. https://doi.org/10.1016/j.gecco.2020.e01099

Wiens, J. D., P. S. Kolar, M. R. Fuller, W. G. Hunt, and T. Hunt. 2015. Estimation of occupancy, breeding success, and predicted abundance of Golden Eagles (*Aquila chrysaetos*) in the Diablo Range, California, 2014: U.S. Geological Survey Open-File Report 2015-1039, 23p http://dx.doi.org/10.3133/ofr20151039.

A4-17 cont.

Comment Letter A4

U.S. Fish and Wildlife Service
Pacific Southwest Region
Migratory Birds Program

Recommended Buffer Zones for Human Activities around Nesting Sites of Bald Eagles in California and Nevada

December 2017

The U.S. Fish and Wildlife Service has national guidelines for management of bald eagles including recommended no-disturbance buffers around bald eagle nests (U.S. Fish and Wildlife Service National Bald Eagle Management Guidelines 2007). **Bald eagle nesting sites in California and Nevada may require larger no-disturbance buffer zones than recommended in the national guidelines when local jurisdictions recommend larger buffers, when nests are located in remote or arid areas, or when intensity or duration of human activities are above normal conditions; e.g. when a nest draws high levels of public interest a larger buffer may be appropriate.**

Summary of U.S. Fish and Wildlife Service National Bald Eagle Management Guidelines (2007) recommendations for no-disturbance buffer zones around bald eagle nesting sites*

*Please refer to the *National Bald Eagle Management Guidelines* for specifics, further information, and potential conditions under which the maximum buffer may be reduced.

Activity	Maximum Recommended No-Disturbance Buffer
Category A Building construction, 1 or 2 story, with project footprint of ½ acre or less. Construction of roads, trails, canals, power lines, and other linear utilities. Agriculture and aquaculture – new or expanded operations. Alteration of shorelines or wetlands. Installation of docks or moorings. Water impoundment.	660 feet
Category B Building construction, 3 or more stories. Building construction, 1 or 2 story, with project footprint of more than ½ acre. Installation or expansion of marinas with a capacity of 6 or more boats. Mining and associated activities. Oil and natural gas drilling and refining and associated activities.	660 feet
Category C Timber Operations and Forestry Practices	660 feet
Category D Off-road vehicle use (including snowmobiles)	660 feet
Category E Motorized Watercraft use (including jet skis/personal watercraft, but exclusive of airboats)	330 feet
Category F Non-motorized recreation and human entry (e.g., hiking, camping, fishing, hunting, birdwatching, kayaking, canoeing)	330 feet
Category G Helicopters and fixed-wing aircraft	1,000 feet
Category H Blasting and other loud, intermittent noises (including fireworks)	½ mile

A4-18

Comment Letter A4

U.S. Fish and Wildlife Service
California - Great Basin Region
Migratory Birds Program

Recommended Buffer Zones for Ground-based Human Activities around Nesting Sites of Golden Eagles in California and Nevada

October 2020

For most ground-based human activities, we recommend a one-mile no-disturbance buffer surrounding golden eagle nesting sites in California and Nevada; see table below for specifics on activity and buffer recommendations. Recommended buffers may increase or decrease, depending on specific site or activity circumstances. Buffers may be reduced in consultation with the U.S Fish and Wildlife Service (Service) when the nest is not in use or activities are not in line-of-sight of the nest[a]. In parts of California, eagles maintain year-round territories that may require additional protection. We recommend consultation with the Service for determining buffer zones for high intensity or long duration activities, unique circumstances, activities not listed in the table below, or when historic levels of human activity are a consideration.

Activity	Recommended No-Disturbance Buffer
Use of Motorized Vehicles off-road and on water: Including, but not limited to, passenger vehicles, all-terrain vehicles, dirt bikes, and snowmobiles. Any passenger vehicle driving on dirt or gravel roads that are not part of a routinely used transportation corridor. Also includes motorized boating activities.	1 mile
Pedestrian and Non-Motorized Activity[b] : Including, but not limited to, walking, running, hiking, biking, camping, rock climbing, bird watching, fishing, hunting, horseback riding, canoeing, kayaking, and biological surveys.	1 mile
Developed Sites: Including, but not limited to, facilities, developed campground sites, and designated snowmobile and off-road vehicle courses.	1 mile
Industrial, Municipal, and Construction Activity: Including, but not limited to, urbanization; mining; oil and gas development; solar development; logging; power line construction; road construction & maintenance; facilities construction; and agricultural operations.	1 mile
Blasting and other loud non-regular noise: Including, but not limited to, detonation devices, fireworks classified by the Federal Department of Transportation as Class B explosives, recreational shooting, and outdoor concerts.	2 miles

[a] An *in-use nest* is defined as a "golden eagle nest characterized by the presence of one of more eggs, dependent young, or adult eagles on the nest in the past 10 days during the breeding season" (50 CFR 22.3) and "(b)reeding begins… with the start of courtship…" (*Programmatic Environmental Impact Statement for the Eagle Rule Revision*, United States Department of the Interior, Fish and Wildlife Service, December 2016).

[b] Many existing nest sites experience some level of intermittent and on-going low levels of disturbance from these types of human activities, and the resident pair of eagles may have acclimated to these existing levels of disturbance. However, increases in human activity may not be tolerated by nesting eagles.

A4-19

Letter A4: United States Fish and Wildlife Service

A4-1 The Draft EIR identifies the USFWS as a federal agency whose regulatory authority may intersect with the Project. See, e.g., Table ES-1, *Summary of Permits and Approvals*, Section 2.6, *Permits and Approvals*, and Section 3.4.1.3, *Regulatory Setting*, which summarizes the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act at page 3.4-32.

A4-2 See Response A4-1. Regarding the USFWS's Eagle Conservation Plan Guidance, see Mitigation Measure 3.4-3a (Draft EIR Section 3.4.3.2 at page 3.4-42), which would require the Applicant to coordinate with USFWS prior to Project construction "regarding potential impacts to eagles and demonstrate the Projects' compliance with the Bald and Golden Eagle Protection Act and the USFWS Eagle Conservation Plan Guidance (2013)." The Guidance was cited in Section 3.4.5, *References*, and a copy was included with EIR reference materials before the Draft EIR was issued for agency and public review.

A4-3 The County acknowledges USFWS's coordination with the developer and notes that Project-specific technical reports prepared by Western EcoSystems Technology, Inc. (WEST) on the Applicant's behalf cite USFWS as a source of information relied upon in a variety of contexts. See, e.g., Draft EIR Appendix C1, *Site Characterization Study Report*; Appendix C3, *Rare Plant Surveys and Natural Vegetation Community Mapping*; Appendix C4, *Year 1 Avian Use Study Report and Risk Assessment for the Fountain Wind Project*; Appendix C6, *Bat Acoustic Survey Report*; Appendix C7, *2017 Raptor Nest Survey Report*; and Appendix C9, *2018 Eagle Nest Status Survey Report*.

A4-4 See Response A4-2 regarding Mitigation Measure 3.4-3a and its requirement that the Applicant comply with USFWS's Land-Based Wind Energy Guidelines, the Eagle Act, and Eagle Conservation Plan Guidance.

A4-5 This summary of the topics of USFWS's comments is acknowledged. Detailed responses are provided below for comments where these topics were expressed in greater detail.

A4-6 The County appreciates input from the USFWS relating to development of a TAC for the Project. As described in Response A3-7, the County is not recommending that a TAC be convened for this Project. Rather than establish a TAC, which requires significant agency oversight, the County would continue to coordinate with federal and state resource agencies. See Response A3-7 regarding the County's continued coordination with CDFW and USFWS and avian specialists (as needed) in assessing post-construction monitoring results and developing adaptive management measures (if needed). As described in Response A3-7, no known or anticipated extraordinary technical issues or circumstances were identified related to the project that warrant the formation of a TAC. The County believes that the mitigation measures presented in the Draft EIR relative to avian hazards are sufficiently prescriptive to identify and address

potential impacts to avian resources, and the approach includes required coordination with federal and state resources agencies such that a TAC is not needed.

A4-7 The comment notes that the brief golden eagle habitat description provided in Draft EIR Table 3.4-3 (at page 3.4-12) does not describe the full breadth of nesting sites used by this species. The reader is referred to the detailed raptor nest survey reports in Draft EIR Appendix C10 (2017 Raptor Nest Survey Report) and Appendix C12 (2018 Golden Eagle Nest Status Survey Report) for in-depth descriptions of golden eagle nesting preferences.

A4-8 The commenter agrees with the Draft EIR conclusion that golden eagles have a high likelihood to occur on the Project Site and recommends updating Table 3.4-3 to reflect that they are a year-round resident species. In response to this comment, the text in the column called "Potential for Occurrence in the Project Site" on Draft EIR page 3.4-12 has been updated for golden eagle as follows:

> "**High.** Observed during surveys (Appendix C9). Year-round resident species with historical nesting within 10 miles of the Project Site. Non-resident species ~~likely~~ may additionally pass through the Project Site during migration. ~~Likely to pass through Project Site during migration.~~"

A4-9 See Response A4-8 regarding the suggested revision to Table 3.4-3. See Response A3-26 regarding that portion of the comment pertaining to golden eagle observations within the Project footprint.

A4-10 The comment requests clarification as to how nesting and foraging habitat may change on the Project Site once turbines are installed, and how vegetation removal and management may attract golden eagles and other species beneath turbines. As noted throughout Draft EIR Section 3.4 (at page 3.4-1 et seq.), the Project Site is located within a greater, approximately 32,000-acre ownership area that is operated by the landowner as managed forest timberlands. During the 40-year life of the Project, it is expected that ongoing timber management will disturb large areas of forest on a continuing and rotating basis throughout the ownership, including near Project related improvements and operations. As a best management practice to minimize raptor prey populations beneath turbines, Mitigation Measure 3.4-3a (Draft EIR at page 3.4-42) states that rock piles be avoided under turbines. This action alone will not substantially reduce raptor prey populations on the Project Site but in combination with site preparation actions such as tree and brush clearing, would avoid the inadvertent creation of small mammal habitat beneath turbines. It is expected that golden eagles and other raptors will preferentially hunt for prey within managed (i.e., cleared) portions of the ownership outside the Project Site boundary where prey species would be more available. Timber harvesting activities and existing forest management actions are expected to continue within the leasehold during the 40-year life of the Project, providing a constant patchwork of early and late-successional tree stands, such that golden eagle and other raptor habitat within the greater area would be similar to habitat quality and availability under pre-Project conditions.

A4-11 The qualified raptor ecologists who performed golden eagle surveys for the Project followed the published USFWS[19] golden eagle survey protocol. As suggested in the comment, the 2017 survey (Draft EIR Appendix C10) included intuitive ground-based efforts early in the breeding season to identify nests within 2 miles of the Project Site as well as helicopter-based aerial nest surveys to characterize eagle nesting behavior within 10 miles. The 2018 golden eagle survey used aerial surveys during the early breeding season within 10 miles of the Project Site. In addition, general avian use studies in 2018 and 2019 (Draft EIR Appendices C6 and C7) recorded eagle activity on the Project Site. Through multiple years of aerial and ground-based surveys, the Project has characterized golden eagle use to the greatest extent possible based on scientific data. Terrestrial preconstruction eagle nesting surveys to be performed in advance of Project construction, as described in Mitigation Measure 3.4-2 (Draft EIR at pages 3.4-40 and 3.4-41), will use the most current USFWS golden eagle survey to ensure to avoid impacts to nesting golden eagles. The measure presently states that surveys will follow the most current USFWS survey guidelines, which, as of the preparation of this Final EIR, are the USFWS's 2020 eagle survey protocol.[20]

A4-12 See Response A4-11, which confirms that the terrestrial preconstruction eagle nesting surveys required by Mitigation Measure 3.4-2 will use the most current USFWS golden eagle survey protocol as described by the comment. Mitigation Measure 3.4-2 is clarified as follows to indicate that all areas that could be affected will be surveyed for eagle nests.

Mitigation Measure 3.4-2: Avoid and minimize construction-related impacts to nesting eagles (January 1 to August 31).

To prevent adverse impacts to nesting eagles, the Project Applicant shall implement the following measures if construction activities are to occur during the nesting season:

a) Conduct terrestrial preconstruction eagle nesting surveys ~~of known previously active nest sites~~ to determine whether eagles are actively nesting or maintaining territories within 2 miles of the Project construction boundary. Surveys will be designed and carried out by a qualified biologist with experience in the natural history and nesting behavior of eagles, following USFWS guidelines. Terrestrial surveys will include all suitable eagle nesting habitat within a 2-mile buffer surrounding the Project construction boundary, as accessible, and subsequent observations at known nests to assess territory occupancy and nesting activity by adult eagles.

b) Results of preconstruction eagle nesting surveys will be reported to the Shasta County Department of Resource Management, Planning Division, USFWS, and CDFW by August 31 of the year in which the survey was conducted. The Shasta County Department of Resource Management, Planning Division shall, in

19 USFWS, 2013.

20 USFWS, 2020." Updated Eagle Nest Survey Protocol".

coordination with resource agencies, determine whether or not the survey(s) were conducted in accordance with appropriate protocols and measures c) is to be implemented. Construction shall not begin in the surveyed area until the Shasta County Department of Resource Management, Planning Division has confirmed that the survey(s) were conducted in accordance with appropriate protocols and, if necessary, that measure 3.4-2c has been implemented.

c) If surveys document active eagle nests within the 2-mile survey buffer, the Project Applicant will coordinate with the County, USFWS and CDFW to define and implement recommended protective measures. Typical measures for working within 2 miles of eagle nests are to establish construction buffers (e.g., with flagging, rope, signage, or other similar barriers) in accordance with USFWS recommendations (National Bald Eagle Management Guidelines, 2007; Golden Eagle, 2013) for specific activities (e.g., vehicular traffic, construction work, etc.); and may be adjusted downward based on site-specific conditions following coordination with the USFWS Migratory Bird Program and CDFW.

Significance after Mitigation: Less than significant.

A4-13 See Response A3-35 regarding potential blasting impacts on wildlife species. The stated requirements in the Draft EIR satisfy the recommendation to provide a larger buffer for eagle nests and coordinate activities within 2 miles of eagle nests with CDFW and the USFWS.

A4-14 The Draft EIR presently addresses potential impacts to hoary bat, which is a WBWG medium priority species. See footnote 6 on page 3.4-43 of the Draft EIR and Mitigation Measure 3.4-3b (at pages 3.4-43 and 3.4-44), which defines potential injury or mortality to hoary bat. Mitigation Measure 3.4-3b requires post-construction monitoring for avian species and bats, including the hoary bat. For two WBWG medium species, a threshold of six bats was adopted based on the absence of habitat in the Project area (western mastiff bat) or the greater abundance of the species (hoary bat).

A4-15 See Response A3-38. The use of turbine speed curtailment of turbine speed and acoustic deterrence are already presented as mitigation strategies to deter birds and bats from rotating turbine blades. See Draft EIR at page 3.4-44. As described in Response A3-7, the County has opted not to convene a TAC for this Project.

A4-16 Since publication of the Draft EIR, certain new design features have been proposed by the Applicant that will be imposed as enforceable conditions of approval for the Project. See Final EIR Section 1.2.3, which identifies these design features, including the development and implementation of a Bird and Bat Conservation Plan (BBCS) as recommended by the comment. The newly proposed BBCS would detail measures to be taken during Project operations to reduce impacts to birds and bats. As recommended by the comment, measures in the BBCS would include post-construction mortality monitoring, prey reduction techniques, and adaptive management strategies.

The County would also initially monitor bird and bat interactions with Project facilities through an Applicant-designed post-construction mortality monitoring (PCMM) study that will include specific elements to reduce avian and bat mortalities during the life of the Project. See Response A3-20 for more information about the PCMM and Response A3-46, which discusses the duration of PCMM program. Three years of monitoring is proposed, consistent with the comment and with recommendations in the USFWS's Wind Energy Guidelines.

A4-17 The USFWS's citation to these reference materials is acknowledged. To the extent that copies could be readily located online, the County has obtained and considered them. To the extent that the County was not able to locate the references cited, it assumes that USFWS has provided the relevant information in the text of its letter.

A4-18 The stated buffer zones for bald eagle in the Draft EIR (Mitigation Measure 3.4-2(c) at page 3.4-41) are consistent with recommended buffer zones cited in USFWS guidance document. No changes are warranted to the Draft EIR from this comment.

A4-19 The stated buffer zones for golden eagle in the Draft EIR (Mitigation Measure 3.4-2(c) at page 3.4-41) are consistent with recommended buffer zones cited in USFWS guidance document. No changes are warranted to the Draft EIR from this comment.

2.2.2 Responses to Comments from Tribal Entities and Members

Comment Letter T1

Fountain Wind Project

10-06-2020

To Whom it may concern,

My name is Agnes Maxine Dunn, I am a Pit River Tribal member and am a Madesi Band member.

I am writing to state I am in opposition of the Fountain Wind Project. The project area is located within the ancestral lands of the **Madesi, Itsatawi and Atsugewi Bands** of the **Pit River Tribe**. The project area is located in close proximity within Tribal trust lands located in Montgomery Creek (the Montgomery Creek Rancheria) (Big Bend Rancheria and Roaring Creek Rancheria)

T1-1

Wind turbines can be noisy, unappealing and exert large disturbances into the fluid conditions of the air, the speed of the blade tips is approximately 160 mph which is deadly to wildlife. Transformer fires are known to happen due to dirty electricity generating components.

The local emergency service providers would need to be knowledgeable of how to handle an emergency in a situation such as a collapsed windmill, blades breaking off, large transformer fires, all these listed are serious emergencies, I believe the local providers aren't trained in these types of emergencies.

T1-2

Thank You,

Agnes M. Dunn

Agnes M. Dunn
Pit River Tribe Elder

Letter T1: Agnes Dunn

T1-1 The County acknowledges the commenter as an elder and member of the Pit River Tribe, and the commenter's opposition to the Project.

Draft EIR Section 3.6 (at pages 3.6-1 and 3.6-3), Section 3.6.3 (at page 3.6-24) and the Scoping Report included as Appendix J identify the Project Site as located within the ancestral lands of the Madesi, Itsatawi and Atsugewi Bands of the Pit River Tribe. The Project Site's proximity to the Montgomery Creek Rancheria and the Roaring Creek Rancheria is acknowledged. The Montgomery Creek Rancheria is located in the unincorporated community of Montgomery Creek, and the Roaring Creek Rancheria is located nearby – approximately 5 miles northwest of Montgomery Creek. See Draft EIR Figure 3.6-1, which shows the Pit River tribe's ancestral boundary relative to Montgomery Creek, and Draft EIR Figure ES-1 and Figure 2-1, Project Location, which show the Project Site relative to Montgomery Creek. The Big Bend Rancheria is located slightly farther away: north of Big Bend and approximately 50 miles northeast of Redding.

T1-2 The EIR analyzes the potential direct, indirect, and cumulative effects of the Project and Alternatives on noise in Draft EIR Section 3.13, *Noise and Vibration*, visual resources in Section 3.2, *Aesthetics*, wildlife in Section 3.4, *Biological Resources*, risk of wildfire in Section 3.16, *Wildfire*, and to public services such as police and fire in Section 3.1.4.14, *Public Services*. Responding to possible concerns about wind project-specific emergency response needs, the County requested a call log from the Shasta County Fire Marshal for the time period and area that covers the Hatchet Ridge Wind Project site construction and/or operational periods (approximately 2008 through the date of the request (March 3, 2021). No emergency response services have been needed by that project, which has been in operation for more than a decade. The CAL FIRE Communications Operator's response to the county's request for input was as follows: "There are no emergency incidents to report directly related the Hatchet Wind Farm from 01/01/2008 – 03/04/2021. Only incidents to report are 313 OESA (Alarm Testing) notification calls into the ECC to advise of the test status."[21] Regarding the potential for the Project to disturb the fluid conditions of the air, see Response P21-3 in Final EIR Section 2.3.3, *Responses to Comments from Organizations and Individuals*.

[21] CAL FIRE, 2021b. Email from Aaron Williams, Communications Operator, CAL FIRE – SHU to Jimmy Zanotelli, Fire Marshal, Shasta County Fire Department. March 4, 2021.

Comment Letter T2

10/18/20

DEIR COMMENTS FOR FOUNTAIN WIND PROJECT

SHASTA COUNTY PLANNING DIVISION

DEADLINE

OCTOBER 21, 2020.

NOTE: The primary purpose of these comments are for a no project, new proposed off-site alternative to project, new proposed mitigated project alternative and to the already DEIR proposed alternative I project.

Argument #1 for No Project.

From reading the DEIR the Fountain wind Project has too many significant effects above and beyond standard environmental thresholds, including Ascetics, Biological Resources and Tribal Cultural Resources. Most of the-too many significant impacts are already addressed in Appendix J of the DEIR, but I will add some additional ones in this DEIR comment package.

However on a separate note, I would like to see more of why Geology and Soils are not included in the significant and unavoidable impacts due to the nature of the project and displacing hundreds, if not thousands of cubic yards of rock and soil to install deep turbine concrete foundation pads, accessory outbuildings and grading soil for roads, etc.

I noticed in Appendix J that you noted that the public has already referenced Ascetics along with cumulative impacts from the already installed Hatched Ridge windmill project. I think this is a good idea to look into, since you now have a reference point to go off of. If you have ever driven East or West to and from Burney on Highway 299 I am sure your eyes automatically zoom to the shiny, white windmills, especially when they are rotating. It is common knowledge that our human eyes automatically fixate on a moving object and I understand it is a built in fight or flight evolutionary mechanism. So along with the current operating HR turbine wind project and the proposed FW turbine project there is a above an beyond significant ascetic cumulative visual distraction impact.

T2-1

PG&E as we speak is in process with the Pit River Tribe to donate thousands of acres back to the tribe. As far as I know the tribe will take stewardship, yet before it can take over as the title holder a set amount of years has to occur, or something along these lines.

T2-2

Comment Letter T2

Argument #2 for no project.

Perhaps with Shasta County Planning division help and input, the projects landowner(s) of title will follow PG&E's lead and donate their landholdings in Shasta County to the Pit River Tribe. The tribe will steward the land, apply resource management and wildfire reduction techniques, environmental restoration, and use it for ceremonial and educational purposes, etc. Perhaps later on the tribe can, on its own revisit other new technology alternative energy projects, such as solar power or turbine-less wind electricity generators in the Hatchet Ridge, Round Mountain Highlands.

T2-2 cont.

Response to the DEIR project objectives.

Page 2.35 Paragraph 2 states that the "No project alternative would not meet any of the project objectives." My comment to that is... doesn't a no project alternative meet the majority of the public's objectives?

T2-3

Questions concerning the DEIR offsite alternative statement.

Page 2.29 paragraph 2 states that FW offsite alternatives were "not carried forward" Why not? Can you reply to that? And why is there a DEIR reference to citizens of Goleta Valley v Board of Supervisors 1990 52 cal. 3d 553, 572-73? Was there an ancestral tribal component to this reference? The proposed FW project is inside a well know tribal ancestral territory, which in Pit River country is known as the "100 Mile Square." So if the Goleta reference has no tribal territory involved perhaps it is not a good precedent to use in the DEIR. And who set the FW project megawatt threshold at 216 MW? The Hatchet Ridge project is only 101.2 MW that makes the Fountain Wind threshold at more than 100% increase in proposed electricity generation. This high threshold amount of increase makes it unreasonable or unfair when commenting and trying to help the County of Shasta Resource Planning division with a feasible alternative. And it looks like you referenced in multiple sections of the DEIR that most or all other public proposed alternatives do not meet the 216 MW threshold. Of course the publics comment do not meet that much MW capacities, because it would take building another hydroelectric dam on our already too much dammed up Pit River, Sacramento River, Fall River and adjoining creeks to meet the daunting 216 MW target.

T2-4

Suggestions to revisit offsite location for the proposed Fountain Wind 216 MW electricity generating project

Reference to the attached article from ANSI, American National Standards Institute "Alternative Wind Turbine Locations" and peer reviewed article from Istanbul Technical University, Environmental Engineering Department, and Yalova University, Energy Systems Engineering Department, Turkey "A Holistic approach for Wind Farm Site Selection by FAHP"

T2-5

Comment Letter T2

ANSI discuss four locations for wind energy projects: Wind Turbines in the Desert, in the mountains, in airports and off of public highways.

Desert sounds best, perhaps Modoc County, CA, or the High Desert along the Eastern Sierra Nevada Mountains would work best. Of course distance may be a factor.

Mountains is pretty much the problem we have now, so not recommended.

In and around an airport sounds like a great idea, although it may be difficult to install 70-something large windmills, unless they were stretched out to border Interstate 5 Highway.

And last I propose the project install the FW project along Interstate 5, anywhere from Oregon down to Central or Southern CA. is feasible and reasonable. It is mostly urban sprawl along the I-5 corridor anyway and adding windmills may even make for a tourist attraction or a welcome attraction for travelers cruising along the long, sometimes mundane I-5

The article "A Holistic Approach for Wind Farm Site Selection by FAHP" in Turkey, has some good alternative ideas to compare and contrast with wind farm projects in the United States. In the conclusion of the article, Karaman looks like it edges out Izmir for site selection in the final mathematical calculation, however they were able to rule out some of the other choices using the above approach. Perhaps these two attached articles can shed some light on Shasta County making a decision to revisit the FW project offsite selection.

T2-5 cont.

https://www.intechopen.com/books/wind-farm-technical-regulations-potential-estimation-and-siting-assessment/

https://www.a-holistic-approach-for-wind-farm-site-selection-by-using-fahp

Project alternative #1 and #2 Comment.

After further thought alternative #1 proposal to removing seven turbines north of Hiway 299, and alternative #2 which relates to increased turbine setbacks. I choose to not comment as they do not meet the majority of the public's objective which is no project at the above proposed site.

T2-6

Regards,

Tony Yiamkis

Illmawi Band, Pit River Tribe.

P.O. Box 2125

Shasta, CA 96087

Comment Letter T2

Letter T2: Tony Yiamkis

T2-1 The County acknowledges the commenter's preference for the No Project Alternative, that an off-site alternative be considered in detail, and that a new "mitigated" alternative be added to the Draft EIR for detailed consideration. See Response T2-4 regarding why off-site alternatives were not considered in detail in this EIR. This comment does not provide enough information about a new mitigated alternative to inform a detailed response. See Response T2-7, which responds to more detailed input in this regard.

The comment correctly notes that members of the public identified potential cumulative effects to aesthetics as a topic to be evaluated in the EIR for this Project. See Draft EIR Appendix J, *Scoping Report*, at pages 9 and 10. In part based on these suggestions received as part of the scoping process, the County analyzed the potential for the Project's impacts to combine with the impacts of other projects, such as the Hatchet Wind Project, to cause or contribute to a significant cumulative effect on aesthetics in Draft EIR Section 3.2.5. More specifically, see Draft EIR Section 3.2.5.1 (at pages 3.2-47 and 3.2-48) regarding the cumulative effect on scenic vistas and the character or visual quality of views from publicly accessible vantage points or from State scenic highways, and Section 3.2.5.2 (at pages 3.2-48 and 3.2-49) regarding the cumulative effect on scenic resources within a State scenic highway, and Section 3.2.5.3 (at page 3.2-49) regarding the cumulative effect on light and glare. See also, Draft EIR Section ES.6.2 (at page ES-6), which discloses that the Project would have a significant and unavoidable impact to aesthetics, both at the Project-specific level and cumulatively, and Table ES-2 (at page ES-8), *Summary of Impacts and Mitigation Measures*, which summarizes the aesthetic impact conclusions, recommended mitigation measures, and the level of significance that would remain if the recommended mitigation measures were implemented. The stated concern about visual distraction is addressed in the Draft EIR's analysis of impacts to scenic vistas and visual character. Viewer exposure, viewer types (including drivers), visual sensitivity, and movement ("texture") all are concepts that inform the analysis (see Draft EIR at pages 3.2-2 and 3.2-3).

T2-2 The County is aware of, but has not been party to, discussions among the Pacific Gas and Electric Company (PG&E), the California Public Utilities Commission (CPUC) and the Pit River Tribe pursuant to PG&E's proposed transfer of lands within the Tribe's ethnographic territory.[22] However, whether the private owner of land included within the Project Site boundary would entertain a transfer of stewardship is beyond the scope of the EIR, which is focused on the potential impacts of the Project and alternatives to the physical environment.

[22] See, e.g., CPUC, 2020. State of California Public Utilities Commission Pacific Gas and Electric Company's Divestiture of Electric and Related Assets, Environmental Review, PG&E Land Transfers Section 2-V, Cultural Resources. https://www.cpuc.ca.gov/environment/info/esa/pgedivest/swaps/swapch_2v.html. January 14, 2020.

T2-3 As explained in CEQA Guidelines §15124(b), "A clearly written statement of objectives will help the lead agency develop a reasonable range of alternatives to evaluate in the EIR and will aid the decision makers in preparing findings or a statement of overriding considerations, if necessary. The statement of objectives should include the underlying purpose of the project and may discuss the project benefits." The Applicant's objectives for this Project are set forth in Draft EIR Section ES.4 (at page ES-4) and repeated in Section 2.3 (at page 2-6). As explained in Draft EIR Section ES.2.1 (at page ES-1), "The Fountain Wind Project is a renewable wind energy generation development." Thus, the purpose of the Project is reflected in objective 1, which is to "[d]evelop, construct, and operate a commercial wind energy generation facility capable of generating up to 216 MW of wind energy." Project benefits are identified in objective 5 (jobs and contribution to the County's tax base), objective 7 (support landowners), objective 8 (offset GHG emissions), and objective 9 (provide emissions-free energy for approximately 100,000 households). Of the full list, the objectives considered to be the "basic" project objectives for purposes of screening potential alternatives are identified in Section 2.5.1, *Alternatives Development and Screening* (at page 2-28). They also reflect the project purpose and benefits.

To emphasize, the Applicant identified the objectives for its proposed Project; the County's role in their regard is to identify among them which are "basic" and to rely on the basic objectives as a screening criterion to evaluate potential alternatives. Whether a potential alternative meets "most of the basic objectives of the project" is one of the four threshold criteria for identifying suitable alternatives as part of the CEQA process (14 Cal. Code Regs. §15124[b]). A potential alternative need not meet every one of the stated project objectives to pass the screening threshold – a potential alternative may be carried forward for more detailed review even if it "would impede to some degree the attainment of the project objectives, or would be more costly" (14 Cal. Code Regs. §15126.6[b]). The other criteria, as identified in Draft EIR Section 2.5.1, *Alternatives Development and Screening*, include whether it could substantially reduce significant effects of the project, be potentially feasible, and be reasonable and realistic. Potential alternatives that that do not satisfy all four criteria may be excluded from the EIR (14 Cal. Code Regs. §15126.6[c]). While the public's objectives may be considered by decision-makers, they are not among the enumerated CEQA considerations.

T2-4 Draft EIR Section 2.5.2.1, *Off-site Alternatives* (at page 2-29), explains that off-site alternatives have not been considered in detail in this EIR to avoid reconsidering regional land-use policies in a project-specific context and because the EIR already considers a reasonable range of alternatives. Because the land use and planning provisions that govern use of the Project Site contemplate potential wind energy use with the approval of a conditional use permit (Shasta County Code of Ordinances §17.08.030),[23] and other areas of the County do not contemplate wind energy, the

[23] See, Hellman, 2019. Memorandum of Paul A. Hellman, Director of Resource Management, to Leonard Moty, Chairman, and Members of the Board of Supervisors, regarding *Consistency of Large-Scale Wind Energy Facilities with the General Plan and Zoning Plan*. August 15, 2019. This memorandum addresses questions about the

County has elected not to reconsider that determination in the context of this EIR. The *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal. 3d 553, 572–73 decision and the *Mira Mar Mobile Community v. City of Oceanside* (2004) 119 Cal. App.4th 477, 492 decision were cited in the discussion to show that the County's decision not to consider an off-site alternative in light of the proposal's consistency with underlying Countywide planning designations is supported by California law.

See Response T1-1 regarding the Draft EIR's acknowledgement that the site is located within the Pit River Tribe's ancestral lands. As explained in Draft EIR Section ES.2.1, *Project Overview* (at pages ES-1 and ES-2), and Section ES.4, *Project Objectives* (at page ES-4), the Applicant has proposed and seeks County authorization for a wind energy project that would have a generating capacity that would efficiently use the available capacity on the transmission system. See Response T2-3 regarding the relationship between the project objectives and the range of alternatives analyzed in detail in an EIR.

T2-5 The County is not a sponsor of the Project. Instead, as described in Draft EIR Section ES.2.1 (at page ES-1), the County is responding to an application received from the Applicant for a conditional use permit. "A conditional use permit contemplates the review of individual applications using sound principles of zoning and planning and is discretionary by nature." *McCorkle Eastside Neighborhood Group v. City of St. Helena* (2018) 31 Cal. App. 5th 80, 85. CEQA applies to discretionary projects (Pub. Res. Code §21080). In light of the discretionary decision to be made on the Applicant's use permit application, the County is acting as Lead Agency in compliance with its obligations under CEQA because it is the public agency that has the primary responsibility for approving the project (CEQA Guidelines §15367). To emphasize, the County (including as part of this CEQA process) is responding to an application for the Project proposed by the Applicant. The County was not actively involved in selecting the proposed site. Instead, the County is evaluating consistency with its General Plan and the zoning applicable to the Project Site and other factors, including the conclusions of this environmental review, before making a decision as to whether or not to approve the Project at the proposed location.

Although the County does not have control over the site selection process, as part of the process of developing and analyzing the environmental impacts of alternatives to the project, the County did initially screen potential offsite alternatives (Draft EIR Section 2.5, at page 2-27 et seq.) The County has considered the conclusions reached by Talinli et al. in *A Holistic Approach for Wind Farm Site Selection by Using FAHP*,[24] and agrees not only that technical, economic, environmental, and social factors are

consistency of projects like the Project the General Plan and Zoning Plan. It draws three conclusions: 1) processing of use permit proposals for large scale wind energy facilities is consistent with the General Plan and Zoning Plan, 2) an evaluation of the consistency of use permit proposals with the General Plan is performed as part of the use permit process, and 3) no use permit shall be granted unless the specified mandatory findings of fact are made.

24 Talinli et al., 2011. A Holistic Approach for Wind Farm Site Selection by Using FAHP. DOI: 10.5772/17311. https://www.intechopen.com/books/wind-farm-technical-regulations-potential-estimation-and-siting-assessment/a-holistic-approach-for-wind-farm-site-selection-by-using-fahp. June 14, 2011.

appropriate considerations in wind project siting decisions, but also that such factors are to be weighed to distinguish among alternatives and to focus the range of alternatives further detailed analysis. This approach was taken in Draft EIR Section 2.5, *Description of Alternatives*. See Response T2-4, which explains why the County did not consider off-site alternatives in detail in the Draft EIR.

T2-6 See Response T2-3 regarding the public's objectives. The stated preference for the No Project Alternative is acknowledged, and has been included in the record for consideration by County decision-makers.

This letter includes a lengthy exhibit. The exhibit itself is provided in Final EIR Appendix D1, Exhibit to Letter T2, Tony Yiamkis. A response addressing the exhibit is provided below.

T2-7 Receipt of the March 31, 2016, article called *Alternative Wind Turbine Locations* is acknowledged. See Response T2-4 regarding why off-site alternatives have not been considered in detail in this EIR. See Response T2-5 regarding the County's consideration of the work by Talinli et al. in *A Holistic Approach for Wind Farm Site Selection by Using FAHP*.

Comment Letter T3

Lio Salazar

From: Angel Baga <ang_baga@yahoo.com>
Sent: Wednesday, October 21, 2020 1:59 AM
To: Lio Salazar
Subject: Fountain Wind Project DEIR Comment

To whom it may concern,

I am writing as a concerned Citizen of Round Mountain. The DEIR "Wildfire" portion mentions numerous times that that "implementation of the Project could increase Wildfire risk". Mitigation plans have been listed for several different scenarios however; it is still listed that with these mitigation plans that there is still a "less then significant risk of wildfire". As a close Resident to the proposed project site, anything other then NO WILDFIRE RISK is unacceptable. T3-1

Avangrid Renewables is the company that is wanting to put these giant wind turbines in our forest. May 2018 in Schuylkill County, Pennsylvania; one of Avangrids turbines caught fire. There were flames and sparks coming from the center, after some time the flame burnt itself out not causing any fire on the ground (that was reported). With mitigation plans for malfunction causing a fire in the turbine; why was it not immediately extinguished by the "fire extinguishment equipment"? July 2019 Klickitat County, Washington. A nearly 300 acre brush fire caused by melting sections of a Avangrid wind turbine after the generator caught fire. Why did the mitigation plans fail? Almost every wind turbine fire I have found had some of the same safety concerns. 1: The turbines were too tall for fire hoses to spray to extinguish fire. 2: Fire Personell having to wait hours for cranes large enough to allow them to extinguish fire in the turbine. Time which allowed the embers to blow causing spread of fire to vegetation. 3: Concern the blades would melt and fall off onto Firefighters causing injury, death and spread the fire. Regardless of the mechanism that is specifically designed to keep the blades from falling down, the fire almost every time burned up the hydraulic fluid causing the blades to fall. 4: Built in fire suppression systems failed. I'm bringimg these safety concerns up because they are not addressed in the DEIR. T3-2

" Due to the height of the turbines, construction and operation of the Project could interfere with the aerial firefighting operations, a potentially significant impact". The mitigation for this is to give GIS files and maps of the project to CALFIRE so they can allow for flight plans around the project. Shasta County is no stranger to devastating wildfires, especially in the area that the Project is proposed (Fountain Fire). If we have learned anything from our many fires is that they have a mind of their own and adapting to their movements is what has to be done in order to get containment and extinguish the flames. The Fountain Wind Project is going to be a huge hinderance on the part of adapting to a fire mostly when it comes to aerial firefighting because they are simply going to be in the way. Pilots may have to make drops further away then what they would normally do because a turbine is blocking their line, which could potentially put homes and lives in danger. Regardless of mitigation attempts The Fountain Wind Project and its significant risk of causing a wildfire puts the Public's Safety in jeopardy. T3-3

I also did not see addressed in the DEIR anything about specific Water Rights. Some residents, myself included; have water rights to certain springs/ditch that runs from the Lassen National Forest, through the Timber products property down to our homes. By Law they are not to access the water, however there is nothing mentioned about that. T3-4

Aesthetics: The only mitigation would be to not allow the project. Most of the area of the Project is in the Scar from the Fountain Fire. There has been a significant amount of work done to re-forest the area. In a way the reforestation is a monument for those of us who lived through the Fountain Fire; placing the Wind Farm right in the middle of that is really a slap in the face to us residents. T3-5

Sincerely,

Angel Baga-Weaver
Sent from my iPhone

Letter T3: Angel Baga-Weaver

T3-1 The comment correctly states that the Project could increase wildfire risk, and that the analysis concludes that the implementation of recommended mitigation measures would reduce the risk to a less-than-significant level pursuant to CEQA (see Draft EIR Section 3.16 at page 3.16-1 et seq.). The County acknowledges the commenter's opposition to the Project based on wildfire risk.

T3-2 The Draft EIR discloses and analyzes the potential for wind turbines to catch fire. Mitigation Measure 3.16-2b, *Nacelle Fire Risk Reduction* (Draft EIR at page 3.16-21) is one of three mitigation measures that would require the Applicant and its contractors to implement fire safety measures to prevent fire and be prepared to respond immediately if a fire should ignite.

Contrary to the suggestion in this comment, the Draft EIR expressly addresses wildfire-related safety considerations. For example, the analysis of Impact 3.16-1 considers challenges associated with the height of the proposed turbines. See Draft EIR page 3.16-16, which says: "due to the height of the turbines, construction and operation of the Project could interfere with aerial firefighting operations, a potentially significant impact. To ensure that impacts related to aerial firefighting during construction and operation are reduced to less than significant, implementation of Mitigation Measure 3.16-1b (Pre-Construction Coordination with CAL FIRE) would be required." The Draft EIR also discloses and considers the potential impacts of wind project-related wildfire on firefighters and others. Such fires "can lead to harmful exposures for first responders, nearby residents, and populations in regions that are farther from wildfire…. Exposure to these pollutants can cause asthma attacks, coughing, and shortness of breath. Chronic exposure to these pollutants can increase the risk of developing chronic health conditions such as heart disease, diabetes, and cancer." See Draft EIR at page 3.16-7, *Impact of Wildfire on Air Quality* (at page 3.16-7).

T3-3 This comment correctly characterizes Mitigation Measure 3.16-1b, as set forth in Draft EIR Table ES-2, *Summary of Impacts and Mitigation Measures* (at page ES-31), and Section 3.16, *Wildfire* (at page 3.16-16).

Shasta County's fire history within and near the Project Site is disclosed in the Draft EIR. See Section ES.2.2 (at page ES-2) and Section 2.2 (at page 2-3), which describe the project location by reference to the Fountain Fire burn scar; Section 3.16.1 (at page 3.16-1 et seq.), which describes the environmental setting for the analysis of potential impacts relating to wildlife; and Section 3.1.3.1 (at pages 3.1-5 and 3.1-6), which describe the area's fire history as part of the cumulative scenario.

The Draft EIR analyzes potential impacts to aerial firefighting (including by presenting an obstacle), whether the firefighting activities are conducted by Cal Fire or others, in the context of Impact 3.16-1 (Draft EIR Section 3.16.3.1 at page 3.16-14 and following). This analysis evaluates the impact that the obstacles created by the turbines

could have on aerial firefighting operations and compares this to baseline (existing) conditions. As described on Draft EIR pages 3.16-15 and 3.16-16:

> …the CAL FIRE Shasta-Trinity Unit has access to firefighting aircraft which drop either fire retardant or water in strategic locations to fight spreading fires. Firefighting aircraft need to fly at low elevations (between 150 feet and 500 feet from the ground) to have accurate drops of retardant or water…. Within the Project Site, peaks and buttes present existing obstacles for aerial firefighting. Near the Project Site, the Hatchet Wind Project includes vertical turbines that are approximately 420 feet tall. These turbines are existing vertical structures that could be obstacles for aerial firefighting. As described in Section 2.4.1, Wind Turbine Generators, the turbines could have heights of up to 679 feet. Some research on the impact of wind turbines on aerial firefighting concludes that wind turbines "do not cause aircraft concern in aviation operations for [firefighting]" and that "Where vertical obstructions exist in the airspace around a fire such as power lines, weather masts, radio and television transmission towers, tall trees and wind turbines, a dynamic risk assessment is undertaken prior to the aircraft being committed to fire-bombing operations"….

The Draft EIR's approach to mitigating impacts of the project on aerial firefighting was confirmed by a memorandum to the County received in January 2021 from the Chief of the Shasta County Fire Department.[25] Based on consultations with CAL FIRE Tactical Air Operations Unit, the Fire Chief acknowledges that "aerial hazards do pose a safety concern for aerial firefighters; however, they are something we must work around on a daily basis.... Whether its power lines, antenna towers, windmills, cell towers or cable/wires spanning a drainage, *the key to working in this environment is knowledge of their existence*." (Emphasis added.)

The following text on Draft EIR page 3.16-16 has been revised as follows in order to clarify the potential for an impact and the necessity of mitigation.

> Due to the spacing between rows of turbines, aerial firefighting operations are likely to have enough space even with the proposed Project to continue aerial firefighting operations within the Project Site. <u>While the likelihood of impacts to aerial firefighting is low, the consequence of potential impacts to aerial firefighting is high and could result in a potentially significant impact.</u> ~~However, due to the height of the turbines, construction and operation of the Project could interfere with aerial firefighting operations, a potentially significant impact~~."

Therefore, the analysis under Impact 3.16-1 considers the impact that the proposed Project could have on aerial firefighting compared to existing conditions. Based on this analysis, Mitigation Measure 3.16-1b, *Pre-Construction Coordination with CAL FIRE* (at page 3.16-16), would provide pre-construction coordination to identify the exact locations and heights of the Project's structures to CAL FIRE to facilitate aerial fire-fighting, and would reduce impacts to a less-than-significant level. The commenter's

[25] CAL FIRE, 2021a. Memorandum of Bret Gouvea, Chief CAL FIRE/Shasta County Fire to Paul [A. Hellman, Director, Shasta County Department of Resource Management, Planning Division]. January 2021.

disagreement with this conclusion is acknowledged and included in the record where it may be considered during the decision-making process.

T3-4 The topic of water rights is a legal matter that is only relevant to a CEQA analysis if it identifies a potential physical environmental impact. No potential environmental impact is identified in the comment; however, potential impacts to aquatic resources, including surface waters, are described in Draft EIR Section 3.4 in connection with biological resources (at pages 3.4-7 and 3.4-8; see also Appendix C2), and in Section 3.12 regarding hydrology and water quality (at page 3.12-2 and following). Note that water supply for the Project, as described in Chapter 2, *Project Description*, would be sourced from new on-site water supply wells located at the O&M facility or from the importation of water by truck from the Burney Water District. The wells would be installed in accordance with the rules and regulations of the Shasta County Department of Resource Management's Environmental Health Division. No surface waters including any existing springs or drainage ditches would be used as a source of water supply.

T3-5 The Draft EIR concludes that the Project would have a significant unavoidable impact, both at the Project-specific level and cumulatively, with regard to its effect on a scenic vista and the existing visual character or quality of public views of the site and its surroundings from publicly accessible vantage points. See Draft EIR Section ES.6.2 (at page ES-6), Table ES-2 (at page ES-8), Table ES-3 (at page ES-39), and in Sections 3.2.4.2 and Section 3.2.5 regarding the Project's direct, indirect and cumulative impacts to Aesthetics. See also, Section 4.3 (at page 4-2), which identifies the No Project Alternative as the environmentally superior alternative because it would avoid all impacts of the Project.

As explained in Section 1.4 (at page 1-3) and in Section 1.4.6 (at page 1-8), "CEQA Guidelines Section 15093 requires the County, as the lead agency, to balance the benefits of a proposed project against any significant unavoidable environmental effects it may have should it decide to approve the Project. If the benefits of the Project outweigh the significant unavoidable adverse impacts, then the County may, if it approves the Project, adopt a statement of overriding considerations that finds the environmental consequences to be acceptable in light of the Project's benefits to the public."

See Response T3-3 regarding the Fountain Fire as an element of the area's fire history.

Comment Letter T4

October 21, 2020

Shasta County
Department of Resource Management
Planning Division
Attn: Senior Planner Salazar
1855 Placer Street, Suite 103
Redding, CA 96001

RE: Comments on the Draft Environmental Impact Report for the Fountain Wind Project

Dear Senior Planner Salazar,

As an Atsugewi Elder, of the Astugewi Band of the Pit River Nation, one of the Bands effected by this proposed fountain wind project, there are many reasons why I am writing this letter in opposition of the proposed fountain wind project.

I have known this land all my life. The forests have been mismanaged and need time to heal themselves. The forest product companies have tried to eliminate our acorn trees to plant their single species production trees. I have witnessed them drilling holes into our oak trees and pouring salt and then later poison into the trees to kill them off more quickly. The proposed project area is an essential acorn ecosystem area. Acorns are essential to a healthy habitat in this area and food source for the animals and the Atsugewi people, as well as to other Bands of the Pit River and surrounding Tribes.

Mismanagement of forests in addition to this fountain wind project will compound the significant adverse effects to the environment and the homelands of my people.

You can already see the devastation from the existing hatchet wind project. You must recognize what is already there. This proposed fountain wind project will have taller turbines and more of them.

Animals are not visible as they have been in the past. This is the time of year when you would see thousands of birds and we did not see any on a recent site visit.

These types of projects are crimes against humanity. Look at the past and you can see the future. This does no good to the people around it.

T4-1

The low frequency sound effects the brain waves of people and animals. Indigenous people of Canada have shared with me information that a form of Alzheimer's in young people was happening in their community when wind turbines were place next to them.

T4-2

For these and many other sensitive confidential Cultural resources reasons, I do not support the fountain wind project. The significant adverse effects of this projects on the environment is not mitigatable.

T4-3

Concerned Indigenous Person of the Land,

Lawrence Cantrell, Atugewi Band Elder
36970 Park Ave.
Burney, CA 96013

Letter T4: Lawrence Cantrell

T4-1 The County acknowledges the commenter as an elder of the Astugewi Band of the Pit River Nation and has considered the comments provided in light of the experience and values expressed. The County understands that the commenter is opposed to the Project for the reasons stated in the letter and has included the opposition as part of the record, where it may be considered by County decision-makers when they evaluate whether or not to approve the Applicant's requested use permit.

See Response T1-1 regarding the Draft EIR's recognition of the Project Site as located within the ancestral lands of the Atsugewi Band of the Pit River Tribe. The stated opposition to the Project is acknowledged and has been included in the County's formal record for consideration by decision-makers. The County respects the views expressed by this Atsugewi Band Elder of a time when mankind's impacts on the environment were not as they are today.

As required by CEQA, ongoing environmental effects of past, present, and reasonably foreseeable future forest management activities have been considered in the EIR. See, e.g., Draft EIR Section 3.1.3.1 (at page 3.1-4 et seq.), which describes timber management and harvesting as part of the cumulative scenario that was considered on a resource-by-resource basis throughout Chapter 3, *Environmental Analysis*. To the extent that actions of other landowners and land managers have adversely affected forest resources, the stated concerns are noted, but do not bear on the accuracy or adequacy of the EIR's evaluation of impacts of the Project or alternatives. Acorns in particular, have been considered in the Draft EIR. Section 3.6.1.2, *Environmental Setting* (at page 3.6-3), recognizes that acorn processing is essential to the subsistence pattern of the indigenous people of the region, and that the area provided, and still provides, a rich resource base that was utilized by both prehistoric and historic Native American populations. Acorns also are described as a habitat component and wildlife food source (see Section 3.4.1 at page 3.4-25). The Project's impacts on acorn production are not expected to be significant because the construction and operation of the Project would not require the removal of many oaks and would leave large areas of deciduous forest intact. Further, the practice described of salt/poisons is not proposed by the Applicant and would not occur as part of the Project (see Draft EIR Section 2.4, *Description of the Project*, at page 2-6 et seq.).

Ongoing impacts of the Hatchet Ridge Wind Project also have been described and analyzed as part of the baseline condition and the cumulative effects analysis. See, e.g., Draft EIR Section 3.1.3.1 (at page 3.1-7), which describes the Hatchet Ridge Wind Project as part of the cumulative scenario; Section 3.2, which shows (at pages 3.2-6 and 3.2-7) and describes (at page 3.2-10 et seq.) the existing turbines as an element of the existing visual landscape, and which analyzes them (at page 3.2-47 et seq.) as part of the cumulative effects analysis. See also, for example, Section 3.6.1 (at page 3.6-16) and Appendix J, which acknowledge that concerns about the cumulative effects of the Project and the Hatchet Ridge Wind Project were identified in input received during the scoping process regarding Tribal Cultural Resources, and Section 3.6.4 (at page 3.6-

28), which expressly identifies the Hatchet Ridge Wind Project as one of the projects considered in the analysis of cumulative impacts to Tribal Cultural Resources.

Under CEQA, a lead agency analyzes the impacts of a project relative to existing conditions, and (in the cumulative effects analysis) whether the incremental impacts of a proposed project could combine with the impacts of past and other present and reasonably foreseeable future projects to cause or contribute to a significant cumulative effect. The status of wildlife on or about the date the Notice of Preparation of the EIR was issued (i.e., when the County began its analysis of the environmental impacts of this Project) is the point of comparison: the potential significance of Project impacts is determined based on the change that the Project would cause relative to pre-Project conditions. Regarding the existing environmental setting for the analysis of impacts to wildlife, see Draft EIR Section 3.4.1 (at page 3.4-2 et seq.). By comparison, the trend over time in the status of wildlife is considered as part of the cumulative effects analysis. In this regard, see Draft EIR Section 3.4.4 (at page 3.4-74 et seq.). That a decline has been observed over time is considered in the cumulative context, but not as an impact caused by the Project.

T4-2 The potential for the Project to cause low frequency sound effects is analyzed in section 3.13, *Noise and Vibration*. See Section 3.13.3 (at page 3.13-18) regarding the methodology and Section 3.13.3.2 (at pages 3.13-25 and 3.13-26) regarding the impact analysis. The County is not aware of any scientifically credible evidence that wind turbine noise leads to or is a risk factor for Alzheimer's disease.

T4-3 The stated opposition to the Project for confidential cultural and other reasons is acknowledged, and has been included in the County's formal record for consideration by decision-makers. The significant and unavoidable impacts that could be caused by the Project are summarized in Draft EIR Section ES.6.2 (at pages ES-6 and ES-7) and in Table ES-2 (at page ES-8 et seq.). They are examined in Section 3.2, *Aesthetics* (at page 3.2-1 et seq.); Section 3.3, *Air Quality* (at page 3.3-1 et seq.); Section 3.4, *Biological Resources* (at page 3.4-1 et seq.); and Section 3.6, *Cultural and Tribal Cultural Resources* (at page 3.6-1 et seq.). See Response T3-5, which explains that, if approved, the County would be required to balance the benefits of a proposed project against any significant unavoidable environmental effects it may have as part of the decision-making process.

Comment Letter T5

Lio Salazar
Senior Planner
Shasta County Department of Resource Management
1855 Placer Street, Suite 103
Redding, CA 96001

October 21, 2020

Subject: **Use Permit No. UP 16-007: DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE FOUNTAIN WIND PROJECT**

Dear Mr. Salazar,

I am a tribal citizen enrolled with the Pit River Tribe, a committee member of the local "Citizens in Opposition to the Fountain Wind Project (CIO FWP)" and we oppose the Use Permit No. UP 16-007 request regarding the Fountain Wind Project.

There will be at proposed 72 Wind Turbines up to 679 feet tall, encompassing 30,000 acres with thousands of acres still under lease for possible future expansion towards Big Bend area, and perhaps the tallest wind turbines in the United States. The project location will run miles of high voltage transmission lines through heavy forested lands, increase an already high risk of fire hazard, affect the local hydrology, be visible from neighboring counties and tribes. This Project, if approved, would result in significant adverse impacts to the viewshed, aesthetics, water quality, biological environment, as well as significant tribal cultural resources. These adverse impacts would be borne by, and to the detriment of, the local and tribal community.

In responding to your Shasta County Department of Resource Management Planning Division Draft Environmental Impact Report (DEIR) as prepared by Environmental Science Associates, the DEIR indicates it "is an informational document intended to disclose to the public and decision-makers the potential environmental impacts of the Fountain Wind Project." In this report you further claim that all "analysis of the potential direct, indirect, and cumulative impacts of the Project" meet the California Environmental Quality Act (CEQA) guidelines.

The purpose of CEQA is to:

- Disclose to the public the significant environmental effects [impacts] of a proposed discretionary project, through the preparation of an Initial Study (IS), Negative Declaration (NG), or Environmental Impact Report (EIR).

T5-1

Comment Letter T5

- Prevent [avoid] or minimize damage to the environment through development of project alterations, mitigation measures, and mitigation monitoring.

- Disclose to the public the agency decision making process utilized to approve discretionary projects through finding and statements of overriding consideration.

- Enhance public participation in the environmental review process through scoping meetings, public notice, public review, hearings, and the judicial process.

- Improve interagency coordination through early consultations, scoping meetings, notices of preparation, and State Clearinghouse review.

T5-1 cont.

The purpose of the consultation is for the Tribe to obtain more detailed information about the Project Site, specific location, and allow tribal cultural practitioners access to the site to establish whether specific traditional tribal cultural sites are located within the areas of potential effect, and what specific concerns are raised by the presence of such sites.

Even in the midst of a global coronavirus pandemic and that our county has gone into the Purple Phase, we would do good to have additional time to respond and seek another extension to the DEIR. This Project will admittedly result in significant impacts to the viewshed, aesthetics, water quality, biological environment as well as Tribal Cultural Resources of our ancestral territories of the Pit River Tribal peoples.

PROJECT OBJECTIVES AND ALTERNATIVES ANALYZED

The County identified 9 objectives of the Project:

1. Develop, construct, and operate a commercial wind energy generation facility capable of generating up to 216 MW of wind energy.
2. Interconnect to the Northern California electrical grid (NP15).
3. Locate the Project in close proximity to an existing transmission line with sufficient capacity to reduce impacts and costs associated with building new transmission infrastructure.
4. Assist California in meeting the renewable energy generation targets set in Senate Bill (SB) 100.
5. Create temporary and permanent jobs in Shasta County and contribute to the County's tax base.
6. Obtain entitlements to construct and operate a commercially financeable wind energy project.

T5-2

Comment Letter T5

7. Support landowners through diversification of revenue streams.
8. Offset approximately 128,000 metric tons of carbon dioxide emissions generated by fossil fuels.
9. Provide emission-free energy for approximately 100,000 households.

Of the 9 objectives, it is not clear how and why three of the objectives seem most basic 1) Providing up to 216 MW of wind energy to PG&E's Northern California grid; 2) Creating temporary and permanent jobs in the County; and 3) Contributing to the County's tax base. No explanation has been provided as to the need for 216 MW of wind energy. In fact, ConnectGen, based out of Houston, Texas, and the ultimate users of the power generated by the Project will likely be located in other western states via the Western Area Power Administration (WAPA), and has admitted to the Pit River Tribe that PG&E is not interested in purchasing the energy from the Project because it has already met its renewable portfolio standards requirement and that there is no other perspective buyer at this time. Therefore, it is not clear in the DEIR whether PG&E has explicitly agreed to the proposed interconnection and ownership and operation of a proposed switching station.

T5-2 cont.

It is public knowledge at this time that there is ongoing failure of PG&E's existing infrastructure. Fires have been caused by PG&E's outdated and poorly-maintained transmission lines, the recent ZOGG and CAMP Fires are close examples, and there is no indication that PG&E will be able to support this additional power into the grid at this point in time. The fact that there is no identified buyer of the additional power, and that our communities are currently facing rolling blackouts in the area during times of high winds, highlights the massive public safety issue posed by this project. Relatively small contributions to the County's tax base will not be able to offset the incredible financial losses that will come with a new destructive fire in the area. Also, the DEIR offers no explanation of how the Project will contribute to the County's tax base, though this contribution is considered a "basic objective" of the Project. As discussed further below, these basic objectives were used to determine which Project alternatives to analyze. Such an analysis is incomplete without explanation of how the Project will generate tax revenue for the County.

T5-3

The County assessed the following alternatives to the Project based on whether each would meet the "basic objectives" the County identified:

1. No project alternative;
2. Limiting the Project Site to the area south of SR 299; and
3. Increasing setbacks, precluding the construction of several turbines.

Comment Letter T5

The Developer, ConnectGen, is based in Houston, Texas, and the ultimate users of the power generated by the Project will likely be located in other western states via the Western Area Power Administration ("WAPA"). The Project will only create very few permanent jobs. However, the significant adverse impacts from this project will be felt by all who live and travel through the area. A decision of this magnitude should not be made at a time when concerns about coronavirus infection are so pressing.

T5-3 cont.

Section 3.2: AESTHETICS

When considered as a whole, the Project would have a significant impact on the "visual character and quality of views in the Project region" and no feasible mitigation measures exist that could reduce the impact. The views of Snow Mountain, Burney Mountain, Lassen Peak, and other mountains and ridges the of the proposed project area are of great spiritual, cultural, and historical significance to all of the Bands of the Tribe. As a person who uses the mountains and regional areas is it's disturbing that the wind turbines will be in the way of making spiritual connections and have the negative visual (679 feet tall) impacts for one to experience.

T5-4

Shasta County is unable to articulate a plan for real enforcement if the company changes hands or goes bankrupt and walks away like other similar wind projects in Southern California. The County indicated that they would resort to redeeming the turbines for scrap metal and using the profits to pay for the decommission and restoration, yet our tribes EPA Department told us that the scrap metal prices are currently so low that it would never be able to recoup the costs of the Project. Other areas in the Country are resorting to cutting up the turbines and burying them, creating additional adverse impacts to the land or just abandoning them, leaving a junkyard of wind turbines. Their presence is impossible to ignore, because the once clear visual line of sight along Hatchet Ridge is marred by these ugly white jet engines that interrupt the beautiful green mountains and ridges along SR 299. The idea of adding up to seventy-two (72) more turbines and 679 feet tall on the road leading from Redding to Hatchet Mountain is extremely disturbing.

Moreover, the blinking red lights disturb the people's peaceful enjoyment of the surrounding area from as far as all four North Eastern Counties of Lassen, Siskiyou, Modoc, and Shasta that fall within the Pit River Tribe's 100-mile square. These lights also act as a deterrent to animals, disrupting their natural habitat as well as disrupting a ceremonial fast. They create light pollution, disrupting the night skies and the tribal peoples long and deep connection to the stars, planets and sky whether day or night. In addition, artificial light at night has adverse and deadly effects on many creatures

T5-5

Comment Letter T5

including amphibians, birds, mammals, insects and even plants including, but not limited to, harm to their sleep patterns, hunting patterns, reproduction cycles, and natural protection from predators. These turbines will impact every person who drives along SR 299, and the living environment of all who reside there will be changed forever.

Neither of the proposed alternatives to the Project would significantly reduce these significant impacts and they would remain significant and unavoidable. Therefore, the "No Project Alternative."

Section 3.3: AIR QUALITY

The Project construction and decommissioning, as well as site reclamation activities, would have a significant and unavoidable impact on air quality because the activities would generate ozone precursors and PM_{10}, a criteria pollutant under both the Clean Air Act ("CAA") and California Clean Air Act ("CCAA"), which would result in a considerable net increase of PM_{10} in the Project region, an area which is currently out of attainment with State ambient air quality standards. No mitigation measures exist that significantly reduce the impact. PM_{10} from combustion sources "are the strongest drivers for adverse health effects, and . . . the greatest contributors to particulate matter-related mortality (SMAQMD, 2020)." Tribal members and their families deserve to breathe clean air and live in an environment free from harmful pollutants. Increased air pollution will impact the ecotourism industry around the Project Site and will put those in the community who use the area for cultural, religious, and recreational purposes at increased health risks. Moreover, the increased fire risks associated with the Project correspondingly increase the risk of adverse air quality due to wildfires.

The proposed alternatives would remain significant and unavoidable. Therefore, the "No Project Alternative."

T5-5 cont.

Section 3.4: BIOLOGICAL RESOURCES

The turbines generate a constant buzz, loud tick, and a whooshing sound. The surrounding area is a dead zone with nothing growing and no animals such as deer, squirrels, or birds that were commonly seen before the turbines were placed. Light pollution from the red flashing lights disrupt normal animal behaviors and patterns and there is a clear loss of habitat and food resources.

T5-6

Comment Letter T5

Wind turbines have been known to impact the migratory path of birds, many times resulting in the death of birds. U.S. Fish and Wildlife estimates that anywhere between 140,000 to 500,000 birds die as a result of wind turbines each year, with that number increasing as the number of wind turbines across the U.S. increases. More birds collide with wind turbines in California than in the East, West or Great Plains areas of the U.S. Factors that influence the risk of bird collision with turbines includes the location of the turbines, turbine design and the migratory pattern of birds in the area.

The DEIR explicitly states that:

> "Operation of the Project could have direct impacts on bald and golden eagles through collision with power lines or operating wind turbine generators, or electrocution from energized components."
>
> "[W]hile the risk to eagles from operation of the proposed Fountain Wind facility is relatively low (due to the limited use of the area by eagles), there remains potential for eagle injury and death due to collisions with turbines."

The DEIR also found the following protected migratory birds to be located near the Project Site:

1. Bald and Golden Eagles;
2. Snow Goose;
3. Greater White-fronted Goose;
4. Canada Goose;
5. American White Pelican;
6. Sandhill Crane;
7. Dark-Eyed Junco;
8. Mountain Chickadee;
9. Western Bluebird;
10. Steller's Jay;
11. Olive-sided Flycatcher;
12. Cassin's Finch;
13. Lewis's Woodpecker;
14. Vaux's Swift;
15. Yellow Warbler;
16. Willow Flycatcher;

T5-6 cont.

Comment Letter T5

The developer of the Hatchet Wind Project was not required to apply for a "take permit" under the Endangered Species Act ("ESA"), the Bald and Golden Eagle Protection Act ("BGEPA"), or the Migratory Bird Treaty Act ("MBTA"), and is just allowed to self-monitor avian mortalities. Because fines are imposed if a take does occur, the developer has no incentive to report avian mortalities. It is also reported that they trained the local predators to come eat any bird kill by seeding the Hatchet wind area with dead mice, which created predator restaurants or feeding stations, which further disrupts these animal's natural hunting instincts and ability to provide for themselves.

There are eleven occupied bald eagle nests within 10 miles of the Project Site and, though no Golden Eagle nests were found aerial searches, the California Natural Diversity Database has identified three historic golden eagle nests within 10 miles of the Project Site. The DEIR found that "[n]oise from equipment and human disturbance may cause eagles to leave active nests, and repeated or severe disturbance may result in a failed nest attempt or complete nest abandonment, which would be a significant impact."

With respect to the snow, greater white-fronted, and Canada geese, and the American White Pelican, the DEIR found that the majority of these species were recorded flying at heights that "would not be at high risk of colliding with the Project turbines" but that mortality rates would be attributable to the Project during "high wind and/or low visibility conditions which may cause the birds to fly at a lower altitude and encounter turbines." These conditions have lead to waterfowl comprising up to 50 percent of bird mortalities at the Hatchet Wind Project, whose waterfowl mortality rate ranges from 0.27 to 0.39 birds/MW/year. The DEIR ultimately concluded that "the potential risk of substantial waterfowl mortality is considered low," and mortality rates are "not anticipated to occur at levels which would adversely affect population levels."

The DEIR explicitly acknowledges that, with respect to Sandhill Cranes, "injury and fatality could occur to migrating cranes during operation" and "during construction of these facilities, especially during migration periods when most crane traffic occurs." However, the DEIR concludes that "[b]ecause the likelihood of collision risk would be low, incidental injury or mortality of migrating sandhill cranes would not occur at a level which would result in a decline of sandhill crane populations."

With respect to the songbirds listed in 7-13 above, the DEIR found that:

> [p]otential direct impacts to nesting songbirds protected by the Migratory Bird Treaty Act include the physical removal of nesting habitat or the direct removal or damage to an active nest from the grading or the removal of trees or other

T5-6 cont.

> vegetation that might provide a nesting substrate. Direct impacts to birds include injury, mortality, nest destruction or disturbance resulting in nest abandonment. Potential indirect impacts on nesting songbirds could occur if nesting activity or adult care of eggs and young is negatively affected by visual or sound disturbances associated with construction activity."
>
> However, the DEIR then concludes that:
>
> The removal of nesting habitat within the Project Site and potential nesting disruption due to construction noise are not anticipated to adversely affect songbird species populations. Because the potential effect on any individual songbird species population would not be substantial, the impact on most songbird species including olive-sided flycatcher, Cassin's finch, and Lewis' woodpecker from construction and operation of the project would be less than significant."

Particularly with respect to the Vaux Swift, the DEIR found that, because the Project Site is currently used for timber management, the existence of the communal roosts utilized by the Vaux Swift is "likely preclude[d]." Therefore, though the "[d]irect removal of active communal roost trees during the nesting season could result in the temporary displacement of hundreds of individuals," the DEIR concluded that the potential impact on the Vaux's Swift would be "less than significant."

With respect to the Yellow Warbler, the DEIR found that the 115.2 acres of riparian habitat that may be directly impacted by the Project "could adversely affect migratory populations of yellow warbler," though it may not result in a decline in population of the species due to the abundance of other riparian habitat in the area. However, the DEIR also found that warblers may be deterred from utilizing other riparian habitat in the area due to "noise and disturbance associated with Project construction and decommissioning, and by collision during Project operation." Ultimately, the DEIR concluded that because "[t]he number of injuries and mortalities resulting from collisions would not result in a substantial reduction in the population of yellow warbler in the region," the impact would be "less than significant."

Finally, with respect to the Willow Flycatcher, the DEIR found that "[m]igrating flycatchers could be impacted by noise and disturbance associated with Project construction and decommissioning, and by collision during operation." But, "[d]ue to the lack of breeding populations within the Project Site, and the low potential for willow flycatcher to occur, impacts on willow flycatcher from construction, operation and decommissioning of the Project would be less than significant."

T5-6 cont.

Comment Letter T5

Even with the proposed mitigation measures, "the potential impact on bald and golden eagles would remain significant and unavoidable." Given the fact that the impact to the sacred bald and golden eagles cannot be mitigated, and the above negative effects mentioned and including the Fisher, the Pine Martin, and the Wolverine, all important and I conclude "No Project Alternative."

The Project will require the permanent removal of wetlands, sensitive habitat for many protected species, twenty-four new road crossings and associated filling and grading, and construction of stream crossings, among other things. The Project will also have a significant impact on special-status plant species if found on the Project Site. The US Army Core of Engineers need to conduct a water study/review- because how can a structure of this type in waters ways go without an approval of the US Army Core of Engineers. I request that the County require the Developer to consult with the Pit River Tribe and the Tribal Cultural Band. Regardless, the impacts are significant and unavoidable, therefore I request the "No Project Alternative."

T5-6 cont.

T5-7

SECTION 3.6: CULTURAL AND TRIBAL CULTURAL RESOURCES

As the Report demonstrates in this specific section, confidentiality of a culturally sensitive site (FW 11) has been disclosed providing the specific location and no tribal cultural expert present to assist in the reporting. I will respond to the disclosures appropriately in order to address why this mega wind turbine project should not be considered, especially because of the culturally sensitive sites the Pit River Tribe, and other Traditional Knowledge Keepers have previously shared with the County, that the Project Site is a place of refuge used since time immemorial for ceremony, healing, prayer, fasting, hunting, gathering, and other sacred traditional uses. Furthermore, the Tribe, Tribal Cultural Band Representatives and Traditional Knowledge Keepers claim that there may be burial sites within the proposed Project Site. Traditionally and for cultural reasons, graves were not fenced as in a cemetery plot which increases the likelihood that unmarked graves might be disturbed by the Project's ground disturbing activities. The highlands and ridges in the project areas are locations where only very specially trained tribal people would go for traditional and spiritual purposes. Therefore, these places may ultimately become the final resting place for those traditional people. The Tribe, Tribal Cultural Band Representatives and Traditional Knowledge Keepers attributes great reverence to such places, and requests that they be avoided for all development purposes.

T5-8

Comment Letter T5

The Tribe, their Tribal Cultural Band Representatives and Traditional Knowledge Keepers have expertise regarding its ancestral homelands and therefore have serious concerns about the Project's propensity to disturb ancestral remains located within the Project Site. As the Report describes, there is at least one site with prehistoric value where several obsidian flake tools were found, which is indicative of tribal use and habitation. As the presence of cultural obsidian within the Projects area is indicative of prior use, if the project is permitted, ground disturbing activities will surely result in additional discoveries. Given that the obsidian tools are located within the Pit River Tribe's ancestral homelands, these are Tribal Cultural Resources under CEQA and should be avoided and preserved in place.

T5-8 cont.

As a traditional knowledge teaching from our Pit River elders and ancestors, it is against our traditional ways and beliefs to remove, disturb, or displace Tribal Cultural Resources as it destroys the context and history in which these unique resources exist. These types of activities not only harm the Pit River Tribe and community as a whole psychologically and physically, but they also erase the significant history and prehistory of the Pit River people whom have been here since time immemorial. Further, significant Historical Properties such as these are integral to the identity, culture, and religious practices of the my tribal peoples, the Pit River.

T5-9

Myself, the Pit River Tribe and other's provided comments for the 2019 Scoping Report expressing concern that Project construction, operation, and maintenance would infringe on the freedom of religion and the cultural practices of the Pit River Tribe and other Indian tribes in the region, and that the Project would adversely affect sacred sites, traditional plants, protected animals and the viewshed of mountains held sacred by the Tribe and others. In addition, the numerous water sources in the entire area of potential effect are known places of great cultural significance. These waters are also among the cleanest of waters, in which the Tribe and community can currently use with no filtration. The County recognizes and designation of the Project Site as a Tribal Cultural Resource and, due to the fact that there is no way to mitigate these adverse impacts, and therefore the County having the obligation to protect these Tribal Cultural Resources and determine a "No Project Alternative."

Under CEQA, "no public agency shall approve or carry out a project for which an environmental impact report has been certified which identifies one or more significant effects on the environment that would occur if the project is approved or carried out unless . . . (1) [c]hanges or alterations have been required in, or incorporated into, the project which *mitigate or avoid* the significant effects on the environment; (2) [t]hose changes or alterations are within the responsibility and jurisdiction of another public

T5-10

Comment Letter T5

agency and have been, or can and should be, adopted by that other agency; [or] (3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the environmental impact report . . . [and these considerations] outweigh the significant effects on the environment."

The DEIR identified the following significant impacts that the Project would have on cultural resources:

1. (Impact 3.6-1, Cultural Resource FW 11) Project-related disturbance of a historical resource would be a significant impact and could occur, for example, during grading and excavation associated with construction of turbine foundations, pads, or domestic water wells; trenching for the underground electrical collector lines or other below-ground facilities and infrastructure; or the soil borings that would be collected to an approximately 50-foot depth to ensure that the proposed turbine foundations would be stable.

2. (Impact 3.6-2 Tribal Cultural Resources) Project-related disturbance of human remains would be a significant impact and could occur if, for example, grading, excavation, or soil borings associated with construction of facilities and infrastructure.

3. (Impact 3.6-3 Tribal Cultural Resources) In the event that construction activities disturb tribal cultural resources, damage would be considered a significant impact and is unavoidable under all proposed mitigation measures.

4. The proposed PG&E interconnection would cause significant and unavoidable impact to tribal cultural resources.

T5-10 cont.

Since it is noted that FW11 "qualifies for listing in the California Register under Criterion 4, for its ability to yield additional information in prehistory. The prehistoric component of F11 is therefore considered a historical resource for the purposes of CEQA.
The area designated as FW 11 contains several ancestral artifacts making it a historic and tribal cultural resource under CEQA. For such resources, the preferred method for mitigating impacts is avoidance and or preservation in place. It is the Pit River Tribe,

T5-11

Comment Letter T5

the Tribal Cultural Band Representatives and the Traditional Knowledge Keepers stance that the County has not adequately mitigated the significant impacts the Project would impose upon the historical and tribal cultural resource located at FW 11. FW 11 is located directly on a proposed road between turbines B05 and C10. Despite this knowledge the County has not proposed an alternative that would avoid or preserve this historical and tribal cultural resource. All proposed alternatives include this road despite there being a second proposed road that would run parallel to it.

T5-11 cont.

Where several mitigation measures are available, CEQA requires the County to identify the basis for its selection of each mitigation measure. Formulation of mitigation measures "shall not be deferred until some future time." The DEIR provides that the Developer will "relocate project components unless infeasible" but does not address specific details as to how it will relocate nor does it commit to relocation as a mitigation measure as required under CEQA. The specific details of a mitigation measure may be developed after a project is approved but only "provided that the agency (1) commits itself to the mitigation, (2) adopts specific performance standards the mitigation will achieve, and (3) identifies the type(s) of potential action(s) that can feasibly achieve that performance standard and that will [be] considered, analyzed, and potentially incorporated in the mitigation measure." The County must contact the Pit River Tribe and their elected Tribal Cultural Band Representatives to address the specific details of how the Developer intends to relocate the project components to avoid and preserve this historical and tribal cultural resource FW 11. However, in my view, this area should not be disturbed.

T5-12

Madera Oversight Coalition, Inc v. County of Madera (2011) notes "Guidelines section 15126.4, subdivision (b) addresses mitigation measure related to impacts on historical resources. When the particular historical resource is archaeological in nature, the discussion contained in the DEIR is governed by subdivision (b)(3) of the guideline".

(3) Public agencies should, whenever feasible, seek to avoid damaging effects on any historical resource of an archaeological nature. The following factors shall be considered and discussed in an DEIR for a project involving such an archaeological site:

(A) Preservation in place is the preferred manner of mitigating impacts to archaeological sites. Preservation in place maintains the relationship between artifacts and the archaeological context. Preservation may also avoid conflict with religious or cultural values of groups associated with the site.

Comment Letter T5

(B) Preservation in place may be accomplished by, but is not limited to, the following:

a. Planning construction to avoid archaeological sites;
b. Incorporation of sites within parks, greenspace, or other open space;
c. Covering the archaeological sites with a layer of chemically stable soil before building tennis courts, parking lots, or similar facilities on the site;
d. Deeding the site into a permanent conservation easement.

Madera Oversight Coalition, Inc. v. County of Madera (2011) in its introductory sentence to subparagraphs (A) through (D), Guidelines section 15126.4 subdivision (b)(3) states that "[t]he following factors shall be … discussed in an EIR…" Subparagraph (A) mentions preservation in place, which is described as "the preferred manner of mitigating impacts to archaeological sites." Subparagraph (B) lists four methods of accomplishing preservation in place. Because the introductory sentence uses the word "shall," the discussion of the factors set forth in subparagraphs (A) through (D) is mandatory. (Guidelines, § 15005, subd. (a) ["shall" and "must" are mandatory.] Also, we interpret the word "factors" to include preservation in place generally as well as the four methods listed in Guidelines section 15126.4, subdivision (b)(3)(B). Therefore, the EIR's decision of mitigation measures for impacts to historical resources of an archaeological nature must include preservation in place, and the discussion of preservation in place must include, but is not limited to, the four methods of preservation in place listed in subparagraph (B).

T5-12 cont.

What must be included in an EIR's discussion of the factors referenced in Guidelines section 15126.4, subdivision (b)(3) because the regulation requires the factors to be discussed without regard to whether or not they are feasible, the discussion must state whether the factor is a feasible mitigation measure and the reasons for the determination. This interpretation is derived in part from the general requirement that EIR's describe feasible mitigation measures that could minimize significant adverse impacts. (Guidelines, § 15126.4, subd. (a)(1))

Furthermore, when more that one of the factors referenced in Guidelines section 15126.4, subdivision (b)(3) is available to mitigate an impact, the EIR's discussion should include "the basis for selecting a particular measure." (Id., subd. (a)(1)(B).) Also, the discussion must distinguish between those measures that are proposed by the project's proponents and those proposed by other persons. (Id., subd. (a)(1)(A).)

Stated otherwise, we interpret "preferred manner" to mean that feasible preservation in place must be adopted to mitigate impacts to historical resources of an archaeological nature unless the lead agency determines that another form of mitigation is available and provides superior mitigation of the impacts. Furthermore, we interpret the regulatory language that includes preservation in place among the factors that "shall be considered and discussed in an EIR" (Guidelines, § 15126.4, subd. (b)(3)) to mean that, when the preference in not followed, the EIR shall state why another type of mitigation serves the interests protected by CEQA better than preservation in place. We use the broad concept of "interests protected by CEQA" here because a particular historical resource of an archaeological nature may be of interest to the public in general and to particular groups for different reasons, and different types of mitigation may protect certain aspects of that resource better than other aspects. For example, the interests protected by capping or covering an archaeological site before building (§ 21083.2, subd. (b)(3)) are different from the interests protected by relocating the resource to another location. (Madera Oversight Coalition, Inc. v. County of Madera (2011).)

T5-12 cont.

"An EIR should be prepared with a sufficient degree of analysis to provide decisionmakers with information which enables them to make a decision which intelligently takes account of environmental consequences." In assessing alternatives to a proposed project, a DEIR must "describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." The County considered the following "screening criteria" in determining not to evaluate these alternatives: (1) whether the alternative would meet the basic objectives, (2) whether the alternative would be "feasible," whether it would avoid or substantially lessen any of the potentially significant impacts of the Project, and (4) whether implementation is remote or speculative. None of the proposed alternatives avoid or lessen the significant impacts for tribal cultural resources, aesthetics, air quality, or biological resources except for the No Project Alternative.

T5-13

"Preservation in place is the preferred manner for mitigating impacts on historical or archaeological sites, but data recovery is also permitted, especially where the interest is in the information to be obtained regarding history and prehistory. (Madera Oversight Coalition, Inc. v. County of Madera (2011).) For significant sites

Comment Letter T5

that cannot be avoided through redesign, additional excavations may be appropriate mitigation. This type of mitigation is often referred to as data recovery. While information is obtained from a data recovery project, the excavated portion of the site, as well as the entire area impacted by the project, is destroyed. The purpose of Phase 3 is to recover, analyze, interpret, report, curate, and preserve archaeological data that would otherwise be lost due to unavoidable impacts to a significant resource. The method usually involves an archaeologist excavating in a controlled manner part of the site that will be impacted using a Lead Agency-approved data recovery plan that is informed by the results of the Phase 2 test excavations. The recovered materials are analyzed pursuant to specific research issues or questions and the results are included in an analytical report. If Phase 3 data recovery excavations are proposed, the Initial Study question on archaeological sites should indicate that there is a less than significant impact after mitigation and would be identified a Class II impact in the CEQA document for the project, or that there is a Guidelines for Determining Significance 14 Cultural Resources: Archaeological, Historic, and Tribal Cultural Resources potentially significant impact resulting in a Class I impact. Conducting Phase 3 data recovery excavations may not reduce the impact to the resource to less than significant. The Conducting Phase 3 data recovery excavations may not reduce the impact to the resource to less than significant. The determination whether the impact is Class II or remains Class I after data recovery depends on the nature of the site and the amount that is being destroyed. This determination should be based on careful consideration by professional archaeologists and consultation with the Native American community.

T5-13 cont.

"[P]ublic agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects." An alternative or mitigation measure is "feasible" if its "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors." The DEIR admits that the Project would cause a substantial adverse and unavoidable change in the significance of the tribal cultural resources regardless of any mitigation measures adopted.

The DEIR outlines the following mitigation measures:

1. Relocate project components unless infeasible, in which case develop an Archaeological Research Design and Treatment Plan (ARDTP), which would address the establishment of Environmentally Sensitive Areas; treatment and recovery of important data contained within the portions of the historical resource located within and adjacent to

Comment Letter T5

the Project Site; construction worker cultural resources sensitivity training; archaeological and Native American monitoring; inadvertent discovery protocols; and provisions for curation or reburial of recovered materials. The results of the report would include recommendations for archaeological and Native American monitoring in Environmentally Sensitive Areas and the protocol to follow should additional cultural materials be identified during construction activities. After mitigation, the County concludes that the impact would be less than significant.

The proposed impact is significant and unavoidable. There is no location where this project would be feasible. Therefore, the only acceptable alternative is "No Project Alternative".

T5-13 cont.

2. In the event human remains are uncovered during ground-disturbing activities work would immediately cease, the Shasta County Coroner would be contacted to evaluate the remains, and the procedures and protocols under Section 15064.5(e)(1) of the CEQA Guidelines would be followed. Pursuant to Health and Safety Code Section 7050.5, no further disturbance would occur until the County Coroner made the necessary findings as to origin and disposition. If the remains were determined to be of Native American descent, the coroner would have 48 hours to notify the Native American Heritage Commission which would then identify the person thought to be the most likely descendent of the deceased Native American. The most likely descendent would make recommendations for means of treating the human remains and any associated grave items. After mitigation, the County concludes that the impact would be less than significant.

   I do not agree with the County's conclusion in following the Most Likely Descendant (MLD) process when a Pit River burial is impacted and will bring the impact to a level of less than significant. If the County or the Project would have consulted the Pit River Tribe and our Tribal Cultural Band Representatives then one would immediately know that to consider moving such burials or cultural resources from such significant areas is a direct violation of our traditional ways and the law. This proposed impact is significant and unavoidable and cannot be mitigated. Therefore, "No Project Alternative".

T5-14

Comment Letter T5

3. In consultation with the affiliated Native American tribal representatives, the proposed Project shall be redesigned to avoid any adverse effect on the significant tribal cultural resource, if feasible (as defined in 14 Cal. Code Regs. §15364). If preservation in place of the tribal cultural resource is documented to the satisfaction of the County not to be a feasible option, the Project proponent shall implement a use and interpretive program in consultation with affiliated Native American tribal representatives. The interpretive program may include artist installations, preferably by local Native American artists, oral histories with local Native Americans, artifacts displays and interpretation, and educational panels or other informational displays. After mitigation, the County concludes that the impact would remain significant and unavoidable.

   The desecration and destruction of a tribal cultural site cannot be replaced with an interpretive program and art installations. The suggestion that a significant tribal cultural resource can be destroyed for this project and then to take those culturally sensitive artifacts and create an art display is absolutely offensive. I strongly recommend "No Project Alternative". T5-15

Traditional knowledge is what tribes say it is. Keep in mind that there are layers of processes involved and building trust is vitally important where confidentiality is involved. The landscapes in this project are "Properties of Religious and Cultural Significance" and Snow Mountain and its immediate surrounding area's are vital to the spiritual way of life of the Madesi, Itsatiwi, Atsugewi and Yana specifically as a place of power, prayer, vision, healing and renewal. Snow Mountain is of supreme importance to preserve along with Bunchgrass Mountain as whole environments including its forests and plants and to live up to our responsibility as Indigenous peoples, given by the creator, to be the caretakers of the earth, these sacred mountains meet the criteria for eligibility for the National Register of Historic Places. The request for "eligibility" will need to include the sacred animals and plants as well. The project presents an imminent threat to the values of the tribal peoples and an imminent threat to the lives of the Bald and Golden Eagles and all endangered animals and plants and the natural and cultural resources. Therefore, affirming the "No Project Alternative".

Comment Letter T5

Section 3.7: ENERGY

Pursuant to the Shasta County Municipal Code ("Code"), a proposed wind energy system that does not meet the definition of a "small wind energy system"—like this Project—would require a Use Permit from the County. Approval of a Use Permit requires the applicant to submit a form detailing the proposed project and related information, and requires the County to hold a public hearing on the application. Each application must be reviewed for compliance with CEQA and no Use Permit may be granted unless factual findings are made that the project will not "be detrimental to the health, safety, peace, morals, comfort and general welfare of persons residing or working in the neighborhood of the proposed use or be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the county."

The County did not evaluate any off-site alternatives because "CEQA does not expressly require a discussion of alternative project locations." Though inclusion of off-site alternatives in a DEIR is not required in every case, "the key question and first step in analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location" and these locations "need be considered for inclusion in the EIR." The County did not consider the inclusion of any off-site alternative and instead "elected" to evaluate only on-site alternatives. The County supported its decision by reference to Shasta County Code of Ordinances §17.08.030, a zoning ordinance for Timber Production Districts that the County states "contemplate[s] potential wind energy use." However, neither the ordinance, nor the County's General Plan contemplate wind energy as a permitted use or an objective, respectively. Unlike *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal. 3d 553, 572–73, which the County points to as support for its position, the County has not explained how it previously "undert[ook] a study of the environmental suitability of alternative sites" when it passed the ordinance. Nor has the County explained how consideration of off-site alternatives here would be a "reconsideration or overhaul of [Shasta County's] fundamental land use policy." Moreover, the County has not explained how its decision to not consider off-site alternatives was based on the screening criteria discussed in § 2.5.1. Therefore, the Tribe requests the County analyze off-site locations for the Project Site to determine whether those locations would avoid or substantially lessen the significant effects of the Project on tribal cultural resources, aesthetics, air quality, and biological resources.

T5-16

The County also chose not to analyze several other project alternatives including the repowering of existing wind facilities, alternative technologies including hydropower, cogeneration, and solar, or alternative approaches including conservation and demand-

T5-17

Comment Letter T5

side management, distributed energy resources, and improving existing energy infrastructure. Or if, in fact, more energy is needed or if the current failing infrastructure could safely support the Project.

The Project should not be granted a Use Permit as it does not conform with the requirements of the Code. As I and my family have documented throughout this comment letter, the Project would have a significant adverse impact on cultural resources. I, my family and my Tribe are part of Shasta County and the Project being injurious to the general welfare of the Tribal Citizenry precludes the County from issuing a Use Permit.

T5-17 cont.

The Project has been unsuccessful in providing any documentation that this project is vital and cannot be granted a Use Permit. The Code clearly places the burden on the applicant to provide findings of fact that the proposed project will not be detrimental to the surrounding community. The Developer cannot project such findings of fact because the DEIR clearly states that there are unavoidable impacts to the community that cannot be mitigated, as referenced throughout this letter. Without a finding of fact from the applicant that the Project will not be harmful, and with the significant harms that have been pointed out in this letter and knowing that the Developer has admitted that they do not even have a buyer for the power and have not demonstrated a need for this energy in our community from this Project. The only alternative is "No Project Alternative".

T5-18

Section 3.16: WILDFIRE

The California Department of Forestry and Fire Protection ("CalFire") has designated the majority of Shasta County, including the entire area within the Project Site, as a "Very High Fire Hazard Severity Zone." The Project Site, except three proposed turbines, is also located within Tier 2 Fire Threat District i.e. an area with an elevated risk of wildfires associated with overhead utility power lines. The other three proposed turbines would be located within a Tier 3 Fire Threat District where the fire risk level associated with utilities is designated as "extreme." The Project Site is located within the PG&E service territory whose infrastructure is failing and has been the source of recent of wildfires. PG&E has projected that it will take over ten (10) years to make necessary upgrades to its infrastructure to reduce these risks. The Project proposes to interconnect with existing PG&E infrastructure, which, according to the DEIR, "could increase the risk of wildfire due to the increased risk of ignition during construction and operation of the infrastructure."

T5-19

Poor management of the Project site by timber companies in the past has already increased the risk of fire in the area and this Project will undoubtedly exacerbate those

Comment Letter T5

risks, as explicitly acknowledged in the DEIR. The DEIR suggests that the use of the Project Site for timber extraction would mitigate the risk of fires to less than substantial because of the "portion of the Project Site would be harvested and thinned, preventing excessive fuel build up in the area of the Project Site". However, the Timber industry has already created an unhealthy forest by clear cutting and over planting single species tree plantations causing unsafe fuel buildup. Proper forestry health practices include a mixed canopy forest for overall ecosystem as well. Injection of poison by the timber industry into our Oak trees to kill off our main food staple of acorn has also decreased the healthy diversity of our forests, habitat, and food source for local animals.

As evidenced by the "Fountain Fire" in 1992 which destroyed over 300 homes and 64,000 acres of forest just 1.5 miles from the Project Site and stated clearly in the DEIR "this portion of Shasta County's fire history, with heavy fuel loading, hot temperatures, critically low humidity, and strong north winds, the study area has the potential to face a major wildfire threat." Our Community is still recovering from the Fountain Fire and have suffered from lack of resources to rebuild. County requirements and regulations have restricted the community's ability to bounce back. For example, Cedar Creek School had to close due to displacement of families left devastated by this fire disaster. The impact of Covid-19and the current economic recession would further devastate the community's ability to rebuild should a fire occur and again further alienate and dispossess us from our Ancestral homelands.

T5-19 cont.

The Fountain Wind project is located entirely within the PG&E service territories and as is known from the PG&E bankruptcy proceedings those territories are unsafe at this time, hence the continued use of PSPS events. The steps required to make PG&E's infrastructure safe, such as the hardening of their transmission system, needed upgrades, and the elimination of their maintenance backlog, will take 12-14 years to complete, as stated by PG&E. Additionally, the Round Mountain Substation is under contract for the 500kV Area Dynamic Reactive Support Project, due to reliability problems related to thermal overload and voltage regulation issues which won't be completed until 2024. The Fountain Wind Project is proposing to connect to one of PG&E's nearby 230 kV line which will then tie-into the Round Mountain substation. The Round Mountain Substation upgrades were approved in the CALISO 2018-2019 Transmission Plan.

The DEIR for the Fountain Wind Project states that "the CPUC regulates services and utilities and assures California's access to safe and reliable utility infrastructure and services." The DEIR also states:

T5-20

Comment Letter T5

> "Therefore, due to the increase in potential sources of ignition, Project construction and decommissioning could increase the risk of surrounding communities, exposure to pollutant concentrations from wildfires and the uncontrolled spread of wildfire to a level that is substantially higher than existing conditions, which would result in a potentially significant impact."

It further states:

> "However, the reconfiguration of a transmission line circuit and additional transmission circuit and poles could result in an increase in fire risk associated with the construction of the modifications and associated transmission line failures resulting in sparks such as downed lines, bird strikes, vegetation contact, arc flashes, and equipment failure. Therefore, the modifications to the PG&E interconnection facilities could increase the risk of wildfire due to the increased risk of ignition during construction and operation of the infrastructure."

I, like my tribe and other concerned community members are very concerned about the current lack of PG&E safety maintenance, needed upgrades, other system hardening efforts, and ongoing PSPS events, in addition to the lack of the needed Round Mountain Substation upgrades for thermal overload and voltage regulation issues. It appears that all of these concerns highlight that this project cannot be safely operate in this area at this time.

T5-20 cont.

Given that the key factors increasing the risk of wildfire are urbanization, the number of roads proposed in the Project will increase the access to the site and thus increase the threat of a wildfire occurring. Mitigation measures for fire prevention and emergency response plans are not sufficient to mitigate the substantial increase in wildfire risk as claimed in the DEIR. Every county and the State of California have plans to prevent forest fires and yet California is currently undergoing what CalFire is calling the August Lightening Siege of 2020, with hundreds of fires across Northern California ignited by lightning and burning over 1 million acres of land thus far. Moreover, the Project proposes to connect to PG&E's failing infrastructure which has been the source of many recent wildfires and poses additional fire danger threats, including the recent investigations into to ZOGG Fire.

According to the DEIR, the Project poses a potentially significant impact to aerial firefighting operations due to the height of the turbines. Providing fire detection and retardant materials in turbines is not sufficient to mitigate the substantial risk as the DEIR suggests. Moreover, the entire Project area is notorious for landslides which poses an

T5-21

Comment Letter T5

additional public safety risk during a fire as there is not proper egress and ingress in and around the proposed Project area. It is unacceptable that the Project will both increase the risks of wildfires while simultaneously hindering CalFire's ability to adequately fight these fires. It is my recommendation that the Pit River Tribe and their Tribal Cultural Band Representatives meet with the County and discuss "Fire Memorandum of Understandings" with each other. Also, CalFire has a "CalFire Native American Committee" that could expedite Consultations. For all these reasons I recommend "No Project Alternative." T5-21 cont. T5-22

Tribal Traditional Use of Sacred Places

I, along with many other of our tribal peoples, believe there are irreplaceable keys to culture and lifeways in our language, cultures and traditions and believe that revitalizing, preserving and perpetuating our Pit River cultural and traditional ways is crucial to the people because we have endured and have survived much. The historical attempts at genocide include the Pit River Rangers, Militia Men, the gold minors, the United States Army troops of General Kelsey and General Crook, the missionaries, the fur trappers bringing the malaria outbreak of the 1830's, the bloody and cold marches of our peoples on the trails of tears to the San Francisco Bay and Covelo, the boarding schools and continuing attempts to assimilate our Indigenous peoples. The continued attempts of eradication of our Indigenous connections to the land and its life-giving properties.

Ga Cimmu Aaqo (wolf mountain) aka Snow Mountain at the head of Montgomery and Cedar Creeks and commands a view of Yana country to the south boundary, Atsugewi country to the east boundary and Madesi/Itsatiwi country to the north boundary- a sacred mountain and a place where the three district Indigenous peoples all come together and share and use of this sacred mountain. According to our tribal stories Snow Mountain is spiritually connected to other sacred places and mountains such as Yellow Jacket Mountain, Blue Jay Mountain, Mussel Mountain, Clam Mountain, Hatchet Mountain, Bunchgrass Mountain, Crater Mountain, Green Mountain, Dan Hunt Mountain, Clover Mountain, Burney Mountain, Buck Mountain, Sugarloaf Mountain, Chalk Mountain, Mount Shasta, Black Fox Mountain, Little Black Fox Mountain and Mount Lassen to name a few. Our people told and tell stories of these sacred mountains, ridges and valleys where where one goes to receive a dini howi (spirit helper) and how to respect yourself and why these places are important and necessary. How these mountains and the waters they carry are connected-related. T5-23

As tribal traditional people one cannot separate the mountains from the streams and creeks or from the plants and animals as all is interconnected, they are one. For many

Comment Letter T5

of us Pit River people, the spiritual, cultural and environmental quality of these mountains cannot be fragmented and separated from one another. It is not the view of the county or the wind farms that counts, but the perspectives of the Pit River people who respect the nature that is there and exists now. For example, when fasting and utilizing these areas it is important that the integrity is kept intact. The wind turbines will interfere with our fasting. The noise, the red flashing lights at night, the shadow flickers in the day will have adverse impacts on our fasting and that has already had an impact on us with the Hatchet Wind Project. While fasting and encountering the wind turbines it will create obstructions and have a bad effect on the state on our mind, body and spirit. It will interfere with one's ability to stay focused on praying and concentrating on meditations. It will interfere with all the things that you're supposed to pay attention too. If you're distracted from that prayer, that concentration is broken and a person can become vulnerable to the dark power that is destructive and can affect and change to mind, body and spirit. If one really wants to get something good in order to do something for yourself, your family and your people, then that dark power is not what you are after and this makes one's fasting incomplete. It is the integrity and intention of your thoughts and prayers that must be kept good in order to receive the good luck you are seeking. This is not an easy state of mind and body to be in and to maintain and this is why you have to be aware all the time without distractions.

T5-23 cont.

For another example of our connection to the land is that we hold a traditional sacred prayer run from Mt. Shasta to Mt. Lassen. A prayer run handed down from our old people who tell of the story of the Mountain Lion and the Bear as they run from volcano to volcano molding and created to topography of the land we see now. We run through the mountains and weave through Mt. Shasta, McCloud, Big Bend, Lake Britton, Burney Falls, Johnson Park, Burney, Burney Gardens, Burney Mountain and Mt. Lassen. A prayer run filled with stories, songs, fasting and prayer. A respect and reverence for the mountains and waters, and plants and animals and medicines and what they bring when we celebrate with them in prayer and tribal dancing. And it is private.

When engaging in this prayer, this ceremony, we cannot make it a public announcement when one goes up on the mountain, because it's a personal thing and it is no one's business but our own when we go up on the mountain. My tribe is a federally recognized tribe by the federal government and first established by the Indian Land Claims Commission in 1959 known as Docket 347 or also known as the 100-mile square. The tribe adopted its current governing constitution on August 16, 1987 and approved by the Secretary of the Department of Interior on December 3, 1987. This documents the tribes inherent sovereign governmental powers that protects our tribal citizenry, lands and resources which encompass the counties of Shasta, Siskiyou, Modoc and Lassen. This is

T5-24

primarily our political foundation that now has the fiduciary obligations and responsibilities of our peoples and their cultures and traditions.

The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) was adopted by the United Nations General Assembly during its 62nd session at United Nations Headquarters in New York City on September 13, 2007. The Pit River Tribe adopted the UNDRIP on March 29th, 2012 "TRIBAL RESOLUTION OF THE PIT RIVER TRIBE OF CALIFORNIA AFFIRMING THE UNITED NATIONS DECLARATION ON THE RIGHTS OF INDIGENOUS PEOPLES"- Resolution No: 12-03-05. In parts I quote:

> WHEREAS: The Pit River Tribe has inherent sovereign governmental powers to protect and promote the health, safety, and/or general welfare of the people of the Pit River Tribe, AND
>
> WHEREAS: The Pit River Tribe affirms its inherent right to self-determination over its tribal lands and traditional ancestral territories According to Docket 347 Adopted July 29th, 1959; AND
>
> WHEREAS: The full recognition and effective implementation of the rights affirmed in the Declaration will enhance harmonious and cooperative relations between the Pit River Tribe and the United States government, AND;
>
> NOW THEREFORE BE IT RESOLVED THAT, the Tribal Council of the Pit River Tribe of California hereby recognize and affirms the United Nations Declaration on the Rights of Indigenous Peoples adopted by the United Nations Human Rights Council on September 13, 2007 **as a minimum expression of the Indigenous rights** of the Pit River Tribe of California.

T5-24 cont.

The UNDRIP recognizes that indigenous peoples have important collective human rights in a multitude of areas, including: self-determination, spirituality, land use, and cultural preservation. The Declaration sets out minimum standards for the treatment of indigenous peoples and can serve as a basis for the development of international law. The UNDRIP also aims to prohibit discrimination against indigenous peoples while promoting their full and effective participation in all matters that concern them.

Article 19 of the UNDRIP provides that "States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free, prior and informed consent before adopting and implementing

Comment Letter T5

legislative or administrative measures that may affect them." The informed consent requirement, if applied by the County in this instance would require County leaders to work more closely with the Tribe, in matters that affect us, and that includes the Fountain Wind project which will have such a severe impact on the my Tribe's lands, resources, air quality and cultural resources. While the UNDRIP was never adopted by the County, the principles of the document reflect best practices for decision-making where tribal interests are impacted.

The UNDRIP recognizes that tribes and tribal individuals have both the right "to the conservation and protection of the environment and the productive capacity of their lands or territories and resources" as well as "to maintain and strengthen their distinctive spiritual relationship with their traditionally owned or otherwise occupied and used lands, territories, waters and coastal seas and other resources and to uphold their responsibilities to future generations in this regard."

T5-24 cont.

The existing wind turbines on Hatchet Ridge already mark the landscape and the installation of up to seventy-two (72) more mega wind turbines at a height of 679 feet tall that will further disrupt the way of life for those that live in the area. The topography of the Project Site is central to my peoples identity, our oral traditions, our tribal history and our spiritual connections. Changing the landscape in this dramatic fashion is another state-sanctioned action that leads to dispossession of homelands and is yet another attempt to erase our people from history. Approval of this mega Wind Turbine Project will undoubtedly violate these rights and, accordingly, the County should not move forward with the Project. I request the County select the "No Project Alternative."

My primary point in the aforementioned is that my tribe has a fiduciary duty to protect my inherent rights as a tribal citizen, especially my right to be free to pray and use the natural cultural resources needed to help my people, my family and myself and the land.

T5-25

Therefore, I and my family implore the County to take into strong consideration along with all the significant and unavoidable impacts of the proposed mega Wind Turbine Project presented in this comment letter and know that the only choice for you to make is to deny the Use Permit for this Project.

Coming from a space of concern,

Radley Davis

Radley Davis
P.O. Box 907
Bella Vista, CA. 96008

References:

Shasta County Department of Resources Management Planning Division: Fountain Wind Project- Draft Environmental Impact Report (July 2020)

California Governor's Office of Planning and Research CEQA: The California Environmental Quality Act website, available at: https://opr.ca.gov/ceqa/.

Pit River Tribe Madesi Band Representative- letter

Assembly Bill 52 Native American Tribal Consultation

Indian Claims Commission, 815-863 Appendices A & B pages 1-49

Crystal Echo Hawk, The false narratives: invisibility, and the erasure of Native peoples must end, Indian Country Today (August 07, 2018)

United States Department of Agriculture and Forest Service, Shasta-Trinity National Forest, Native American Cultural Overview Report (1981)

American Bird Conservancy, Camp Perry Wind Turbine Project Halted Following Threat to Sue And Petition Campaign (January 29, 2014) https://abcbirds.org/article/camp-perry-wind-turbine-project-halted-following-threat-to-sue-and-petition-campaign/, (a proposed turbine that would it in the middle of a major bird migration corridor in violation of federal laws effectively halted)

Wind Turbines, U.S. FISH AND WILDLIFE, available at http://www.fws.gov/birds/bird-enthusiasts/threats-to-birds/collisions/wind-turbines.php

California Native Plant Society v. City of Santa Cruz, 177 Cal.App. 4th 957, 992, 99 Cal.Rptr.3d 572, 579 (CA App. 6th 2009); 14 Cal. Code Regs.

Shasta County Code of Ordinances 17.08.030; Shasta County General Plan, 6.4.3, E-2, http://www.co.shasta.ca.us/index/drm/planning/general-plan ("Increase utilization of renewable energy resources by encouraging development of solar, hydroelectric, biomass, waste-to-energy, and cogeneration sources.")

Mira Mar Mobile Community v. City of Oceanside, 119 Cal.App.4th 477, 492 (2004)

T5-26

Comment Letter T5

A "taking" under the Bald and Golden Eagle Protection Act (BGEPA) is defined as to "pursue", shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb" eagles. 16 U.S.C. 668c.

A "taking" under the Migratory Bird Treaty Act (MBTA) is defined as to "pursue, hunt, shoot, wound, kill, trap, capture, or collect," or to attempt any such act. 50 C.F.R. 10.12.

A list of protected migratory birds can be found at 50 C.F.R. 10.13(c)(1).

In concluding that the MBTA "does not prohibit or penalize take of migratory birds that results from actions that are not intentional," the DEIR looks to a memorandum opinion issued by the Department of Interior in December of 2017. See M-37050. Courts are split on whether an incidental take permit is required under the MBTA. The USFWS proposed to codify the DOI's opinion February 3, 2020. See 85 Reg. 5915. However, no final rule has yet been announced.

16 U.S.C. 668; Protect Our Communities Foundation v. LaCounte, 939 F.3d 1029, 1044 (9th Cir. 2019)

16 U.S.C. 668. An "incidental take" permit would authorize the "take of bald eagles and golden eagles where the take is compatible with the preservation of the bald eagle and the golden eagle; is necessary to protect an interest in a particular locality; is associated with, but not the purpose of, the activity; and cannot practicably be avoided." 50 C.F.R. 22.26(a).

Indians of Lassen, Volcanic National Park and Vicinity, by Paul E. Schulz, Published by the Loomis Museum Association, Lassen Volcanic National Park, Mineral, California (1954)

An American Genocide: The United States and the California Indian Catastrophe 1846-1873, by Benjamin Madley, Yale University Press (2017)

Renewing Destruction: Wind Energy Development, Conflict and Resistance in a Latin American Context, by Alexander Dunlap, Rowman & Littlefield (2017)

Making the Declaration Work: The United Nations Declaration on the Rights of Indigenous People, Edited by Claire Charters and Rodolfo Stavenhagen, Copenhagen 2009 – Document No. 127

Leonard Lowry: An Oral History Interview Conducted by Helen Blue, Edited by Kathleen M. Coles, University of Nevada-Oral History Program (1999)

T5-26 cont.

Comment Letter T5

The California Indians vs The United States of America (HR 4497), Prepared and edited by Robert F. Heizer – Evidence offered in support of occupancy, possession and use of land in California by the ancestors of enrolled Indians of California – Ballena Press Publications in Archaelogy, Ethnography and History NO. 12

Atsugewi Ethnography by Thomas R. Garth – Anthropological Records Vol.14, No.2

Samson Grant, Atsuge Shaman by Susan Park, Occasional Papers of the Redding Museum, Number 3, Redding, CA. (1986)

"Deflect, Delay, Defer": Decade of Pacific Gas & Electric Wildfire Safety Pushback Preceded Disasters, by Katie Worth (https://www.pbs.org/wgbh/frontline/person/katie-worth/) – Karen Pinchin & Lucie Sullivan & KQED (https://www.kqed.org/)

The Camp Fire Public Report: A Summary of the Camp Fire Investigation – June 16, 2020, Butte County District Attorney- Michael L. Ramsey

Why California's Climate Policies Are Causing Electricity Blackouts, by Michael Shellenberger, Environmental Progress info@environmentalprogress.org

Racing Simloki's Shadow: The Ajumawi Interconnection of Power, Shadow, Equinox, and Solstice, by Jack M Broughton and Floyd Buckskin, Earth and Sky Papers from the Northbridge Conference on Archaeoastronomy

How the Seasons Began: An Ajumawi Narrative Involving Sun, Moon, North Star, and South Star, by Arlene Benson and Floyd Buckskin, Griffith Observer (1987)

NEPA and NHPA: A Handbook for Integrating NEPA and Section 106, Council on Environmental Quality Executive Office of the President and Advisory Council on Historic Preservation (March 2013)

Power to the Public: DEIR's Failure to Identify Proposed Project Among Handful of Vastly Different Analyzed Alternatives Violates CEQA's Requirement to Contain "Accurate, Stable and Finite" Project Description, Vitiates Intelligent Public Participation, Holds First District, by Arthur F. Coon on November 17, 2017- Miller Starr Regalia

'Green" billionaires behind professional activist network that led suppression of 'Planet of the Humans' documentary, by Max Blumenthal- The Greyzone (https://thegreyzone.com) September 7, 2020

T5-26 cont.

Comment Letter T5

California's Water Future: Hydrogeological Report on the Risks to the Medicine Lake Volcano Aquifers, by Robert Curry Ph.D., Registered California Geologist (3295), University of California emeritus professor, 2014

Recharge and Flow in the Medicine Lake Volcano- Fall River Springs Groundwater Basin, 2014, by M. Lee Davisson and Tim P. Rose, Environmental Forensics. Volume 15, 2014.

Citizens in Opposition to the Fountain Wind Project (CIO FWP) Citizens' Action Group – WWW.STOPFW.COM

Cultural Reports - Environmental Department- Pit River Tribe & Cultural Representatives

T5-26 cont.

Letter T5: Radley Davis

T5-1 The County acknowledges the commenter as a member of the Pit River tribe as well as the stated opposition to the Project.

As described in Draft EIR Chapter 2, *Description of Project and Alternatives*, discussed in Final EIR Section 1.2.3, *Changes to the Project Since Issuance of the Draft EIR*, and summarized in this comment, the Project includes up to 72 wind turbines each with a total height of up to 679 feet. However, the Project Site is 4,464 acres rather than 30,000 as indicated in the comment. See, e.g., Draft EIR Section ES.2.1 (at page ES-1) and Section 2.1 (at page 2-1). See also Draft EIR Figure 2-1 (at page 2-2). No future expansion of the Project Site is proposed. Potential impacts of the project are analyzed in Draft EIR Chapter 3. See Section 3.16 (Wildfire), Section 3.12 (Hydrology and Water Quality), Section 3.2 (Aesthetics), Section 3.4 (Biological resources), and Section 3.6 (Cultural and Tribal Cultural Resources).

The County acknowledges the commenter's preference for additional time for review; however, the time that was allotted for this Project accounted for "unusual circumstances." CEQA Guidelines Section 15105(a) suggests that the public review period for a Draft EIR generally shall not be less than 45 days nor should it be longer than 60 days except in unusual circumstances. As explained in Final EIR Section 1.3.1, *Agency and Public Review of the Draft EIR*, the public review period for this Project began August 3, 2020 and concluded October 21, 2020 – a total of 79 days.

The County acknowledges coronavirus disease 2019 (COVID-19) pandemic conditions as part of the context of the public's consideration of the EIR and this Project, and has made adjustments to provide for extended public participation in the comment process. Shasta County received more than 2,000 pages of emails, letters, and a petition in response to the Draft EIR (see Final EIR Section 2.1.1, *Input Received*), which indicates that agencies, the Tribe and its members, and members of the general public were able to access, review, and provide input on the Draft EIR. The County also has adjusted the normal course of its decision-making processes to balance public participation and the need to protect public health in accordance with COVID19-related state orders regarding the conduct of public meetings and open meeting laws. For example, recent virtual public meetings of the Planning Commission and the Board of Supervisors have included opportunities for members of the public to participate online and/or to a limited extent in-person, and to provide written and/or oral input telephonically and via e-mail. Members of the public have taken advantage of this opportunity to provide input directly to decision-makers about this Project. See, e.g., Comments P27-79 through P27-121 in Final EIR Section 2.3.3 (Letter P27).

Regarding the Draft EIR's disclosure of significant unavoidable impacts, see Response T4-3.

T5-2 See Response T2-3 regarding the Applicant's nine objectives for the Project and those among them that the County determined to be "basic," i.e.: providing up to 216 MW of

wind energy to PG&E's Northern California grid, creating temporary and permanent jobs in the County, and contributing to the County's tax base. (Draft EIR Section 2.5.1 at page 2-27). These were identified as the "most basic" because they were determined to be the most fundamental, foundational or principle of the Applicant's objectives.

The comment suggests that no explanation has been provided as to the "need" for 216 MW of wind energy. The concept of "need" is different than "objective." The "need" for a project could be described as the underlying problem or opportunity that prompted the proposal, whereas the "objective" could be described as the goal trying to be reached. Need is not part of the CEQA screening criteria for developing a range of alternatives. See Response T2-3 regarding the four threshold criteria for identifying suitable alternatives as part of the CEQA process.

Whether PG&E has or will agree to purchase the power generated by the Project, or whether that power will be purchased by another entity, is beyond the scope of CEQA. Where the Applicant is based also is beyond the scope of CEQA.

T5-3 See Response T3-3 regarding the area's fire history. As disclosed in Draft EIR Section 3.16.1.3 (at page 3.16-10 et seq.), PG&E has adopted and implements both a Fire Prevention Plan and an Emergency Response Plan. PG&E's Wildfire Operations Center operates 24-hours per day during fire season. See also, Section 3.16.3.2 (at page 3.16-25 et seq.), where the Draft EIR analyzes the potential wildfire-related impacts that would specifically attributable to the proposed PG&E infrastructure that would be needed to construct, operate, and maintain the Project. The County does not agree that approval of the Project would result, as the commenter suggests, in a "massive public safety issue." Whether there is capacity to safely add electrons to the existing transmission capacity is controlled by the California Independent System Operator, which conducts extensive interconnection studies to determine transmission line capacity before allowing interconnection of new sources of electricity generation.

Potential economic benefits of the Project initially were evaluated by Stantec in 2018 on behalf of the prior Applicant for this Project.[26] The potential beneficial economic effects of a utility-scale, on-shore wind energy project such as the Project were projected to include "increased income for communities, jurisdictions, and individuals through the provision of jobs during construction and operation, payment of property taxes, and annual land lease payments." Specifically regarding tax benefits, the 2018 evaluation explains that economic modeling has projected substantial increases in property taxes collected upon development of wind energy projects, citing a case study for a wind project in Weatherford, Oklahoma, that estimated an annual increase of $600,000 in property tax revenue from a 147 MW project; an input-output analysis for Umatilla County, Oregon, that estimated a nearly $500,000 annual increase in County property taxes; and an input-output model for proposed wind projects in Kittitas County, Washington, that estimated an annual increase of $2.8 million in property

[26] Stantec, 2018. Local Economic Effects of Wind Energy Projects. May 31, 2018.

taxes collected. These estimated tax benefits confirm the findings of other studies cited in the evaluation.

The summary provided of the three alternatives analyzed in detail in the Draft EIR is consistent with the Draft EIR. See Draft EIR Section ES.7, *Overview of Alternatives* (at page ES-36), and Section 2.5, *Description of Alternatives* (at page 2-27).

Comments about the location of the Applicant's home office and details of where the power generated could be used once it reaches the grid are beyond the scope of the EIR and are not relevant to the project's environmental impacts. See Final EIR Section 2.1.1, above.

T5-4 As disclosed in Draft EIR's Executive Summary (at pages ES-6 and ES-7) and analyzed in Section 3.2, *Aesthetics*, and in Section 3.6, *Cultural and Tribal Cultural Resources*, the Project would result in significant unavoidable impacts with regard to its effect on a scenic vista and the existing visual character or quality of public views of the site and its surroundings from publicly accessible vantage points and to tribal cultural resources.

See Draft EIR Section 2.4.7 (at page 2-23 and 2-24), which explains that, prior to operation of the Project, the Applicant would prepare and, following the County Director of Resource Management's review and approval, would finalize a Decommissioning Plan that details how Project facilities and infrastructure would be removed and the site restored. As disclosed in Section 2.4.7, the Applicant also would be required to post and update a financial assurance mechanism to cover the cost of decommissioning if, for any reason, the Applicant were not available to decommission the Project or restore the Project Site. While salvage value may be used to off-set the estimated cost of decommissioning and restoration, the proposed salvage value would have to be vetted and accepted by the County as reflecting the market value of the given material and/or equipment offered as salvage. If salvage value alone does not cover the cost of decommissioning and restoration or is not accepted by the County additional financial assurance mechanism(s) would have to be provided, including but not limited to a surety bond and/or certificate of deposit. Given the financial assurances requirement, the cost of scrap metal alone does not bear on whether financial resources would be available to decommission the Project and restore the site.

The wind power industry currently is facing a challenge about what to do with turbine blades upon decommissioning. Currently, and consistent with assumptions in the Draft EIR, turbine blades commonly are disposed of in a landfill to the extent they cannot be recycled as scrap. However, given advancements in recycling over the past 20-30 years, the Applicant hopes that recycling options will be available for turbine blades when this Project would be decommissioned that do not now exist. Nevertheless, Draft EIR Section 3.15.3 (at page 3.15-9) describes impacts associated with the generation of solid waste or debris should decommissioned Project components be disposed of in a landfill. As provided in the Draft EIR, the Anderson Landfill has an estimated ceased

operation date of 2093 with a maximum permitted throughput of 1,850 tons/day, and a remaining capacity of approximately 10,409,132 cubic yards, as of 2015 (the most recent date for which published data was available as of June 24, 2020). The analysis concludes that the Project would cause a less-than-significant impact relating to the generation of solid waste or debris.

T5-5 Regarding the Project's direct, indirect, and cumulative impacts to aesthetics, including the impacts of the Project when combined with existing views of the Hatchet Ridge Wind Project, see Draft EIR Section 3.2 (at page 3.2-1 et seq.).

Specifically regarding the potential impacts on aesthetics of the lights that would be required by the FAA for aviation safety purposes, see the analysis of Impact 3.2-3 (Draft EIR Section 3.2.4.2 at page 3.2-42 et seq.), which concludes that Project-caused light or glare would have a less-than-significant adverse effect on daytime or nighttime views in the area. See also Draft EIR Section 3.2.5.3 at page 3.2-49), which discloses that "[d]ue to the Hatchet Ridge Wind Project, there is an existing significant and adverse cumulative impact to the nighttime lighting environment," and concludes that Project would have a cumulatively considerable contribution to this significant cumulative effect. The analysis determines that the Project's contribution would be significant and unavoidable because no reasonable, feasible mitigation measures are available to reduce the Project's incremental contribution to a less-than-significant level.

CEQA, and this EIR, focus on potential impacts to the physical environment. Potential effects on "people's peaceful enjoyment" are not effects on the physical environment, and so are beyond the scope of the EIR's analysis. Nonetheless, the commenter's opinion in this regard has been included in the record where it will be available for consideration by the County as among the non-CEQA factors that may bear on a decision.

The potential impacts on wildlife from the lights that would be required by the FAA for aviation safety purposes are analyzed in Draft EIR Section 3.4, *Biological Resources*. Specifically, see Impact 3.4-10 (at page 3.4-54), which concludes that the Project would have a less-than-significant impact to sandhill cranes during crane migratory periods. See also Response A3-76. The comment provides insufficiently specific information about how FAA-required lighting could cause a significant adverse impact on plants. Nighttime safety lighting is required by the FAA on all wind turbines exceeding 199 feet in height. State and Federal wildlife studies have not identified turbine lighting as an impact mechanism for terrestrial wildlife. Such lighting has not been shown to affect terrestrial wildlife sleep patterns, hunting patterns, reproduction cycles, or affect predation.[27]

The commenter is correct that the Project would result in a significant unavoidable impact to air quality. This is disclosed in Draft EIR Section ES.6.2 (at pages ES-6 and ES-7), in table ES-2 (at page ES-9), and in Section 3.3 (at page 3.3-20). Regarding

[27] See, e.g., California Energy Commission and California Department of Fish and Game, 2007; U.S. Fish and Wildlife Service, 2012.

potential impacts of the Project on human health, see, e.g., Draft EIR Section 3.3, *Air Quality* (at page 3.3-1 et seq.), Section 3.9, *Geology and Soils* (at page 3.9-1 et seq.), Section 3.10, *Greenhouse Gas Emissions* (at page 3.10-1 et seq.), Section 3.11, *Hazards and Hazardous Materials* (at page 3.11-1 et seq.), Section 3.15, *Utilities and Service Systems* (at page 3.15-1 et seq.), and Section 3.16, *Wildfire* (at page 3.16-1 et seq.).

Impacts on tourism are beyond the scope of CEQA. See Final EIR Section 2.1.1, which explains why substantive responses are not provided to comments that are beyond the scope of CEQA.

The County acknowledges the stated preference for the No Project Alternative.

T5-6 The direct, indirect and cumulative impacts of the Project on vegetation and wildlife resources are described and analyzed in Draft EIR Section 3.4, *Biological Resources* (at page 3.4-1 et seq.). Although some avian mortality has been documented at the Hatchet Ridge Wind Project, there is no evidence that wind turbines cause surrounding areas to be a "dead zone" that is absent of plants and animals. Post construction monitoring reports submitted after the operation of the nearby Hatchet Ridge Wind Project confirm that wildlife and plants continue to exist adjacent to that project.

The concerns stated about the impacts of wind projects on birds generally are acknowledged, but because they do not bear on the adequacy or accuracy of the analysis provided in the Draft EIR, a more detailed response is not provided. Regarding quotations and summaries of impact conclusions and other information provided the Draft EIR, including about what was required of the Hatchet Wind Project applicant, see Final EIR Section 2.1.1, *Input Received*, which explains the types of comments that are beyond the scope of CEQA and this EIR. Furthermore, the avian monitoring and mitigation requirements to protect avian species recommended to be imposed on this Project are more comprehensive than were imposed on the Hatchet Ridge project.

Regarding impacts to migratory birds, see Response A3-17. The Fish and Game Code does not permit the baiting of predators, and this practice is not proposed for the Fountain Wind Project.

As analyzed and disclosed in Draft EIR Section 3.4.3 regarding direct and indirect effects, and Section 3.4.4 regarding cumulative effects, the County acknowledges unavoidable impacts to bald and golden eagles based on uncertainty relating to collision risks to these species during Project operation.

Regarding impacts to waterbirds and songbirds, the Draft EIR methodology for assessing potential impacts to candidate, sensitive, or special-status species (Draft EIR page 3.4-36 et seq.) was based on whether the Project would result in an adverse effect on the species' population. Hence, the Draft EIR conclusion that the potential risk of substantial waterfowl mortality is considered low, and mortality rates are not anticipated to occur at levels which would adversely affect population levels were correct. Similarly, for

each of the songbird species identified in the comment (Vaux's swift, yellow warbler, and willow flycatcher), while some habitat loss may occur to accommodate Project construction, it would be performed consistent with federal and state regulations protecting these species; and in the case of willow flycatcher, with explicit permit approval from the California Department of Fish and Wildlife if direct impacts are identified. As discussed in the Draft EIR, extensive habitat for each of these species would remain available within the greater Leasehold Area and population-level impacts are not anticipated during construction, operations, or decommissioning.

Regarding potential impacts to wetlands and riparian habitat and related avoidance and minimization measures, see Response A3-21.

T5-7 In compliance with CEQA, the County invited the relevant tribes to consult on the preparation of this EIR. Further, multiple meetings between the County, the Applicant and the Tribe have occurred, leading up to and including a visit to the Project Site. The commenter's preference for the No Project Alternative based on significant unavoidable impacts to Tribal Cultural Resources identified in Draft EIR Section 3.6 (at page 3.6-1 et seq.) is acknowledged and has been included in record for the County to consider as a factor of its decision-making.

T5-8 The Draft EIR identified mitigation to reduce impacts to FW 11, including the development of an Archaeological Research Deign and Treatment Plan, with a first priority to relocate Project components to a location that would not potentially impact the known historical resource (i.e. providing preservation in place or avoidance of the resource). In light of the Applicant's proposed change in the Project (see Final EIR Section 1.2.3, *Changes to the Project Since Issuance of the Draft EIR*, potential impacts to FW 11 would be avoided, thereby providing for the preferred manner for mitigating impacts on an archaeological site.

However, given the proximity of a historical resource to the Project Site, revised mitigation for a cultural resources monitoring plan has been included to ensure there would be no impacts to known archaeological resources. The following revision has been made to the Draft EIR's analysis of Impact 3.6-1 (at page 3.6-21):

> Based on the results of the cultural resources analysis completed for the proposed Project (Stantec, 2019), 8 previously recorded cultural resources and 12 newly discovered cultural resources were recorded in the ADI and evaluated for significance as historical resources eligible for listing in the California Register. Based on those evaluations, one cultural resource (the prehistoric component of FW 11) qualifies for listing in the California Register under Criterion 4, for its ability to yield additional information in prehistory. The prehistoric component of FW 11 is therefore considered a historical resource for the purposes of CEQA. In accordance with CEQA Guidelines Section 15126.4(b)(3), the Applicant recognizes that preservation in place is the preferred manner of mitigating impacts to archaeological sites and has redesigned the Project to avoid FW 11. ~~Project-related disturbance of a historical resource would be a significant impact and could occur, for example, during grading and excavation associated with~~

~~construction of turbine foundations, pads, or domestic water wells; trenching for the underground electrical collector lines or other below-ground facilities and infrastructure; or the soil borings that would be collected to an approximately 50-foot depth to ensure that the proposed turbine foundations would be stable.~~

~~The potential for such impact would be reduced to a less-than-significant level through implementation of Mitigation Measure 3.6-1 (Archaeological Research Design and Treatment Plan). This measure sets forth protocols and procedures for implementing a data recovery program to the provide for the establishment of Environmentally Sensitive Areas; treatment and recovery of important data contained within the portions of the historical resource located within and adjacent to the ADI; construction worker cultural resources sensitivity training; archaeological and Native American monitoring; inadvertent discovery protocols; and provisions for curation or reburial of recovered materials.~~

However, given the proximity of known archaeological resources to the Project Site that are considered historical resources for the purposes of CEQA, the potential to impact unknown archaeological resources cannot be entirely discounted. Impacts to unknown archaeological resources would be a significant impact. This impact would be reduced to a less-than-significant level by implementing **Mitigation Measure 3.6.1a. Archaeological Monitoring Plan** and **Mitigation Measure 3.6.1b. Inadvertent Discovery Protocol**. These measures would require development of an archaeological monitoring plan to provide appropriate monitoring during construction in the vicinity of significant archaeological resources, and outline protocol to follow in the event of an inadvertent discovery of previously unknown archaeological resources. With implementation of Mitigation Measures 3.6.1a and 3.6.1b, impacts to archaeological resources would be less than significant.

~~Mitigation Measure 3.6-1: Archaeological Research Design and Treatment Plan.~~

~~Prior to receiving a County grading permit for the Project, the applicant shall:~~

1. ~~Relocate Project components to a location that would not potentially impact the known historical resource.~~

2. ~~If relocation is documented to the satisfaction of the County as infeasible (where "feasible" means "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors" as defined in CEQA Guidelines Section 15364) and the historical resource would potentially be impacted by the Project, design and implement an Archaeological Research Design and Treatment Plan (ARDTP).~~

~~The investigation would be completed under the methods and research design outlined in an ARDTP to be prepared in accordance with the California Resources Agency's Guidelines for Archeological Research Designs (California Resources Agency, 1991). A qualified archaeologist (defined as one meeting the Secretary of the Interior's Professional Qualification Standards for archaeology) shall prepare the ARDTP in consultation with the culturally affiliated Native American tribe(s). The ARDTP shall address, at a minimum, the following: the establishment of Environmentally Sensitive Areas; treatment and recovery of~~

~~important data contained within the portions of the historical resource located within and adjacent to the Project Site; construction worker cultural resources sensitivity training; compensated archaeological and Native American monitoring; inadvertent discovery protocols; and provisions for curation or reburial of recovered materials.~~

~~The ARDTP shall include the specific methods that will be employed (e.g., the length and depth of excavation, the type of equipment utilized, the percent of area investigated). The ARDTP shall identify how the proposed investigation would preserve any significant historical information obtained and identify the scientific/historic research questions applicable to the resource, the data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. The results of the investigation shall be documented in a technical report that provides a full artifact catalog, analysis of items collected, results of any special studies conducted, and interpretations of the resource within a regional and local context. All technical documents shall be placed on file at the North Central Information Center of the California Historical Resources Information System. The results report shall include recommendations for archaeological and Native American monitoring in Environmentally Sensitive Areas and the protocol to follow should additional cultural materials be identified during construction activities.~~

Mitigation Measure 3.6-1a: Archaeological Monitoring Plan.

Prior to receiving a County grading permit for the Project, the Applicant shall retain a qualified archaeologist, defined as an archaeologist meeting the U.S. Secretary of the Interior's Professional Qualification Standards for Archeology, to prepare an archaeological resources monitoring plan. Monitoring shall be required for all subsurface excavation work within 500 feet of the recorded boundaries of known archaeological resources. The plan shall include the following:

1. Training program for all construction personnel involved in ground disturbance;
2. Person responsible for conducting monitoring activities, including Native American monitors;
3. Person responsible for overseeing and directing the monitors;
4. How the monitoring shall be conducted and the required format and content of monitoring reports;
5. Physical monitoring boundaries (e.g., 500-feet radius of a known archaeological resource) and maps;
6. Schedule for submittal of monitoring reports and person responsible for review and approval of monitoring reports;
7. Protocol for notifications in case of encountering of archaeological resources, as well as methods of evaluating the encountered resources (e.g., identification, evaluation, arrangements);
8. Methods to ensure security of archaeological resources;

9. Protocol for notifying local authorities (i.e. Sheriff, Police) should site looting and other illegal activities occur during construction.

If archaeological materials are encountered, all soil disturbing activities within 100 feet shall cease until the materials are evaluated. The archaeological monitor shall immediately notify the County of the encountered archaeological materials. The monitor shall, after making a reasonable effort to assess the identity, integrity, and significance of the encountered archaeological materials, present the findings of this assessment to the County. During the course of the monitoring, the archaeologist may adjust the frequency—from continuous to intermittent—of the monitoring based on the conditions and professional judgment regarding the potential to impact resources.

Mitigation Measure 3.6-1b: Inadvertent Discovery Protocol.

If prehistoric or historic-era archaeological resources are encountered during Project implementation, either during monitoring or otherwise, all construction activities within 100 feet shall cease, and a qualified archaeologist, defined as an archaeologist meeting the U.S. Secretary of the Interior's Professional Qualification Standards for Archeology, shall inspect the find within 24 hours of discovery and notify the County of their initial assessment.

If the County determines, based on recommendations from a qualified archaeologist and a Native American representative (if the resource is Native American related), that the resource may qualify as a historical resource or unique archaeological resource (as defined in CEQA Guidelines Section 15064.5) or a tribal cultural resource (as defined in PRC Section 21080.3), the resource shall be avoided if feasible. Consistent with Section 15126.4(b)(3), this may be accomplished through planning construction to avoid the resource; incorporating the resource within open space; capping and covering the resource; or deeding the site into a permanent conservation easement.

If avoidance is not feasible, the County shall consult with appropriate Native American tribes (if the resource is Native American-related), and other appropriate interested parties to determine treatment measures to avoid, minimize, or mitigate any potential impacts to the resource pursuant to PRC Section 21083.2, and CEQA Guidelines Section 15126.4. This shall include documentation of the resource and may include data recovery (according to PRC Section 21083.2), if deemed appropriate, or other actions such as treating the resource with culturally appropriate dignity and protecting the cultural character and integrity of the resource (according to PRC Section 21084.3).

The County acknowledges the Tribe's assertion that burial sites may be present in the area; however, no known locations of burial sites have been identified within the Project Site boundary based on surveys or conversations with the Tribe. In the event that construction activities disturb previously unknown tribal cultural resources, including burial sites, the Project Applicant would implement Mitigation Measure 3.6-1a (Archaeological Monitoring Plan), Mitigation Measure 3.6-1b (Inadvertent Discovery Protocol), and Mitigation Measure 3.6-3 (Tribal Cultural Resources Interpretive Program). Mitigation Measure 3.6-3 includes coordination with the Pit River Tribe during Project development, detailed recordation of features considered

culturally significant, and a cultural resources monitoring program. The Draft EIR recognizes that unless a tribal cultural resource can be avoided and preserved in place according to the provisions set forth by Public Resources Code §21084.3, direct and indirect impacts to tribal cultural resources would not be reduced to a less-than-significant level and the impact would remain significant and unavoidable. The inadvertent discovery of human remains is specifically addressed in Mitigation Measure 3.6-2.

T5-9 The Draft EIR recognizes that unless a tribal cultural resource can be avoided and preserved in place according to the provisions set forth by Public Resources Code §21084.3, direct and indirect impacts to tribal cultural resources would not be reduced to a less-than-significant level and the impact would remain significant and unavoidable.

T5-10 Regarding commenter's preference for the No Project Alternative based on impacts to Cultural and Tribal Cultural Resources, see Response T5-7. Regarding the summary of what CEQA requires, see Final EIR Section 2.1.1, *Input Received*, which explains the types of comments that are beyond the scope of CEQA and this EIR.

Potential impacts to water quality are analyzed in Draft EIR Section 3.12 (at page 3.12-1 et seq.). The statement in the comment of high quality waters is consistent with information provided in Draft EIR Section 3.12.1.2, *Environmental Setting* (at page 3.12-2), which describes surface waters and groundwater in Shasta County as generally having high quality from a drinking water perspective even though they have been subject to post-fire and timber harvesting influences that can have a degrading effect on water quality. More detailed responses to the impacts listed in this comment are provided below, where they are raised with greater specificity in the letter.

T5-11 The Project layout has been modified to avoid FW11. See Final EIR Section 1.2.3, *Changes to the Project Since Issuance of the Draft EIR*.

T5-12 The Project layout has been modified to avoid FW11. See Final EIR Section 1.2.3, *Changes to the Project Since Issuance of the Draft EIR*. The commenter's summaries of the *Madera Oversight* decision and CEQA's requirements are noted. The decision, the statute, and the CEQA Guidelines speak for themselves. The stated disagreement with the Draft EIR's conclusion that some of the impacts to Tribal Cultural Resources could be mitigated to less than significant is acknowledged. The County's agreement that some impacts to Tribal Cultural Resources would be significant and unavoidable also is acknowledged.

T5-13 The commenter is correct that only the No Project Alternative avoids the potential significant effects of the Project to tribal cultural resources aesthetics, air quality, and biological resources. See Section ES.8, *Environmentally Superior Alternative* (at page ES-45), which acknowledges this fact. Regarding reductions in impacts that would result relative to the Project if Alternative 1 or Alternative 2 were selected, see Draft EIR Table ES-3 (at page ES-39 et seq.). As indicated there, both alternatives

would result in reduced impact to tribal cultural resources (at page ES-40); Alternative 2 would reduce impacts to aesthetics relative to the Project, and both Alternatives 1 and 2 would reduce impacts to air quality and biological resources (at page ES-39).

The commenter's summaries of the *Madera Oversight* decision and CEQA relating to mitigation approaches (including preservation in place and data recovery) and feasibility are noted. The decision, the statute, and the CEQA Guidelines speak for themselves. The summary of mitigation measures recommended for adoption in the Draft EIR is consistent with the Draft EIR.

T5-14 The commenter states that impacts to human burials determined to be Native American would be a significant impact. Health and Safety Code §7050.5 provides guidance for reducing impacts to the discovery of human remains to a less-than-significant level, including designation of a most likely descendant. Impacts relating to the Project's potential to disturb human remains interred outside of a formal cemetery are analyzed in the context of Impact 3.6-2 (Draft EIR at page 3.6-23). The analysis concludes that the actions required by Mitigation Measure 3.6-2: Inadvertent Discovery of Human Remains would assure a process that results in the treatment of human remains and any associated grave goods with appropriate dignity by requiring consistency with Health and Safety Code Section 7050.5, Public Resources Code Section 5097.98 (regarding discovery of Native American human remains; disposition of human remains and associated grave goods), and CEQA Guidelines Section 15064.5(e) (identifying the steps to be taken in the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery). With the implementation of Mitigation Measure 3.6-2, the impact would be less than significant.

The Draft EIR recognizes that impacts to tribal cultural resources nonetheless would be significant and unavoidable for three reasons: 1) the indirect effects of Project turbines on views considered to be of great spiritual significance; 2) potential impacts to FW11, which is the prehistoric archaeological site within the Project Site that has been recommended eligible as a tribal cultural resource; and 3) the potential for it not to be possible to avoid and preserve in place tribal cultural resources in accordance with the provisions of Public Resources Code Section 21084.3 (regarding the avoidance of damaging effects to tribal cultural resource). As identified in the context of Impact 3.6-3 (at pages 3.6-24 and 3.6-25), such resources could include unspecified locations of ethnographic trails and quarries, unspecified areas where medicinal herbs were gathered, and unspecified locations of ancestral burial grounds. Four mitigation measures are identified, including a requirement to prepare and implement an Archaeological Research Design and Treatment Plan (Mitigation Measure 3.6-3a), coordination with the Pit River Tribe during Project development (Mitigation Measure 3.6-3b), detailed recordation of features considered culturally significant to the Pit River Tribe (Mitigation Measure 3.6-3c), and a cultural resources construction monitoring program with the Pit River Tribe (Mitigation Measure 3.6-3d). The analysis recognizes that the implementation of these measures would not reduce potential

impacts to a less-than-significant level. Therefore, the Project's impact to tribal cultural resources would remain significant and unavoidable.

In revisiting the Project's significant unavoidable impacts to tribal cultural resources, the County notes a need to correct the statement in Section 3.6.3.3, *PG&E Interconnection Infrastructure* (at page 3.6-26), which says that the impacts attributable specifically to the PG&E infrastructure that would be needed to connect the Project to the grid "would be the same as the Project as a whole: significant and unavoidable." This is not correct. Draft EIR Section 3.1.2.4 (at page 3.1-3) explains that the impacts identified in the PG&E Interconnection Infrastructure-specific subsections (such as Section 3.6.3.3) "are a subset of, not in addition to, the direct and indirect impacts of the Project as a whole." The specific subset of Project activities required of PG&E are described in Section 2.4.3, *Project Substation, Switching Station and Interconnection Facilities*. They include an onsite collector substation and switching station, construction or reconfiguration of utility line structures and transmission line circuits involving four to six new transmission poles to be located adjacent to the proposed substation and switching station, and possibly also overhead fiber optic communication circuits or an up-to 150-foot tall relay microwave tower. The foundation needed for a relay microwave tower, if one is required, could be up to 40-feet deep. Together, the PG&E infrastructure would temporarily disturb up to approximately 19 acres; the permanent area of disturbance would be approximately 5 acres for the collector substation and 8 acres for the switching station. As stated in Section 3.6.3.3, "there are no known historical resources or unique archaeological resources in the [PG&E infrastructure's] area of permanent disturbance." The impacts of constructing, operating, and maintaining the PG&E infrastructure to tribal cultural resources would be less than significant with mitigation incorporated (and not significant and unavoidable) because none of the three reasons for the overall Project conclusion of significant and unavoidable is present: the PG&E infrastructure does not include the turbines that would cause indirect effects on spiritually significant views and prehistoric archaeological site FW11 would be avoided by the Project as revised (see Final EIR Section 1.2.3.1, *Project Changes*). Further, the potential for it not to be possible to avoid and preserve in place inadvertently discovered tribal cultural resources during construction, operation and maintenance of the PG&E infrastructure could be reduced to a less-than-significant level via the implementation of Mitigation Measure 3.6-2: Inadvertent Discovery of Human Remains and the four mitigation measures identified in the context of Impact 3.6-3 because, with the Project change, the implementation of these measures would effectively avoid such sites and potential significant impacts to them if they are discovered. Accordingly, Section 3.6.3.3 (at page 3.6-26) has been revised as follows:

> "Impacts to tribal cultural resources would be <u>less-than-significant with the implementation of Mitigation Measure 3.6-1a: Archaeological Monitoring Plan, Mitigation Measure 3.6.1b: Inadvertent Discovery Protocol, Mitigation Measure 3.6-2: Inadvertent Discovery of Human Remains, Mitigation Measure 3.6-3b: Coordination with the Pit River Tribe during Project Development, Mitigation Measure 3.6-3c: Detailed Recordation of Features Considered</u>

Culturally Significant to the Pit River Tribe, and Mitigation Measure 3.6-3d: Cultural Resources Monitoring Program with the Pit River Tribe during Construction. ~~the same as the Project as a whole: significant and unavoidable with the implementation of Mitigation Measure 3.6-3a (implementation of the Archaeological Research Design and Treatment Plan that would be required by Mitigation Measure 3.6-1) and Mitigation Measure 3.6-3b (Tribal Cultural Resources Interpretive Program).~~"

T5-15 Regarding commenter's preference for the No Project Alternative based on impacts to Tribal Cultural Resources, see Response T5-7. Mitigation Measure 3.6-3 (Tribal Cultural Resources Interpretive Program) includes coordination with the Pit River Tribe during Project development, detailed recordation of features considered culturally significant, and a cultural resources monitoring program. Any interpretive program created as part of the Project's mitigation would be developed in coordination with and under the direction and leadership of the Pit River Tribe. It is not the County's intention to disenfranchise the Tribe's prerogative over the ways in which culturally significant resources would be recorded or honored. The EIR recognizes that impacting tribal cultural resources would be a significant and unavoidable impact that would not be mitigated to a less-than-significant level through implementation of an interpretive program and the impact to tribal cultural resources would remain significant and unavoidable.

T5-16 Regarding the County's initial consideration of potential off-site alternatives, see Response T2-4. Procedural questions about the County's adoption of the ordinance are beyond the scope of this EIR. Regarding the Project's consistency with policies in the Shasta County General Plan and with the Zoning Plan, see Response P17-5.

T5-17 The comment correctly summarizes other potential alternatives that initially were considered, but not carried forward for more detailed review for the reasons explained in Draft EIR Section 2.5.2, *Alternatives Rejected from Detailed Consideration* (at page 2-29 et seq.).

Whether more energy is needed and inquiries about the state of the existing power grid infrastructure are beyond the scope of this EIR. See Final EIR Section 2.1.1, above. Whether the Project should be granted a Use Permit is also beyond the scope of this EIR.

T5-18 Whether a project is "vital" is not one of the considerations evaluated under CEQA, which is focused on the direct, indirect, and cumulative impacts of a project on the physical environment. It also is not a factor in the identification of potential alternatives. See Response T2-5, regarding considerations involved in wind project siting decisions and factors to be weighed to distinguish among potential alternatives. The stated preference for the No Project Alternative is acknowledged, and has been included in the record for consideration by County decision-makers.

T5-19 The comment describes baseline (existing) conditions in and around the Project Site. The conditions described in the comment, including CAL FIRE and CPUC mapped fire

risk, existing risk from electrical infrastructure, existing heavy fuel loading, and the fire history of the study area for wildfire impacts (e.g., the Fountain Fire) are documented in Draft EIR Section 3.16.1.2, *Environmental Setting* (at page 3.16-1 et seq.).

The comment states that "The DEIR suggests the use of the Project Site for timber extraction would mitigate the risk of fires to less than substantial." However, more precisely, the Draft EIR explains that the Project Site would be maintained in accordance with applicable firebreak and power line clearance requirements (see Draft EIR page 3.16-18), and that, while compliance with these requirements would reduce the risk of wildfire, Project operation nonetheless would introduce new potential sources of ignition that are considered to create a potentially significant impact (Impact 3.16-2). The mitigation for operation and maintenance phase wildfire risk is described in Mitigation Measures 3.16-2a (Fire Prevention Plan), 3.16-2b (Nacelle Fire Risk Reduction), and 3.16-2c (Emergency Response Plan). It is only with implementation of these measures that the Project-related risk of wildfire would be reduced to a less-than-significant level. Displacement of tribal people from their ancestral homes due to COVID-19 and the economic recession are beyond the scope of this analysis.

T5-20 The comment quotes several statements from the Draft EIR that describe the potential for significant wildfire-related impacts resulting from Project construction, operation and maintenance, and decommissioning phases. These potentially significant impacts are disclosed for the reasons described throughout Section 3.16, *Wildfire*. However, as also described in that section, mitigation identified in the Draft EIR would reduce these impacts to less-than-significant levels. Specifically, with respect to the wildfire risk related to interconnection with PG&E infrastructure (Section 3.16.3.2), the Draft EIR explains that CPUC and PG&E risk management programs including PG&E's Fire Prevention Plan and required vegetation management would be applied to the PG&E interconnection facilities, and that "Mitigation Measure 3.16-2a (Fire Safety) and Mitigation Measure 3.16-2c (Emergency Response Plan) would be required for the PG&E infrastructure (as described in Draft EIR Section 2.4.3, *Project Substation, Switching Station and Interconnection Facilities*) to reduce a potential significant impact related to exacerbation of wildfire risks associated with the use of vehicles and equipment during construction, operation, and maintenance of the infrastructure." These requirements would effectively manage the risk of exposing surrounding communities to exacerbated risk of the uncontrolled spread of a wildfire during construction and operation of the PG&E infrastructure.

T5-21 The comment states that urbanization is a key factor in increasing the risk of wildfire and that "the number of roads proposed in the Project will increase the access to the site and thus increase the threat of a wildfire occurring." The Draft EIR acknowledges in Impact 3.16-2 (Draft EIR at page 3.16-22) that during all Project phases, Project-related vehicle use both on existing local and regional roads and on new or improved access roads within the Project Site would be a potential source of ignition, and that this could result in a significant impact. Implementation of Mitigation Measures 3.16-2a (Fire Safety) and 3.16-2c (Emergency Response Plan) would reduce this impact to

less than significant as described in the Draft EIR. The commenter correctly identifies that the Project would include the installation and maintenance of new roads and widening of existing roads; however, the Project would be located on private property where public access is currently limited. Public access to or across the site would not be permitted during construction, operation, or decommissioning of the Project. Members of the public would not be permitted on the Project Site and access roads on the Project Site are not intended for public use. Therefore, other than the Project vehicle-related fire ignition risks analyzed in Impact 3.16-2, the Project would not result in increased risk of wildfire by increasing vehicle access (i.e., by vehicles not used for the Project) to or across the Project Site.

The comment also states, without providing evidence, that mitigation measures described in the Draft EIR (i.e., Mitigation Measures 3.16-2a [Fire Safety], 3.16-2b [Nacelle Fire Risk Reduction], and 3.16-2c [Emergency Response Plan]) are not sufficient to mitigate wildfire-related impacts. The comment suggests that even though counties and the State of California have plans to prevent forest fires, the 2020 wildfire season has seen hundreds of fires in Northern California. Fire is a natural occurrence in California, and the total prevention of wildland fires in California is unrealistic and is not the success criterion by which wildfire safety planning efforts typically are judged, nor is it the significance threshold relevant to this Project's review under CEQA. CEQA requires a lead agency to identify and adopt mitigation measures that would reduce the impact of a project to a less-than-significant level. Here, the threshold of significance relates to the Project's potential to increase risk of ignition and spread of wildfire above levels existing without the Project (Draft EIR at page 3.16-19). Implementation of the above-listed measures would reduce the risk of ignition resulting from Project operation to near baseline levels and would provide the full-time operation workers with the tools and training necessary to respond to a potential fire and prevent it from spreading. This would reduce the Project's operational impact related to wildfire risk to less than significant. See Response T5-20 regarding interconnection to PG&E infrastructure.

The Project's potential to cause significant impacts resulting from wildfire-related landslides is addressed in Impact 3.16-4 (Draft EIR at page 3.16-23) and issues related to ingress and egress for emergency evacuation and response vehicles is addressed in Impact 3.16-1 (Draft EIR at page 3.16-14). Both of these impacts would be reduced to less than significant with implementation of mitigation measures described in that section.

T5-22 The commenter's preference for the No Project Alternative and opposition to any approval of something that could incrementally add to the existing fire risk in the area is acknowledged. Regarding potential impacts on aerial firefighting, see Response T3-3. The commenter's suggestion that the Pit River Tribe and their Tribal Cultural Band Representatives meet with the County and discuss a "Fire Memorandum of Understandings" and that the CalFire Native American Committee be used in Consultation is acknowledged and will be included in the record for consideration by

County decision-makers. Mitigation Measure 3.16-1b, *Pre-Construction Coordination with CAL FIRE* (at page 3.16-16), would provide pre-construction coordination to identify the exact locations and heights of the Project's structures to CAL FIRE to facilitate aerial fire-fighting, and would reduce impacts to a less-than-significant level.

T5-23 The commenter notes that the Project would impact the traditional cultural practices of the Pit River Tribe. The Draft EIR recognizes that unless a tribal cultural resource can be avoided and preserved in place according to the provisions set forth by Public Resources Code §21084.3, direct and indirect impacts to tribal cultural resources would not be reduced to a less-than-significant level and the impact would remain significant and unavoidable.

T5-24 The County recognizes the Pit River Tribe's status as a federally recognized tribe, and acknowledges the prayer run as a traditional, sacred, private practice. While the County is not a party to any of the resolutions included as part of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), the County has notified the Tribe and invited the Tribe's full participation in all stages of the CEQA process for the proposed Project including, but not limited to, the site visit of October 14, 2020, which included representatives from each of the three bands culturally affiliated to the site. The lands on which the Project are proposed to be built are in private ownership and have been used for many years for commercial timber harvesting.

T5-25 The recommendation that the requested use permit for the Project be denied is acknowledged, and has been included (along with these comments in their entirety) in the record for consideration by County decision-makers.

T5-26 The County acknowledges the commenter's identification of these additional reference materials. To the extent that copies readily could be located online, the County has obtained and considered them. To the extent that the County was not able to locate the references cited, it assumes that the commenter has provided the relevant information in the text of its letter.

Comment Letter T6

October 21, 2020

Shasta County
Department of Resource Management
Planning Division
Attn: Senior Planner Salazar
1855 Placer Street, Suite 103
Redding, CA 96001
lsalazar@co.shasta.ca.us
fw.comments@co.shasta.ca.us

RE: Comments on the Draft Environmental Impact Report for the Fountain Wind Project Use Permit No. UP 16-007

Dear Senior Planner Salazar,

I would like to open my comments with a brief background regarding the Madesi people of the Pit River Nation:

Madesi Band of the Pit River Nation

Spanning over two counties (Shasta and Siskiyou) in northeastern California are the traditional homelands of the Madesi Band of the Pit River Nation, in which the Madesi people have resided since time immemorial. These lands include the Big Bend, Montgomery Creek and Roaring Creek rancherias. The Madesi are the westernmost situated of all the Pit River bands and derive their name from the word Madesi which means the big bend in the river which is found in the heart of their homeland. They speak a dialect of the Achumawi language which is unique to them. Their country is situated between Mt. Shasta (yét a qo) and Mt. Lassen (yeetíícana) with unique habitat and watershed which influences their distinct place based identity and culture. These homelands include an abundance of geothermal springs, diverse variety of flora and fauna, valleys and steep mountain walls. The Madesi traditionally lived a subsistence lifestyle following seasonal cycles of hunting, fishing, gathering and ceremonies utilizing generational transmission of traditional knowledge and techniques. This custom has helped the Madesi people to maintain the natural ecological balance on the land as the Creator intended.

The Madesi had leaders with specific knowledge and skills such as hunt directors, battle leaders, watchmen and doctors. As well as others who studied and received training in ancient history, ceremonies and laws of the Madesi who gained the confidence of the people to become a speaker, keeper of the laws and history . One example of such a leader is Istet Woiche (William Hulsey), who had proven himself through studies and training with the confidence of his people and wore the traditional markings of three cross bars and a half bar

T6-1

Comment Letter T6

which were tattooed on the inner side of his left forearm signifying the position he had gained. He shared his knowledge of the Madesi history of the universe which was turned into the book, *Annikadel* (Istet Woiche, recorded and edited by C. Hart Merriam, M. .,). This is ust one of the numerous publications that have referenced and documented the unique history, culture, resources, and land base of the Madesi people.

The abundance of resources the land provided sustained the Madesi so that they rarely had need to leave their own territory. uropean invaders did not reach the Madesi homelands until the s due to the remote and isolated location of their territory. However, once the colonizers reached the Madesi homelands federal and state policies had been established to exterminate, remove them from and dispossess them of the land. Militias such as the Pit River Rangers and government officials like eneral ibbe carried out the removal and genocidal acts, such as the events of when Pit River people were rounded up and relocated far away to the Round alley reservation (as well as military forts, and other areas). Some of the Pit Rivers escaped and used Mt. Shasta as a guide to return home while others were held captive and their descendants remain there to this day.

There are many of these stories in our history such as one Madesi by the name of Sat wil le mot e am a, commonly known as Poor Tom who lived to be years old, who told Indian surveyors in how he had seen the first wíníll tiwí (non native people colonizers wanderers lost people) coming into his country and how he and his family were forcefully removed and relocated to the Big Bend Rancheria. Today his descendants continue to maintain strong ties to our homelands, and are honored to greet and feed Pit River Ancestral run ceremony participants as they pass through Madesi territory and continue their ourney of prayer and reverence for our Ancestors and Traditional homelands.

espite the historic atrocities of genocide and displacement the Madesi people faced, we are still here over , strong representing the largest band of the Pit River Nation. Today as resilient people we are asserting our sovereignty with the knowledge passed down to us by our ancestors to address the historic and continued impacts that threaten our homelands, inherent rights, way of life, culture, resources and continued existence of the Madesi people. The Madesi are proud to be an autonomous band of the Pit River Nation and continue to contribute in a variety of ways including politically and ceremonially.

***

As you can see the homelands of the Madesi people play a great role in our healing from the past forced removal and government backed genocidal acts against us that caused great loses, historical trauma, dispossession from our homelands, and racially motivated acts of violence and terror in order to take possession of our Ancestral lands where we have resided since time immemorial. We are so connected to the land that our connection with the land is tied to our identity as a people and one can not be distinguished from the other.

T6-1 cont.

Comment Letter T6

It is clear from the information provided in the Draft Environmental Impact Report for the proposed fountain wind project in the Ancestral Homelands of the Pit River Tribe, that it would create numerous adverse impacts to the environment and Tribal Cultural Resources of the Pit River Peoples that cannot be mitigated. Due to this fact, I Brandy McDaniels, Madesi Band Cultural Representative for the Pit River Nation join my Tribe, in supporting a **No project alternative** . T6-2

The significant adverse effects on the environment can not be mitigated, and there are many issues with the DEIR and the process itself: T6-3

- Mountains incorrectly referenced
- Pictures inserted with wrong descriptions
- Acres not truly reflecting total area of impact
- Massive amount of information to review without reasonable time frames to respond and address the significant adverse effects on the environment and known Cultural resources
- Project does not meet objectives of its stated purpose

For these and other confidential reasons I can not support the project or the DEIR. Our people are still here, we still use the land, we still fast, we still dance our traditional dances, we still eat our traditional foods, we still sing our songs and tell our stories passed down by oral traditions, we still speak our language. We are still here and our deep connection with this land and the healing properties that is holds for us will be forever harmed if this proposed project were allowed to continue. T6-4

Other issues:

- Site visit disclosed many disturbing issues T6-5
- Foreign interest Company and Foreign interest land owners T6-6
- Damage to Tribal Cultural Land scapes T6-7
- Too much confidential information already released which opens us to continued looting and vandalism T6-8
- Informational meetings do not equal Tribal Consultation or consent to the project
- Project will adversely effect our Tribal healing and community building efforts T6-9

Sincerely,

Brandy McDaniels, Madesi Band Cultural Representative for the Pit River Nation

Comment Letter T6

Letter T6: Brandy McDaniels

T6-1 The County acknowledges the commenter as the Madesi Band Cultural Representative and has considered the comments provided in light of the commenter's leadership within the Pit River Nation.

The introductory information about the Madesi Band of the Pit River Nation is consistent with information provided in Draft EIR Section 3.6.1.2, *Environmental Setting*, (at page 3.6-2 et seq.), which recognizes that the Project Site is within the ancestral territories of the Madesi, Itsatawi, and Atsugewi Bands of the Pit River Tribe. The Draft EIR notes that specific mountains and ridges are considered to be of great spiritual significance to the Pit River Tribe and that tribal elders consider these locations sacred and continue to use numerous important spiritual and cultural sites within the region. Some of these locations do not occur within the Project Site and Project activities are not anticipated to have a direct effect on some locations; however, the Draft EIR recognizes that indirect effects as a result of Project construction, operation, or decommissioning activities could occur. In addition, the Draft EIR notes that other tribal cultural resources of unspecified locations in the vicinity of the Project are traditionally important to the Pit River Tribe (see, e.g., Draft EIR at page 3.6-15). The Draft EIR recognizes that the Project would cause adverse impacts to tribal cultural resources of the Pit River Tribe that cannot be mitigated to a less-than-significant level. Further regarding the Draft EIR's disclosure of significant unavoidable impacts, see Response T4-3.

T6-2 See Response T4-3 regarding the Draft EIR's disclosure of significant unavoidable impacts to cultural and tribal cultural resources. The stated preference for the No Project Alternative is acknowledged, and has been included in the record for consideration by County decision-makers.

T6-3 The County acknowledges receipt of these concerns. However, without additional specifics about which mountains should be referenced differently, which pictures should be described differently, and which impacts are believed not to have been counted in the acreage estimates, the County does not have enough information to provide responsive corrections to the document or a more detailed response.

Regarding the duration of the review period, see Response T5-1. See Response T4-3 regarding the Draft EIR's disclosure of significant unavoidable impacts to cultural and tribal cultural resources.

As explained in Draft EIR Section ES.2.1, *Project Overview* (at pages ES-1 and ES-2), and Section ES.4, *Project Objectives* (at page ES-4), the Applicant seeks County authorization for a wind energy project that would have the generating capacity of up to 216 megawatts. See also Response T2-3 regarding project objectives. Contrary to the suggestion in this comment, if the Project were to be approved, the stated goals and objectives would be achieved. To the extent the commenter believes otherwise, the

comment provides insufficient explanation for the belief for the County to consider the alternative viewpoint in detail.

T6-4 The stated opposition to the Project is acknowledged, and has been included in the record for consideration by County decision-makers.

T6-5 The County acknowledges receipt of this concern. However, without additional specifics about what issues were found to be disturbing, the County does not have enough information to address them.

T6-6 This concern is beyond the scope of CEQA and this EIR. See Final EIR Section 2.1.1, *Input Received*, for additional detail.

T6-7 The Draft EIR provides mitigation to reduce impacts to tribal cultural resources, including Mitigation Measure 3.6-3b, *Coordination with the Pit River Tribe during Project Development*; Mitigation Measure 3.6-3c, *Detailed Recordation of Features Considered Culturally Significant to the Pit River Tribe*; and Mitigation Measure 3.6-3c, *Detailed Recordation of Features Considered Culturally Significant to the Pit River Tribe*. However, the Draft EIR and the County recognize that even with implementation of these mitigation measures, impacts to tribal cultural resources would remain significant and unavoidable.

T6-8 The County acknowledges receipt of this concern, and notes that it has taken steps throughout the process to maintain the confidentiality of culturally sensitive information, including confidential treatment of cultural reports, confining the handling of that information to appropriately credentialed individuals, and offers to meet with the Tribe without the participation of attendance of others. While CEQA primarily trends toward the disclosure of information, there is a notable exception to this practice to guard and protect resource-specific information relating to cultural resources. See, for example, CEQA Guidelines §15120(d), which provides "No document prepared pursuant to [CEQA] that is available for public examination shall include…information about the location of archaeological sites and sacred lands." The County follows this instruction and is not aware that any confidential tribal information that has been disclosed as part of the CEQA process for this Project. With respect to the location of FW11, the Draft EIR does not contain information about the location of this resource. Reports provided to the County concerning the scope and location of this resources have been available confidentially to County and to the tribe only. The comment does not specify what information may have been disclosed, by whom it may have been disclosed, or how the nature of what may have been disclosed could result in looting and vandalism.

The County agrees with the commenter that informational meetings are not synonymous with consultation in the context of CEQA, and understands that the Tribe is opposed to the Project. Regarding consultation in the context of AB 52 and CEQA, see the "pre-scoping" information that has been available on the County's Project-

specific website since January 2019[28] and Draft EIR Section 3.6.1.3, *Regulatory Setting* (at page 3.6-17). The AB 52 consultation process opened and closed without a response from the Tribe. Subsequently, the Tribe has been notified and included at all stages of the CEQA process, and ongoing discussions as well as the October 14, 2020, site visit referenced in Comment 5 (which included representatives from each of the three bands culturally affiliated to the site) have occurred. The County understands that the Applicant has also met with tribal representatives on multiple occasions.

T6-9 The Draft EIR (at page 3.6-15) and the County acknowledge that the 100-mile square of cultural affiliation provides opportunities and includes places where Tribal people can obtain power for healing, doctoring, and other purposes. The 100-mile square includes Hatchet Ridge and Bunchgrass Mountain, although each of these special places is located outside of the Project Site. As explained in Response T6-1, the Draft EIR evaluates the Project's potential direct, indirect and cumulative effects to tribal cultural resources. See Final EIR Section 2.1.1, *Input Received*, which explains that potential impacts to community building are beyond the scope of CEQA and this EIR, but can be considered as part of the County's decision-making process.

[28] Shasta County, 2020. AB 52 Consultation. https://www.co.shasta.ca.us/index/drm/planning/eir/fountain-wind-project/ab-52. Accessed December 24, 2020.

Comment Letter T7

WINNEMEM WINTU TRIBE

14840 BEAR MOUNTAIN ROAD • REDDING, CA • 96003
WWW.WINNEMEMWINTU.US

October 21, 2020 **Via Electronic Mail**

Lio Salazar, Senior Planner
Shasta County Department of Resource Management
Planning Division
1855 Placer Street, Suite 103
Redding, CA 96001
fw.comments@co.shasta.ca.us

RE: Winnemem Wintu Tribe Comments and Opposition to the Fountain Wind Project (Use Permit 16-007)

Dear Mr. Salazar,

The Winnemem Wintu Tribe (WWT) is recognized by the California Native American Heritage Commission as a Historic California Indian Tribe and is indigenous to the McCloud River, Upper Sacramento River and Lower Pit River watersheds. As a Tribe that is affected by this Project the WWT formally opposes the construction of the proposed Fountain Wind Project (Use Permit 16-007) and this letter addresses the Tribe's specific objections:

- Winnemem Wintu Tribal Cultural Resources (TCRs): The Fountain Wind Project will adversely impact Winnemem Wintu TCRs that can never be mitigated.
    - Many bird species, including federally and state protected raptors, migratory birds and songbirds, will succumb to the turbines and to date the incidental take has not been determined or permitted. Affected bird species, especially Golden and Bald Eagles, migrate and travel throughout the intermountain region and the turbines will decrease the total numbers of all affected species within this region. The affect on plant and animal species of the immediate biomes around each turbine and of the Project as a whole is unstudied and unknown, even though noise, infrasound, and shadow flicker are well documented stressors created by this type of turbine.
    - Viewshed is a resource recognized by CEQA and claimed by the WWT as a TCR. The oversized turbines situated on the ridgeline will drastically alter the viewshed of this region, both in the immediate vicinity of the Project and for many miles in all directions. An unobstructed view of and from the sacred mountains of this region has always been essential for prayer and ceremony, both of which will be affected and diminished by this Project. The Hatchet Ridge Wind Farm already adversely impacts the viewshed as far north and west as Mount Shasta.
    - Adversely affected viewsheds are also a concern and a diminishment of resource for the non-native community. Property values will decrease for unknown miles around and there will be a decrease in assessed values and property tax.

T7-1

- Wildfires: These tallest in the nation turbines will increase the incidence of lightning strikes and wildfires caused by lightning in an area already rated high fire danger by CalFire/CPUC. The incidence of wild fires caused by electrical equipment will also increase near communities that are extremely vulnerable to catastrophic forest fires.

T7-2

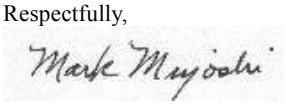
Comment Letter T7

- Tourism: The turbines will further impact the natural scenic values that attract tourists, a significant asset to an already struggling local economy.
- Water Resources: Construction of many miles of new roads, clearing of turbine pads, burial of transmission cables, spillage of transformer oils, and use of herbicides will affect the hydrology of the area and will drastically degrade the water quality of the local streams, groundwater and springs. There are no mitigations that would adequately protect or restore these valuable life supporting water resources.
- Public Health: Possible adverse effects on the health of local residents have also not been adequately studied nor mitigations developed. Shadow flicker, noise and infrasound can and will lead to increased stress and their adverse effects need to be carefully considered. Affected communities have not been fully informed and adequate protections have not been planned as part of the Project.
- Light Pollution: While the project is operational the lighting and constant flashing red lights on the turbines will drastically alter the night sky, dramatically destroying the evening beauty of an increasingly rare wild area.
- Not as Green as Advertised: The Project will only produce 20-25% of advertised capacity, clears 2250 acres of carbon sequestering forest, requires fossil fuel backup when winds are not blowing and curtails existing green hydropower when winds are blowing.
- Energy: Round Mountain substation already has voltage stability issues, already producing more power than we need (CA ISO paid Arizona to take power in 2018), PG&E requested permission to Curtail Hatchet Ridge power during negative pricing events (i.e. too much power on grid). PG&E has enough Renewable Energy to meet requirements to 2030 according to PG&E 2018 letter to CPUC.

T7-2 cont.

The Fountain Wind Project is an un-wanted and un-needed project with profound and adverse environmental affects. The Project will also adversely affect cultural resources of the WWT and the spiritual relationship of the Winnemem Wintu Tribe with the beautiful wild lands of this region. Therefore, the Tribe opposes the construction of this Project and respectfully requests that the County of Shasta deny Use Permit 16-007. Construction of industrial wind farms cannot be justified in rural and wild places!

Respectfully,



Mark Miyoshi
Tribal Historic Preservation Officer
530-926-4408

Luisa Navejas
OHP Administrator
lnavejas@finestplanet.com

cc: Caleen Sisk, Chief and Spiritual Leader, Winnemem Wintu Tribe
Luisa Navejas, Tribal Representative, WWT Office of Historic Preservation
Deborah Sivas, Esq.
Clair Cummings, Legal Advisor to Winnemem Wintu Tribe

Letter T7: Winnemem Wintu Tribe

T7-1 The County acknowledges the Winnemem Wintu Tribe's input and formal opposition to the Project. CEQA requires agencies to disclose, analyze, and mitigate where possible the potential significant effects of the discretionary projects they consider for approval. This EIR does so, in order that County decision-makers can take those impacts into account when deliberating about whether to approve, modify, or deny the requested use permit for this Project. The Draft EIR discloses that the Project would result in significant unavoidable impacts if it were approved. Such impacts would result to aesthetics, biological resources, and cultural and tribal cultural resources. See Response T4-3 for additional information about these impacts.

Regarding impacts to avian species, see generally Draft EIR Section 3.4, *Biological Resources* (at page 3.4-1 et seq.). Specifically regarding "take," see Section 3.4.1.3, *Regulatory Setting* (at pages 3.4-31 and 3.4-32). As noted above, the purpose of CEQA is to inform decision makers and the public about the potential significant environmental impacts of proposed projects, and to reduce those environmental impacts to the extent feasible. The purpose of CEQA is not to enforce or evaluate compliance with other laws, such as the federal or state Endangered Species Act. Therefore, whether take authorization is sought or received is independent of the CEQA process and this EIR. Regarding eagles, see responses to comments received from CDFW (Letter A3) and USFWS (Letter A4). Impacts of noise, including infrasound, are addressed in Draft EIR Section 3.13, *Noise and Vibration*. Impacts associated with shadow flicker are analyzed in Draft EIR Section 3.11, *Hazards and Hazardous Materials*. There is no evidence that shadow flicker causes a potential significant impact avian or other wildlife species.

See Response T4-1 regarding The Draft EIR's consideration of the ongoing impacts of the Hatchet Ridge Wind Project not only as part of the baseline condition, but also as part of the cumulative effects analysis. Regarding property values, see Final EIR Section 2.1.1, *Input Received*, which identifies this as among the concerns that are beyond the scope of CEQA and this EIR. See also, *Porterville Citizens for Responsible Hillside Development v. City of Porterville* (2007) 157 Cal.App. 4th 885, 903, which clarifies that potential impacts to property values are beyond the scope of CEQA.

T7-2 Wildfire impacts are analyzed in Section 3.16, *Wildfire*. The first sentences of this section acknowledge that the California Department of Forestry and Fire Protection (CAL FIRE) has assigned a "Very High Fire Hazard Severity Zone" rating throughout Shasta County, and that Round Mountain, Montgomery Creek, and Burney all are listed as communities at risk by CAL FIRE's Office of the State Fire Marshal (Draft EIR at page 3.16-1). See also the discussion of Impact 3.16-2 (Draft EIR at page 3.16-16 et seq.), which concludes that the Project would, unless mitigated, exacerbate wildfire risks, and which recommends mitigation measures to reduce the potential impact to a less-than-significant level.

The County acknowledges the commenter's concern about tourism. See Final EIR Section 2.1.1, *Input Received*, which identifies this as among the concerns that are beyond the scope of CEQA and this EIR.

Impacts to water quality and hydrology are analyzed in Draft EIR Section 3.12. Mitigation Measure 3.12-1, *Water Quality Best Management Practices during Activities in and near Water*, and Mitigation Measure 3.12-2, *Best Management Practices for Blasting*, are identified to reduce potential significant impacts to surface water and groundwater below established thresholds. See also, the Draft EIR's discussion of Impact 3.11-1 (at page 3.11-9 et seq.), which considers the potential for the Project to create a significant hazard to the environment through the routine transport, use, or disposal of hazardous materials or wastes, and which concludes that a less-than-significant impact would result.

Shadow flicker-related impacts are analyzed in Draft EIR Section 3.11, *Hazards and Hazardous Materials*. See Impact 3.11-6, (at pages 3.11-16 et seq.), which concludes that the Project would cause a less-than-significant shadow flicker-related impact. See also, Final EIR Appendix A3, which includes a supplemental shadow flicker analysis, which analyzes the potential shadow flicker-related impacts of the Applicant's newly proposed 6.2 MW turbine and which concludes that its use would not alter the less-than-significant impact conclusion of the Draft EIR.

Impacts of noise, including infrasound, are addressed in Draft EIR Section 3.13, *Noise and Vibration*. The Draft EIR describes relevant concepts at pages 3.13-9 and 3.13-10, and analyzes potential impacts at pages 3.13-25 and 3.13-26.

Regarding notification of potentially affected communities, see Draft EIR Section 1.4, *CEQA Process Overview*, which explains that initial community outreach occurred during the pre-scoping process in 2016 (at page 1-4) and specifically to the tribal community in 2017 (at pages 1-4 and 1-5); continued during the scoping process in 2019 (at page 1-5), and then again following issuance of the Draft EIR (at pages 1-6 and 1-7). See also Final EIR Section 1.3.1, *Agency and Public Review of the Draft EIR*. Outreach has occurred via web-postings, the posting of notices at the Office of the County Clerk and the State Clearinghouse, direct mailings, newspaper notifications, and the County's Project-specific email listserv. Based on receipt of input from more than 100 entities following the issuance of the Draft EIR, the County disagrees with the suggestion that public notice has been less than adequate.

Regarding night sky impacts, see Response A2-1 and Response T5-5.

No data or other evidence is offered in support of the unsubstantiated opinion that the Project would only produce 20-25 percent of the advertised capacity. Regarding the loss of carbon sequestration capacity, see Draft EIR Section 3.10, *Greenhouse Gas Emissions*, including Section 3.10.3.1 (at pages 3.10-12 and 3.10-13), which explains that the analytical methodology used in the analysis considers the loss of sequestration capacity as a factor, and Section 3.10.3.2, which expressly considers loss of carbon

sequestration capacity in the context of Impact 3.10-1 and the generation of GHG emissions (at pages 3.10-16 an d3.10-17) and in the context of Impact 3.10-2's consideration of Project consistency with the Forest Carbon Plan (at pages 3.10-18 and 3.10-19).

Regarding grid stability and the State's renewable energy requirements, see Final EIR Section 2.1.1, *Input Received*, which identifies these and other issues that are beyond the scope of the CEQA analysis for this Project. Regarding Energy issues more generally, see Draft EIR Section 3.7 (at page 3.7-1 et seq.).

2.2.3 Responses to Comments from Organizations and Individuals

Comment Letter P1

Dear Shasta County Planners,

We are owners of a 10-acre parcel about one mile downhill from the seven turbines proposed north of Route 299. This land is very important to our family. It was inherited from my mother, and originally homesteaded by my great-grandparents. The rest of the 160-acre parcel, collectively known as the Buffum Homestead, is owned by other family members. Since the 1890's our family has been gathering on this land, and we hope to continue this tradition for generations to come.

We are concerned about ill effects from the proposed enormous turbines. It will hurt the scenic views (Impact 3.2-1), threaten our native animals and birds (Impact 3.4-3 and others), and increase noise (Impact 3.13-1). Our water rights are tied to a spring in an area above our property. Mitigation Measure 3.4-16b says "The Applicant will avoid direct and indirect impacts to wetlands and streams in final siting and design *to the maximum extent feasible*." Does this assure that our watershed won't be disturbed and/or polluted, and the flow of our water down the mountain won't be disrupted? These are just a few of our concerns. P1-1

We are saddened when we think of our property being within a mile of seven six-hundred-foot wind turbines. We are also saddened that the project asks others in the area to see or live near a "forest" of other giant turbines. It seems that this Project proposes to provide clean energy to some people in California by destroying the beauty of an area enjoyed and valued by many others.

Isn't there some better way?

Yours truly,

Barbara Stanford Boyan
Craig Boyan
105 Island Court Walnut Creek, CA 94595
(925) 212-4192
(925) 323-2935

Letter P1: Barbara Stanford Boyan

P1-1 Potential impacts to scenic views, wildlife resources, and noise are described in Impact 3.2-1, Impacts 3.4-2 through 3.4-11, and Impact 3.13-1, respectively.

Mitigation Measure 3.4-16b, *Avoid and Minimize Impacts to Wetlands and Other Waters*, is one of three mitigation measures that would reduce the potential for the Project to result in a significant impact to wetlands and other waters (Impact 3.4-16, Draft EIR at page 3.4-64 et seq.). The other two are Mitigation Measure 3.4-16a, *Water Quality Best Management Practices during Activities in and near Water* (at page 3.4-65) and Mitigation Measure 3.4-16c, *Compensate for Impacts to Wetlands and other Waters* (at page 3.4-66). The requirements of these measures target the primary causes of potential impacts to wetlands and other waters, including the improvement or placement of access roads on the Project Site (see Figure 2-5, *Road Network* [at page 2-15]). Where these roads intersect wetland or other waters, they would be diverted though culverts that would allow unimpeded water flow. Hence, the volume of water flowing off-site would not be reduced by the Project. Potential impacts to water quality also would be reduced through measures discussed in Draft EIR Section 3.12, *Hydrology and Water Quality* (at page 3.12-1 et seq.).

Mitigation Measure 3.4-16b requires the Applicant to "[a]void direct and indirect impacts to wetlands and streams in final siting and design to the maximum extent feasible" and, assuming that avoidance may not be feasible in all instances, also requires the Applicant to take the further actions listed in the measure as items b) through g). Neither Mitigation Measure 3.4-16b alone nor in combination with all other mitigation measures to reduce the Project's potential significant impact would "assure" that the watershed would not be disturbed or otherwise adversely affected by the Project. However, the implementation of these measures in combination with applicable permit requirements would reduce the Project's potential to result in adverse impacts to wetlands and other waters to a less than significant level.

Comment Letter P2

Lio Salazar

From: Charlene Buffum <charbuffum@jett.net>
Sent: Sunday, August 30, 2020 11:41 PM
To: Lio Salazar
Subject: Re: Fountain Wind Project

Dear Lio Salazar,
My husband's grandparents, are the original owners of the Buffum Homestead in Shasta County. I am writing to object to the building of the Wind Turbines in close proximity to our Homestead.

Frank A & Florence Buffum homesteaded & developed this land back in the late 1890's. They handed it down to their children. It has been handed down to each generation which loves and respects it as much as the original homesteaders did. Each generation has made improvements to the land where Buffum's from CO, MI, NY, OR, WA & HI and all over CA gather together every year to renew their relationships in a peaceful atmosphere.

None of the Buffum family or other families in the area that will be affected by these giant Wind Turbines want them in our area! It is bad enough to have those on Hatchet Ridge which we can see from the homestead. In fact, I can see them in Redding when I turn onto a street that faces east when I drive to my home.

Why do you want to put them in God's Country and spoil the beauty of the area? Not to mention how it kills the birds, other wildlife and are very noisy and ugly to look at. Plus, the mountains are prone to lightning fires, so we don't need the tall, ugly Wind Turbines that can cause fires under certain conditions added to this worry.

Why don't you install them in the valley or desert regions of CA where they will not disturb the beauty of our area in the mountains. How many trees will have to be cut down to accommodate these Wind Turbines? That in itself, destroys the property & takes away much of the beauty of the area. P2-1 P2-2

The cost of installing these Wind Turbines is very debatable. I have read that it takes 20 years for them to pay for themselves. And that they have a life expectancy of about 20 years!

What will happen to the ground water during construction? What about the noise, dust & the wildlife in harms way during construction? We don't want bigger P2-3

& better roads that will be needed to haul these huge turbines to where they need to be installed. That would only bring more people in to dump their trash, old tires, stoves, etc.. We have a big enough problem with that going on now. PS-4

Please rethink your reasons for installing these Wind Turbines in Eastern Shasta County near or on our homestead property. We want to keep the place of our roots as a peaceful refuge for future generations.

Sincerely,
Charlene Buffum

Letter P2: Charlene Buffum

P2-1 Draft EIR Section 2.5.2.1 (at page 2-29) explains why potential off-site alternatives initially were considered, but not carried forward for more detailed review. See also Response T2-4, which further explains why off-site alternatives were not considered in detail in this EIR.

P2-2 Note (d) accompanying Table 2-1 (Draft EIR at page 2-7) explains that timber to be harvested and timberland to be converted is included within the anticipated 1,384--acre temporary disturbance area. Direct, indirect, and cumulative impacts to Forest Resources are analyzed in Draft EIR Section 3.8 (at page 3.8-1 et seq.), while the impacts of tree removal as part of the site preparation process are analyzed on a resource-by-resource basis throughout Draft EIR Chapter 3, *Environmental Analysis* (see, e.g., Section 3.2.4.2, *Direct and indirect Effects of the Project* on a scenic vista or the character or visual quality of views from publicly accessible vantage points). Otherwise, as disclosed in the Draft EIR (see, e.g., page 3.4-8), independent from the Project, the Project Site and surrounding lands are operated as managed forest timberlands and, as such, would be subject to regular disturbances and traffic associated with timber harvesting activities. Tree removal consistent with the operation of commercial timberlands also would occur under the No Project Alternative (see Draft EIR at pages 2-34 and 2-35).

P2-3 Potential construction-related impacts to groundwater are analyzed in Draft EIR Section 3.12.3.2 (at page 3.12-11 et seq.) and Section 3.12.4 (at page 3.12-23 et seq.). With the implementation of recommended mitigation measures, impacts would be reduced below established thresholds of significance. See, e.g., the analysis of Impact 3.12-2 (at page 3.12-15 et seq.), which evaluates the impacts of blasting, if it occurs, on groundwater quality; and Impact 3.12-3 (at page 3.12-17 et seq.), which concludes that the Project would cause a less-than-significant impact related to a decrease in groundwater supplies or interference with groundwater recharge. Construction impacts relating to noise, dust, and wildlife also are analyzed in the Draft EIR. See, Section 3.13 (Noise and Vibration), Section 3.3 (Air Quality) and Section 3.4 (Biological Resources).

P2-4 The County acknowledges the stated preference that the proposed roadway improvements do not occur. The County further acknowledges the stated concerns about the level of illegal dumping that occurs under existing (pre-Project) conditions. Access to the Project Site would be gated and controlled, and workers would be present on-site during all phases of the Project, including construction, operation and maintenance, and decommissioning. These factors would tend to decrease the opportunity for illegal dumping to occur.

Potential wildfire impacts are analyzed in the Draft EIR at Section 3.16. Mitigation Measures 3.16-2a, 2b, and 2c, among others, would reduce Project-related impacts to less-than-significant levels.

Comment Letter P3

fw.comments@co.shasta.ca.us

DEPARTMENT OF RESOURCE MANAGEMENT, ***PLANNING*** DIVISION
Re: Public input on Fountain Windmill industrial development Application

Under common sense and full access to pubic hearings (the Brown Act) there is necessary cause to suspend any action on this Application, until such time the Covid-19 restrictions are lifted and community public meetings and governmental hearings are fully restored! P3-1

Those who FAIL to PLAN—are planning to FAIL! Approval of ANY non-self-sustaining or non-independently profitable industrialization projects, reliant on taxpayer subsidization, are, foundationally, projects that are "planning to fail" (ie. when the subsidies run out), and mere Application canNOT demonstrate GOOD or **ANY** CAUSE FOR APPROVAL!

Perhaps, the most indisputable demonstration of such FAILURE and short-sighted "non-planning" is the environmental "disastrous", and NOW abandoned (9 years), Burney Mountain Power/Covanta Co-Generation wood-chip burning plant located between Burney and Johnson Park. This monstrous 30-million dollar junkpile, rusting (not green) is a visual blight on the landscape, and, sadly, it is an appropriate "memorial" to either gross short-sighted planning (or abject failure to plan) or to the corrupting monetary influences on the "planners/supervisors", distorting the "souls" of otherwise intelligent and reasonable people. The above-mentioned GREEN" ENERGY PLANT opened 6/1/1985 and became inoperable shortly after the "subsidies" ran out and officially closed 10/2011. The only intelligent "planning", especially in light of present uncertain economic and socio-political trends, is for the long-term, NOT the **PROJECTED** subsidized term. If it can't stand on its own, it should NOT stand at all! (And certainly not 679 Ft. tall!)

"Green Energy" is a legal/legislative invention with the alleged intent and purpose to drive alternative energy sources into production. Upon reasonable investigation the environmental costs and toxicity to produce such "GREEN-ENERGY" alternatives appear to be no more than a "worldly" ploy to deceive the good nature of people in their naive, yet sincere, desire to preserve the natural beauty and a healthful environment for themselves and their heritage/lineage.

There appears NO logical, reasonable justification to directly decimate 38,000 acres of wild forest land and blight the skyline for 75 miles to approve "long-term failure" of more windmills with known service-life/operational and financial viability of no more than 20 years. Most homesteads on the western slope of the proposed Fountain Wind Project obtain their water from this watershed area and subterranean aquifers, and the blasting into mountain bedrock necessary to construct 50- ft. pilings to support these 679 ft. windmills will predictably damage, if not completely destroy, their water sources. Again, contextually noting, this industrialization "project" is being proposed to take place in an "Officially" recognized high-risk fire zone.

Truly, the only thing "Green" about these 679 ft. towers appears to be the "Green-backs" extracted from taxpayers through financial subsidies paid to non-resident foreign (Arab?) shell corporations initially making these Applications.

Comment Letter P3

Enclosed and incorporated by this expressed reference for your consideration is a “letter to the editor” dated 19 August 2019.

Thank you for your sincere and deliberate consideration of the above information!

Tim Kersten

Comment Letter P3

19 August 2019
Dear Editor:

"Pet slogans" ultimately reveal themselves as an admittedly effective and primary form of operational propaganda. They cloak hidden motives (commerce/profit) with the intent and purpose of controlling others through distorted definitions (pet slogans/memes), creating perceptions leading to fallacious beliefs and actions.

There is, presently, a pending "application" (Use Permit 16-007) before the Shasta Co. Planning Div. and the Board of Supervisors to approve the ***Fountain Wind Project*** to erect, on the western slope of Hatchet Mountain Ridge, up to one hundred (100) six-hundred (600) foot tall wind turbines, impacting 38,000 acres.

The claim and justification for proposing such a massive and irreversible (explained later) project (made through an Oregon shell corp.) by a foreign consortium of Arab financiers is to seek US tax-dollar subsidies, in pandering to the legislative illusion (again, driven by commerce) to meet an arbitrary goal of supplying an ever-increasing percentage of energy via "green energy" sources. Such sources are themselves "distorted definitions" by administrative regulatory proclamation (EPA etc.) purportedly linked to reported emission of "greenhouse gases" (principally carbon dioxide, CO2) yet EXCLUDE most PG&E hydroelectric power generation.

Additional "distortions" in this "pet slogan" arise when it is learned the "definition" selectively ignores the toxic and radioactive wastes and CO2 produced in mining the rare earth minerals used in producing the huge magnets in the turbines (produced in China) and the fact the CO2 produced in the manufacture of just the cement (900 tons per each 400 ft. turbine tower) alone can never be offset by the purported "green-energy" produced during the 25 years of operation/subsidy. Add to that the CO2 released in smelting the 200 tons of internal structural steel and the heightened risks of wildland fires caused by turbine failures!

Facts:

1. The concrete tower supporting the generating turbine is seventy five (75) feet in circumference at its base which sits on yet a larger base/pad anchored with poured concrete pilings sunk 50 foot into the mountain. The drilling and blasting for these pilings irreversible affects subterranean strata (**once poured can never be removed**) and can **permanently alter natural and established water flow patterns.** P3-2

2. Infra-sound (below sensory thresholds) in air and soil (including extremely low frequency ELF created by turbine and blades) and subterranean electrical grounding and transmission lines have already turned **existing turbine "projects"** into, as identified by ***Scientific American*** (research and publication), the **"alpha-predator" to all indigenous wildlife, killing more "critters" than any other existing force/phenomena or nature predator.** P3-3

3. Yes, I admit my concern regarding ***FOUNTAIN WIND PROJECT*** holds a personal "commercial" interest, as I am very interested in protecting my health and greatest "asset" (See ***Wind Turbine Syndrome and the Brain*, Dr. Pierpont MD PhD**) as well as the property values of both my business and home. Property valuations are already adversely impacted in anticipation of approval of this project. Please, in behalf of yourself and your progeny, investigate the totality of the circumstances surrounding this pending situation. P3-4

Note: Meetings, **second Tuesday of each month: Hill Country Health and Wellness Center, Round Mountain** (5:30 Pot Luck) - more info at ***www.stopfw.com***

Tim Kersten

Comment Letter P3

TILTING WINDMILLS BY
PRAYER FOR THE INDIVIDUAL UNCONSCIOUS

It repeatedly is revealed by psychologists and those studying the human experience that 85% of our decisions and/or decision-making process arises from an unconscious awareness. Personally, I have recognized, more frequently than not, that my decisions often fail to track my rational and deliberate **conscious** listings of the "PROS v. CONS". This inconsistency necessarily begs the question of what cognitive or other process is, thus, operational, which, when explored, may reveal important clues about the true nature of our Being. This query, taken in combination with the fact the "mind" making such decision is a non-local, non-material phenomena distinct from the physical structure called the brain, seems to indicate willful cognition (a conscious choice) may NOT fundamentally dominate or be determinative in the decisions being made.

So, then, what is the controlling force/intelligence?

Almost universally the human Being acknowledges a part of its awareness as etherial, a non-material Divine/Spiritual essence quite beyond mere "blood and bones". The birth of a baby immediately crashes many illusionary material "realities" into the wall of wonderment known as Creation. If all of the great scientists and all the great physicians gathered together, their combined abilities could NEVER CREATE LIFE! Yes, they could "clone" or copy LIFE but never Create it, making their "clone" absolutely dependent upon a pre-existing LIFE/ Creation matrix. The Creation impulse initiating LIFE is not of this "material" world, and, without that Infinite Creative Potential, the "birth of that baby" would never have 10 perfect fingers, 10 perfect toes and, yes, a perfect button-nose.

That Divine/Spiritual sense of our existence, especially prevalent in indigenous people and others fortunate enough not to be tangled in the web of "worldly power and influence", acknowledge with abject **certainty** a "knowing" of an "after-life", possibly attributable to the "soul" or an energetic body not tethered to the physical body.

OK--So what does all of this have to do with the pending decision for the approval of 72 additional (these now at 679 foot tall) windmills, the soul and the unconscious "mind"?

Returning to the initial and observed "premise" that an **individual's** decisions appear to flow from the unconscious, non-local "mind", it raises the possibility "mind" receives input from a WiFi or intuitive type (6th sense) "internet" connections from other souls, perhaps energies from overseeing-Spiritual Beings and, perhaps, even from the earth itself ? This "sense" of interconnection with other sovereign soul-carrier Beings is easily veiled, distorted and even muted when that **individual** acts/performs from within any "collective-consciousness" such as a political Commission, Board or Committee. Such fragmentation of personal/soul interconnection appears to distort one's innate sense of personal accountability which is ruthlessly sacrificed on the altar of the soulless "collective". Whether by deliberate design or not, this form of separation or immunity from direct personal responsibility and its resultant and, potentially, irreversible impact

1

Comment Letter P3

upon others and the earth, seemingly afforded by the impersonal and soulless "collective's decision, provides a temporal, but false, sense of "security". Unfortunately, the "collective-consciousness" is soulless; however, the individual members are NOT and must live with soul-connection and subject to, NOT immune from, the spiritual ramifications of submission to "worldly commands" or commercially-driven pre-determined agendas. Again, the dissonance at the soul level is only experienced by the soul-carrier and is "sensed" as a compromise of the essence of Being, a form of spiritual death. The causation of this dissonance/dis-ease is rarely "consciously" recognized but consumes the unconscious awareness creating the pain of being possessed by the world and NOT by the true soul essence in which they were blessed and "gifted". Self-Betrayal may truly be the unforgivable sin.

Granted, in corrupted instances, the "worldly system" may "grease the controlling voting members' palms" but their souls remain naked within the perils of "Hinnom Valley" in danger of "incineration".

Upon careful reflection one realizes our "suffering", no matter how personal, has political roots and until personal accountability rests firmly upon each politician's head, heart, soul and their individual pocket books, our "suffering" will continue.

This letter is written to all ***individuals*** "with ears that can still hear" as **Commissions** (Planning) and the **Boards** (of Supervisors) are deaf, soulless, mechanistic "collectives". At the close of "hearings", the making of decisions, and at the "end of the day", each member will "walk the walk" with their soul brothers and sisters, without the illusionary shield of the soulless and indifferent "collective".

I am not an atheist and have lived long enough to realize the Universe is a reflective and Spiritual medium (as you sow–so shall you reap), and, because of this, I am not reliant on the "PROS v. CONS" list arguments, as the "Just-Us" of man's law is invented/created, interpreted, enforced and manipulated by man and his money; we necessarily need to take this to a HIGHER energy/authority.

My vigilance, in raising my objection to the abject insanity of a 679 foot/900 tons of concrete/200 tons of re-bar metal windmill, protects not only my soul-connections but ensures that silence can never be mis-characterized as a tacit agreement! Man's game is the "short-game", whereas faith in the perfect reflective Spiritual Principles of the Universe shall be the immutable and triumphant "long-game".

If each electric customer reduced consumption by 5% and there were a reciprocal or equivalent rebate, using those same taxpayer subsidy funds now earmarked for "Green energy", there would be NO change in life style, a conscious increase of conservation awareness (highest form of GREEN), NO further decimation of our precious earth, the energy issue SOLVED and, equally important, NO more souls needlessly sacrificed on the alter of the soulless collectives. P3-5

So, wherein lies the necessity for "A Prayer for the Individual Unconscious".

Tim Kersten 9/27/2020

Letter P3: Tim Kersten

P3-1 See Response T5-1 regarding COVID-19 pandemic conditions as they relate to the County's consideration of the EIR and this Project. For the reasons explained in that response, the County disagrees with the suggestion to suspend action on the Project.

P3-2 See Draft EIR Table 2-1, *Project Components and Disturbance Areas* (at page 2-7), which discloses the temporary and permanent disturbance areas associated with turbines, turbine pads, and other components. The potential significant impacts of drilling and blasting are described and analyzed in Draft EIR Chapter 3, *Environmental Analysis*. See, e.g., Draft EIR Section 3.11, *Hazards and Hazardous Materials* (at page 3.11-3), Section 3.13, *Noise and Vibration* (at pages 3.13-11 et seq. and pages 3.13-21, 3.13-28, 3.13-31 through 3.13-33), and Section 3.16, *Wildfire* (at page 3.16-17).

Specifically regarding potential blasting impacts to Hydrology and Water Quality, see Draft EIR Section 3.12 (e.g., at pages 3.12-15 and 3.12-21 et seq.). In particular, see Mitigation Measure 3.12-2, *Best Management Practices for Blasting* (Draft EIR at page 3.12-15 et seq.), which would require preparation and implementation of a blasting plan and that specified loading practices be followed, practices be followed to prevent misfires, and blast rock piles be managed. Blasting practices are a refined science and would be designed to target only the areas necessary to construct the proposed improvements. Any blasting conducted along with the construction of foundations necessary to support the proposed turbines would be dispersed throughout the Project Site and represent a relatively small area of disturbance compared with the larger watershed. Construction of the turbines would not interfere with surface water, groundwater, or spring flows such that there would be no substantive effect on existing uses of water supplies. Although general concerns about blasting are acknowledged, the Draft EIR concludes that this Project, with the implementation of recommended mitigation measures, would have a less-than-significant impact to hydrology and water quality relating to drilling and blasting.

P3-3 The Draft EIR analyzes potential impacts relating to infrasound in Section 3.13, *Noise and Vibration*. Input received during the scoping period regarding infrasound is summarized on Draft EIR page 3.13-1 and in Appendix J, *Scoping Report*; infrasound is described on pages 3.13-9 and 3.13-10; and impacts are analyzed on page 3.13-18 et seq., pages 3.13-25 and 3.13-26.

The County was able to locate an article published by *Scientific American* that likens wind farms to apex predators.[29] Despite the alarming headline, the article emphasizes that "researchers stress that even though wind energy has ecological impacts, we should still use it. After all, fossil fuels upset the environment in a much more profound way. Rather than criticizing wind power the scientists involved say their work is

[29] Sneed, 2018. Wind Turbines Can Act Like Apex Predators: Wind farms can cause a cascade of ecological effects, but are still needed to provided cleaner energy supplies. Available online: https://www.scientificamerican.com/article/wind-turbines-can-act-like-apex-predators1/. November 14, 2018.

intended to help people make better-informed decisions about how and where they use clean energy." Further, "this [i.e., the study that was the subject of the article] does not mean we should demonize or get rid of wind energy" and "climate change poses a threat to species and ecosystems all over the world." A copy of the article has been included in the record, where it may be considered by the County as part of the decision-making process.

P3-4 Concerns about wind turbine syndrome were expressed during the scoping period (see Draft EIR Appendix J, *Scoping Report*) and were evaluated in Draft EIR Section 3.1.4.17, *"Wind Turbine Syndrome"* (at pages 3.1-28 and 3.1-29). The Draft EIR summarizes peer-reviewed scientific research and concludes, based on the current state of the science, that: "(a) there is no agreement among scientists that Wind Turbine Syndrome is a risk to human health, (b) there are no defined or adopted CEQA standards for defining health risk from wind turbine–generated sound, and (c) the County has determined that the potential for health effects associated with "wind turbine syndrome" as characterized in scoping comments is too speculative to allow for a meaningful evaluation of potential impacts." Concerns about property values are outside the scope of the EIR for this Project. See *Porterville Citizens for Responsible Hillside Development v. City of Porterville* (2007) 157 Cal.App. 4th 885, 903, which clarifies that potential impacts to property values are beyond the scope of CEQA.

P3-5 Draft EIR Section 2.5.2.4 (at pages 2-32 and 2-33) explains that the County initially considered conservation/demand side management, i.e., reduced consumption, as a potential alternative to the Project, but did not carry it forward for more detailed review because it would not meet most of the basic objectives of the Project, and because reliance on conservation and demand side management alone would be speculative and a technically infeasible alternative to the Project as proposed.

The remaining text in this comment letter does not raise issues regarding the analysis contained within the Draft EIR.

Comment Letter P4

Shasta County Department of Resource Management, Planning Division
1855 Placer ST. Suite 103
Redding, CA 96001

Att: Lio Salazar:

The following comments are concerning Draft EIR for the proposed project identified as the Fountain Wind Project (Use permit 16-007):

- I am a home owner at Moose Camp. This home has been in our family since the 1960's and I wish to keep it for my grandchildren and great grandchildren. We rebuilt after the Fountain Fire. We love the wildlife, the quiet mountain area, and the proximity of Shasta Counties best of outdoors.
- IMPACT OF INDUSTRIAL WIND TURBINES ON A RESIDENTIAL AREA:
- 50 homes as close as 2200 feet away
- KOP (Key Observation Point) EIR says 75 Shasta County taxpayers don't matter
- KOP #1 is twice as far away from the nearest wind turbine than is Moose Camp
- Look at Google Earth - view of 50 Moose Camp residences, never shown in draft EIR
- MOOSE CAMP NEEDS TO BE ADDED TO KOP THEN TO FINAL EIR

P4-1

- State of Wyoming requires disturbs to be located 5.5 times total turbine height away from residences
- Life span of a wind turbine is only 20 to 25 years . Xcel Energy's Ponnequin wind farm recently retired 44 turbines at average age of 18 years. Blades are so huge they have to be trucked in - in 2 parts, then assembled. Blades are made of toxic material - how to dispose of those when they are retired

5% of land is now used for power, If all alternative plans are put into use 25% of our wild land will be polluted with windmills

Shasta County already and still is doing their part regarding energy by making hydroelectric and sending it south.

P4-2

- MOOSE CAMP IS DEMANDINGTHE REMOVAL OF PROPOSED WIND TURBINES (D1 THRU D5). THE VAST MAJORITY OF INDUSTRIAL WIND FARMS ARE LOCATED OUTSIDE OF RESIDENTIAL AREAS

P4-3

Lyda Alward

Lyda Swarts Alward
Moose Camp Homeowner
Shasta County Voter

RECEIVED
SHASTA COUNTY
SEP 08 2020
DEPT OF RESOURCE MGMT
PLANNING DIVISION

Comment Letter P4

Lio Salazar

From: Lyda Alward <lydalee56@yahoo.com>
Sent: Tuesday, October 20, 2020 10:32 PM
To: Fountain Wind Project
Subject: Fountain Wind Project

Sent from my iPhone

Begin forwarded message:

Shasta County Planning Commissioners,

This email is in regards to the Fountain Wind Project's Environmental Impact Report. As a resident of Montgomery Creek in Shasta County, I am concerned about several issues that I feel were not adequately addressed.

First and foremost, the EIR does not address how the 650 foot tall wind turbines will affect fire protection, should the need arise. Is it the understanding of the Planning Commissioners that these 33,000+ acres will not ever need helicopters or air tankers to help battle a future fire in the area? What is the alternative that the US Forest Service is able to put into place? P4-4

Secondly, the EIR does not address the potential pollution both to the land and air if the turbines were to burn in a wildfire. Did Shasta County require a bond upfront to make sure that in the case of a fire or when the turbines become obsolete the company is responsible for returning the land to how it was before the wind farm was created? P4-5

Third, the EIR did not include photo simulations of how the turbines will impact the residences of Moose Camp, of which I am one. It does not address the actual distance from the turbines to each of the homes in the region. Will noise be an issue? What decibel level will be perceived at each of the homes in the area? Will light flicker hinder the view? How much vibration will the turbines cause on the volcanic earth and to our homes? P4-6

Fourth, the EIR does not address our water wells and the existing water table in which we rely. Will construction and maintenance of the turbines cause any contamination or change in the level of the water? P4-7

Fifth, the EIR has not specifically said how many trips will be made through our neighborhood on Moose Camp Road. How large of vehicles will be traversing on Moose Camp Road? What fuel type will the vehicles use? Will they add pollution to the homes that line Moose Camp Road? Will they vibrate the area? What decibel level will the vehicles emit? P4-8

Comment Letter P4

Finally, given our fragile ecosystem in the area, I do not believe the Fountain Wind Project needs the large number of turbines or even the enormous size of these turbines in order to produce energy.

I believe a more thorough EIR is necessary before our Shasta County Planning Division can make a decision on the next step in the process.

Lyda Alward

19615 Elk Ave

Montgomery Creek, CA 96065

Letter P4: Lyda Swarts Alward

P4-1 As noted on Draft EIR page 3.2-1, visual or aesthetic resources are defined for the purpose of this analysis as both the natural and built features of the landscape that contribute to the public's experience and appreciation of a given environment. As discussed on Draft EIR page 3.2-5, 37 viewpoints were considered for this analysis, including viewpoints from representative or visually sensitive areas within the study area. Photographs from additional viewpoints were collected to account for potentially sensitive receptors and views identified as particularly sensitive during the public scoping period. From this set of 37, seven views were identified that are *representative* of the range of viewer sensitivities, landscapes, and land uses in the Project viewshed. Appendix G of the CEQA Guidelines states that an aesthetics analysis evaluate impacts to public views, and defines public views as "those that are experienced from publicly accessible vantage points." Consistent with CEQA's focus on potential impacts to the public at large rather than to individual members of the public,[30] and consistent with the definition provided in the CEQA Guidelines, the seven viewpoints selected for more detailed consideration represent publicly accessible views and locations; they do not assess visual impacts to private views. Further, neither state nor local law protects private views from private lands and the rights of one private landowner cannot prevail over the rights of another private landowner except in accordance with uniformly applied standards and policies as expressed in a local agency's general plan, redevelopment plan, local coastal program and zoning ordinances. Stated another way, California landowners do not have a right of access to views over adjoining property.[31] Thus, the private residential views of Moose Camp are not specifically considered in the impact analysis.

However, KOP 1 is representative of views experienced by tourists traveling through the area on SR 299 and is intended to represent views of nearby residents traveling along Moose Camp Road. Typical viewers at this location (tourists and residents) are assumed to have a moderately high to high sensitivity to visual change. As discussed on Draft EIR pages 3.2-22 through 3.2-24, the dominance of the turbines as viewed from KOP 1 would become the view's most memorable component, detracting from the intended purpose of the vista point. Therefore, the Project would have an adverse effect on the Fountain Fire Scenic Vista. Further, as discussed on Draft EIR page 3.2-40, from locations where wind turbines are not currently visible, the Project would introduce a substantial level of visual change. If turbines were to be removed from views from KOP 1, then the visual impact of the Project at KOP 1 could be reduced to a less-than-significant level. However, given uncertainty about the feasibility of removing, or sufficiently moving, the turbines from views from KOP 1, impacts would remain significant and unavoidable even with the implementation of Mitigation Measure 3.2-1 (this measure includes consideration of removal or relocation

30 Mira Mar Mobile Community. v. City of Oceanside (2004) 119 Cal. App. 4th 477, 492, as modified (July 13, 2004) ("Under CEQA, the question is whether a project will affect the environment of persons in general, not whether a project will affect particular persons.").

31 Wolford v. Thomas (1987) 190 Cal.App.3d 347, 358 (affirming trial court conclusion that no legal claim for private nuisance exists because there is no right of access to air, light and view under California law).

of turbines in the vicinity of KOP 1). Additionally, while the amount of visual change from most representative viewpoints is not considered significant, when considered as a whole, the Project would have a significant impact on the visual character and quality of views in the Project region. There is no feasible mitigation that could reduce the visual impact of the Project as a whole. Therefore, the impact of the Project on scenic vistas, visual character, and visual quality would be significant and unavoidable. Thus, while views from private residences at Moose Camp are not considered in the analysis, it is acknowledged that the Project as a whole would have a significant and unavoidable effect on aesthetic resources.

P4-2 The County acknowledges this assertion of the State of Wyoming's residential setback requirements. That different jurisdictions may reach different decisions about an appropriate setback distance is clear from the Draft EIR's analysis of Impact 3.11-3, which (at page 3.11-13) identifies the setback requirements of six counties within California, including Kern, Solano, and Riverside counties, which are home to the vast majority of wind energy production in the State (see Table 3.1-2 at page 3.1-7). This comment's identification of a conclusion by another jurisdiction does not indicate that the Draft EIR's methodology, analysis, or conclusions are inaccurate or inadequate for purposes of CEQA. Further, the setback used as a significance threshold in the Draft EIR is consistent with those used by other jurisdictions and as a whole includes setbacks from public roads as well as residences.

Draft EIR Section 2.4.6 states, "Although upgrading and replacing equipment could extend the operating life of the wind energy facility indefinitely, for CEQA purposes, the life of the Project would be coterminous with the term of the use permit that is required for its operation, i.e., 40 years." The timing of other developers' repowering decisions about other projects on other sites does not bear on the adequacy or accuracy of this EIR.

The County disagrees with the suggestion in this comment that turbine blades are made of toxic material. To the contrary, they are made of fiberglass. The Occupational Safety and Health Administration (OSHA) notes that scientists have conducted over 400 studies of fiberglass to determine whether fiberglass could result in the development of cancer or other serious health hazards, and have concluded that it will not. OSHA confirmed these findings in 1991 when it decided to regulate fiberglass as a nuisance dust, and not as a cancer-causing agent.[32]

See Response T5-4 regarding the disposal of turbine components, including regarding recycling, scrap value, and landfill capacity.

It is not clear where the commenter obtained the information that "5% of land is now used for power" or that "if all alternative plans are put into use 25% of our wild land will be polluted with windmills." The County acknowledges that the State has enacted

[32] OSHA, 2018. Is Fiberglass a Health Hazard? https://www.safetymanualosha.com/is-fiberglass-a-health-hazard/. June 22, 2018.

ambitious emissions reduction goals that rely on expanding renewable energy infrastructure but disagrees with the commenter's assertions. An entity called the Land Art Generator Initiative investigated the land use impact of what a shift to a 100% renewable energy infrastructure might look like and, based on data from the California Air Resources Board, U.S. Energy Information Administration, the California Department of Conservation and other cited sources, created an information graphic to show the results.[33] The graphic shows "a diversified mix of renewable energy technologies and the impact in terms of land area in direct proportion to consumption by county…. Much of the infrastructure can be located within our cities—on rooftops and through creative and community-owned applications in public spaces. The rest could easily be located in the places that have already been disturbed by oil and gas extraction—the dark dots on the map." The graphic supports a different conclusion than the commenter's. Further, according to a report published by the National Renewable Energy Laboratory in August 2009, large wind facilities use between 24.7 and 123.6 acres per megawatt of output capacity.[34] This Project is efficient by comparison: it proposes to generate up to 216 MW on a 4,464 acre site, and so would require approximately 20.7 acres per megawatt of output capacity.

The County further disagrees with the suggestion that the Project would result in the pollution of wildlands with windmills. Section 2.4.7 explains (at pages 2-23 and 2-24) that a Decommissioning Plan would be finalized prior to Project operations that would include plans and procedures for facility dismantling and removal, disposal and recycling, site restoration, and habitat restoration and monitoring. See Response T5-4 regarding financial assurances that the Applicant would be required to post and update in an amount sufficient to cover the cost of decommissioning if, for any reason, the Applicant were not available to decommission the Project or restore the Project Site in accordance with the Decommissioning Plan.

Shasta County's production of hydropower is acknowledged in the Draft EIR. See Section 2.5.2.3 (at page 2-30 et seq.), which explains that the County initially considered a potential hydroelectric power alternative to the proposed wind project, and why this alternative renewable energy technology was not carried forward for more detailed review.

P4-3 The request that turbines not be erected in locations D1 through D5 is acknowledged, and has been included in the formal record where the County may consider it as part of the decision-making process. Of these, D5 would be avoided by Alternative 2 (Draft EIR at page 2-38), and all of these would be avoided by the No Project Alternative (at page 2-24).

33 Land Art Generator, 2021a and 2021b. The Surface Area Required to Power California with 100% Renewable Energy. https://landartgenerator.org/blagi/archives/5535. September 17, 2016, accessed March 9, 2021.

34 Denholm, P., Hand, M., Jackson, M., Ong, S., 2009. Land-Use Requirements of Modern Wind Power Plants in the United States. National Renewable Energy Laboratory. http://www.nrel.gov/docs/fy09osti/45834.pdf. August 2009, accessed March 9, 2021.

P4-4 See Response T3-3.

P4-5 Hazardous materials associated with the construction, operation, maintenance, and decommissioning of the Project are discussed in Chapter 3.11, *Hazards and Hazardous Materials*. Compliance with applicable federal, state, and local regulations and the applicable BMPs would ensure that any Project-related potential impacts would be less than significant. See Response P4-2 regarding the composition of Project materials. See Response P15-4 regarding the potential for turbine fires.

See Response T5-4 for details about the financial assurances that would be required if the Project were approved.

See Draft EIR Section 2.4.7 (at page 2-23 et seq.), which describes the site restoration that would occur following project decommissioning. The land would not be returned "to how it was before the wind farm was created" as suggested in this comment, but rather, as disclosed in the Draft EIR, would be subject to ongoing adverse environmental impacts following decommissioning. Permanent disturbance and permanent impacts are summarized in Draft EIR Table ES-3, *Summary of Impacts of the Project and Alternatives.* See, e.g., pages ES-39 and ES-40 regarding Biological Resources, page ES-40 regarding Cultural and Tribal Cultural Resources, page ES-41 regarding Forest Resources, and page ES-42 regarding both Hydrology and Water Quality and Noise and Vibration.

P4-6 See Response P4-1 regarding the analysis of impacts to views of the Project from Moose Camp. The distance to the closest residential receptor is disclosed in Draft EIR Section 3.3, *Air Quality* (at page 3.3-6), which states, "The nearest residence to any of the work areas on the Project Site are off Sycamore Road, approximately 1,900 feet to a construction staging area. The closest residence to any of the access roads on the Project Site are along Moose Avenue, at a distance of approximately 400 feet."

Potential impacts based on proximity to Moose Camp residences also are evaluated in Section 3.13, *Noise and Vibration* (at page 3.13-1 et seq.). Direct and indirect noise-and vibration-related impacts are analyzed in Section 3.13.3 (at page 3.13-17 et seq.), and cumulative impacts are analyzed in Section 3.13.4 (at page 3.13-35). Specifically regarding noise, see Impact 3.13-1 (at page 3.13-22 et seq.) and Impact 3.13-2 (at page 3.13-28 et seq.). Specifically regarding vibration, see Impact 3.13-3 (at page 3.13-32 et seq.). The analysis concludes that, with the implementation of recommended mitigation measures, Project construction would cause less-than-significant direct and indirect impacts relating to noise and vibration, and that no significant cumulative effect would result. With respect to operation of the wind turbines, studies have indicated that the vibration levels from wind turbines are unlikely to cause discomfort or adverse comment.[35]

[35] Nguyen et.al., 2020. Human Perception of Wind Farm Vibration. Journal of Low Frequency Noise, Vibration and Active Control. Vol. 39(I) 17-27. DOI 10.1177/1461348419837115.

Potential impacts associated with flicker are analyzed in Draft EIR Section 3.11, *Hazards and Hazardous Materials*. In summary, there is a lack of published, peer-reviewed scientific literature linking the flickering that can occur during the normal operation of a wind turbine to epileptic seizure, migraines, or adverse mental health impacts. Accordingly, Draft EIR Impact 3.11-6 (at page 3.11-16 et seq.) concludes that the Project would cause a less-than-significant impact during normal operations due to the alternating changes in light intensity that could occur when turbine blades are rotating. In reaching this conclusion, the analysis considers both frequency and duration, relying on the expertise of the Epilepsy Foundation of America, the Chief Medical Officer of Health of Ontario, and the National Institutes of Health in identifying thresholds above which the Project's potential shadow-flicker-related health impacts would be considered significant, and on the expertise of the National Association of Regulatory Utility Commissioners.

Although the potential impact would be less than significant, the Applicant voluntarily has proposed to address the potential annoyance that could be caused by Project-related shadow flicker. See Draft EIR Appendix F2, *Shadow Flicker Analysis*; see also Final EIR Appendix A3, which supplements the earlier analysis to evaluate the potential shadow flicker-related impacts of the Applicant's newly proposed 6.2 MW turbine and concludes that use of the new turbine type would not alter the less-than-significant impact conclusion of the Draft EIR. The analysis modeled potential effects at 72 receptors (e.g., homes) within 1,700 meters (approximately 1 mile) of the Project Site. Results showed that 70 of the receptors (97 percent) would receive less than 30 hours of shadow flicker per year, and two receptors would receive 30 hours or more per year. Nearly half (47 percent) would receive less than 10 hours of flicker per year. At most receptor locations, the flicker would occur primarily in the early morning or late afternoon and generally would last less than 1 hour per day. Following final turbine model selection and layout, including any micro-siting of locations that may occur as part of the approval process, modeling would be redone. If the results show that shadow flicker could exceed 30 hours per year at a receptor, then the Applicant would work with the affected landowner to mitigate the impact by planting trees or installing window blinds to block the shadow flicker.

P4-7 Potential impacts to surface and groundwater are analyzed in Section 3.12, *Hydrology and Water Quality*. In the context of Impact 3.12-1 (at page 3.12-11 et seq.), the Draft EIR concludes that the Project would, with mitigation incorporated, cause a less than significant impact relating to a potential violation of water quality standards or waste discharge requirements or other substantial degradation of surface or groundwater. In the context of Impact 3.12-3 (at page 3.12-17 et seq.), the Draft EIR concludes that the Project would have a less-than-significant impact relating to a potential decrease in groundwater supplies or interference with groundwater recharge. In the context of Impact 3.12-4 (at page 3.12-19 et seq.), the Draft EIR concludes that the Project, with mitigation incorporated, would cause a less-than-significant impact relating to increased siltation of waterways or substantial additional sources of polluted runoff during construction and decommissioning. In the context of Impact 3.12-5 (at page

3.12-21), the Draft EIR concludes that the Project, with mitigation incorporated, would have a less-than-significant impact related to conflict with implementation of the Central Valley Basin Plan. Finally, as analyzed in Section 3.12.4, *Cumulative Analysis* (at pages 3.12-23 and 3.12-24), and when considered in combination with the effects of other projects, including presumed projects that employ unregulated hydrology and water quality practices, the Project's incremental contribution to potential significant cumulative effects to hydrology and water quality would not be cumulatively considerable.

In the context of Impact 3.12-2 (at page 3.12-15 et seq.), the Draft EIR concludes that the Project, with mitigation incorporated, would cause a less-than-significant impact to groundwater quality due to blasting, if it occurs. The analysis acknowledges that blasting activities could potentially increase turbidity in private well water. Mitigation Measure 3.12-2 requires that a blasting plan be implemented during all construction activities involving blasting to ensure that best practices are incorporated into blasting activities to target only the immediate desired area of blasting required to enable the proposed construction. As required by the mitigation, wells are to be given special consideration in the blasting plan consistent with 30 CFR §§ 816.61 through 816.68. Current blasting practices are typically accomplished with levels of detonation that are appropriate for the site-specific characteristics of the underlying materials which would make the areas affected by blasting more localized than widespread. Therefore, with implementation of the blasting plan required by the mitigation measure and consistent with regulatory requirements, the potential impact to groundwater quality and any wells in the vicinity, including the Moose Camp wells, would be less than significant.

P4-8 Although Moose Camp Road is located near the Project Site, it would not be used to access the Project Site. To clarify this, Draft EIR Figure 2-5, *Road Network*, has been updated to identify the location of Moose Camp Road (see Revised Figure 2-5 in Final EIR Appendix H). To further clarify, Draft EIR Section ES.2.1 (at page ES-1), which provides an overview of the Project, has been revised as follows:

> "Access to the Project Site would be provided regionally and locally by Interstate 5 (I-5), approximately 35 miles to the west of the Project Site; State Route (SR) 139, approximately 60 miles to the east of the Project Site; SR 299; ~~Moose Camp Road;~~ and three existing, gated logging roads that would be used to enter the Project Site."

The Project Description in Draft EIR Section 2.2 (at page 2-3) has been revised as follows:

> "Access to the Project Site is provided locally by SR 299~~, Moose Camp Road,~~ and three existing, gated logging roads, and would be provided regionally by highways that provide access to SR 299, including Interstate 5 (I-5), which is approximately 35 miles to the west of the Project Site, and SR 139, which is approximately 60 miles to the east of the Project Site."

The cumulative analysis relating to Hazards and Hazardous Materials in Draft EIR Section 3.11.4 (at page 3.11-22) has been revised as follows:

> "The geographic scope for cumulative effects relating to hazards and hazardous materials would be the Sacramento Valley Air Basin, watershed and groundwater basin boundaries (see Section 3.12, *Hydrology and Water Quality*), and the Project materials delivery routes, including I-5 (approximately 35 miles to the west of the Project Site), SR 139 (approximately 60 miles to the east of the Project Site), SR 299, ~~Moose Camp Road,~~ and the three existing, gated logging roads that would be used for direct Project access."

The description of the study area considered for purposes of the Transportation analysis (Draft EIR Section 3.14.1.1 at page 3.14-1) has been clarified as follows:

> "These include roadways located directly adjacent to the Project Site (e.g., ~~i.e.,~~ SR 299~~, Moose Camp Road,~~ and the three existing, gated logging roads that would be used for Project access) as well as regional facilities that provide access to SR 299, which include Interstate 5 (I-5) approximately 35 miles west of the Project Site, and SR 139 approximately 60 miles east of the Project Site."

To confirm, access to the Project Site would be provided locally by SR 299 and the three existing, gated logging roads that intersect with SR 299 that are shown in Figure 2-5*, Road Network* (at page 2-15): the westernmost of the three local accessways is proposed along a road called G Line, which intersects with SR 299 approximately 37 miles east of the interchange with I-5 in Redding; the northernmost access is proposed along an existing and unnamed logging road that intersects SR 299 just east of Little Hatchet Creek, and the easternmost access is approximately 8 miles west of Burney along an existing, unnamed logging road that provides access to the area south of SR 299.

As described in Draft EIR Section 3.14, *Transportation* (at page 3.14-9), over the estimated 24-month construction period, the total number of all trips is estimated to be approximately 93,088 trips. Following construction, operations and maintenance traffic would be limited to a few passenger vehicle trips per day (Draft EIR at page 3.13-10). See also Appendix H, *Transportation*. Vehicle size could vary between passenger cars at the smaller end to "oversize" according to California Vehicle Code Division 15, *Size, Weight, and Load*, for highway transportation loads (Draft EIR at page 2-19). Vehicles could be fueled by gasoline or diesel (see, e.g., Draft EIR Table 2-3 at page 2-26).

As indicated in Response P4-6, the distance to the closest residential receptor is disclosed in Draft EIR Section 3.3, *Air Quality* (at page 3.3-6), which states, "The nearest residence to any of the work areas on the Project Site are off Sycamore Road, approximately 1,900 feet to a construction staging area. The closest residence to any of the access roads on the Project Site are along Moose Avenue, at a distance of approximately 400 feet." The potential impacts of vehicle emissions, noise, and vibration on sensitive receptors, including existing homes, are analyzed in Draft EIR Section 3.3, *Air Quality* (at page 3.3-1 et seq.) and Section 3.13, *Noise and Vibration*

(at page 3.13-1 et seq.), respectively. Typical noise levels from construction equipment are provided in Draft EIR Table 3.13-5 (at page 3.13-20). Impact 3.13-1 (Draft EIR at page 3.13-22 et seq.) analyzes whether the Project would result in the generation of a substantial temporary or permanent 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. As stated on Draft EIR page 3.13-31, a potential significant impact is identified if truck delivery of construction materials occurred during nighttime hours via the west access road. The implementation of Mitigation Measure 3.13-2 (Noise-Reducing Construction Practices) would reduce this potential significant impact to a less-than-significant level.

Whether the Project would result in the generation of excessive groundborne vibration or groundborne noise levels is analyzed in the context of Impact 3.13-3 (at page 3.13-32 et seq.). The analysis concludes that construction, decommissioning, and site reclamation of the Project would, with mitigation incorporated, cause a less than significant impact relating to the generation of groundborne vibration. With regard to delivery trucks generating vibration, the Federal Transit Administration estimates loaded trucks to generate vibration levels of 0.076 inches per second at a distance of 25 feet. The closest residence to the west access road is located approximately 300 feet from the center of the road. At this distance, vibration levels would be reduced to 0.005 inches/second. Such a vibration level would be below the barely perceptible level of 0.01 inches per second presented in Table 3.13-3 on page 3.13-10 of the Draft EIR.

Comment Letter P5

Lio Salazar

From: Teri Buelow <duckymattu@gmail.com>
Sent: Sunday, September 13, 2020 10:58 AM
To: Shasta County BOS
Cc: Fountain Wind Project
Subject: Fountain Wind Project EIR CONCERNS
Attachments: 2020 FW Draft EIR Response2020.pdf

Dear Shasta County Supervisors & Shasta County Department of Resource Management, Planning Division & Assembly Woman Megan Dahle:

Please find attached a written statement regarding The Fountain Wind project and the proximity to Moose Camp RESIDENTS. The attachment also has an aerial view of our community which was not present in the EIR.
Moose Camp is smack dab in the middle of this enormous proposed project. Our 75 members survived and rebuilt our cabins after the Fountain Fire of 1992 and have 50 residences within our 146 acre timber plantation. This project will have a severe effect on our way of life. The EIR has completely ignored the KOP of our homes & community. In fact the only mention is a mere footnote on page 10 of the 610 page report. P5-1
Additional concerns that I have besides those viewed in the attachment are listed below:
1. EIR ES.2 use of Moose Camp Rd & construction of new roads have already created extreme noise and dust. Our families frequently walk with our dogs & children play at our community area next to Moose Ave. We fish at the creek under the bridge on the road. The heavy equipment and noise are of major concern during the construction. P5-2
2. The proposed location of the windmills are approximately 2,000 feet from our boundary fence line. And less than 1/2 mile from my back door looking southeast. The turbines would tower over & shadow my home and outdoor space not to mention the noise of the turning blades!! P5-3
3. We have a private water system made up of springs that feed a reservoir that feed our well pumps that supply our water tank. We have spent a tremendous amount of money updating our system with new pump houses, generators, new water tank as well as all new supply lines & fire hydrants throughout the community for our homes. The drilling, blasting and placement of the towers are not considered in the EIR as a POTENTIAL PROBLEM FOR OUR WATER SHED. P5-4

Comment Letter P5

Lio Salazar

From: Teri Buelow <duckymattu@gmail.com>
Sent: Sunday, September 13, 2020 11:58 AM
To: Shasta County BOS; Fountain Wind Project; dahle@assembly.ca.gov
Subject: Fountain Wind Project Response, continued
Attachments: FW Draft EIR Response 092020.pdf

Dear Shasta County Supervisors & Shasta County Department of Resource Management, Planning Division & Assembly Woman Megan Dahle:

Please find attached a written statement regarding The Fountain Wind project and the proximity to Moose Camp RESIDENTS. Moose Camp is smack dab in the middle of this enormous proposed project. Our 75 members survived and rebuilt our cabins after the Fountain Fire of 1992 and have 50 residences within our 146 acre timber plantation. This project will have a severe effect on our way of life there. I own a cabin at 19633 Elk Ave., Montgomery Creek, aka Moose Camp.

The attachment also has an **aerial view of our community** which was not present in the EIR. It clearly shows the homes that would be impacted by this project. The EIR has completely ignored the impact to us, our homes & community. **In fact the only mention is a mere footnote on page 10 of the 610 page report. It is a disgrace that those studying this project used the excuse that Moose Camp is private property and didn't warrant a KOP/ENVIRONMENTAL IMPACT study due to access.** This project has a HUGE impact on all of us in Shasta County if we allow this exclusion. P5-5

Additional concerns that I have besides those viewed in the attachment are listed below:

1. EIR ES.2 use of Moose Camp Rd & construction of new roads have already created extreme noise, equipment pollution and dust. Our families frequently walk with our dogs & children play at our community area next to Moose Ave. We fish at the creek under the bridge on the road. Our community has been in here for almost 100 years and for most of us span 3 generations. My grandchildren deserve the opportunity to partake in this traditional existence in nature while protecting this 146 acres of our timber plantation & environment. The heavy equipment, pollution and noise are of major concern during the construction. P5-6

2. The proposed location of the windmills are around 2,000 feet from our boundary fence line. And less than 1/2-3/4 of a mile from my back door looking south, north,east & west. **The turbines would tower over & shadow my home and outdoor space not to mention the NOISE of the turning blades!! The blinking red lights would produce a glow over the entire community at night disrupting our quiet, peaceful ability to enjoy our cabin and star gazing. The proposed removal of turbines D1 - D5 would reduce the worst of the impact on our neighborhood & community hall.** P5-7

3. We have a private water system made up of springs that feed a reservoir that feed our well which pumps the water supply to our tank. We have spent a tremendous amount of money updating & maintaining our system with new pump houses, generators, new water tanks as well as all new supply lines & fire hydrants throughout the community for our homes. The drilling, blasting and placement of the towers **are not considered in the EIR as a POTENTIAL PROBLEM FOR OUR WATER SHED. I sincerely hope that you all will do the right thing and revisit this issue before approving this project to move forward.** P5-8

4. My last point, and a very large concern is AERIAL ATTACK DURING A WILDFIRE EVENT near our community. It is very well known that structure protection during a wildfire event in our particular area is best served by air attack. Air attack is also beneficial in creating fire lines during an active fire. Moose Camp will be surrounded by 679' total tip height turbines making it necessary for aerial attack to either drop retardant/water from a height that reduces greatly the effectiveness of the suppression attempt and/or provides an environment too dangerous for tanker drops or helicopter bucket drops to take place to protect our structures. P5-9

Comment Letter P5

Most of the Moose Camp members live & work in Shasta County. We pay our taxes and work even harder to have an opportunity to be a part of the neighborhood of 75 members working together to maintain our homes & community of 146 acres. It is my hope that our voices will be heard.

Shasta County needs to establish a code with regards to the distance between the turbines and the closest residence of at least 5.5 times the height of the tallest turbine in the project. If we do not set a precedent now the next windmill project will be in your backyard. P5-10

Regards,
Teri Buelow
12171 Cinder Road, Redding, CA 96003

Letter P5: Teri Buelow

P5-1 Regarding Project impacts on views from Moose Camp, see Response P4-1.

The County disagrees that the only mention of Moose Camp is restricted to a single footnote. See, e.g., Draft EIR Section ES.2.2 (at page ES-2), Section 2.2 (at page 2-3), and Section 3.1.4.10 (at page 3.1-19), all of which describe the location of the Project site relative to Moose Camp; Draft EIR pages ES-38 and 2-38, both of which describe the development of Alternative 2 in response, in part, to scoping input received requesting that the County consider an alternative that would remove turbines farther from Moose Camp; and Section 3.2, *Aesthetics*, which describes the Mountains Communities Character of the area (including Moose Camp) in the context of the analysis of impacts to aesthetics (at page 3.2-10), and describes key observation point (KOP) 1 as representative of nearby residents traveling along Moose Camp Road (at page 3.2-22). Regarding air quality and noise and vibration, see Response P4-8.

P5-2 Noise and dust caused by existing use of Moose Camp Road are not attributable to the Project, but have been considered as part of the baseline for the analysis and as potential ongoing impacts of past projects in the Draft EIR. See Response P4-8, which clarifies that Moose Camp Road would not be used for Project purposes. Regarding noise, see Section 3.13.1.2, *Environmental Setting* (at page 3.13-2 et seq.). Regarding dust, see Section 3.3.1.2, *Environmental Setting* (at page 3.3-1 et seq.). Regarding the analysis of cumulative effects and consideration of the ongoing impacts of past projects, see the overview of the Draft EIR's approach to cumulative effects in Section 3.1.3 (at page 3.1-11).

The comment also identifies the construction of new roads as a source of existing noise and dust. However, without more information as to which new roads and where they are located, the County cannot provide a detailed response regarding the consideration of these impacts as part of the cumulative effects analysis.

The potential impacts of vehicle emissions, noise, and vibration are analyzed in Draft EIR Section 3.3, *Air Quality* (at page 3.3-1 et seq.) and Section 3.13, *Noise and Vibration* (at page 3.13-1 et seq.), respectively.

P5-3 See Response P4-1, which explains that CEQA focuses on potential impacts to the public at large rather than to individual members of the public and, thus, that potential effects on private views are beyond the scope of CEQA. Regarding noise impacts at the closest residential receptors, see Response P4-8. Regarding setbacks, see Response P4-2 and Draft EIR Impact 3.11-3.

P5-4 The Draft EIR analyzes potential impacts of the Project (including the proposed drilling, blasting and placement of the towers) to water quality and hydrology in Section 3.12. See, e.g., the analysis of Impact 3.12-1 (at page 3.12-11 et seq.) which concludes that the Project would, unless mitigated, violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality during construction and decommissioning. The implementation of Mitigation

Measure 3.12-1, Water Quality Best Management Practices during Activities in and near Water (at page 3.12-14 et seq.), would reduce the impact to a less-than-significant level. Specifically regarding the impacts of blasting within the watershed, see the analysis of Impact 3.12-2 (at page 3.12-15), which concludes that blasting, if it occurs without mitigation, could substantially degrade groundwater quality. The implementation of Mitigation Measure 3.12-2, Best Management Practices for Blasting (at page 3.12-15 et seq.), would reduce the impact to a less-than-significant level.

The analysis also evaluates Project impacts on groundwater (at page 3.12-17 et seq.), potential increase in the siltation of waterways or provision of substantial additional sources of polluted runoff during construction and decommissioning (at page 3.12-19 et seq.), and the potential for the Project to conflict with implementation of the Central Valley Basin Plan (at page 3.12-21). Therefore, contrary to the suggestion in this comment, the potential impacts to the watershed of drilling, blasting, and the placement of the towers are considered in the Draft EIR.

P5-5 See Response P4-1 regarding the distinction under California law between public and private views. Receipt of the aerial photograph is acknowledged as confirming the location of Moose Camp relative to the Project Site. See Response P5-1 for additional detail in this regard.

P5-6 See Response P5-2, which addresses these concerns.

P5-7 See Response P4-1, which explains that CEQA focuses on potential impacts to the public at large rather than to individual members of the public and, thus, that potential effects on private views are beyond the scope of CEQA. Regarding noise impacts at the closest residential receptors, see Response P4-8.

Further, in Draft EIR Section 3.2.4.2, regarding direct and indirect effects of the Project on Aesthetics, Impact 3.2-3 considers the potential for the Project to create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area, including at KOP 1, which is representative of views near Moose Camp Road. As noted on EIR page 3.2-43, the visibility of the FAA- required nighttime lighting and the impact of nighttime views would vary depending on the proximity of the key observation point (KOP) at the turbines, the extent of existing light pollution at the KOP, and the frequency of viewers during nighttime hours. See also Response A2-1, which responds to a comment from Lassen Volcanic National Park regarding the protection of dark sky resources.

See Response P4-3, which addresses a similar request that turbines not be erected in locations D1 through D5.

P5-8 See Response P5-4, which addresses these concerns.

P5-9 See Response T3-3 regarding aerial firefighting.

P5-10 As explained in Final EIR Section 2.1.1, *Input Received*, requests that the County undertake a Countywide planning effort specific to the siting of wind energy generation

projects are beyond the scope of the CEQA analysis for this Project. See Response P4-2 further regarding setbacks.

Comment Letter P6

Lio Salazar

From: joelle@tylerclifford.com
Sent: Friday, September 18, 2020 11:11 AM
To: Fountain Wind Project
Subject: Attention: Liz Salazar regarding The Fountain Wind Project

To Whom It May Concern,

Please do not allow the Fountain Wind Turbine project to move forward. My family lives within this area. My heart breaks for the community.

These beautiful forested lands are not the right place for Industrial Wind Developments. The turbines are too tall at 679 feet and located in the path of the sun rise. The community will experience light flicker, constant noise, increased fire risk, decease of natural wildlife and plants, and a damaged view.

Most of us seek to drive 30 min from Redding to experience peace and quiet. My family and I drove up to the current wind turbines on Hatchet. We all were surprised at how loud the clanking of the turbines are. We felt very emotional as the thought of this sound could fill our days and nights with no escape. I would hope that every person involved in making this decision has gone to see and hear these monsters for themselves and could imagine their homes being within eyesight and ear shot. Our home also sits below the ridge of the proposed project. We would experience the light flicker with every sunrise.

P6-1

Please do not allow this project to move forward! At the very least, push back the project so that the community can get the information out to people that do not know about this project. Due to COVID, meetings have been cancelled and communication has been limited.

P6-2

Respectfully,
Joelle Clifford

Letter P6: Joelle Clifford

P6-1 Opposition to the project is acknowledged and has been included in the record, where the County may consider it as part of the decision-making process. Potential impacts relating to light flicker, noise, wildfire, wildlife and vegetation, and views are disclosed in Draft EIR Section 3.11, *Hazards* (at page 3.11-1 et seq.), Section 3.13, *Noise* (at page 3.13-1 et seq.), Section 3.16, *Wildfire* (at page 3.16-1 et seq.), Section 3.4, *Biological Resources* (at page 3.4-1 et seq.), and Section 3.2, *Aesthetics* (at page 3.2-1 et seq.), respectively.

The analysis of potential noise impacts concludes that operation of the Project would cause a less than significant impact with respect to a permanent increase in ambient noise levels in excess of standards established in the Shasta County General Plan or the applicable standards of other agencies (see Impact 3.13-1, Draft EIR at page 3.13-22 et seq.). During construction and decommissioning, with the implementation of Mitigation Measure 3.13-2 (Noise-Reducing Construction Practices), the impacts of the Project would be reduced to a less-than-significant level (see Impact 3.13-2, Draft EIR at page 3.13-28 et seq.).

The County disagrees with the concern expressed in the comment that any homeowner would experience the light flicker every day; see Response P4-6 for further discussion regarding the frequency and potential effects of flicker. Flicker only occurs on sunny days, when the sun is low enough on the horizon that the turbine is between the sun and the viewer (i.e., early in the day or late in the evening), and when the turbines are rotating. Shadow flicker does not occur at night, when fog or clouds obscure the sun, or when turbines are not operating.

P6-2 Opposition to the Project is acknowledged and has been included in the record. As explained in Response T5-1, the County acknowledges COVID-19 pandemic conditions as part of the context of its consideration of the EIR and this Project. No County meetings about the Project have been cancelled due to COVID-19 or for any other reason. Accordingly, the County disagrees with the suggestion in this comment that meetings have been cancelled and that communication has been limited.

Comment Letter P7

Friday, September 18, 2020

Dear Mr. Bill Walker,

I am writing to express my objection to the construction of additional wind turbines in close proximity to our family Homestead. As you may have heard from other relatives of the Buffum Family Homestead and their descendants, they have kept this land in the family since the 1890s. Each summer, extended family gathers here to not only reconnect with one another, but to enjoy and appreciate the beautiful wilderness of Northern California. For many generations we have worked to maintain the homestead to preserve our home-away-from-home. This place means more to me than a plot of land located off of a remote highway. This is a place of tranquility and peace.

By installing wind turbines in this community, we are removing the opportunity for people to come to the great outdoors and truly connect with nature. The Fountain Fire burned our Homestead to the ground in 1992, since then our area has been a success story of reforestation. Our family has planted over 27,000 trees on our family property.

The impacts of new turbines extend far beyond the new eye sore on the mountainside. Addressed in 3.1.2.4 PG&E Interconnection Infrastructure, this is subject to the CPUC's authority. This is a remote location which will require new roads be cut into the hills to gain accessibility; transmission and distribution lines will be needed to move this power from rural America to the metropolitan areas of San Francisco and Los Angeles. This involves more clearing and disturbance to the natural forest. Additionally, this project requires a new substation be installed, Section 2.1. How will this impact the quality of our water in the area? We drink the water from the natural springs and streams. This project will not be of low impact to our environment, but instead will be a sacrifice forced upon our community. The local community does not gain anything from this project, yet we pay the price. P7-1

There is already an abundance of energy created in Northern California. According to the U.S. Energy Administration, renewable resources such as hydropower supply almost half of California's in-state electricity. Why punish the community of Northern California with further development to support the electricity needs of Southern California? How will this provide benefits to our Northern California society? This is another example of the communities of Southern California exploiting the resources of Northern California. P7-2

The Homestead is where I learned to fish, to swim, and to chop firewood along with so much more; this is where my brothers and I share many memories from our childhood. This is where my husband proposed to me and where I envision my children growing. We have worked hard to preserve this land and humbly request you to reconsider installing the wind turbines in our community. P7-3

Samantha Dyas
5601 Green Valley Rd, Placerville, CA
(530) 417-6166

Letter P7: Samantha Dyas

P7-1 The comment correctly states, consistent with Draft EIR Section 3.1.2.4 (at page 3.1-3), that the California Public Utilities Commission (CPUC) has regulatory authority over the Pacific Gas and Electric Company (PG&E). The CPUC is a "Responsible Agency" for purposes of CEQA because its review and approval of PG&E's construction of the electrical connections to its infrastructure (as described in Draft EIR Section 2.4.3, *Project Substation, Switching Station and Interconnection Facilities* [at pages 2-12 and 2-13]) would be needed before the Project could proceed. Other Responsible Agencies, i.e., agencies with discretionary permitting authority over aspects of the Project, are identified in Draft EIR Section 1.3, *Use of this Document by Agencies* (at pages 1-2 and 1-3) and in Section 2.6, *Permits and Approvals* (at page 2-41).

Impacts of the Project, including the proposed substation, on water quality are identified and analyzed in Draft EIR Section 3.12, *Hydrology and Water Quality* (at page 3.12-1 et seq.). With the implementation of Mitigation Measure 3.12-1, Water Quality Best Management Practices during Activities in and near Water, the Project would have a less-than-significant impact on surface and groundwater quality. See Impact 3.12-1 (Draft EIR at page 3.12-11 et seq.), Impact 3.12-4 (at page 3.12-19 et seq.), and Impact 3.12-5 (at page 3.12-21). If blasting is needed, then the implementation of Mitigation Measure 3.12-2, Best Management Practices for Blasting, would reduce potential impacts to groundwater quality to a less than significant level (see Impact 3.12-2, Draft EIR at page 3.12-15 et seq.). The Project would cause a less-than-significant impact on groundwater supplies and groundwater recharge – no mitigation would be needed (see Impact 3.12-3, Draft EIR at page 3.12-17 et seq.).

The significant and unavoidable impacts that could be caused by the Project are summarized in Draft EIR Section ES.6.2 (at pages ES-6 and ES-7) and in Table ES-2 (at page ES-8 et seq.). They are examined in Section 3.2, *Aesthetics* (at page 3.2-1 et seq.); Section 3.3, *Air Quality* (at page 3.3-1 et seq.); Section 3.4, *Biological Resources* (at page 3.4-1 et seq.); and Section 3.6, *Cultural and Tribal Cultural Resources* (at page 3.6-1 et seq.). See Response T3-5, which explains that the County would balance the benefits of a proposed project against any significant unavoidable environmental effects it may have as part of the decision-making process.

P7-2 In 2019, California generated more renewable energy (including generation from hydroelectric power, solar, wind, geothermal, and biomass energy) than any other state; in 2019, California also was the nation's largest net importer of electricity from out of state.[36] The U.S. Energy Information Administration reports that the State's considerable renewable energy resources are spread statewide: "California's greatest solar resource is in the state's southeastern deserts… substantial geothermal resources [are found in] the coastal mountain ranges north of San Francisco, volcanic areas of north-central California, areas near the Salton Sea in southern California, and areas

[36] U.S. Energy Information Administration, 2021. Profile Analysis. https://www.eia.gov/state/analysis.php?sid=CA. February 18, 2021.

along the state's eastern border with Nevada…. California's wind power potential is scattered along the state's many mountain crests, as well as in onshore and offshore coastal areas" (Id.).

As explained in Response T2-5, the County is not a sponsor of the Project. Instead, as described in Draft EIR Section ES.2.1 (at page ES-1), the County is responding to an application received from the Applicant for a conditional use permit and, in this role, is complying with its obligations under CEQA to evaluate the potential significant impacts of the Project. In addition to conducting the environmental review, the County also is evaluating consistency with its General Plan and the applicable zoning requirements pursuant to its responsibilities under the California Planning and Zoning Law before it will decide whether or not to approve the Project. In discharging its statutory duties, the County is not "punishing" the community.

P7-3 Concerns about potential effects on community character and perceptions about a way of life are outside the scope of the EIR for this Project. See *Preserve Poway v. City of Poway* (2016) 245 Cal.App.4th 560, which clarifies that psychological and social impacts on community character are beyond the scope of CEQA. See also Final EIR Section 2.1.1, *Input Received*, regarding community character, concerns about community benefits, where energy generated by the Project could be used once it reaches the grid, and other comments that are beyond the scope of the CEQA process for this Project. Nonetheless, the stated concerns, and the commenter's opposition to the Project, are acknowledged and have been included in the record, where the County may consider them as part of the decision-making process.

Comment Letter P8

Lio Salazar

From: Erin Baker <erin.n.baker@gmail.com>
Sent: Thursday, September 24, 2020 12:52 AM
To: Fountain Wind Project
Cc: Resource Management; Shasta County BOS
Subject: Fountain Wind 👎👎👎

Dear Mr. Leo Salazar, Shasta County Planning Commissioners, and Shasta County Board of Supervisors,
I am writing this letter in response to the published Fountain Wind Project Draft EIR. With this letter I add my voice to the many other Shasta County taxpayers who have qualms with this project and to make it known that I oppose the plan as drafted.
To be honest I'm sick of talking about this bleeping wind project, maybe you are too, but as a resident of this Earth who is borrowing it from my children it would be irresponsible of me to not point out that the risks out way the benefits.
For four generations my family has called the neighborhood of Moose Camp home. It's a year round retreat, it's run to when life gets too much to handle, it's where we gather to celebrate milestones, achievements, holidays and even deaths. It's the one place my 7 living siblings and I all come "home" to every summer with our own families in tow. Our kids have gained the same love and appreciation for the magic of Moose Camp with dirt in their hair and ice cream on their faces. We feel safe there, we feel loved there and we care deeply about the land there.
Over 20 years ago I visited my uncles cabin in Moose Camp for the first time, it was on that trip that our family fell in love with the community and the mountains it's nestled in. That same summer my dad found and purchased a pair of lots for his own family. For the next several years he built a house with his own two hands while working full time and raising a family. He patiently taught us everything about building a house during those years, valuable life skills I'll never cease to appreciate. I learned how to frame, insulate, pull wire, hang Sheetrock and ceiling fans, how to problem solve and most importantly, I learned that no matter how hard I try dad will always swing a hammer better than me.
People from over 50 families have stories of Moose Camp too, many spanning more generations than my own. This revered space has built many lives and continues to provide support, love and healing for so many. This space is sacred for me, it's treasured by all who've ever visited and we must protect it. In the coming years I will be a third generation lease holder within Moose Camp, and I look forward to carrying on the traditions that have found us.
Moose Camp is different than most neighborhoods, the people are different there. Life is slower, and it's lived mostly outside. Within the wilderness. I love the Edward Abbey quotes that says, "Wilderness is not a luxury, but a necessity of the human spirit." As humans we are one with nature, not separate from it like we've grown to think.
It's the little house in the woods my dad built that let's all my children enjoy the great outdoors with four great grandparents beside them. 80+ year olds whose hips, knees and backs no longer let them hike, water ski or bike but together their ages disappear, and their spirits come alive as they tell stories, play harmonicas, shuck corn, build campfires and learn from each other. It's such a beautiful and sweet thing to experience, I wish I could bottle it up to savor for the rest of my life. As the generations before me slowly fade away into stories and memories, I pray the land they taught me to love and cherish does not, that it remains tangible and full of hope, curiosity and spirit.
As I've learned, researched and reflected on the impending Fountain Wind Project that's threatening to alter our beloved community, I've grown sad and frustrated. I truly believe that this wind farm will greatly degrade the quality of life within 50+ Shasta County homes as well as the other nearby Inter-mountain communities and cultural lands.
I ask that Shasta County please put the lives and well being of our county residence before the wants and interests of an out of COUNTRY company. These outside companies stand to benefit from the emotional, physical and financial tolls of the people within close proximity of the proposed turbines.
Our region already produces more renewable energy than the energy we consume, there's no local buyer for this proposed energy anyway. The inter-mountain areas power is provided by PG&E and they've already said, "thanks but no thanks" to the prospect of purchasing this energy because they have TOO MUCH (already renewable) energy on the local grid.

Comment Letter P8

On average wind farms only generate approximately 25% of their advertised capacity anyway, is that limited about of energy worth clearing 2,000+ acres of carbon sequestering forests? If we continue to industrialize our inter-mountain areas, including developing wind farms, we are putting our health, safety and cultural resources at risk. Insert a giants thumbs down emoji here.

I insist that at a minimum you remove proposed wind turbines D1-D5 from the project. Having five 679' tall industrial wind turbines as close as 2200 feet from our homes and community is preposterous. It puts our water system, public alth, biological resources and property values in jeopardy. And increases our already high fire danger. Also they're real ugly, these turbines will be seen from neighboring counties! P8-1

I find it **absurd** that you refuse to name Moose Camp as a Key Observation Point on the EIR, it's a neighborhood and community full of life and love. We demand to be seen, recognized and heard. Our feelings are valid, and our voices matter. P8-2

Moving forward, I ask that Shasta County follow the example of other municipalities and states that have required minimum buffers between homes and turbines. The quality of life could only be improved. This isn't a new issue and isn't one that's likely to go away. Having a set list of expectations could only make everyone's life easier. P8-3

During this turbulent and unpredictable year I've come to realize that our quality of life is heavily reflected in our mental and physical health. Windmills towering over homes and communities, obstructing our views, tanking our property values... isn't going to positively influence anyone's quality of life or their health. I'd bet it has the opposite effect.

In closing I urge you to listen to the heartfelt pleadings of those who stand in opposition to this project. Families, communities and cultures are in a vulnerable situation, you're in a position to advocate for them. Please stand up for your community, please help protect us. P8-4

Sincerely,

Erin Brown
Shasta County Resident
Lover of the Inter-mountains

Letter P8: Erin Brown

P8-1 The commenter's opposition to the Project as proposed, concerns about potential effects on the quality of life and property values, opinions about the Applicant, and thoughts about where the energy generated by the Project could be used once it reaches the grid and the appearance of wind turbines are acknowledged have been included in the record, where the County may consider them as part of the decision-making process. See Final EIR Section 2.1.1, *Input Received*, for information about these and other comments that are beyond the scope of the CEQA process for this Project.

See Response P4-3, which addresses a similar request that turbines not be erected in locations D1 through D5. See Response P7-1 regarding impacts of the Project on water quality. General concerns about public health and safety, biological resources, cultural resources, and wildfire are noted; however, without specifics, the comment does not provide enough detail for the County to provide a more substantive response. In general, see Draft EIR Section 3.11, *Hazards and Hazardous Materials* (at page 3.11-1 et seq.), Section 3.4, *Biological Resources* (at page 3.4-1 et seq.), Section 3.6, Cultural Resources and Tribal Cultural Resources (at page 3.6-1 et seq.), and Section 3.16, *Wildfire* (at page 3.16-1 et seq.) for discussion and analysis of these topics.

P8-2 See Response P4-1 regarding Project impacts on views from Moose Camp.

P8-3 The request that the County undertake a Countywide planning effort specific to the siting of wind energy generation projects is acknowledged but beyond the scope of CEQA review for this Project. See Final EIR Section 2.1.1, *Input Received*, for information about this and other comments that are beyond the scope of the CEQA process for this Project.

P8-4 The Draft EIR identifies and evaluates potential impacts on mental and physical health in Section 3.1.4.5, *Electric and Magnetic Fields* (at pages 3.1-14 and 3.1-15), Section 3.1.4.17, "Wind Turbine Syndrome" (at pages 3.1-29 and 3.1-29), Section 3.3, *Air Quality* (see, e.g., at page 3.-23 et seq.), Section 3.11, *Hazards and Hazardous Materials* (at page 3.11-9 et seq.), Section 3.13, *Noise*, including infrasound (at page 3.13-7 et seq.), and Section 3.16, *Wildfire* (at page 3.16-16 et seq.).

Concerns about property values are outside the scope of the EIR for this Project. See *Porterville Citizens for Responsible Hillside Development v. City of Porterville* (2007) 157 Cal.App. 4th 885, 903, which clarifies that potential impacts to property values are beyond the scope of CEQA. See also Final EIR Section 2.1.1, *Input Received*, which explains that only brief responses are provided to comments that are outside the scope of CEQA.

Comment Letter P9

Lio Salazar

From: Pam Larson <trollholow@aol.com>
Sent: Friday, October 2, 2020 8:22 PM
To: Lio Salazar
Subject: Fountain wind Project

Hello :

I am writing to express my total opposition to the proposed Fountain Wind Project. We already have the Hatchett Wind Project consisting of 44 turbines each standing 418 feet high. They can be seen from several points along Route 5 which is 35 miles away. This is no small project. The Fountain Wind Project will consist of 72 turbines which could be as tall as 679 feet. That is more than the length of TWO FOOTBALL FIELDS!!!! The new turbines would be 261 feet taller than the Hatchett turbines. The total footprint of the FWP is nearly the same size as the entire city of Redding, 58.5 square miles. The Shasta County General Plan already has stipulations regarding new construction and the visual impact it might have. Look at sections sh-1, sh-2, and section sh-a. These stipulations were obviously ignored when the Hatchett Project was being considered. Look to the west from Main Street in Burney and you will see what I mean. Shasta County already provides a large amount of electricity to many other parts of the state using hydro power (and now wind from the Hatchett turbines). Why can't these new turbines be located closer to the customers that will be using this power? Parts of the Central Valley seem to have a constant wind pattern. At Cordelia, near Vacaville, the wind blows so regularly that the trees along the Gibson freeway are tilted over and leaning. Being 200 miles closer to the customers also has the benefit of much less line loss. Future generations will, if this project is built, wonder what was meant by the Shasta/Cascade Wonderland. The general public in eastern Shasta County knows absolutely nothing about this massive undertaking. The media for some unknown reason has had very little to say about all of this. That is why you have received so few comments regarding this gargantuan project. That leaves the citizens of eastern Shasta County to wonder what the next project and the next project will be to benefit the rest of the state. Best regards, David Larson, Burney, California

P9-1

P9-2

P9-3

Sent from my iPad

Letter P9: Pam Larson

P9-1 The commenter's opposition to the Project is acknowledged and has been included in the record, where the County may consider it as part of the decision-making process.

Ongoing impacts of the Hatchet Ridge Wind Project have been described and analyzed as part of the baseline condition and the cumulative effects analysis. See, e.g., Draft EIR Section 3.1.3.1 (at page 3.1-7), which describes the Hatchet Ridge Wind Project as part of the cumulative scenario; Section 3.2, which shows (at pages 3.2-6 and 3.2-7) and describes (at page 3.2-10 et seq.) the existing turbines as an element of the existing visual landscape, and which analyzes them (at page 3.2-47 et seq.) as part of the cumulative effects analysis. Whether or not the Hatchet Ridge Wind Project was consistent with the County General Plan when it was approved, and whether it complies with the County General Plan as it may have been amended over time, are beyond the scope of the CEQA process for this Project. See Final EIR Section 2.1.1, Input Received.

The Draft EIR considers relevant Shasta County General Plan policies regarding the visual quality of scenic highways, including SH-1, SH-2, and SH-a, in Section 3.2 (at pages 3.2-14 and 3.2-15), and analyzes potential Project impacts on views from scenic highways. The Draft EIR concludes that the Project would have a less-than-significant impact on views from designated and eligible scenic highways (see Impact 3.2-2).

P9-2 See Response T2-4 regarding why off-site alternatives were not considered in detail in this EIR.

P9-3 The County respectfully disagrees with the suggestion that the general public is not informed about the Project or the County's environmental analysis. See Draft EIR Section 1.4, *CEQA Process Overview* (at page 1-3 et seq.), which describes community outreach efforts that occurred during the pre-scoping period, the well-attended public meeting that occurred during scoping (see Draft EIR Appendix J, *Scoping Report*), and notifications that occurred upon issuance of the Draft EIR. See also Final EIR Section 1.3, *Agency and Public Involvement*, which explains that notifications and updates of the availability of the Draft EIR and information about how to access it were sent directly to responsible, trustee, and local agencies; the Shasta County Clerk's office; and to Tribal entities and members, organizations, and individuals by U.S. Post, via the FountainWind411 Project-specific email listserv, and via media outlets. Notice of the availability of the Draft EIR also was published in the Record Searchlight, in the Mountain Echo, and in the Intermountain News. As disclosed in Final EIR Section 2.1.1, *Input Received*, the County received more than 2,000 pages of emails, letters, and other documentation in response to the Draft EIR. A list of those who provided input on the Draft EIR is provided in alphabetical order by last name in Final EIR Table 2-1, *Commenting Parties*.

Comment Letter P10

Lio Salazar

From: Linda & Clay Bates <azbates@cox.net>
Sent: Saturday, October 10, 2020 3:50 PM
To: Fountain Wind Project
Subject: Fountain Wind Project

Dear Mr. Salazar,
As owners of land and a home in Moose Camp, we would like to ask that you please reconsider approval of the Fountain Wind Project. While wind power may have its place, we don't feel that generators should be placed so near a residential area or an area that many people drive through to appreciate the scenery. These wind turbines, we understand, are slated to be the tallest onshore windmills in the United States. Shasta County appears to be proceeding without having taken input from its residents to adopt zoning regulations for industrial wind turbines. Once that is done, couldn't the project be built in an area which can provide a greater distance from residents? This is too beautiful of an area to be ruined by 679 feet tall wind turbines. We are concerned about the potential negative effect to safety of drivers from the shadow flicker, as some of these windmills will be extremely close to the highway. The flicker and noise that will reach our homes is an additional concern, along with the possibility of construction affecting our wells and water table. While we understand that Shasta County can expect to make revenue from this project, we would respectfully request that you consider its negative impact to residents rather than just the economic impact. P10-1
Thank you for your time and consideration.
Linda and Clay Bates
Dan and Neva Coughlin
Sherri and Jeff Grantham
Dan and Diane Coughlin

Letter P10: Linda and Clay Bates

P10-1 To clarify, the County has not yet decided whether to approve, approve with modifications, or deny the requested use permit for the Project. The request that the County undertake a Countywide planning effort specific to the siting of wind energy generation projects is acknowledged but beyond the scope of CEQA review for this Project. Impacts on views are disclosed in Draft EIR Section 3.2, *Aesthetics* (at page 3.2-1 et seq.), including photographs of the existing visual setting and photographic simulations of projected post-Project conditions. The visual resources technical report included in Final EIR Appendix A4 updates the report that was included in Draft EIR Appendix A to delete the word "draft" to avoid confusion, and to include larger-format simulations for greater ease in review. See Response P4-1 regarding the analysis of impacts to views of the Project from Moose Camp. See Response P4-2 regarding setback requirements. See Response P4-6 regarding potential effects associated with noise and with shadow flicker. See Response P4-7 regarding potential impacts to surface and groundwater. The County will consider these impacts, comments received from members of the public, and other information in the formal record as part of the decision-making process. See Response T2-4 regarding why off-site alternatives were not considered in detail in this EIR.

Comment Letter P11

Lio Salazar

From: Mark Chamberlain <mchamberlain77@gmail.com>
Sent: Wednesday, October 14, 2020 8:29 AM
To: Fountain Wind Project; Shasta County BOS
Subject: Fountain Windmill Project

As a resident right in the heart of this proposed project, I have major concerns.

The county still has not addressed or adopted any regulations on windmills. We need accepted standards for windmill placement, including setbacks to residences and other structures. There are serious health, safety and environmental concerns that need to be regulated. We have already had one windmill farm installed, now another proposed and more to come. This needs to be addressed before they are all built.

The EIR still does not acknowledge the 50 Moose Camp residences or show any maps of the proposed wind turbines in relation to the residences with distances from turbines noted.

Moose Camp should have a designated "KOP" (Key Observation Point) - with photo simulations and accompanying comments for this neighborhood within the project boundaries.

P11-1

There is no mention of the Moose Camp helipad operation, which is used by the surrounding area for emergencies, and how wind turbines will affect its continued use.

P11-2

My biggest concern is the blasting required, along with construction and heavy use of roads surrounding Moose Camp, and the effects on our 3 wells and water table in the area. Our community's water is fed by underground springs which can easily be destroyed by this activity. What will be done if our wells dry up because of this project. 50 residences will become uninhabitable.

P11-3

Letter P11: Mark Chamberlain

P11-1 The commenter's opposition to the Project is acknowledged and has been included in the record, where the County may consider it as part of the decision-making process. As explained in Final EIR Section 2.1.1, *Input Received*, requests that the County undertake a Countywide planning effort specific to the siting of wind energy generation projects are beyond the scope of the CEQA analysis for this Project. Regarding Project impacts on views from Moose Camp, see Response P4-1.

P11-2 Although the Draft EIR analyzed potential impacts to air navigation (see, e.g., Section 3.2, *Aesthetics,* at page 3.2-12, and Section 3.5, *Communications Interference*, at page 3.5-7), emergency response (Section 3.1.4.14, Public Services, at page 3.1-21), and aerial firefighting (see Response T3-3), the comment is correct that it did not specifically address potential impacts to use of the Moose Camp helipad. Based in part on receipt of this comment, the County now has done so as described below.

Based on initial research, the Moose Camp helipad is neither registered with nor permitted by the Federal Aviation Administration (FAA) or the County. However, Capitol Airspace Group, an aviation consulting firm whose specialties include airspace, International Civil Aviation Organization (ICAO) Procedures for Air Navigation Services (PANS-OPS), and Obstacle Evaluation (OE),[37] analyzed potential impacts of the Project on the helipad as if it were registered with the FAA as a public-use airport. The analysis is provided in Final EIR Appendix A6. Capitol Airspace Group modeled the Project's potential turbine locations relative to an omnidirectional imaginary approach surface in accordance with federal regulations (14 C.F.R. Part 77.23(b)), and determined that one proposed turbine (D03) would exceed the imaginary approach surface at 679 feet above ground level. If the location were registered with the FAA, an exceedance of the surface would trigger "further study" by the FAA to determine whether or not it would cause a significant effect on a helicopter's ability to approach or depart from the helipad. The County recognizes that a final determination in this regard would be the FAA's to make if it were a public use airport. However, for purposes of CEQA and consistent with the analysis, the County has determined that the single exceedance would not be a significant impact to helicopter use of the Moose Camp helipad because turbine location D03 is more than 0.4 nautical miles from the landing area and because there are multiple approach corridors available from the northwest and southeast. Because a less-than-significant impact would result, no mitigation measures are authorized by CEQA or recommended by the County.

P11-3 Potential impacts on wells and the water table that could result from the Project, including from blasting and road use, are evaluated in the Draft EIR. Specifically regarding blasting, see Draft EIR Section 3.12, *Hydrology and Water Quality* (e.g., at pages 3.12-15 and 3.12-21 et seq.). In particular, see Mitigation Measure 3.12-2, *Best Management Practices for Blasting* (Draft EIR at page 3.12-15 et seq.), which would require preparation and implementation of a blasting plan and that specified loading

[37] Capitol Airspace Group, 2021. About Us. http://www.capitolairspace.com/about/. Accessed January 5, 2021.

practices be followed, practices be followed to prevent misfires, and blast rock piles be managed. The analysis concludes that the implementation of recommended mitigation measures would reduce potential significant impacts to surface water and groundwater below established thresholds. See Response P3-2 further regarding the Blasting Plan. See also, the Draft EIR's discussion of Impact 3.11-1 (at page 3.11-9 et seq.), which considers the potential for the Project to create a significant hazard to the environment through the routine transport, use, or disposal of hazardous materials or wastes, and which concludes that a less-than-significant impact would result.

Comment Letter P12

Shasta Group
Mother Lode Chapter
P.O. Box 491554
Redding, CA 96049-1554
www.motherlode.sierraclub.org/shasta

October 15, 2020

Shasta County Department of Resource Management, Planning Division
1855 Placer Street, Suite 103
Redding, CA 96001

Attention Lio Salazar, Senior Planner

Comments due no later than 5:00 p.m. on Wednesday, October 21, 2020

Subject: Comments on Draft Environmental Impact Report (Draft EIR) for Fountain Wind Project (Use Permit 16-007)

Representatives of the Shasta Group of the Sierra Club have made a partial review of the Draft EIR. We ask for improvements to the document that will aid in our overall understanding of the project, its impacts and a clearer understanding of documented mitigation measures. We request that all changes be published for public review for at least 90 days so that the entire document can be read and commented upon. At that time we will be better able to decide on our level of support for this project. The following are comments on the Draft EIR. P12-1

1. There will be up to 72 turbines with total capacity of216 megawatts. The top of the blades will be up to 680 feet above ground surface at the base of the towers. This would be equivalent to roughly a 60 story building at each tower location. Why do the towers and blades have to be so high? Why can't they be similar to the existing towers and in a relatively straight line? This was not explained in the Draft EIR. P12-2
2. Figure ES-1 should identify the existing turbines for the Hatchet Ridge Wind Project and the lease hold areas for that project in relation to those of the proposed project. P12-3
3. Identify the Lease Hold Areas inside the lease site boundary perimeter for the project and explain why they are not part of the leased area. How will those "island" property owners access their property and what types of activity will occur on those parcels? P12-4
4. Besides the KOP vantage points there should be more photos and simulations showing the roads, substation and other construction features that will be present. These will be visible from some vantage points accessible to the public or from a private landowner's property. P12-5
5. The maze of new roads proposed appear to create many new visible areas that are not show on the Draft EIR simulations. Why are these roads needed? All disturbed areas need to be shown on simulations including aerial photos. P12-6

Comment Letter P12

6. ES.4 Project Objectives: Objective 7 is to support landowners of land on which the turbines are located with diversification of revenue streams. Please explain how addition of the turbines and removal of land from timber production will achieve this objective.

7. ES.4. Project Objectives: The first objective is really to provide an economically profitable private renewable energy project to the existing landowners and outside investors. If this objective is not met will the project move forward?

8. ES.4 Project Objectives: The short and long term benefits to Shasta County, its residents, and the adjacent parcel owners should be clearly stated. Except for several years of construction-related jobs and business revenue it appears that all the impacts to the residents and visitors of Shasta County are negative. Please explain what mitigation measures will be part of the project cost to cover the negative impacts of the project.

9. Objective 8: 128,000 metric tons of CO2 will be offset. Is this "per year" or over a 40 year period? Please modify to include units.

P12-7

10. Section ES 6.1 lists 17 resource categories with impacts less than significant or less than significant with mitigation. Then on Section ES 6.2 it has significant and unavoidable impacts in categories 1, 2, 3 and 5 from the previous list. This is confusing. Please clarify what resource areas have what level of impacts.

P12-8

11. Page ES -8 Impact 3.2-2 State Scenic Highway says impact less than significant and no mitigation measures would be required. This is a completely incorrect and misleading statement. The scenic beauty of Highway 299 will be completely changed by this project. This section should be completely rewritten to describe visual and aesthetic impacts. First the country feel of the area with small towns and old buildings, pioneer houses with ancient orchards and windy roads should be described. Wildlife crossing the roadway, clear streams and forests of varying age and forest fire scars. Old mining scars, power substations, cemeteries, Native American trails and sacred area are also part of the local visual history. Please provide mitigation measures that can be rapidly implemented and permanently maintained by the project to mitigate some major visual impacts all along Highway 299.

P12-9

12. The DEIR figures should describe how many miles of roadway are represented by each Key Observation Point (KOP) and the number of vehicles per year that would drive by that observation point.

P12-10

13. Page ES-20. The project should mitigate for all changes to water quality both onsite and downstream including changes to springs. The DEIR should be changed to show an inventory of all water courses and springs both onsite and in the parcels downslope with an estimate or measurement of flow agreed with by the landowner.

P12-11

14. Page ES-23. Forestry resources. The DEIR should describe how much logging will occur in the next 40 years within the project area. Will it be so small as to allow the mothballing, reseeding and reclamation of existing logging roads so as to prevent dust and erosion? Will the carbon stored in trees that remain once the project is up and running be counted as stored carbon to be used to mitigate for the trees that are removed to construct the project? This forest should then be allowed to grow protected from harvesting and obvious removal of carbon.

P12-12

15. With the continued logging of trees by private landowners, the visual impact in the future should be clearly shown in the Draft EIR. Will there be areas that become clear cuts that currently have trees. What will the project area look like in say 10, 20, 30 years?

P12-13

Comment Letter P12

16. Page ES-24. The Greenhouse Gas Emissions from this project are indicated to be less than significant. This is a major project and approximately 975,000 gallons of gasoline and diesel will be used during construction. It is estimated in the DEIR that there will be 12,000 total material delivery trips with an estimated 124 deliveries per day over the 18-24 month construction period. These are not less than significant and will degrade the air quality of Shasta County and the local areas near the site. P12-14

17. Page ES-25. The setback for all turbines should be changed to provide for maximum turbine setback for all offsite parcels not just parcels with existing residences. The presence of a turbine close to an existing offsite parcel without a residence is essentially a condemnation of the offsite parcel for visual attractiveness. The project should make every effort to describe the mitigation measures proposed and as the Draft EIR is written this is a general weakness. P12-15

18. PageES-26, 27. Blasting will have major wildlife impacts not mentioned. There is no mention of how much blasting will likely have to occur. There should be a description of using rock breaking equipment including hammers and saws to create roadways and trenches. Non-explosive rock-breaking techniques should be described including using liquid expansion products to break rock silently. Where dynamite is used there should be clear justification that other methods are impractical. Likely impacts to wildlife should be described. P12-16

19. All rock excavated for the project should be buried and covered with soil. All piles of wood debris, stumps and potential habitat for rodents should be buried or covered to prevent habitat for burring animals that may attract bird predators which could be killed by turbine blades. P12-17

20. Page ES-45. An environmentally superior alternative should be identified now, not later. The Draft EIR should show an alternative of placing all the turbines north of Highway 299, in a mixed arrangement at different elevations. The existing Hatchet Ridge Project would be part of the new project and all the turbines would be arranged to maximize electricity production. No project features would be south of Highway 299 except the transmission line hookup. This would accomplish most of the project objectives without most of the negative impacts of either of the project alternatives studied and would be an environmentally superior alternative. This alternative should be described and evaluated in the Draft EIR. P12-18

21. Fig 2-1 Additional figures should be developed to show a group of cross sections with the ground topography and towers to show the true scale of the project. P12-19

22. A separate section should be developed on site grading, tower construction and powerline overhead and underground installations. Since the towers are already a barrier to birds, the project should incorporate as much underground infrastructure as possible. Power connectors between the towers should be underground and installed in roadways. No powerline corridors should be allowed overhead to prevent further tree removal, nest destruction, bird sitting attraction near the towers, native plant impacts, and potential erosion and long term maintenance requirements. All powerlines up to the substation connection should be underground. P12-20

23. Best Management Practices (BMP's) for Timber Harvesting Plans (THP's) imposed by the California Forestry Act are very weak with respect to preventing soil erosion, reseeding, and surface water runoff management and result in degradation of streams downstream on private property outside the project site. Battle Creek is a good example of runaway lack of regulations. A requirement should be imposed on all THP's for the timber companies doing logging within the project area that the most stringent BMP's should be enforced equal to those imposed on the wind turbine project. By having the same standards for all activities on the site when problems do occur between the timber landowner and the wind turbine owner over whose grading or maintenance cause the problem that rules and requirements for both parties are the same. P12-21

Comment Letter P12

24. Domestic wells may be drilled that could affect existing wells outside the project area on private property. The Draft EIR should state that all existing wells outside the project area will be pump tested and monitored for one year by a qualified hydrogeologist before any onsite wells are drilled to have a baseline for future comparison. This cost should be borne by the project proponent. P12-22

25. Page 2-19. Section 2.4.5.3 Materials Delivery. The project description indicates that there will be an average of 124 delivery vehicles per day for up to 400 workers. With a less than significant impact this is an erroneous statement. Shasta County has never had a project this big since construction of Shasta Dam or Interstate 5. There should be onsite a worker camp complete with food and temporary housing so that the workers do not have to commute to and from the site each day. A transportation plan should be required to estimate the damage to Highway 299 and the need for more turnouts and double slow lanes. If not required, the normal residents and tourist travelers will be adversely affected. As Highway 299 is a detour route for closures of Interstate 5 during both winter weather conditions and summer-fall wildfires, a study should be undertaken and roadway improvements paid for by the project. P12-23

26. 3.1.4.12 Noise. There is no estimate of noise levels generated during construction or operation. Grading, blasting, helicopters, timber felling, large trucks and trucks on Highway 299 will all generate much more noise than there is presently. What restrictions will there be on time of operation for noise levels? How much noise will be generated? P12-24

27. This project is a condemnation of existing private property. Owners likely valued the viewshed highly when they bought the property accepting the powerlines as the major detriment to near continuous forested land. Fires and more powerlines have changed the area significantly. Existing property owners likely never envisioned a wind turbine project being set adjacent to their property. This is a huge project with impacts that are understated in the DEIR. How will the landowners be helped for giving up their viewshed? P12-25

28. Page 3.1-29. The DEIR indicates that for project decommissioning the site equipment will be largely removed but no tree planting is planned, only natural recruitment. This is not appropriate given the extreme need for carbon sequestration and effect of climate change. All disturbed areas should be regraded, replanted with habitat-appropriate trees and maintained for a period of 10-20 years until regrowth is assured. P12-26

29. Fig 3.2-1, 2 and 3. The printing quality is poor and does not show what will be seen. The photos used to superimpose the project turbines should be retaken when there is no snow on the mountains as this significantly masks the towers, turbines and blades. All project improvements including roads, substations and powerlines should be superimposed on the photos. P12-27

30. Section 3.2.2.3 Regulatory Setting, Federal Aviation Administration Regulations on Objects Affecting Navigable Airspace. Will the high towers and blades require private low flying aircraft to fly higher than they do currently? If so what is the cumulative impact and cost to the aviators? P12-28

31. Pages 3.2-12 to 3.2-14 State Scenic Highway. A potential mitigation measure for some loss of scenic views is to plant trees along highways in California and protect and maintain them as visual enhancements. The Draft EIR should indicate what mitigation measures will be undertaken. P12-29

32. The 40-degree field of vision for all the Key Observation Points (KOPs) does not represent the approximate 180 degree plus vision of the average person. Why was the 40 degree angle selected? Please change all descriptions to the actual view possible given that a person standing on the road or viewing from a car will see a much wider view than 40 degrees. P12-30

Comment Letter P12

33. Figs 3.2-7, 8, 9, 10, 11, 12a, 12b. Although high printing quality is difficult to produce, a better effort should be made to show the tower and turbine details. Hard copy and computer screen images for the Draft EIR do not show the towers and blades clearly. Perhaps using black color would improve these depictions. The human eye will see these project features much better than the DEIR. Modify the Figures to clearly show what the human eye will see at those locations. P12-31

34. Page 3.2-35. Nighttime lighting from the turbines and project would be visible from KOP-7, in Redding. Will the blades have lights which move or what will be lit and what colors? P12-32

35. Page 3.4-35. No replacement of oak woodland trees is to be undertaken. This should be corrected as the oaks are a major food source for deer and other animals. Oak Woodland trees removed by any construction activities should be replaced at a 5:1 ratio, protected from wildlife and damage, and irrigated for 10 years. P12-33

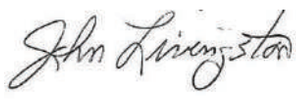
36. Page 3.5-7. Television interference for nearby residences is likely. The DEIR should clearly state that the project owner will pay all costs and provide replacement service to all residences affected. P12-34

37. Section 3.7 Energy. An estimate should be made and listed in the DEIR of the total estimated amount of electricity generated by the operating project and how much equivalent energy is used to construct, operate and decommission the project. This would include the energy equivalent of trees removed, energy used to construct the turbines and onsite features, energy of the fuel used in all aspects of the project, and an overall estimate of the project energy benefits and project energy usage. P12-35

38. Section 3.8 Forestry Resources. Page 3.8-3. The DEIR should demonstrate that the project has minimized the loss of forested area both for the energy project and areas of continued commercial timber harvest. No clear cuts should be allowed outside areas cleared for the project improvements. All future logging should be select cut with minimum ground disturbance and replanting of like species to minimize long term visual impact creep. Existing timberlands should be preserved to retain the visual character of mountains and encourage carbon storage by protecting large trees. P12-36

39. Section 3.16 Wildfire. Construction of a new Cal Fire fire station should be provided by the project and sited between Round Mountain and Burney to provide rapid response to fire in the project area. Operation and maintenance of this station should be partially funded by the project. P12-37

Respectfully submitted,



John Livingston
Chair of the Executive Committee of the Shasta Group of the Sierra Club

Letter P12: Sierra Club, John Livingston

P12-1 The initial review period for the Draft EIR satisfies the requirements of CEQA. CEQA Guidelines Section 15105(a) suggests that the public review period for a Draft EIR generally shall not be less than 45 days nor should it be longer than 60 days except in unusual circumstances. As explained in Final EIR Section 1.3.1, *Agency and Public Review of the Draft EIR*, the public review period for this Project began August 3, 2020 and concluded October 21, 2020 – a total of 79 days.

The County acknowledges the request for an additional 90 days of review to consider revisions made to the Draft EIR, and declines it for the following reasons. CEQA and the CEQA Guidelines require recirculation of a Draft EIR for an additional round of comments only if significant new information is added after the close of the public comment period (Pub. Res. Code §21092.1; CEQA Guidelines § 15088.5). No significant new information has been added to the Draft EIR. "Information" can include revisions in the project or the environmental setting as well as additional data or other information (CEQA Guidelines §15088.5). Recirculation is intended to be the exception, not the general rule. *Save Our Peninsula Committee v. Monterey County Board of Supervisors* (2001) 87 Cal.App.4th 99. CEQA Guidelines Section 15088.5(a) provides four examples of "significant new information" requiring recirculation, including:

(1) A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.

(2) A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.

(3) A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it.

(4) The Draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

The fourth example is based on the court's decision in a specific lawsuit and is intended to capture circumstances in which fundamental information is omitted in the Draft EIR and then added after the public comment period has closed. In *Mountain Lion Coalition v. Fish & Game Commission* (1989) 214 Cal.App.3d 1043, an environmental organization challenged the Fish and Game Commission's adoption of regulations that would have allowed sport hunting of mountain lions to resume within the state based on an environmental analysis that failed to adequately consider cumulative impacts: the analysis inadequately addressed or completely ignored important environmental issues that had been drawn to the agency's attention by the superior court, ignored input from scientists, and failed to support conclusions with references to specific scientific and empirical evidence. In reaching its decision, the court stated: "While technical perfection in a cumulative impact analysis is not

required, courts have looked for 'adequacy, completeness, and a good faith effort at full disclosure.' 'A good faith effort to comply with a statute resulting in the production of information is not the same, however, as an absolute failure to comply resulting in the omission of relevant information.'" *Id*. at 1052 (citations omitted). In contrast to the environmental analysis questioned in the *Mountain Lion Coalition* case, the Draft EIR for the Project provides an adequate and complete disclosure of direct, indirect, and cumulative impacts related to construction, operation, maintenance, and decommissioning of the Project and alternatives.

Courts have found the addition of information to a Draft EIR not to constitute "significant new information" so as to require recirculation in myriad other circumstances. For example, recirculation is not required when new information merely clarifies, amplifies or makes insignificant modifications to a previously circulated draft EIR. CEQA Guidelines § 15088.5(b); *Marin Municipal Water District v. KG Land California Corp.*, 235 Cal.App.3d 1652 (1991) (extended moratorium on water hookups would not cause significant impacts). Recirculation also is not triggered by the inclusion of supplemental data and analysis or when the new information reaches the same conclusion as was reached in the draft EIR. *Laurel Heights Improvement Assn. v. Regents of University of California,* 6 Cal.4th 1112 (1993).

Changes have been made since publication of the Draft EIR. See Final EIR Section 1.2.3, *Changes to the Project Since Issuance of the Draft EIR*, and Final EIR Chapter 3, *Revisions to the Draft EIR*. However, these changes would result in no new significant impact, no substantial increase in the severity of any previously identified impact, and no identification of any feasible alternative or mitigation measure that the Applicant declines to adopt. Further, the Draft EIR as a whole is adequate, complete, and represents a good faith effort at full disclosure of the potential impacts of the Project and alternatives.

P12-2 The County is evaluating the potential impacts of the Project described in the use permit application received from the Applicant. The proposal described in the application includes turbine options. See Response P20-15, which explains the relationship between the numbers, heights and locations of the proposed turbines. The Draft EIR does not consider shorter turbines arrayed in a relatively straight line because alternative arrays that would locate turbines exclusively south of SR 299 (Alternative 1) or would further remove them from residencies and roads (Alternative 2) were more responsive to potential significant impacts of the Project and responsive to input received during the scoping process. See Draft EIR Section 2.5.1 (at page 2-27 et seq.), which explains the development and screening process for alternatives and describes the potential alternatives that initially were considered and those that were carried forward for more detailed review.

P12-3 The location of the Project relative to the Hatchet Ridge Wind Project is adequately described on page ES-2 and page 2-3. The County acknowledges the request to modify Figure ES-1 to identify the existing Hatchet Ridge Wind Project turbines and leasehold

boundary; however, because the Draft EIR adequately identifies and considers the Hatchet Ridge Wind Project in the context of this Project, and to avoid a misperception that the existing project is not the focus of the current EIR, the County declines to do so. Nonetheless, to orient the commenter and other reviewers of the EIR, the Hatchet Ridge Wind Project turbines are visible in Figure ES-1 north of SR 299 and east of the Project Site – they appear as dots along an access road. The Draft EIR describes and analyzes the direct, indirect and cumulative effects of the proposed Fountain Wind Project, including consideration of how its impacts may combine with those of the Hatchet Ridge Wind Project as appropriate. See Response T4-1 for examples.

P12-4 The Draft EIR describes and shows the Project Site within the overall area leased from the landowner. The area identified as the Project Site is where the development proposed by the Applicant would occur if the Project is approved. Existing property owners within and in the vicinity of the leasehold area (including owners of inholdings) would continue to access their property in the same ways regardless of whether the Project is approved. Existing rights of property owners to use what the commenter calls "island" parcels that are not included within the Project Site boundary would not be affected by the Project: such owners could continue to use their land in compliance with General Plan and zoning requirements.

P12-5 See Draft EIR Figure 2-5, *Road Network* (at page 2-15), Figure 2-4b, *Preliminary Switching Station and Substation Site Plan* (at page 2-13), and Figure 2-4a, *Typical Wind Turbine* (at page 2-12). As discussed on Draft EIR page 3.2-5, thirty-seven viewpoints initially were considered for this analysis, including viewpoints from representative or visually sensitive areas within the study area. Photographs from additional viewpoints were collected to account for potentially sensitive receptors and views identified as particularly sensitive during the public scoping period. From this set of 37, seven views were identified that are representative of the range of viewer sensitivities, landscapes, and land uses in the Project viewshed. The visual resources technical report included in Draft EIR Appendix A explains that, in preparing the simulations, visualization specialists placed a photo-realistic model of the Project into views from Key Observation Points. The report defines the Project as "up to 72 wind turbines and associated infrastructure and facilities," and discloses that the technical analysis based on the simulations focuses on the proposed turbines because views of "other proposed features—including ancillary structures and overhead transmission corridors" would be set back from publicly accessible locations and generally obscured by the surrounding forested lands and topography. The County acknowledges these representative photographic simulations do not depict every view from every location from which the Project could be visible. See Final EIR Appendix A4, which includes the visual resources technical report from Draft EIR Appendix A as updated to delete the word "draft" to avoid confusion, and to include larger-format simulations for greater ease in review. See Response P4-1 regarding Project impacts on private views, including from Moose Camp.

P12-6 Draft EIR Section 2.4.4.1, *Access Roads* (at page 2-14) describes the proposed use of roadways. Potential visual impacts of the Project, including proposed roads, are analyzed in Section 3.2, *Aesthetics* (at page 3.2-1 et seq.). The comment provides no data, facts, reasonable assumptions based on facts, or expert opinion supported by facts that the existing analysis is inaccurate or inadequate. Further, because CEQA focuses on potential significant impacts to the general public, and because views seen from aerial photographs are not commonly observable by the general public, simulations from aerial photographs would not reasonably inform decision-makers or members of the public of the potential environmental impacts of the Project or alternatives. Accordingly, they have not been provided.

P12-7 See Response T2-3 regarding project objectives. Development of the Project Site would provide lease income to the landowner that would supplement existing revenue from timber production. Whether the Project would be profitable is beyond the scope of CEQA and this EIR.

Project benefits and consequences will be weighed by decision-makers as part of the decision-making process in hearings following the preparation of this EIR. As explained in Draft EIR Section ES.3 (at page ES-2), the EIR is an informational document intended to disclose to the public and decision-makers the potential environmental impacts of the Project. For comparison, and as explained in Draft EIR Section 1.4 (at page 1-3) and in Section 1.4.6 (at page 1-8), "CEQA Guidelines §15093 requires the County, as the lead agency, to balance the benefits of a proposed project against any significant unavoidable environmental effects it may have. If the benefits of the Project outweigh the significant unavoidable adverse impacts, then the County may adopt a statement of overriding considerations that finds the environmental consequences to be acceptable in light of the Project's benefits to the public."

The offset identified in objective 8 refers to the desired minimum of what the Project could achieve annually over the use permit period. Objective No. 8 presented in Draft EIR Section 2.3, page 8, has been modified as follows to including the temporal unit:

> 8. Offset approximately 128,000 metric tons <u>per year</u> of carbon dioxide emissions generated by fossil fuels.

For details regarding the Project's offset of GHG emissions, see the analysis provided in the context of Impact 3.10-1 (at page 3.10-17). The Project outperforms Objective 8. On an annual basis, the Project would provide a potential net offset of 225,131 metric tons of carbon dioxide equivalent (MT CO_2e) per year. To provide context relative to this potential net offset, this would be equivalent to emissions from the annual energy

use of approximately 100,000 homes,[38] or roughly equivalent to the annual GHG emissions from approximately 41,424 passenger vehicles.[39]

P12-8 As explained in Draft EIR Section ES.3 (at pages ES-2 and ES-4), "All of the resource areas in the CEQA Guidelines Appendix G Checklist[40] were studied: Aesthetics, Agriculture and Forestry Resources, Air Quality, Biological Resources, Cultural Resources, Energy, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Land Use and Planning, Mineral Resources, Noise, Population and Housing, Public Services, Recreation, Transportation, Tribal Cultural Resources, Utilities and Service Systems, and Wildfire. The potential for the Project to result in communications interference is also examined." For each of these resource categories, the Appendix G Checklist identifies multiple specific questions to guide lead agencies in conducting environmental reviews.

For example, for Aesthetics, the Appendix G Checklist poses four questions: whether the project would: a) Have a substantial adverse effect on a scenic vista; b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway; c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings; or d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. These are the same factors considered in the Draft EIR (see Section 3.2.3, *Significance Criteria* at page 3.2-15). As analyzed in Draft EIR Section 3.2 (at page 3.2-17 et seq.) and as summarized in Table ES-2, *Summary of Impacts and Mitigation Measures* in draft EIR Section ES.6 (at page ES-8), the Project would result in a significant and unavoidable impact with respect to Impact 3.2-1 (scenic vistas, character or visual quality of views from publicly accessible vantage points) and less than significant impacts with respect to Impact 3.2-2 (resources within a State scenic highway) and Impact 3.2-3 (new sources of light or glare).

Draft EIR Section ES.6.2 (at pages ES-6 and ES-7) calls out the specific considerations where the analysis identified a significant and unavoidable because this conclusion triggers other requirements as part of the decision-making process. See Response P12-7 for additional details.

---

38 Based on California Public Utilities Commission (CPUC), 2018a. Delivery, Consumption & Prices for Utility Service within California. Accessed online: https://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/About_Us/Organization/Divisions/Policy_and_Planning/PPD_Work/PPD_Work_Products_(2014_forward)/California%20Regions%20Final.pdf. January 18, 2018.

39 Based on U.S. Environmental Protection Agency (USEPA), 2019. Frequently Asked Questions, Q22. How much is 25,000 metric tons of CO2 equipment (mtCO2e)? Updated on August 29, 2019. Accessed online: https://ccdsupport.com/confluence/pages/viewpage.action?pageId=91554027, March 2, 2021.

40 The CEQA Guidelines Appendix G environmental checklist form is available online, beginning on page 327 (pdf page 395) of the Association of Environmental Professionals 2021 California Environmental Quality Act Statute and Guidelines, found here: https://www.califaep.org/docs/CEQA_Handbook_2021.pdf.

P12-9 The County acknowledges the commenter's disagreement with conclusions reached. This disagreement, however, does not undermine the validity of the data or analysis in the EIR. The aesthetics analysis was performed using the methodology described in Draft EIR Section 3.2.4.1 (at page 3.2-17 et seq.) and environmental standards. It considers input received during scoping (Draft EIR at page 3.2-1, Appendix J, *Scoping Report*), technical input prepared by resource experts (Appendix A) that was independently reviewed by the County and its consultant team, reference materials cited in Section 3.2.6 (at page 3.2-50), and the professional technical resource expertise of the preparers of the EIR (Draft EIR Chapter 5). Conclusions are based on facts and analysis, rather than opinions. Additionally, potential visual impacts to SR 299 are analyzed throughout Draft EIR Section 3.2. Acknowledging the commenter's disagreement, the County chooses to rely on the data, other information and analysis documented in the Draft EIR. Further, as explained in Final EIR Section 2.1.1, *Input Received*, social impacts that do not have a corresponding impact on the physical environment (e.g., community feeling) are beyond the scope of CEQA and this EIR.

P12-10 Pursuant to CEQA Guidelines §15204(c), "Reviewers should explain the basis for their comments, and should submit data or references offering facts, reasonable assumptions based on facts, or expert opinion supported by facts in support of the comments. Pursuant to Section 15064, an effect shall not be considered significant in the absence of substantial evidence." Without such support, the comment provides insufficient detail to question the adequacy of the existing analysis. Nevertheless, the Draft EIR analyzes visual impacts from seven views that are representative of the range of viewer sensitivities, landscapes, and land uses in the Project viewshed, including visual impacts experienced by residents, tourists, commuters, workers, and recreationalists traveling within the study area. See Draft EIR Section 3.2.2.2 (at page 3.2-5 et seq).

P12-11 Draft EIR Section 3.12 documents the County's analysis of potential impacts to hydrology and water quality. The analysis was performed using the methodology described in Draft EIR Section 3.12.3.1 (at page 3.12-11) and environmental standards. It considers input received during scoping from the Regional Water Quality Control Board and members of the public (Draft EIR at page 3.12-1, Appendix J, *Scoping Report*), reference materials cited in Section 3.12.5 (at page 3.12-24 et seq.), and the professional technical resource expertise of the preparers of the EIR (Draft EIR Chapter 5). Conclusions are based on facts and analysis, rather than opinions. Acknowledging the commenter's preference that additional information be included, the absence of the requested data does not affect the sufficiency of the EIR. Further, the Draft EIR analyzed potential impacts to all areas of temporary and permanent disturbance, as well as downstream portions of the waterways intersecting the Project Site and the undefined groundwater basins beneath the Project Site that could be impacted by the proposed construction, operation, and decommissioning activities. With respect to water quality, the Draft EIR concluded that, with mitigation, Project impacts would be less than significant. See Draft EIR Section 3.12.

P12-12 See Draft EIR Table 2-1, *Project Components and Disturbance Areas* (at page 2-7), which identifies the anticipated total temporary construction disturbance as 1,384 acres, and the anticipated total permanent disturbance as 713 acres. The table's footnote d) clarifies, "Timber harvested and timberland to be converted is included within the anticipated disturbance areas." The Project's potential carbon sequestration-related impacts, including from tree removal, are analyzed in Draft EIR Section 3.10, *Greenhouse Gas Emissions*. See pages 3.10-12 and 3.10-12, which describe the methodology used, and the analysis of Impact 3.10-1 (at page 3.10-13 et seq.). See also Table 3.10-2, *Estimated Annual Operational Greenhouse Gas Emissions* (at page 3.10-16), which expressly considers the amortized loss of carbon sequestration over 40 years in the context of the Project. To emphasize, logging occurs within and near the Project Site as part of the baseline condition, and is expected to continue to occur within the Project Site in areas that would not be converted from the managed timberland use. Continued management of these areas for timber is evaluated in the Draft EIR as part of the cumulative impacts analysis and the impacts associated with the continuation of those activities will be evaluated subject to timber harvesting regulations.

P12-13 Draft EIR Section 3.1.3.1 (at page 3.1-4 et seq.) identifies past, present, and reasonably foreseeable future timber management and harvesting as part of the cumulative scenario. With respect to aesthetics, cumulative impacts are analyzed in Draft EIR Section 3.2.5 (at page 3.2-47 et seq.) and expressly consider "ongoing commercial timber operations in the area [and] forest thinning" projects as part of the future condition. Although the analysis assumes that these activities would continue into the future, it would be speculative to guess which properties would be harvested by whom, when, and how. For this reason, the requested preparation of a simulation to show the visual impact in the future would not reasonably inform decision-makers or members of the public of the potential environmental impacts of the Project.

P12-14 The County acknowledges the commenter's disagreement with conclusions reached regarding GHG emissions and air quality. The comment, however, does not provide sufficient detail to question the adequacy of the existing analysis in the EIR, or the conclusions reached. The GHG emissions and air quality analyses were performed using the methodology described in Draft EIR Sections 3.10.3.1 (at page 3.10-12 et seq.) and 3.3.3.1 (at page 3.3-12), respectively, and environmental standards. They consider input received during scoping (Draft EIR at pages 3.10-1 and 3.3-1, Appendix J, *Scoping Report*), technical input prepared by resource experts (Appendix B) that was independently reviewed by the County and its consultant team, reference materials cited in Sections 3.10.5 and 3.3.5 (at pages 3.10-22 and 3.3-31 et seq.), and the professional technical resource expertise of the preparers of the EIR (Draft EIR Chapter 5). Conclusions are based on facts and analysis, rather than opinions. Acknowledging the commenter's disagreement, the County chooses to rely on the data, other information, and analysis documented in the Draft EIR.

P12-15 As explained in Draft EIR Section 3.11 (at page 3.11-13), "Neither the State of California nor Shasta County has adopted setback requirements for wind turbines." However, the Draft EIR considered the setback requirements of six counties within California, including Kern, Solano, and Riverside counties, to formulate setbacks requirements from both residences and public roads for purposes of analysis. The Draft EIR further considered increased setbacks, as proposed in Alternative 2 (at page 2-38) that would be among the largest in the State. The County acknowledges that the commenter may prefer to see larger or different setbacks; however, the comment provides insufficient detail to question the adequacy of the existing analysis.

The County further acknowledges the stated opinion about the recommended mitigation measures. However, without some indication of what additional information is sought, the comment is not sufficiently informative to allow for a more detailed response.

P12-16 Regarding blasting impacts on species, see Response A3-35. Draft EIR Section 2.4.5.1 (at page 2-17) explains that "[b]lasting may be necessary to loosen rock before excavation. If blasting is necessary, the Applicant would prepare a Blasting Plan that identifies the locations where blasting is anticipated to be needed and all applicable regulations for blasting procedures. The Blasting Plan also would specify the times and distances where explosives would be permitted to avoid impacts on sensitive environmental receptors and the human environment. The County and emergency responders would be notified at least 24 hours in advance of blasting. All blasting activities would be conducted in compliance with applicable federal, state, and local laws, and appropriate safety and environmental protection measures would be implemented, including weather restrictions in regards to wildfire risk." See also Mitigation Measure 3.12-2, *Best Management Practices for Blasting* (at page 3.12-15 et seq.) The practices required by this measure would further reduce potential impacts to wildlife.

The County acknowledges the recommendation that non-explosive rock-breaking techniques be considered. Although the comment provides no basis for it to be required as part of the CEQA process, the recommendation has been included in the record where it may be considered by decision-makers separate from the CEQA process.

P12-17 Draft EIR Section 3.4, *Biological Resources* (at page 3.4-1 et seq.) analyzes the potential impacts of the Project and alternatives on biological resources, including the potential for avian species to be injured or killed by wind turbines. The County acknowledges the recommendation that rock piles and potential rodent habitat be covered with soil, noting that it does not affect the sufficiency of the existing analysis. Although the comment provides no basis for it to be required as part of the CEQA process, the recommendation has been included in the record where it may be considered by decision-makers separate from the CEQA process.

P12-18 Draft EIR Section 4.3, *Environmentally Superior Alternative* (at page 4-2) identifies the No Project Alternative as the Environmentally Superior Alternative and, among the remaining alternatives, explains that the analysis could support a conclusion that either the Project or Alternative 2 were environmentally superior. As explained in Section 4.3, "Additional information received in or developed during the agency and public review period for the Draft EIR, or during the project approval process, could affect the balancing of the respective benefits and consequences of the alternatives." Information received and developed following publication of the Draft EIR does not change the initial conclusions reached in the Draft EIR. Acknowledging that information received or developed during the project approval process could affect the balancing of the respective benefits and consequences of the alternatives, as of the drafting of the Final EIR, either the Project or Alternative 2 could be determined to be the Environmentally Superior Alternative. Draft EIR Section 2.5.2.1 (at page 2-29) explains why potential off-site alternatives initially were considered, but not carried forward for more detailed review. See also Response T2-4, which further explains why off-site alternatives were not considered in detail in this EIR.

P12-19 The County acknowledges the commenter's request for additional figures to show the true scale of the Project. See Draft EIR Section 3.2, *Aesthetics* (at page 3.2-1 et seq.), which includes photographic simulations that show the level of change that would result if the tallest towers were constructed at each of the 72 potential locations shown on Figure 2-2.[41] Because the scale of the Project easily can be ascertained from existing graphics, additional figures have not been prepared. Nonetheless, see Final EIR Appendix A4, which includes the visual resources technical report from Draft EIR Appendix A as updated to delete the word "draft" to avoid confusion, and to include larger-format simulations for greater ease in review.

P12-20 Project Site grading, tower construction, and power line installation are described in Draft EIR Section 2.4, *Description of the Project* (at page 2-6 et seq.). The potential impacts of the Project, including these components, to birds are analyzed in Section 3.4, *Biological Resources*, which analyzes proposed structures such as towers as a potential collision hazard. The County acknowledges the request that the Project incorporate as much underground infrastructure as possible, and has included it in the record, where the County may consider it as part of the decision-making process. As provided in Draft EIR Section 2.4 (at pages 2-10 and 2-11), most of the Project's electrical collector system (up to 51 miles) will be underground and adjacent to onsite access roads. Portions of the collector system may be constructed overhead in response to environmental and engineering constraints.

P12-21 As explained in Draft EIR Section 2.4.5.1 (at page 2-17), "Areas that would be removed from timber production as a result of the Project would be harvested in accordance with a Timberland Conversion Permit (TCP) and Timber Harvesting Plan (THP) authorization from the California Department of Forestry and Fire Protection

[41] This configuration would never be realized because its generation capacity would exceed the requested permit limit (a total generating capacity of up to 216 MW).

(CAL FIRE). The THP would be drafted in accordance with requirements set forth in the Forest Practice Act (Pub. Res. Code §4582) and the Forest Practice Rules (CAL FIRE, 2019), would be prepared by a Registered Professional Forester, and would be carried out by licensed timber operators. The THP would specify the location of timber to be harvested, how it would be harvested, and environmental best management practices (BMPs) that would be implemented during harvesting. The Applicant would provide the County with written documentation of CAL FIRE's approval of the THP prior to the commencement of onsite activities."

The Applicant or its contractors would be responsible for compliance with the more stringent of the requirements identified in a Project-specific THP, County-imposed CEQA mitigation measures, County-imposed conditions of use permit approval, or permit conditions required by other agencies, including those identified in Draft EIR Section 2.6, *Permits and Approvals* (at page 2-41). The County does not have authority to require the imposition of mitigation measures in the context of THPs issued elsewhere in the general area. Parity among different permittees is beyond the scope of the CEQA process for this Project. Nonetheless, the County acknowledges the commenter's opinion of the effectiveness of timber harvest plan-related BMPs. At least within the Project Site, overlapping requirements would apply – the requirements of timber harvest plan-related BMPs would be supplemented by the requirements of mitigation measures, use permit conditions, and the conditions of approval of other agencies permits that are required for the Project.

P12-22 See Response P4-7 regarding potential impacts to surface waters and groundwater, including wells. The actions requested in the comment do not affect the sufficiency of the existing analysis.

P12-23 The County acknowledges the commenter's disagreement. This disagreement, however, does not undermine the validity of the data or analysis in the EIR, or the conclusions reached. Transportation impacts were analyzed in Draft EIR Section 3.24. The analysis of Transportation was performed using the methodology described in Draft EIR Section 3.14.3.1 (at page 3.14-7 et seq.) and environmental standards. It considers input received during scoping (Draft EIR at page 3.14-1, Appendix J, *Scoping Report*), technical input prepared by resource experts (Appendix H) that was independently reviewed by the County and its consultant team, reference materials cited in Section 3.14.5 (at page 3.14-19), and the professional technical resource expertise of the preparers of the EIR (Draft EIR Chapter 5). Conclusions are based on facts and analysis, rather than opinions. Acknowledging the commenter's disagreement, the County chooses to rely on the data, other information and analysis documented in the Draft EIR. The additional study and roadway improvements requested in the comment do not affect the sufficiency of the existing analysis or alter the conclusions reached.

The Draft EIR discusses the use of oversize/overweight vehicles for Project construction in Section 3.14.3.2 (at page 3.14-13). During Project construction, heavy

construction equipment and wind turbine components (e.g., blades, nacelles) would be delivered to (and during decommissioning would be removed from) the Project Site using area roadways, some of which may require transport by oversize/overweight vehicles. The transport of these materials would require transportation permits from Caltrans for oversize/overweight vehicles. Such permits deal primarily with safety, and do not address pavement condition; however, unlike local, non-arterial roadways, State highways are designed and constructed to handle a mix of vehicle types, including heavy trucks. Therefore, oversize/overweight truck trips generated by the Project to transport heavy construction equipment and wind turbine components are not expected to result in abnormal or unexpected wear-and-tear to SR 299.

Caltrans Office of Pavement Management regularly reviews pavement conditions on State highways and addresses deficiencies as part of maintaining the State Highway System.[42]

P12-24 Draft EIR Section 3.13.3, *Direct and Indirect Effects* (at page 3.13-17et seq.) discloses and analyzes Project-generated noise. See, e.g., Table 3.13-5, *Typical Noise Levels from Construction Equipment* (at page 3.13-20) and page 3.13-21, where the Draft EIR describes noise from construction trucks (which "is calculated for both SR 299 as well as for the west, north, and east access roads"), blasting and helicopters. Mitigation Measure 3.13-2 (at page 3.13-31) would require implementation of the noise-reducing construction practices identified in the measure, including choice of routes, muffling devices on vehicles, helicopter use limitations, and time-of day restrictions.

P12-25 The Applicant would lease the Project Site from the landowner; no condemnation would occur on-site. No condemnation of off-site private property would occur either. Section 19 of California Constitution, Article I, provides that "[p]rivate property may be taken or damaged for public use only when just compensation… has first been paid…" See also California Code of Civil Procedure §1230.010, et seq. The Project is neither a public work nor a public improvement operated for public use. As such "condemnation" would not occur. Further, no private property owner reasonably could expect to restrict neighboring private property owners' lawful use of their own property. See Response P17-5 regarding the Project's consistency with the Shasta County General Plan and Zoning Plan. See Response P4-1 and Draft EIR Section 3.2 regarding private views and impacts to aesthetics. The County disagrees with the suggestion that the Draft EIR understates the potential impacts of the Project and alternatives.

P12-26 See Draft EIR Section 2.4.7, *Decommissioning and Site Restoration* (at page 2-23 et seq.). As explained there, and in coordination with the landowner, disturbed areas would be replanted with trees or other appropriate vegetation. The goal of site revegetation would be to develop a vegetation cover, composition, and diversity similar to the area's ecological setting and consistent with the landowner's current and future

[42] Caltrans, 2021. Pavement Management. https://dot.ca.gov/programs/maintenance/pavement/pavement-management. Accessed January 12, 2021.

land use practices. Further, a Final Decommissioning Plan would be prepared that includes plans and procedures for site restoration and habitat restoration in compliance with standards and requirements at the time of site decommissioning. The Director of Resource Management's review and approval would be required.

P12-27 See Response P4-1 and Draft EIR Appendix A regarding the process of selecting and preparing photographic simulations. The simulations provided in Draft EIR Section 3.2 show pre- and post-Project conditions, inclusive of all proposed components. The commenter asserts that photographic simulations should use base photos that do not include snow cover because inclusion of snow reduces the visual prominence of the turbines. It is noted that only two of the simulations include snow (see Figures 3.2-12 and 3.2-13), and that the amount of snow present is minimal and limited to the top of peaks, and not in the vicinity of turbines. These simulations include enlarged simulations that enhance the location of the turbines and exhibit a level of detail greater than experienced by the human eye. Thus, photographic simulations that are based on setting photos without snow would not result substantially change the visual prominence of the Project from the selected viewpoints. See Final EIR Appendix A4, which includes the visual resources technical report from Draft EIR Appendix A as updated to delete the word "draft" to avoid confusion, and to include larger-format simulations for greater ease in review.

P12-28 Regarding potential impacts on the operation of private aircraft generally, see the responses provided to Letter P19, which was received from the California Pilots Association. The Draft EIR analyzed potential impacts to air navigation. See, e.g., Section 3.2, *Aesthetics* (at page 3.2-12) and Section 3.5, *Communications Interference* (at page 3.5-7). Regarding emergency response, see Section 3.1.4.14, *Public Services* (at page 3.1-21). Regarding aerial firefighting, see Response T3-3. See also Response P11-2 regarding potential impacts to use of the Moose Camp helipad. Any incremental change in cost to private pilots is beyond the scope of CEQA and this EIR, but may be considered by decision-makers. See Final EIR Section 2.1.1, *Input Received*.

P12-29 The nearest designated state scenic highway to the Project Site is a 3.3-mile section of SR 151 located approximately 28 miles from the western edge of the Project Site. No substantial evidence was identified or is provided that the Project could cause a potential significant impact to views from SR 151.

The Draft EIR also considers eligible state scenic highways near the Project Site. Those include SR 89 (approximately 11 miles away), SR 299 east of SR 89 (approximately 11 miles away), and SR 44 (approximately 17 miles away). No substantial evidence was identified or is provided that the Project could cause a potential significant impact to views from any of these eligible state scenic highways. See the analysis of Impact 3.2-2 (Draft EIR at page 3.2-41 et seq.), which concludes that Project impacts would be less than significant. When the analysis reveals a less-than-significant impact,

Draft EIR Section 3.1.2.3, *Impact Significance Conclusions* (at page 3.1-2) explains that "no mitigation measures would be required or may be imposed."

P12-30 Photographic simulations are provided to be illustrative, not comprehensive of all views of the site. The comment does not affect the sufficiency of the EIR; the requested replacement simulations have not been prepared.

P12-31 The County acknowledges that the commenter may prefer to see different or additional photographic simulations; however, the simulations provided in the figures identified in this comment reflect a reasonable, good faith effort to disclose the potential visual impacts of the Project. This is sufficient for purposes of CEQA.

P12-32 As described in Draft EIR Section 2.4.1 (at page 2-8), "Designated turbines and METs would have flashing red lights installed to improve nighttime visibility for aviation and comply with Federal Aviation Administration (FAA) standards and Advisory Circular 70/7460-1L." See also, Draft EIR Section 3.2.2.3, *Regulatory Setting* (at page 3.2-12). Turbine rotor blades would not be lit because to do so would be inconsistent with FAA's guidance in AC 70/7460-1M. Instead, consistent with FAA requirements, the FAA-required safety lighting would be installed sufficiently above the surface of the nacelle and the rotor hub to ensure that they are visible from 360 degrees, with particular attention being made to ensure that the turbine in no way blocks the light from an aircraft approaching the windward side at the same elevation as the hub.

P12-33 Impacts and mitigation regarding wildlife habitat are evaluated in Draft EIR Section 3.4 (at page 3.4-1 et seq.). These additional thoughts on potential mitigation are acknowledged; however, the comment does not suggest that the analysis provided is either inadequate or inaccurate. Acorns in particular have been considered in the Draft EIR as a tribal cultural resource (see Draft EIR Section 3.6 at page 3.6-3) and as a habitat component and wildlife food source (see Section 3.4.1 at page 3.4-25). See Response T4-1 for more information about the Draft EIR's consideration of acorns. While the additional input has been included in the record where it may be considered by decision-makers, it has not been incorporated into the EIR. Further regarding oaks, see the comments and responses to Letter P30, from the California Oaks Coalition, below.

P12-34 As identified in Impact 3.5-1 (at page 3.5-6), the Project could cause intermittent interference to or freezing of television reception at up to 60 residences in the service area of those television stations that broadcast over the Project Site. This would be a significant impact, and Mitigation Measure 3.5-1 (at page 3.5-7) would reduce this impact by providing advance notification of the potential for interference and a method by which residents may file a complaint with the County, and by defining the responsibility of the Applicant to resolve receiver interference through coordination with property owners. This includes the Applicant's financial responsibility for resolving any such interference to ensure that property owners have the same level of reception as under pre-project conditions.

P12-35 The analysis of potential impacts relating to Energy was performed using the methodology described in Draft EIR Section 3.7.3.1 (at page 3.7-9) and environmental standards. It considers input received during scoping (Draft EIR at page 3.7-1, Appendix J, *Scoping Report*), reference materials cited in Section 3.7.5 (at page 3.7-16 et seq.), and the professional technical resource expertise of the preparers of the EIR (Draft EIR Chapter 5). See, e.g., Table 3.7-4, *Project Energy Consumption During Construction*, and Table 3.7-5, *Project Energy Consumption During Operation* (each at page 3.7-10). Because it is not clear from the comment what is meant by the "energy equivalent of trees removed," the County does not have enough information to provide a response in this regard.

P12-36 See Response P12-21 regarding CAL FIRE's regulation of timber harvesting within and near the Project Site. CEQA does not require the EIR to "demonstrate that the project has minimized the loss of forested area both for the energy project and areas of continued commercial timber harvest" but rather to analyze, disclose, and mitigate any potential significant impacts to forestry resources. Because the Project and alternatives would have a less-than-significant impact to Forestry Resources (Draft EIR Section 3.8, at page 3.8-1 et seq.), no mitigation measures are recommended pursuant to CEQA. To emphasize, while timber is proposed to be removed to develop that proposed wind project and while the impacts of timber removal for that purpose are appropriately evaluated in the Draft EIR, the Project does not propose timber harvesting for any other purpose within or outside of the Project Site. Ongoing and future timber harvesting within the leasehold area is a permitted use (based on the General Plan and zoning designation of the property) subject to approval pursuant to timber harvesting regulations.

P12-37 Impacts relating to wildfire and emergency response are analyzed in Draft EIR Section 3.16 generally and in the specific context of Impact 3.16-1. The commenter's suggestion that a new CALFIRE station be provided by the Project is acknowledged, but not merited as part of the CEQA process for the Project. The recommendation has, however, been included in the record for consideration by County decision-makers.

Comment Letter P13

Mr. Lio Salazar, AICP
Senior Planner
Shasta County
Department of Resource Management
Planning Division
1855 Placer Street Suite 103
Redding, CA 96001

October 16, 2020

Dear Mr. Salazar,

This letter is in response to the Draft EIR for the Fountain Wind Project.

I applaud the goal of producing clean energy, but there are very significant problems in the EIR that need to be addressed as you implement the project. The goal of improving the environmental impact of energy production cannot be attained if the "clean energy" project does as much damage to the environment as keeping the existing power plants.

My first concern is that I see no mention in the EIR of protecting the water that originates within the project area but is owned by neighboring landowners. The owners of the Buffum Homestead, including myself, own rights to the water in Buffum Creek, whose headwaters lie within the project area. These riparian water rights are more than a century old, well established in the law, and cannot be ignored, yet the EIR only mentions water and wetlands protection in the context of preserving wildlife (section 3.4-16). Please add a mitigation statement and inform us as to how you will avoid damaging the spring where our water comes out from underground and the creek that carries the water down to us. The project must ensure that our drinking water is neither reduced in volume nor contaminated. P13-1

I also have concerns about some other issues in the EIR:

ES2.2 Project Location: The description of the project location states that all the land parcels used for the project are used mainly for timber harvesting, but it fails to note that the same is NOT true of the adjoining private properties, including my own, which have other uses. The rest of the document follows suit by focusing largely on damage and mitigation within the project property and not considering potential damage and its mitigation outside the project border. P13-2

Table ES-2 Impacts and Mitigation Measures:

There are several impacts that appear to be very significant, even to the point of violating existing laws, which are inexplicably marked "Less than significant" and "No mitigation measures are required". I disagree very strongly with this. If there is a severe impact, there MUST be mitigation.

Impact 3.2-3: night time light glare: This impact will be severe for people who are close to the project, and for wildlife in the area. There should be mitigations such as minimizing the lighting and aiming lamps so as to avoid glaring into neighboring properties. P13-3

Impacts in 3.3.2c related to construction: The use of heavy trucks on Buffum Road will very likely result in the formation of ruts deep enough to prevent cars from using the road. This has happened in the past when logging trucks used the road. The project plan needs to include grading the road periodically so P13-4

Comment Letter P13

that property owners on Buffum Road are not prevented from accessing their lands and first responders are able to reach us in the event of an emergency. P13-4 cont.

Also in 3.3.2c: The mitigation (cleanup) of construction debris, materials, etc. should not stop at the project border. If materials, debris, and dust inadvertently encroach on private property, it ought to be cleaned up by project personnel at no expense to the owner. The owner should be contacted so they can give permission, open gates, and so forth. P13-5

3.4-16: impact on water, as mentioned above. P13-6

3.13-1, noise: The EIR reports that "operation of the Project could result in the generation of a substantial permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the Shasta County General Plan or the applicable standards of other agencies," and yet it is marked as "less than significant" and "no mitigation measures are required." That is ridiculous. If the turbines are loud enough to violate noise laws, the noise is definitely significant to your neighbors and to all the wildlife in the area, and you DO need to mitigate the problem. P13-7

3-16.2: increased fire danger. In light of the fire damage PG&E has inflicted on California in recent years, this risk cannot be overstated. People will die if you start a forest fire. You must do everything you possibly can to mitigate the fire danger. P13-8

As to the alternative plans, I would ask that you strongly consider choosing alternative E.7.2.3, the use of increased setbacks. The further the project is from neighboring properties, the less impact it will have on its neighbors. Alternative E.7.2.2, confining the project to the area South of Highway 299, would be best for me personally, but it would not help the neighbors who are closer to 299 and it would reduce the overall energy production which is, after all, the whole point. P13-9

I sincerely hope that the environmental impact of the project is a real goal of your organization and not merely something you will limit to the minimum the law requires.

Regards,

Susan McVey

302 Briggs Ct.
San Jose, CA
ssmcvey@att.net

P13-5

Letter P13: Susan McVey

P13-1 See Response T3-4 regarding water rights. Regarding potential impacts to surface and groundwater, see Response P4-7.

P13-2 The Draft EIR is clear that non-commercial timberland is present in the surrounding area. See Response P5-1 regarding Moose Camp and the Draft EIR's consideration of potential impacts on Moose Camp residents. See also Response T1-1 regarding the Draft EIR's identification of the Project Site as located within the ancestral lands of the Madesi, Itsatawi and Atsugewi Bands of the Pit River Tribe. Consistent with CEQA, the Draft EIR analyzes direct, indirect, and cumulative impacts of the Project on the physical environment, regardless of whether those potential impacts could occur within or beyond the Project Site boundary. See, e.g., Draft EIR:

- Section 3.2.2.1 (at pages 3.2-3 and 3.2-4), which explains that the study area for purposes of Aesthetics considers a 30-mile radius around the Project Site;
- Section 3.3.1.1 (at page 3.3-1), which identifies the study area for purposes of the Air Quality analysis as inclusive of the entire Sacramento Valley Air Basin (comprised of all or portions of eight counties) plus a small portion of San Joaquin Valley Air Basin;
- Section 3.6.1.1 (at page 3.6-2), which identifies the study area for purposes of the analysis of potential impacts to Cultural and Tribal Cultural Resources as including "Project Site, as well as all areas that could experience indirect impacts such as visual impacts or changes in use";
- Section 3.7.1.1 (at page 3.7-1), which identifies the study area for purposes of the analysis of potential impacts to Energy as including PG&E's service area (i.e., northern California);
- Section 3.10.1.1 (at page 3.10-2), which identifies the study area for purposes of the analysis of potential impacts to Greenhouse Gas (GHG) Emissions as "global";
- Section 3.11.1.1 (at page 3.11-1), which identifies the study area for purposes of the analysis of potential impacts to Hazards and Hazardous Materials as inclusive of the Project Site and transportation routes used to deliver or remove any hazardous materials or equipment; and
- Section 3.12.1.1 (at page 3.12-1), which identifies the study area for purposes of the analysis of potential impacts to Hydrology and Water Quality as the Project Site, downstream portions of the waterways intersecting the Project Site, and the undefined groundwater basins beneath the Project Site.

Accordingly, contrary to the suggestion in this comment, the Draft EIR does consider potential impacts beyond the Project boundary.

Regarding Draft EIR Table ES-2 (at page ES-8 et seq.), the County acknowledges the commenter's disagreement with impact conclusions reached; however, the comment does not indicate which of the conclusions specifically are of concern and, therefore,

the comment does not include enough detail for the County to provide a more substantive response.

P13-3 Regarding night sky impacts, see Response A2-1 and Response T5-5. See also Response A3-76 specifically regarding potential effects of night lighting placement and operations on birds. As explained in Draft EIR Section 3.2.2.3, *Regulatory Setting* (at page 3.2-12), the Federal Aviation Administration (FAA) is responsible for overseeing air traffic and related safety hazards, including the lighting needed for aviation safety. The FAA's standards for safety lighting have been established with dark sky impacts and potential impacts on migratory bird populations as among the factors considered. Other than wind turbine and meteorological tower lighting (as proposed in Draft EIR Section 2.4.1, *Wind Turbine Generators*, at page 2-8), the Project would require little lighting, since construction generally would occur during daylight hours from 7 am to 5 pm, although the hours could vary to accommodate specific construction needs or site conditions, to avoid traffic or high winds, or to facilitate the Project schedule (Draft EIR at page 2-21).

P13-4 See Response P4-8, which summarizes the local access to the Project Site as including three existing, gated logging roads that intersect with SR 299 as shown in Figure 2-5*,* *Road Network* (at page 2-15): the westernmost of the three local accessways is proposed along a road called G Line, which intersects with SR 299 approximately 37 miles east of the interchange with I-5 in Redding; the northernmost access is proposed along an existing and unnamed logging road that intersects SR 299 just east of Little Hatchet Creek, and the easternmost access is approximately 8 miles west of Burney along an existing, unnamed logging road that provides access to the area south of SR 299.

Buffum Road is located just east of where SR 299 crosses Hatchet Creek. It is not one of the roads proposed for use by the Project. Because the Project would not use Buffam Road for construction trips, the Project would not cause adverse impacts to Buffam Road or the ability of residents or first responders to use it.

P13-5 It is not clear from this comment what is meant by "3.3.2c." Draft EIR Section 3.3.2 (at page 3.3-11) identifies the significance criteria relied upon to determine whether the Project would have a significant impact relating to Air Quality; criterion c) relates to the potential exposure of sensitive receptors to substantial pollutant concentrations. Mitigation Measure 3.3-2c requires that fugitive dust controls be implemented during Project construction, including measures to prevent fugitive dust from leaving property boundaries and causing a public nuisance. Without more information about the concern, the County does not have enough detail to provide a more substantive response.

The Applicant would have to comply with all applicable regulations regarding the disposition of solid waste and hauling solid waste and other materials on public roads.

P13-6 Regarding impacts to water, see Response P13-1.

P13-7 To correct a misunderstanding, the statement of Impact 3.13-1 identifies what the analysis considers, i.e., whether operation of the Project could permanently increase ambient noise levels in excess of standards established in the Shasta County General Plan or the applicable standards of other agencies. Based on the analysis (at pages 3.13-22 through 3.13-27) of noise sources including the proposed turbines, substation and switching station, corona noise, and operation and maintenance activities, the conclusion is that the Project would cause noise, but would not do so in excess of established daytime or nighttime standards. Thus, a less-than-significant impact would result during operation and maintenance. By contrast, ambient noise impacts during construction and decommissioning were found to be potentially significant, and mitigation was recommended. See Impact 3.13-2 (at page 3.13-28 et seq.).

P13-8 The stated concern about fire danger is acknowledged. Shasta County's fire history within and near the Project Site is disclosed in the Draft EIR. See Section ES.2.2 (at page ES-2) and Section 2.2 (at page 2-3), which describe the project location by reference to the Fountain Fire burn scar; Section 3.16.1 (at page 3.16-1 et seq.), which describes the environmental setting for the analysis of potential impacts relating to wildlife; and Section 3.1.3.1 (at pages 3.1-5 and 3.1-6), which describe the area's fire history as part of the cumulative scenario. See also, Draft EIR Section 3.16, *Wildfire*, which identifies mitigation measures to reduce the Project's impacts to wildfire considerations to a less-than-significant level.

P13-9 The stated preferences for Alternative 2, Increased Setbacks, and Alternative 1, South of SR 299, are acknowledged. These preferences will be available to decision-makers as they consider whether to approve, approve with modifications, or deny the requested use permit for the Project.

Comment Letter P14

October 18, 2020

Lynn Ferguson
1524 Alicia Way
Sacramento, CA 95835

Shasta County Department of Resource Management, Planning Division
1855 Placer Street, Suite 103
Redding, CA 96001
Attn: Lio Salazar, Senior Planner

Dear Mr. Salazar,

I am part owner of a residence in Moose Camp. I would like to submit the following comments regarding the Draft EIR for the Fountain Wind Project:

Moose Camp is surrounded by the Fountain Wind project. Moose Camp is mentioned in the FW draft EIR on at least twenty nine pages as to how the construction of seventy two six hundred seventy nine foot tall industrial wind turbines would disrupt our quiet, peaceful, residential neighborhood for twenty four months. The main road for construction of the project is less than one hundred feet from our property line.

What is not mentioned in the FW draft EIR is the impact those industrial wind turbines would have on our residential neighborhood once they are towering over approximately 50 homes along with our community center, as close as 2200 feet away. Not designating Moose Camp as a "key observation point" (KOP) in the FW draft EIR is basically saying 75 Shasta county taxpayers do not matter to the county. The facts described in KOP 1 (Fountain Fire Overlook) which is a mile away from the nearest turbine are devastating and KOP 1 is twice as far away from the nearest wind turbines than is Moose Camp. Exact wording from FW draft EIR- (i.e. "Project turbines visible from this location would appear out of scale with what is visible in the rest of the view. The turbines would extend above the viewer's perspective. This inferior viewer position to the project, in concert with its proximity, would accentuate the manner in which turbines would appear as darkened forms in afternoons when backlit by sunlight coming from the west. The turbines in this view would detract from the natural harmony of the existing view based not so much on any removal or obfuscation of natural elements but on their dominance of all other view elements. There are no similar structures to which they would relate, and without additional turbines in view, these two do not appear as a part of any broader pattern of development, within which some sense of order might be observed.", "Nighttime lighting would be highly visible from this location and would introduce such lighting where none currently exists")

P14-1

Moose Camp needs to be added as a Key Observation Point to the final EIR. Our neighborhood of 50 homes is surrounded by proposed 679 foot tall wind turbines and we are by

P14-2

Comment Letter P14

far the closest neighborhood to turbines in the entire project. To use the rationale that we are legally structured as a private recreational camp should not be an excuse for Shasta county to ignore the visual impact of this project on a neighborhood that has existed in the county for close to 100 years.

P14-2 cont.

Moose Camp is demanding the removal of proposed wind turbines (D1 - D5) - If you have ever seen wind turbines in advertisements there is never a picture of a house in front of the turbine because the vast majority of industrial wind farms are located outside residential areas. This is clearly not the case with Fountain Wind. San Diego County code required that windmills in the Tule Wind project (developed by Avangrid Renewables) be located 4 times the height of the turbines away from residences. In the state of Wyoming which has over 1000 industrial wind turbines (Avangrid & ConnectGEN are among the developers) and 1000's more planned, turbines must be located 5.5 times total turbine height away from residences. The FW alternatives listed in the draft EIR only remove one of the windmills (D5) we object to. The Fountain Wind project will still make plenty of money for the landowners in Australia (New Forests) and the project developers from Spain (Iberdrola), Portland, Oregon (Avangrid Renewables) and Houston, Texas (ConnectGEN). Shasta County officials should have the courage to do the right thing and tell the developers they need to remove five wind turbines from the 72 planned in order to gain approval of the project. Shasta County will still make plenty of tax revenue from the project with five less windmills than originally planned and Moose Camp, a long established neighborhood will not be ruined.

P14-3

Google Earth View of the 50 Moose Camp residences **never shown** in the draft EIR

Sincerely,

Lynn Ferguson

Letter P14: Lynn Ferguson

P14-1 The County acknowledges receipt of the aerial photograph showing Moose Camp. See Response P4-1 regarding the analysis of impacts to views of the Project from Moose Camp. See Response P4-6 regarding the distance between the Project and the closest sensitive receptors (such as homes), including one along Moose Avenue approximately 400 feet from the Project Site.

P14-2 See Response P4-1, which explains why no KOP was established within Moose Camp.

P14-3 See Response P4-3, which addresses a similar request that turbines not be erected in locations D1 through D5. The County acknowledges this assertion of other jurisdiction's residential setback requirements. That different jurisdictions may reach different decisions about an appropriate setback distance is clear from the Draft EIR's analysis of Impact 3.11-3, which (at page 3.11-13) identifies the setback requirements of six counties within California, including Kern, Solano, and Riverside counties, which are home to the vast majority of wind energy production in the State (see Table 3.1-2 at page 3.1-7). This comment's identification of a conclusion by another jurisdiction does not indicate that the Draft EIR's methodology, analysis, or conclusions are inaccurate or inadequate for purposes of CEQA. Further, the setback used as a significance threshold in the Draft EIR is consistent with those used by other jurisdictions and includes setbacks from public roads as well as residences.

Comment Letter P15

Lio Salazar

From: John Gable <themooseboard@gmail.com>
Sent: Sunday, October 18, 2020 10:52 AM
To: Fountain Wind Project
Subject: Fountain Wind Draft EIR Comments from Moose Camp Residents

Moose Recreational Camp
themooseboard@gmail.com

Lio Salazar
Senior Planner
Shasta County Department of Resource Management
1855 Placer Street, Suite 103
Redding, CA 96001
fw.comments@co.shasta.ca.us

What's missing from the Fountain Wind draft EIR?

1. Designated "KOP" (Key Observation Point) within Moose Camp - photo simulations and accompanying comments for the only neighborhood within project boundaries.
2. Maps that show the 50 Moose Camp residences in relation to proposed wind turbines with distances from turbines noted
3. Photo simulations and accompanying comments of all turbine views (every turbine that would be visible from a car along the route) of what drivers will see on Highway 299 driving from Round Mountain all the way to Burney and from Burney all the way to Round Mountain.

P15-1

4. Any mention of how wind turbines will affect Moose Camp helipad operation — P15-2
5. How wind turbines would affect CALFire ability to fight fires with helicopters and tanker planes? — P15-3
6. What effects of a large wildfire would be on residents of the surrounding area if wind turbines were to burn down? Specifically air quality effects from melted turbines? — P15-4
7. Effects of blasting along with construction and heavy use of roads surrounding Moose Camp on our 3 wells and water table in the area. — P15-5
8. Specific use of Moose Camp road and Moose avenue during and after construction of the project. How many trips and what kind of vehicles? — P15-6

Moose Camp is surrounded by the Fountain Wind project. We are mentioned in the FW draft EIR on at least twenty nine pages as to how the construction of seventy two six hundred seventy nine foot tall industrial wind turbines would disrupt our quiet, peaceful, residential neighborhood for twenty four months. The main road for construction of the project is less than one hundred feet from our property line.
What is not mentioned in the FW draft EIR is the impact those industrial wind turbines would have on our residential neighborhood once they are towering over approximately 50 homes along with our community center, as close as 2200 feet away. Not designating Moose Camp as a "key observation point" (KOP) in the FW draft EIR is basically saying 75 Shasta county taxpayers do not matter to the county. The facts described in KOP 1 (Fountain Fire Overlook) which is a mile away from the nearest turbine are devastating and KOP 1 is twice as far away from the nearest wind turbines than is Moose Camp. Exact wording from FW draft EIR- *(i.e. "Project turbines visible from this location would appear out of scale with what is visible in the rest of the view. The turbines would extend above the viewer's perspective. This inferior viewer position to the project, in concert with its proximity, would accentuate the manner in which turbines would appear as darkened forms in afternoons when backlit by sunlight coming from the west.*
The turbines in this view would detract from the natural harmony of the existing view based not so much on any removal or obfuscation of natural elements but on their dominance of all other view elements. There are no similar structures to which they would relate, and without additional turbines in view, these two do not appear as a part of any broader pattern of development, within which some sense of order might be observed.",

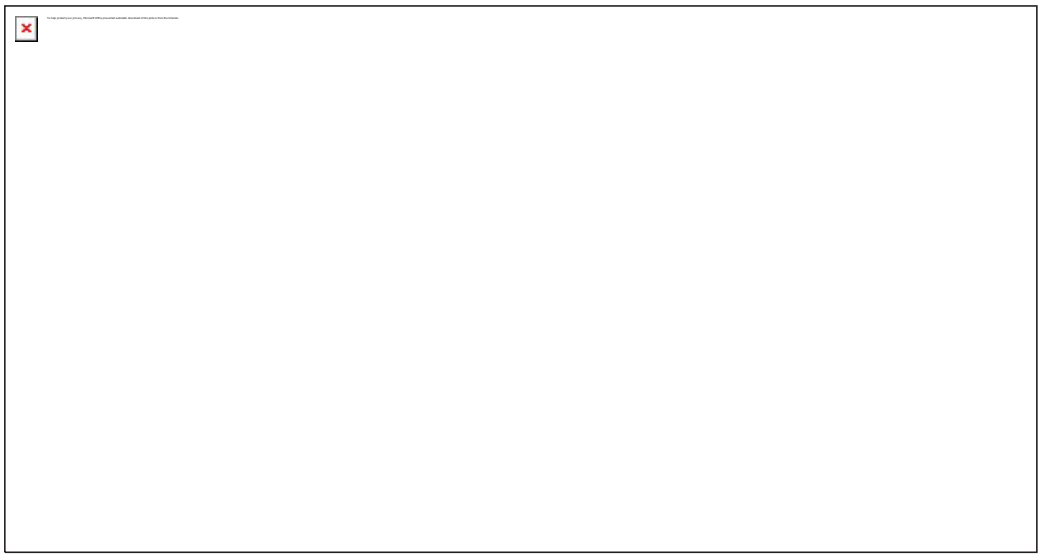
P15-7

Comment Letter P15

"Nighttime lighting would be highly visible from this location and would introduce such lighting where none currently exists")

Moose Camp needs to be added as a Key Observation Point to the final EIR. Our neighborhood of 50 homes is surrounded by proposed 679 foot tall wind turbines and we are by far the closest neighborhood to turbines in the entire project. To use the rationale that we are legally structured as a private recreational camp should not be an excuse for Shasta county to ignore the visual impact of this project on a neighborhood that has existed in the county for close to 100 years. P15-8

Moose Camp is demanding the removal of proposed wind turbines (D1 - D5) - If you have ever seen wind turbines in advertisements there is never a picture of a house in front of the turbine because the vast majority of industrial wind farms are located outside residential areas. This is clearly not the case with Fountain Wind. San Diego County code required that windmills in the Tule Wind project (developed by Avangrid Renewables) be located 4 times the height of the turbines away from residences. In the state of Wyoming which has over 1000 industrial wind turbines (Avangrid & ConnectGEN are among the developers) and 1000's more planned, turbines must be located 5.5 times total turbine height away from residences. The FW alternatives listed in the draft EIR only remove one of the windmills (D5) we object to. The Fountain Wind project will still make plenty of money for the landowners in Australia (New Forests) and the project developers from Spain (Iberdrola), Portland, Oregon (Avangrid Renewables) and Houston, Texas (ConnectGEN). Shasta County officials should have the courage to do the right thing and tell the developers they need to remove five wind turbines from the 72 planned in order to gain approval of the project. Shasta County will still make plenty of tax revenue from the project with five less windmills than originally planned and a Moose Camp, a long established neighborhood, will not be ruined. P15-9



Google Earth view of the 50 Moose Camp residences, never shown in draft EIR.

Sincerely,

John Gable
Moose Camp Board President
themooseboard@gmail.com

Letter P15: John Gable

P15-1 The County acknowledges receipt of the aerial photograph showing Moose Camp. See Response P4-1 regarding the analysis of impacts to views of the Project from Moose Camp. See Response P4-6 regarding the distance between the Project and the closest sensitive receptors (such as homes), including one along Moose Avenue approximately 400 feet from the Project Site. Potential visual impacts to SR 299 are analyzed throughout Draft EIR Section 3.2. For the reasons discussed in Response P4-1, the existing suite of before and after photos (including the simulation from KOP 1) is sufficient to provide for an informed decision about the environmental impacts of the Project. Nonetheless, see Final EIR Appendix A4, which includes the visual resources technical report from Draft EIR Appendix A as updated to delete the word "draft" to avoid confusion, and to include larger-format simulations for greater ease in review.

P15-2 See Response P11-2 regarding potential impacts on use of the Moose Camp helipad.

P15-3 Regarding potential impacts on aerial firefighting, see Response T3-3.

P15-4 As indicated by the United States Energy Information Administration (EIA), "A small number of wind turbines have also caught fire…. but these occurrences are rare."[43] Therefore, while a turbine fire could occur during operation of the Project, it is not a likely occurrence. The potential for turbine fires is addressed in Draft EIR Section 3.16.3.1, under Impact 3.16-2. As described in the Draft EIR, sparks created by a turbine fire could, if not properly suppressed, ignite surrounding vegetation and lead to the spread of wildfire in nearby communities. Additionally, a turbine fire has the potential to release pollutants into the air if fiberglass or other materials are ignited and burned or are melted and smolder. See Response P4-2 regarding the composition of turbines. The combustion or smoldering of fiberglass and other materials can produce emissions of toxic air contaminants (TAC), including benzene, toluene, ethyl benzene, xylenes, styrene, naphthalene, benzo[a]pyrene, and total non-naphthalene polycyclic aromatic hydrocarbons (PAHs),[44] that are capable of causing short-term (acute) and/or long-term (chronic or carcinogenic, i.e., cancer-causing) adverse human health effects (i.e., injury or illness).

As described in in Section 3.16.1, while operation of the Project has the potential create sparks that could have a significant impact regarding the spread of wildland fire, Mitigation Measure 3.16-2b would require that all turbines be equipped with fire detection and prevention technology compatible with manufacturers operating requirements, and would be maintained in good working order throughout the life of the Project. The implementation of Mitigation Measure 3.16-2b would reduce impacts to a less-than-significant level.

---

43 United States Energy Information Administration (EIA), 2020. "Wind Explained: Wind energy and the environment" December 9, 2020. Available online: https://www.eia.gov/energyexplained/wind/wind-energy-and-the-environment.php. Accessed January 8, 2020.

44 U.S. Environmental Protection Agency (USEPA), 2004. Project Summary, Emissions of Organic Air Toxics from Open Burning. EPA/600/SR-02/076. August 2004. Accessed online (https://nepis.epa.gov/Exe/ZyPDF.cgi/P1005ISG.PDF?Dockey=P1005ISG.PDF) March 3, 2021.

P15-5 See Response P4-7 regarding potential impacts to surface and groundwater, including from blasting, if it occurs.

The use of the access roads including those in the vicinity of Moose Camp is considered in the analysis of potential effects to surface and groundwater quality. See Impact 3.12-1 (Draft EIR at page 3.12-11 et seq.). All project construction would be required to adhere to a stormwater pollution prevention plan (SWPPP) and associated best management practices (BMPs) to minimize erosion. In addition, to reduce any potential significant effect on water quality, Mitigation Measure 3.12-1, Water Quality Best Management Practices during Activities in and near Water, also would be implemented during construction. Implementation of the required BMPs would be sufficient to reduce any potential adverse effects to surface water quality and groundwater in and around the Moose Camp area to less than significant levels.

P15-6 The Draft EIR discusses local access to the Project Site in Section 3.14.1.2 (at page 3.14-2). As further described in Response P4-8, three existing access roads that currently are used for logging intersect with SR 299. These three roads would provide local access to the Project Site, which are identified in the Draft EIR as West Access, North Access, and East Access. Neither Moose Camp Road nor Moose Avenue would be used for Project Site access during project construction or operation.

P15-7 See Response P4-1 regarding Project impacts on views from Moose Camp.

P15-8 The request to designate an additional key observation point (KOP) within Moose Camp is acknowledged but declined. For the reasons discussed in Response P4-1, the existing suite of before and after photos (including the simulation from KOP 1) is sufficient to provide for an informed decision about the environmental impacts of the Project.

P15-9 See Response P4-3, which addresses a similar request that turbines not be erected in locations D1 through D5. See also Response P4-2, which acknowledges the State of Wyoming's residential setback requirements.

Comment Letter P16

AMERICAN BIRD CONSERVANCY

Bringing back the birds

19 October, 2020

Attn: Lio Salazar, Senior Planner
Shasta County Department of Resource Management
Planning Division
1855 Placer Street, Suite 103
Redding, CA 96001

Re: Draft Environmental Impact Report for Fountain Wind (Use Permit 16-007)

Dear Mr. Salazar,

Thank you for the opportunity to provide comments on the draft environmental impact report (DEIR) for the Fountain Wind Project. We support wind energy development as a component of a multifaceted approach to reversing the effects of climate change, provided that impacts to birds are effectively minimized and mitigated. We believe that the applicant has accomplished this in some respects in their proposed plan, but we have remaining concerns that must be addressed before this project is allowed to proceed.

American Bird Conservancy is a 501(c)(3), non-profit membership organization whose mission is to conserve native birds and their habitats throughout the Americas. We work to safeguard the rarest bird species, restore habitat, and reduce threats. As part of our threat abatement program, we have been working with stakeholders to promote bird-smart wind energy development practices for over 10 years.

We have limited the scope of our comments to issues pertaining to Spotted Owls and Bald and Golden Eagles.

Spotted Owl

The U.S. Fish and Wildlife Service (USFWS) was first petitioned to list the California Spotted Owl as Threatened more than two decades ago as a result of ongoing habitat loss and population decline. A series of additional petitions, listing decisions, and lawsuits have followed, leaving the species currently without federal protection, though this decision has again been challenged. In its 12-month finding in 2019, the USFWS acknowledged that both habitat and populations of this species are likely to continue to decline. This species faces myriad threats, not least of which are wildfires and the continued expansion of the more aggressive barred owl. P16-1

The California Spotted Owl Risk Assessment report prepared by WEST, Inc. found that 945 acres of the project site are moderately suitable for Spotted Owls, and another 50 acres is highly suitable. These portions of the site, which were not affected by the 1992 Fountain Fire, are

Comment Letter P16

adjacent or near to a larger, contiguous patch of highly suitable habitat on protected lands with historical records for the species. The DEIR acknowledges that there are also historical records of Spotted Owls within the project site, and that the species could still inhabit the suitable habitat in the southern portion of the property. This is reinforced in comments from California Department of Fish and Wildlife, which state "several California Spotted Owl breeding pairs have been documented nesting in small patches of high-quality nesting/roosting habitat surrounded by nesting and/or foraging habitat." Table 3.4-3 in the DEIR indicates that there is moderate potential for this species to occur in the project site. The report further acknowledges that surveys for Spotted Owls have likely not occurred since the 1990s.

The DEIR discusses risks to Spotted Owls that would result from the project, should the species inhabit the site. These include habitat removal and fragmentation / degradation, disturbance from construction activities, and collisions with turbines. However, the report concludes that because the amount of habitat to be cleared is not significant on a *regional* level, and that the species has not been detected recently on or in the vicinity of the project site, that impacts on habitat would be less than significant. The report further concludes that operational impacts, including the potential for collisions with turbines, would be less than significant due to low anticipated use of the site by Spotted Owls and other factors.

We find the above problematic from multiple standpoints. That Spotted Owl habitat loss and degradation would not be significant on a regional level does not mean that the species would not be negatively affected as a result of construction and operation of the proposed project. Further, assumptions about use of the site are not sufficient to base conclusions given historical records, adjacent areas of habitat, and the lack of recent surveys for the species. For these reasons, **we recommend that prior to project approval, the applicant be required to conduct surveys for Spotted Owls in areas of suitable habitat on the site and adjoining land, using protocols developed for Northern Spotted Owls.**

P16-1 cont.

If the above surveys document Spotted Owls on or in the vicinity of the project site, the site plan must be re-evaluated for risks to this species. Specifically, **the placement of turbines and other above-ground infrastructure must be re-evaluated based on likely Spotted Owl movement patterns among areas of habitat on the site and between the site and off-site habitat.** This should include whether turbines or other infrastructure should be relocated or removed from the plan, or higher-risk turbines curtailed during periods of Spotted Owl activity.

The DEIR includes Conservation Measures that the County may elect to include as conditions for the project. These include a contingency to mitigate for Spotted Owl mortality should that exceed a specified threshold, and a plan to minimize disturbance during construction and operation. We find these insufficient, and recommend that they be revised. Specifically, **we recommend that if the above surveys document Spotted Owls on or in the vicinity of the project site, that compensatory mitigation be required for habitat impacts (e.g., protection of habitat adjacent to the large offsite habitat block).** This would be in addition to compensatory mitigation for documented Spotted Owl mortality.

Comment Letter P16

The Northern Spotted Owl, from which the California Spotted Owl's range is separated by less than 5 miles, has suffered a precipitous decline over many decades despite considerable conservation intervention and effort. We have no wish to see the California Spotted Owl follow suit given the real concern for this species' status.

P16-1 cont.

Bald and Golden Eagles

Both Bald and Golden Eagles are federally protected, and collectively found in numbers on the project site that indicate risks to these species resulting from construction and operation of the proposed facility. While we largely concur with the analysis for these species and the associated Mitigation Measures listed, Measure 3.4-3a(d) must be revised to ensure its effectiveness. As currently written, this Measure holds the Applicant to "coordinate with" the U.S. Fish and Wildlife Service (USFWS) regarding impacts to eagles, and to "demonstrate" that the project complies with the Bald and Golden Eagle Protection Act. This provides no accountability – an exchange of emails regarding eagles could be deemed "coordination," and delivering a presentation could be deemed "demonstrate compliance," regardless of the substance of the conversation or whether USFWS agrees.

To ensure that the intent of this necessary action is met, **Mitigation Measure 3.4-3a(d) should be revised to state that the Applicant shall coordinate with the USFWS regarding potential impacts to eagles "to the written satisfaction and concurrence of that agency that the project complies with the Bald and Golden Eagle Protection Act, to include development of an Eagle Conservation Plan and obtaining an eagle take permit."**

P16-2

Thank you for your time and consideration of this important matter. Please don't hesitate to contact me to discuss, or if I can be of assistance in your review.

Sincerely,

Joel Merriman
Director, Bird-Smart Wind Energy Campaign
American Bird Conservancy
Washington, DC

Letter P16: American Bird Conservancy, Joel Merriman

P16-1 The California Spotted Owl (CSO) is neither a state- nor federally-listed species. The comment accurately characterizes the California Spotted Owl Risk Assessment report prepared by WEST, Inc., included as Draft EIR Appendix C11. It also describes this species' moderate potential for occurrence as described in Draft EIR Section 3.4, and the conclusion that operational impacts would be less than significant. The comment recommends that surveys be performed for CSO and that turbine placement should be reevaluated based on the movement patterns of this species. The comment additionally recommends that mitigation for this species include the protection of habitat. Response A3-28 describes CSO conservation measures presented in the Draft EIR (at pages 3.4-47 and 3.4-48), including preconstruction surveys. Either of two approaches are identified in the Draft EIR to reduce impacts to CSO: either CSO surveys will be performed in and near suitable habitat prior to construction, or species presence will be presumed within select areas and areas will be seasonally avoided during the CSO nesting season. As described in Response A3-28, a one-year CSO survey is recommended as a COA to be conducted within two years prior to initiating construction activities. If the COA is adopted, surveys may occur both on the site and adjoining lands within 0.25-mile of Project roads and wind turbines. Alternately, CSO presence may be presumed and seasonal work restrictions would apply within 0.25-mile of potential CSO nesting habitat.

Response A3-29, received from the California Department of Fish and Wildlife, describes the CSO risk assessment and habitat suitability study performed for the Project (Draft EIR Appendix C15), concluding that 945 acres of the Project Site have moderate suitability for CSO, and that just 50-acres in small, isolated patches are suitable for CSO nesting and roosting. The Draft EIR concludes that the loss of this potential habitat is not likely to have a significant impact to CSO in the region because the amount of potential habitat to be cleared for the Project is only a small portion of available habitat in the region and is consistent with current land uses (timber harvest) (see also, Draft EIR Appendix C15 at page 7). Although CSO surveys have not been performed within the greater 32,000-acre leasehold area, given the forested condition of this area, extensive habitat for CSO is expected to remain following Project construction. No compensatory mitigation programs are required for CSO nor are being considered by the County other than those proposed in Mitigation Measure 3.4-3c, *Offset Operational Impacts on Eagles through Compensatory Mitigation*, if necessary (at page 3.4-44 et seq.).

P16-2 The Draft EIR identifies the USFWS as a federal agency's whose regulatory authority may intersect with the Project. See, e.g., Table ES-1, *Summary of Permits and Approvals*, Section 2.6, *Permits and Approvals*, and Section 3.4.1.3, *Regulatory Setting*, which summarizes the Bald and Golden Eagle Protection Act (at page 3.4-32). The need to comply with this regulation to the satisfaction of the USFWS need not be included as mitigation. As the Court of Appeals recently confirmed, CEQA does not limit agencies' authority to impose requirements on projects pursuant to other laws. *Santa Clara Valley Water District v. San Francisco Bay Regional Water Quality Control Board* (2020) 59 Cal.App.5th 199.

Comment Letter P17

Shasta County Department of Resource Management, Planning Division

1855 Placer St., Suite 103

Redding. CA 96001

Attn: Lio Salazar, Senior Planner

Response to Fountain Wind Project Draft EIS

3.2 Aesthetics

Tourism is an important economic resource to the mountain communities, especially Burney, Fall River Mills and Mcarthur supporting many businesses such as motels, restaurants and recreation related businesses. The Pit River Tribe benefits from visitors to the Pit River Casino and the Montgomery Creek Market.

Framers of this Draft EIS appear to have based their analysis on the assumption that tourists only admire the scenery from designated or informal turnouts, so intermittent degradation of the scenic view is unimportant. On the contrary, it is even more disturbing and jarring to the tourists enjoying a scenic drive to round a curve and be faced with an unrelated object that interrupts their enjoyment of the viewscape.

The Draft EIS claims the view of most of the towers would be blocked by trees or structures. The Key Observation Points (KOPs) appear to have been chosen to support these two assumptions. KOP7, Redding, is located where there is little view of Hatchet Ridge. However, the towers are clearly visible from Hwy 299 from Churn Creek Rd. almost to Old Oregon Trail. KOPs in Round Mountain and Montgomery Creek show little visual degradation. However, the scenery along Hwy 299 is repeatedly interrupted by views of the Hatchet Towers. The KOP at Moose Camp shows trees blocking the view and simulated picture does not appear to show all potentially visible towers. P17-1

The same bias shows in that there is no KOP from Moose Camp to downtown Burney. Hatchet Ridge turbines and test towers for the Fountain Wind Project are clearly visible in many places along the route. P17-2

Comment Letter P17

The claim is made that “dense forest” will hide many of the views of towers and construction activity. How many acres of this “dense forest” will be removed for turbine pads, roads and transmission lines? P17-3

3.4 Biologic Impacts

According to the map shown at the scoping meeting Spotted Owls have been noted near the project site. The Draft EIS seemed to gloss over this. Consultation with foresters who worked for Roseburg Resources, the previous landowner, could provide significant information. P17-4

3.8 Forestry Resources

Yes, removing 713 acres of productive timberland from production is less-than-significant in the context of this current EIS. However it sets a precedent that an industry or developer can use to whittle away the intent of TPZ zoning. The long range implication of this decision should be considered. P17-5

3.9 Geology and Soils

The Draft EIS states that no arsenic has been identified on the project site. Perhaps that conclusion is based on the fact that the site is uninhabited so there was no reason to test for it. Arsenic is prevalent in the Oak Run area. The Morley School, located at the intersection of Oak Run Rd. and Oak Run to Fern Rd., was closed sometime in the mid 1900’s because arsenic was found in the well. According to Section 6.12.1.2.6.6 Wc. project proponents must submit sufficient data and reports when requested which demonstrate that potential adverse impacts on existing water users will not be significant. By summarily dismissing public comments about arsenic because there was no supporting documentation, the Draft EIS is condoning the county abdicating its responsibility to protect citizens and putting the onus on the potentially affected citizens.

The well at the Hillcrest Rest Area is in an underground flow that originates in the project area near Supan Rd. Thus, arsenic should be ruled out to protect the public. Also, the fact that the P17-6

Comment Letter P17

soils are highly permeable and O&M stations are proposed in the area raises concern about septic contamination of the Hillcrest well as well as other wells and springs used by local residents.. The late Frank Kosko was a Cal Trans engineer who sited that well. Cal Trans may hydrological and soils studies dating from construction of the rest area. No evidence of consultation with Cal Trans on hydrology and soils that could affect the Hillcrest Well is offered in the Draft EIS. P17-7

Section 3.9.4 states erosion or loss of topsoil is insignificant. Obviously, the project area is very windy. Elsewhere in the document it states herbicides will be used to clear vegetation in a 2 acre buffer zone around each tower for fire protection. What is to stop wind erosion in these cleared buffer zones? "Dust devils" are frequently seen in areas not yet recovered from the Fountain Fire. How did the author come to the conclusion wind erosion and loss of topsoil would be insignificant? Under Hazardous Materials, the Draft EIS states that since arsenic is indigenous to the area, project activities would have insignificant impact. How the claim that exposing acres of bare soil in buffer zones to wind erosion, especially since it is recognized that arsenic is endemic to the area, is insignificant is questionable. P17-8

3.11 Hazards and Hazardous Materials

The Draft EIS recognizes the FAA requirements for aircraft safety lighting. It does not address one potential area affecting the health and safety of people east of the project area. Medical helicopters in route to Burney and other parts of the Intermountain fly over the project area at low altitude, often in marginable weather, to go through Hatchet Pass and reach their destination as quickly as possible without losing time climbing and descending. In medical emergencies, minutes can make the difference in life or death. P17-9

3.12 Hydrology and Water Quality

Local residents are very concerned because their water supplies originate in the project area. According to Section 6.12.1.2.6.6 project proponents must submit sufficient data and reports when requested which demonstrate that potential adverse impacts on existing water users will not be significant. In non-drought years, the area adjacent to Supan Rd. on the project's west edge is a marsh (see the USGS Montgomery Creek sectional for verification) indicating the aquafer could be closer to the surface than the report assumes. Creeks and springs originating from this aquafer are vital for residents in the Montgomery Creek area. Intensive studies to determine the effect of boring and blasting and the soil compaction from construction are essential to the wellbeing of citizens. P17-10

Letter P17: Jeanne Danielson

P17-1 The process followed to select key observation points is described in Draft EIR Appendix A, *Aesthetics* (at pages 4 and 5). Site visits occurred in December 2017, December 2018, and April 2019. Photographs were taken from 37 publicly accessible viewpoints. Of these, simulations were prepared for seven viewpoints that represented the general ranges of viewer sensitivities, landscapes, and land uses in the viewshed. Long distance, mid-range and more proximate locations are included. The commenter's opinions about the photographic simulations are acknowledged. See Final EIR Appendix A4, which includes the visual resources technical report from Draft EIR Appendix A as updated to delete the word "draft" to avoid confusion, and to include larger-format simulations for greater ease in review.

P17-2 See Response P4-1 regarding Project impacts on views from Moose Camp. As explained in Draft EIR Section 3.2, *Aesthetics* (at page 3.2-1 et seq.), potential Project-caused changes in views were simulated from representative locations. That the Project could be viewable from multiple locations along SR 299 between Moose Camp and Burney is acknowledged.

P17-3 See Response 2-2 regarding the amount of timber to be harvested and timberland to be converted if the Project is approved. See Response P12-5 regarding the screening effect for some of the proposed infrastructure provided by the surrounding forested lands and topography.

P17-4 P17-4Regarding California spotted owl, see Responses A3-28, P29-17, and P29-18. See also Draft EIR Section 3.4 and Impact 3.4-5 for an analysis of anticipated Project impacts to the spotted owl. Information and input were requested from members of the public as well as agencies during the pre-scoping and scoping phases, and with issuance of the Draft EIR. See Draft EIR Section 1.4, *CEQA Process Overview* (at page 1-3 et seq.); see also, Final EIR Section 1.3.1, *Agency and Public Review of the Draft EIR*. Input was received from members of the public and from CDFW regarding spotted owl.

P17-5 The Project's consistency with policies in the Shasta County General Plan is evaluated in Draft EIR Section 3.1.4.10, *Land Use and Planning* (at page 3.1-19) and throughout the Draft EIR (see, e.g., Draft EIR Sections 3.8.1.3 and 3.16.1.3). As discussed in Section 3.1.4.10, the Shasta County General Plan designates the Project Site as Timberlands (T). The zoning designations are Timber Production (TP) (approximately 4,457 acres) and Unclassified (U) (approximately 6 acres). For reasons documented in the analysis, the Project would be consistent with the County's General Plan and zoning designations.

The August 15, 2019 Memorandum from Paul A. Hellman, Director of Resource Management, to Leonard Moty, Chairman, and Members of the Board of Supervisors, regarding *Consistency of Large-Scale Wind Energy Facilities with the General Plan*

and Zoning Plan.[45] provides additional detail in this regard. It addresses questions about the consistency of projects like the Project with the General Plan and Zoning Plan, and draws three conclusions: 1) processing of use permit proposals for large scale wind energy facilities is consistent with the General Plan and Zoning Plan, 2) an evaluation of the consistency of use permit proposals with the General Plan is performed as part of the use permit process, and 3) no use permit shall be granted unless the specified mandatory findings of fact are made. See also Draft EIR Section 3.8 for an analysis of anticipated Project impacts, including cumulative impacts, on forestry resources.

To further clarify the Project's consistency with the General Plan and Zoning Plan, Draft EIR Section 3.1.4.10 has been revised as follows:

> The Shasta County General Plan designates the Project Site as Timberlands (T). The zoning designations are Timber Production (TP) (approximately 4,457 acres) and Unclassified (U) (approximately 6 acres). In accordance with Shasta County Zoning Plan (Zoning Plan) section 17.88.035, wind energy systems that do not meet the requirements for small scale wind energy systems or, in the absence of an established term for such systems, "large scale wind energy facilities," may be permitted in all zoning districts with the approval of a use permit (Shasta County, 2019c).
>
> Furthermore, the Applicant is a private energy producer as defined by Zoning Plan Section 17.02.415 and both the existing Hatchet Ridge Wind Project and the Project constitute private energy production as defined by Zoning Plan Section 17.02.420. To implement the Zoning Plan, private energy production is further considered and defined as meaning "public utility" pursuant to Zoning Plan Section 17.02.430. The Zoning Plan provides that a public utility is also permissible in all zone districts provided a use permit is approved pursuant to Zoning Plan Section 17.88.100.B. Additionally, for that portion of the Project within the U zone district, Zoning Plan Section 17.64.040 conditionally permits uses not otherwise prohibited by law and not inconsistent with any portion of the General Plan. Finally, in addition to Zoning Plan section 17.88.035, which addresses wind energy systems that involve tower heights more than 80 feet tall, Zone Plan Section 17.814.030.B.4 allows structures that exceed the height limit established for the zone district in which the structures are located.
>
> Pursuant to General Plan Policy 6.24 T-b, in addition to uses permitted within a Timber Production Zone by the Forest Taxation Reform Act other related and compatible uses may be conditionally permitted under the applicable provisions of the Zoning Plan. Pursuant to General Plan Policy

[45] Hellman, 2019. Memorandum of Paul A. Hellman, Director of Resource Management, to Leonard Moty, Chairman, and Members of the Board of Supervisors, regarding *Consistency of Large-Scale Wind Energy Facilities with the General Plan and Zoning Plan*. August 15, 2019.

6.2.4, T-d, the primary use of timberlands not within a Timber Production Zone shall be forest management and production with secondary uses consisting of those which do not significantly impede forest management or the or the process or utilization of timber; this policy identifies power generation facilities as a potential secondary use of property. Therefore, power generation facilities may be permitted on properties designated Timberlands.

~~Consistent with General Plan Policy 6.2.4, T-d, the proposed power generation facilities are an allowed use. Regarding the TP district, Shasta County Code Section 17.08.030(D) conditionally allows the construction of "gas, electrical, water, or communication transmission facility, or other public improvements, in accordance with Government Code Section 51152." Regarding the U zone district, Code Section 17.64.040, conditionally permits wind energy systems so long as the system is not otherwise prohibited by law and would not be inconsistent with any portion of the General Plan. Code Section 17.88.035, requires a Use Permit in all districts for all large scale wind energy facilities, like the Project, that would be larger than 50 kilowatts (Shasta County, 2019c). Consistent with Code Section 17.92.020, the Applicant has submitted a Use Permit application for the County's consideration.~~ Consistent with the Zoning Plan sections described above and Zoning Plan Section 17.92.020 governing applications and procedures for use permits, the Applicant has submitted a Use Permit application for the County's consideration, including consideration of the required use permit findings applicable to the Project. Consistency with other relevant General Plan policies and regulations adopted for the purpose of avoiding or mitigating an environmental effect are considered in the context of the relevant resource area elsewhere in this Chapter 3. For these reasons, no impact would result from the Project or from Alternative 1 or 2.

P17-6 The Draft EIR acknowledges and considered input received during the scoping process about the possibility that natural deposits of arsenic might be present in Project Site soils. The comment correctly notes that no sources of information were provided to support the suggestion. Contrary to the suggestion in the comment that this input was "summarily dismissed," the EIR preparers conducted follow-up research. It identified no evidence of the presence of arsenic on the Project Site (see Draft EIR Section 3.9, *Geology and Soils*, at page 3.9-1; see also Draft EIR Section 3.11, Hazards and *Hazardous Materials*, at page 3.11-1). Nonetheless, the Draft EIR analyzes the possibility that the Project could disturb naturally occurring arsenic and thereby result in a potential significant impact. See Impact 3.11-2 (Draft EIR at pages 3.11-10 and 3.11-11), which considers as a factor in the analysis that ground disturbing activities could inadvertently release naturally occurring arsenic in the form of fugitive dust or sediment in stormwater if arsenic is present on the Project Site. As discussed in Impact 3.11-2, adherence to existing regulatory requirements including implementation

of a stormwater pollution prevention plan (SWPPP), along with the fugitive dust controls required by Mitigation Measure 3.3-2c, would reduce potential impacts from inadvertent release of naturally occurring arsenic to less than significant levels.

P17-7 Whether on-site soils are capable of supporting the use of the proposed septic tanks is discussed in Draft EIR Section 3.9, *Geology and Soils* (at pages 3.9-3, 3.9-5) and is analyzed in the context of Impact 3.9-7 (at page 3.9-19). The analysis concludes that the Project would cause a less-than-significant impact (and the Project would not introduce an environmental or public health hazard by building septic tanks or other wastewater disposal system in soils) because adherence to the independently enforceable requirements of a septic system permit would be required by the Shasta County Department of Resource Management's Environmental Health Division. See also Draft EIR Section 3.1.4.16, Utilities and Service Systems (at page 3.1-25), which analyzes the proposed septic system in the context of potential water and wastewater treatment facility-related impacts, and concludes that no impact would occur.

Information and input were requested from agencies (including Caltrans) during the pre-scoping and scoping phases, and with issuance of the Draft EIR. See Draft EIR Section 1.4, *CEQA Process Overview* (at page 1-3 et seq.); see also, Final EIR Section 1.3.1, *Agency and Public Review of the Draft EIR*. Although Caltrans provided input during the scoping process, its input did not include hydrological or soils studies or express any hydrologic or soils related concerns or concerns about potential project impact to the Hillcrest well. (see, e.g., Draft EIR Appendix J, Scoping Report).

P17-8 Dust control measures are proposed as part of the Project. See Draft EIR Section 2.4.5.1 (at page 2-18), which identifies the application of appropriate dust suppressants, such as water or surfactants; Section 2.4.6.3 (at page 2-19), which explains that Project construction managers and crew would use best management practices (BMPs) and standard operating procedures to keep areas clean and to minimize the buildup of fine materials that could result in fugitive dust or offsite sedimentation; and Section 2.4.8.1 (at page 2-24) and Section 3.1.4.16 (at pages 3.1-25 and 3.1-26), each of which identifies water for dust control as a contributor to the construction-related and decommissioning-related water demand. Further, as explained on Draft EIR page 3.3-10, compliance with Shasta County AQMD Rule 3:16 also would require fugitive dust control during construction. Regarding arsenic, see Response P17-6.

P17-9 Draft EIR Table ES-1 (at page ES-5) and Table 2-8 (at page 2-41) each identify a Notice of Proposed Construction or Alteration and Determination of No Hazard as among the permits or approvals that would be required for site preparation, construction, operation, maintenance, and decommissioning of the Project. As explained in Section 3.2.2.3 (at page 3.2-12), "The Federal Aviation Administration (FAA) is the federal agency that identifies potential impacts related to air traffic and related safety hazards. The FAA's Federal Aviation Regulations (FAR) at 14 CFR Part 77 establish standards and notification requirements for objects affecting navigable airspace. This notification serves as the basis for evaluating the effect of the proposed construction or alteration on

operating procedures; determining the potential hazardous effect of the proposed construction on air navigation; identifying mitigating measures to enhance safe air navigation; and charting of new objects." The FAA's authority to regulate activities that may affect air navigation is broader than the lighting requirements mentioned in the comment. See, e.g., Draft EIR Section 3.5.1.2 (at page 3.5-3 et seq.), which describes the FAA's role in connection with aircraft navigation and communications systems. Further regarding air navigation, including by emergency response personnel, see Response P11-2 regarding potential impacts on use of the Moose Camp helipad, and Response T3-3 regarding potential impacts on aerial firefighting. See also comments and responses regarding Letter P19, from California Pilots Association, below.

P17-10 Concerns about potential impacts on water supply are acknowledged. See Response P4-7 regarding potential impacts to surface and groundwater, including from blasting, if it occurs.

Comment Letter P18

Shasta Environmental Alliance
P.O. Box 993777 • Redding, CA 96099 • ecoshasta.org

October 19, 2020

Lio Salazar
Senior Planner
Shasta County Planning Department
1855 Placer Street Suite 103
Redding, CA 96001

RE: Draft Environmental Impact Report, Fountain Wind Project

Dear Mr. Salazar,

The mission of Shasta Environmental Alliance (SEA) is to protect and preserve the flora, fauna, air and water of the Upper Sacramento River Watershed through advocacy and education. We are a non-profit (501(c)(3) organization and have 19 supporting organizations.

We recognize climate change as a threat to all life on earth and wind energy is a renewable resource that can help reduce our dependence on greenhouse gas (ghg) producing fossil fuels to produce electricity. However, projects should be well thought out so that they do not negate the benefits of wind energy by producing excess ghg's in their production, siting construction and degradation and decommissioning of a forested area that sequesters considerable greenhouse gases. It should also follow CEQA guidelines in protecting water, air and wildlife, both plant and animal as much as possible. It should also consider the cultural, spiritual and archeological consideration of Native Americans on whose traditional land the Project will be sited.

AESTHETICS:

The construction of 679 feet tall windmills cannot really be mitigated on an aesthetic standpoint. They will be visible from up to 30 miles away and will detract from the beauty of scenic Highway 299. They will also be a visual blight to those who live in the area close to the windmills. Even more importantly, they will disturb and detract from various ceremonies several bands of the Pit River Tribe practice in this area. This could only be partially mitigated by reducing the number of windmills in consultation with the Pit River Tribe to be as least disruptive to various traditional ceremonies.

P18-1

Comment Letter P18

BIOLOGICAL RESOURCES:

The project will result in the permanent removal of 713 acres of forested land, a huge carbon sink. Once this much of an area is cleared of vegetation, not only will the above ground sequestration of carbon be reduced, but an equal or greater amount of CO2 is stored underground and will be released into the atmosphere as the rapid breakdown of organic matter and release of CO2 from the increased soil temperatures.

This will not only result in an increase of greenhouse gases in the atmosphere, it will be a significant loss of wildlife habitat. This could be mitigated by the setting aside of land on a 3:1 basis, that is a minimum of 2100 acres of land in a conservation easement. This will also make up for some of the loss of habitat including oak trees which are an extremely important source of food for animals ranging from insects to birds and mammals, the entire food web.

We concur with much of the findings of Wintu Audubon comments of threats of wind turbines to birds and bats. Because of the greatly increased height of this turbines than those on Hatchet Mountain, the kill rate of birds could be much higher and the latest methods of reducing bird kills should be incorporated into the Project construction.

TRIBAL AND CULTURAL RESOURCES

This DEIR confirmed that the Project Site is within the Ancestral territories of the Madesi, Itsatawi, and Atsugewi Bands of the Pit River Tribe. Later, in response to the issuance of notice of intention to prepare this Draft EIR, the County received scoping input about potentially affected historical resources including Moose Camp, official historic sites on the Buffum Homestead that were certified after the 1992 Fountain Fire, and a cabin within the Project Site that was built in the 1800s

CEQA requires that tribal and cultural resources be taken into consideration in EIR's and that the cumulative affect be taken into consideration. While the DEIR has taken into consideration some facets of the cultural sites, it has not taken into consideration the spiritual and ceremonial importance of the site to various bands of the Pit River Tribe.

Radley Davis, a respected spiritual leader and cultural resource to the Illmawi Pit River Tribe stated that the entire area is important for spiritual ceremonies and the wind turbines will interfere with these ceremonies. He does own land near the Project site and states that with permission of landowners, spiritual ceremonies take place near the footprint of the project area. The Project's proponents need to take into consideration the disruption placement of wind turbines could have on protected Tribal ceremonial areas.

P18-1 cont.

The cumulative effects of the projects also need to be considered in the Project development. The Hatchet Ridge wind farm has significantly deteriorated an important ancestral ceremonial site for

P18-2

Comment Letter P18

the Pit River Tribe. Radley Davis stated that evening and other ceremonies on Hatchet Ridge are significantly deteriorated by the humming of the turbines, the sounds like tumbling rocks and occasional squeals or screaming sounds coming from the turbines which significantly detract from ceremonies that follow days of fasting.

He and other Native Americans are concerned that other ceremonies held near the Project will be similarly adversely affected. The two wind farms will cumulatively detract from these important cultural ceremonies. Thus, placement of turbines should only be done in consultation with the Pit River Tribe.

P18-2 cont.

Another cumulative effect on Tribal Resources could be the Winnemem Wintu Tribe which should also be consulted. Currently the Bureau of Reclamation is proposing to raise Shasta Dam and denude the vegetation of a Wintu ceremonial site on the McCloud River and inundate the site with water. Other important Wintu sites are now under the water of Shasta Lake. The Tribe should be consulted if these wind turbines interfere with their ceremonies. We mention this because there is a cumulative disregard of Native American rights in the name of progress for the benefit of moneyed entities who are located far from the Project site. When will this stop?

P18-3

In conclusion, Shasta Environmental Alliance supports renewable energy, but the Aesthetic, biological and Tribal Resources should be adequately addressed and mitigated for before the project proceeds.

Sincerely,

David Ledger, President
Shasta Environmental Alliance

Letter P18: Shasta Environmental Alliance, David Ledger

P18-1 See Response T5-5 regarding the Draft EIR's analysis and conclusions regarding significant aesthetic impacts.

Regarding the loss of carbon sequestration capacity, see Draft EIR Section 3.10, *Greenhouse Gas Emissions*, including Section 3.10.3.1 (at pages 3.10-12 and 3.10-13), which explains that the analytical methodology used in the analysis considers the loss of sequestration capacity as a factor, and Section 3.10.3.2, which expressly considers loss of carbon sequestration capacity in the context of Impact 3.10-1 and the generation of GHG emissions (at pages 3.10-16 and 3.10-17) and in the context of Impact 3.10-2's consideration of Project consistency with the Forest Carbon Plan (at pages 3.10-18 and 3.10-19).

It is acknowledged that CO_2 can be stored underground in soil and could be released into the atmosphere at an accelerated rate due to increased soil temperatures caused be tree removal. The carbon sequestration capacity factor used to estimate the Project-related loss of carbon sequestration considers underground woody biomass but does not quantify emissions released from the soil itself.[46] Quantification of released carbon from soils may require on-site plot sampling to determine actual on-site carbon inventories. However, even if the amount of released CO_2 from the soil would equal the amount of carbon sequestration loss, the total Project net emissions would increase from -225,131 CO_2e, to -223,154 CO_2e, which would not affect the GHG impact determinations for the Project. To acknowledge this, the following revisions have been made to the first four sentences of the second paragraph on Draft EIR page 3.10-13:

> "The potential loss of sequestration capacity from tree removal and offset of emissions from fossil-fuel powered energy sources are also considered for the Project in determining whether there would be a net increase in GHG emissions as a result of the Project. The CalEEMod forestland carbon biogenic emissions rate was used to estimate the potential loss of sequestration capacity. Other methodologies to estimate carbon sequestration and carbon release from soils, such as that contained in CARB's Compliance Offset Protocol U.S. Forest Projects, were considered, but may require on-site plot sampling to determine actual on-site carbon inventories (CARB, 2015). Thus, CalEEMod values for forestland with trees were used to calculate sequestration capacity which is more generalized, but results in conservative modeling. However, for full disclosure the amount of released CO_2 from the soil due to the removal of trees could equal the amount of carbon sequestration loss due to the removal of trees."

Impacts and mitigation regarding wildlife habitat are evaluated in Draft EIR Section 3.4 (at page 3.4-1 et seq.). These additional thoughts on potential mitigation are acknowledged; however, the comment does not suggest that the analysis provided is either inadequate or inaccurate. While the additional input has been included in the record where it may be considered by decision-makers, it has not been incorporated

[46] Intergovernmental Panel on Climate Change (IPCC), 2006. IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 8, Settlements, Table 8.2, page 8.10.

into the EIR. Further regarding oaks, see the comments and responses to Letter P30, from the California Oaks Coalition, below. Further, acorns in particular have been considered in the Draft EIR as a tribal cultural resource (see Draft EIR Section 3.6 at page 3.6-3) and as a habitat component and wildlife food source (see Section 3.4.1 at page 3.4-25). See Response T4-1 for more information about the Draft EIR's consideration of acorns. Responses to comments provided by the Wintu Audubon Society are provided below in the context of Letter P43.

The comment is correct that the Draft EIR identifies the Project Site as located within the ancestral lands of the Madesi, Itsatawi and Atsugewi Bands of the Pit River Tribe. See Section 3.6 (at pages 3.6-1 and 3.6-3), Section 3.6.3 (at page 3.6-24) and the Scoping Report included as Appendix J.

The Draft EIR has considered that the placement of turbines could have an effect on tribal ceremonial areas. The Draft EIR provides mitigation to reduce impacts to tribal cultural resources, including Mitigation Measure 3.6-3b: Coordination with the Pit River Tribe during Project Development, Mitigation Measure 3.6-3c: Detailed Recordation of Features Considered Culturally Significant to the Pit River Tribe, and Mitigation Measure 3.6-3d: Cultural Resources Monitoring Program with the Pit River Tribe during Construction (at page 3.6-25). Even with the implementation of these mitigation measures, the Draft EIR concludes that the potential impact to tribal cultural resources would remain significant and unavoidable (at page 3.6-26). As explained in Section 1.4 (at page 1-3) and in Section 1.4.6 (at page 1-8), "CEQA Guidelines §15093 requires the County, as the lead agency, to balance the benefits of a proposed project against any significant unavoidable environmental effects it may have. If the benefits of the Project outweigh the significant unavoidable adverse impacts, then the County may adopt a statement of overriding considerations that finds the environmental consequences to be acceptable in light of the Project's benefits to the public."

P18-2 See Response T2-1 and Response T4-1 regarding the potential for the Project's impacts to combine with the impacts of other projects, such as the Hatchet Wind Project, to cause or contribute to cumulative effects. Responses to the comments of Mr. Davis are provided in the context of Letter T5, above. The County acknowledges receipt of the suggestion that placement of turbines should be completed in consultation with the Pit River Tribe, and has included it in the record where it may be considered by decision-makers. However, no basis has been presented or independently identified to make it a requirement pursuant to the CEQA process.

P18-3 As stated in Draft EIR Section 3.6.1.2, *Environmental Setting*, the Applicant's consultant contacted several Tribes or tribal organizations by certified mail in November 2019. Follow-up phone calls were made in December 2019. The Nor-Rel-Muk Wintun Nation representative responded to the follow-up phone call and stated that the Project was outside of the organization's traditional territory and deferred coordination to the Pit River Tribe. No other tribes responded to the Applicant's outreach efforts.

Comment Letter P19

October 20, 2020

Lio Salazar, Senior Planner
Shasta County Department of Resource Management, Planning Division
1855 Placer Street, Suite 103
Redding, CA 96001
Email: fw.comments@co.shasta.ca.us

Subject: California Pilots Association (CalPilots) Comments Regarding the Proposed Fountain Wind Project

Dear Mr. Lio Salazar,

The California Pilots Association mission is to Preserve, Protect and Promote the state's airports, and airspace for safe navigation. As a statewide 501c3 volunteer organization, we work tirelessly to maintain the State's airports, and airspace, in the best possible condition for the benefit of the aviation community, and it's economic contributions to the enterprises of California's vibrant and diverse industrial sectors.

The **California Pilots Association** is very concerned regarding the potential hazards to aerial navigation of the Fountain Wind Project, located at Latitude 40 deg, 50' 0" W. Longitude 121 deg, 50' 0" E, which is located approximately 6 miles west of Burney, and 35 miles northeast of Redding, CA.

From an aeronautical perspective the combined Hatchet Ridge Wind Farm (HRWF) and the proposed Fountain Wind Project (FWP) will create a lateral barrier of wind turbines approximately 7 miles from North to South, for aircraft to fly over. This FWP location will have 72 wind turbines, with an Above Ground Level (AGL) height of 679 ft. With the terrain of this wind farm's base locations varies from 3,737 to 5,328 ft Measured above Sea Level (MSL). Given the terrain, location, and combined 679 ft. height of these turbines there will be an aeronautical wall approximately 1,591 ft tall, that the resultant top of the turbine blades will reach from 4,386 ft to 6,007 ft MSL for aircraft to fly over. P19-1

The location is a regional low point, and valley in the flight path to airports between Redding (KRDD) and a string of airports heading to the North East beginning with Fall River Mills (KO89), Southard (KO55), Adin (KA26), California Pines (KA24), Alturas (KAAT), Cederville (KO59), and Lake County (KLKV). There is a concern of the hazard to aerial navigation for these communities from these proposed structures.

Comment Letter P19

It should be noted there is AREO MEDICAL services from these rural airports for critical emergency medical services located in Redding. Furthermore, this area is prone to aerial firefighting operations by CalFire, when there are fires in the region. In addition, the afore mentioned airports are used by the flying public to access properties in this remote region of Northern California. Often times they will stop in Redding for fuel, and/or provisions, prior to going to these mountain airports. P19-2

With the physical penetration of the National Airspace (NAS) from this wind farm, there is a question of both the down wind turbulence of this wind farm complex, and would the field of rotating turbine blades interfere with local VOR-DME navigation aids located in Redding and Red Bluff? When flying in mountainous regions there are additional pilot concerns of Mountain Wave Turbulence, and Density Altitude issues that affect aircraft performance in these higher altitudes. These issues can be adversely compounded on hot summer days, which frequent the region from May thru October. P19-3

Furthermore, there are aerial military training operations in this region. The proposed Fountain Valley Project appears to brush against the Northwest edge of the WHITMORE 2 MOA. To the north of this wind farm site is the VR1250 and VR1261 Military Training Routes (MTR). It is highly likely these MTRs are used by Klamath Falls and Beale Air Force bases, and other military bases within a 500 mile radius. Comments of impacts on both Air Force, Naval and Marine aerial training missions in these areas will have to come from these branches of the US Department of Defense, and/or, the FAA directly regarding this project. P19-4

Finally, there is a concern of navigational lights on top of the Wind Turbine Nacelles. The proposed wind turbines have requirements for red navigation lights to be located on top of the tower nacelle. **Given the blade lengths are up to 211 ft in length from the nacelle, are these blade tips to be illuminated too?**

It is my understanding of FAA regulations, that any obstacle in the NAS over 200 ft AGL is to be marked with a Red light for identification by pilots. It seems reasonable and prudent by extension that a 211 ft long rotating turbine blade be identified in a similar manner. I have asked the FAA for clarification and/or determination on this question, but at the time of writing this letter of comment, there is no further regulatory information of wind turbine blade illumination. P19-5

It would be a prudent safety requirement for a light beacon on the end of these blades. With the maturity, and durability, of LED lights it seems like a cost effective and reasonable safety feature to add in the manufacture of this equipment. One would assume that there are grounding straps already in the structure of these blades to protect a wind turbine from potential lightning strikes, and thus there should be a

Comment Letter P19

pathway to electrify a tip LED light for aircraft flight safety with a minimum of additional manufacturing costs.

P19-5 cont.

In preparation for this letter of comment regarding the Fountain Wind Project, the FAA's Obstruction Evaluation information regarding wind farms was reviewed. This included "interim" information regarding the Fountain Wind Project. Apparently, the developer of this project submitted site information, was received by the FAA on 5/21/2020, and was posted by the FAA on 10/16/2020. There is NO FORMAL DETERMINATION FROM THE FAA on the project, at this time, as to the hazards to navigation of this project. The FAA aeronautical study of this wind farm project will be completed at some point in the future.

P19-6

I believe the various issues raised in this letter of comment, will take time to resolve in a safe manner for the benefit of the community. If there are any questions on the details presented, I can be contacted for further inquiry.

Thank you.

Respectfully submitted, (electronically)

Gill Wright
FAA Aircraft Dispatcher #3658363
VP Region 2
California Pilots Association
ph 916-692-8203
cell 303-435-8178

CC:

Carol Ford, President, California Pilots Association
Andy Wilson, Director at Large, California Pilots Association
Melissa McCaffery, Aircraft Owners and Pilots Association
Paul Holmquist, Federal Aviation Administration

Letter P19: California Pilots Association, Gill Wright

P19-1 As discussed in Section 3.5. *Communications Interference* (at pages 3.5-4, 3.5-5, and 3.5-7), federal regulations require the Project Applicant to file Form 7460-1, *Notice of Proposed Construction*, with the FAA, prompting the FAA to prepare an aeronautical study to determine whether the Project would be a hazard to air navigation (14 CFR §77.13). Among other topics considered, aeronautical studies include an evaluation of the impacts of a project on minimum obstacle clearance altitudes, minimum instrument flight rules altitudes, approved or planned instrument approach procedures, and departure procedures, as well as the physical or electromagnetic effects on air navigation, communication facilities, and other surveillance systems (14 CFR § 77.29). Consistent with the regulations, any structure in excess of 499 feet above ground level automatically is identified as an obstruction to air navigation and thus a presumed hazard (see 14 CFR §77.17).

As noted by the commenter (see Comment P19-6), the Applicant filed Form 7460-1 for each of the proposed wind turbines in May 2020. Consistent with its process, the FAA issued a Notice of Presumed Hazard pending a final determination on the Project. The FAA issued public notice on February 2, 2021 soliciting comments to be taken into consideration in completion of the aeronautical study. The comment period will be open until March 19, 2021. As of April 6, 2021, a final determination has not yet been made.

As discussed in Section 3.5.3 (at page 3.5-7), if the FAA identifies potential effects, then measures to reduce potential impacts could include the Applicant's entry into an operational curtailment agreement to bring turbines causing interference to a temporary stop based on air navigation schedules. These measures would minimize any potential risks to aircraft traversing the Project area.

Regarding potential hazards to air navigation for aircraft operating from the airports identified in this comment, the nearest airport to the Project Site is the Fall River Mills Airport, located approximately 20 miles to the northeast. Fall River Mills Airport is an untowered, unattended airport that utilizes Common Traffic Advisory Frequency (CTAF) radio communications. As disclosed in Section 3.5, interference with aircraft navigational communications is not anticipated from structures located at a distance of more than 10 miles. The distance between the Project Site and the closest airport is sufficient enough to prevent radio communications interference between aircraft and this airport. Similarly, the nearest ground based navigational aid is the Very High Frequency Omni-Directional Range (VOR) located at Redding Airport, more than 35 miles from the Project Site. The FAA recognizes that wind turbines may cause interference up to 8 nautical miles from the navigational aid (see FAA Order JO 7400.2, *Procedures for Handling Airspace Matters*[47]). The VOR is of sufficient distance from the Project Site that any interference with this navigational aid is not likely.

47 FAA, 2019. Air Traffic Organization Policy. Order JO 7400.2M Procedures for Handling Airspace Matters. https://www.faa.gov/documentLibrary/media/Order/7400.2M_Bsc_w_Chg_1_2_3_dtd_12_31_20_For_Post.pdf. January 31, 2019.

P19-2 Regarding AERO MEDICAL and general aviation operations, the closest airport that can accommodate the identified operations is approximately 20 miles away. As discussed in Response P19-1, the distance between the Project Site and the closest airport is sufficient to prevent interference with navigational systems for aircraft operating at other airports in the region. See Response T3-3 regarding potential impacts on aerial firefighting.

P19-3 As discussed in Section 3.5, although wind turbines have the potential to interfere with ground based navigational aids such as a VOR, the nearest VOR is over 35 miles from the Project Site. Little or no signal interference is anticipated when wind turbines are located more than ten miles from a ground based navigational aid such as a VOR antenna. The remaining text included in this comment does not question the adequacy of the existing analysis in the Draft EIR.

P19-4 The presence of aerial military training operations in the region is acknowledged. Potential effects of the Project to military operations areas are being evaluated as part of the aeronautical study prepared by the FAA. However, in the public notice issued by the FAA on February 2, 2021 soliciting comments from interested parties as part of the preparation of the aeronautical study, the FAA indicated that the Project would have no effects on any airspace and routes used by the military. Although the FAA and US Navy Military Training Routes personnel received the NOP and have remained on the distribution list to receive Project notices, no comments on the Draft EIR were received from any branch of the military.

P19-5 No, turbine rotor blade tips would not also be illuminated. To do so would be inconsistent with FAA's guidance in AC 70/7460-1M.

P19-6 The commenter is correct that the FAA had not yet made a final determination on the Project as of October 20, 2020. See Response P19-1 for additional details.

Comment Letter P20

Steven J. Johnson
19291 Singing Pine Lane
Lakehead, CA 96051

October 20, 2020

Lio Salazar, AICP
Senior Planner
Shasta County
Department of Resource Management
Planning Division
1855 Placer Street Suite 103
Redding, CA 96001

Re: July 2020 Fountain Wind Project Draft Environmental Impact Report

Dear Mr. Salazar,

I am writing to provide comments on the July 2020 Fountain Wind Project Draft Environmental Impact Report (hereinafter the "Draft EIR").

I own a 425 acre ranch located at 20144 and 20238 Cove Road, Montgomery Creek (with two homes, barn, outbuildings, various ranch operations, hydroelectric projects on nearby Hatchet Creek, and approximately 300 acres of timberlands zoned TP or TPZ like the Project Site), and another home located at 19111 Meadow Creek Lane, in Montgomery Creek. Both properties will be directly impacted by the proposed Project. My ranch borders approximately one mile of Hatchet Creek, which runs through the Project leasehold lands, and already provides alternative energy to the Northern California grid through two hydroelectric projects on roughly four miles of that creek. My home on Meadow Creek Lane is located on Montgomery Creek, which also runs through the Project leasehold lands, and which also already generates alternative energy through a hydroelectric project on that creek, before it empties into Pit 7, which generates alternative energy through power facilities at the Pit 7 dam, both from waters of the Pitt, and from waters of the McCloud River that are diverted through pipes

Comment Letter P20

from McCloud reservoir (which also generates electricity) to Iron Canyon and then into Pit 7, and from there into Lake Shasta, which is one of the largest sources of hydroelectric power in the State (indeed the entire Country). Waters below Shasta dam flow downstream into other facilities that take in water from the Trinity River via Clear Creek and Whiskeytown, generating more renewable energy before joining the Sacramento above Redding. These sources of renewable energy are superior to wind power, as they are more reliable and generate electricity around the clock, not just when the wind blows. P20-1

These hydroelectric projects, however, do not have fish ladders and have destroyed natural fisheries upstream of the dams. For example, Shasta Dam itself blocks steelhead and salmon from their historical spawning grounds in the many hundreds of miles of rivers and streams above the dam. The dams have other significant negative impacts as well, having changed entire landscapes, water courses, and potentially even the weather. Mining and smelters in the past in Shasta County have created toxic waste sites, destroyed forests, and adversely impacted the ecology of most of the County as well. The point is that Shasta County already provides more than its fair share of renewable energy to millions of people outside of the County, and also provides water and other resources to millions of people outside the County, while County residents have to suffer the adverse environmental impacts of all of the those projects, which mostly are not for the benefit of this County or its residents.

The notion that Shasta County residents have not suffered enough environmental damage and degradation, and not enough County residents have been burned alive in wildfires, in order to generate "clean" power, or otherwise generate and send electricity outside the County, and that our County has not been adequately destroyed enough from an environmental standpoint in order to send water and electricity and other resources such as minerals and timber outside the county, is unsupported and offensive to most of the residents of Shasta County who will be further harmed if the subject Project is built, but seems to be the current position of County planners and staff. Shasta County is perpetually the victim of those who would rape and pillage our County for the benefit of far away counties or states. The damage to local fisheries from all the dams and power plants is well documented, the superfund sites and environmental degradation from mining in the county is horrific, and our county is fast losing the rest of its natural forests

Comment Letter P20

through clearcutting and wildfires caused in part by too many dangerous and inadequately maintained electrical lines and facilities in the County to provide power elsewhere outside the County. What next? So-called "Big Wind."

It is more than disturbing to see a DEIR drafted by or with the acquiescence of County officials who appear to be clearly biased and collaborating with Big Wind to destroy what remains of our beautiful and still mostly rural county in the name of the Green New Deal and SB 100. This, after California already pays three times as much for electricity as the rest of the country, and after multiple catastrophic wildfires have killed dozens of people and caused billions of dollars of damages, bankrupting our negligent and incompetent public utility, PG&E, which still presides over an unsafe electrical grid and system of inadequately maintained power lines, that the subject Project wants to feed more, unneeded power into, making the power grid even more unstable and unsafe. That we are now being asked to suffer the destruction of the beautiful and scenic nature of Shasta County forever, by the loss of the beautiful views of mountains and ridge lines to the East, as well as the potential destruction of the entire Eastern portion of the county through more wildfires, all in order to generate unneeded wind power outside the county and enrich foreign corporations, while local residents are losing their businesses and livelihoods and many are being literally burned alive in fire after fire after fire, is beyond heartbreaking.

County Planners and staff should all be held personally responsible and legally accountable if their negligence in pushing through this Project during a pandemic with inadequate time for public review, while at the same time refusing to revisit the issue of proper zoning and general plan amendments to prevent the building of such large industrial projects in the highest fire danger zones in the State, results in significant loss of life from a major wildfire or other disaster caused by the insanity of placing a large industrial wind development in the middle of the highest fire danger zones in the State. This is quite possibly the least suitable site imaginable for such a use, and County planners and staff know it, but still try to hide that fact in the DEIR. Many states, counties, countries or other governments outright forbid the building of commercial wind turbine projects in high fire danger zone areas such as timberlands. Our County won't even address or consider the issue, won't even put it on the agenda for discussion, and are instead

P20-2

determined to continue to press for approval of a Project that violates applicable zoning and the County's General Plan and Open Space Plan. As a result, the Project, if approved, will in all events still be illegal, as the Project Site is not zoned for industrial or commercial large scale wind turbine development, the Project is incompatible with the current zoning (as industrial development in the middle of timberlands that requires clear cutting of the timber, and which risks burning down all surrounding timberlands is incompatible with the current zoning), and the Project is also inconsistent with the General Plan and violates the County's Open Space Plan.

P20-3

1. The Project Violates TPZ Zoning For The Site, Is Inconsistent With The General Plan, And Violates The County's Open Space Plan.

On page 2-3 of the DEIR, it states that the Shasta County General Plan designates the Project Site as Timber (T). The Zoning designations for the Project Site are Timber Production (TP) for 4,457 acres, and Unclassified (U) for 6 acres. The current use of the Site is exclusively managed forest lands. Much of the site was burned in the Fountain Fire in the early 1990's, after which it was replanted with densely packed pine trees for commercial timber production and harvesting. The entire 29,000 acre leasehold is essentially a giant commercial timber or tree farm. Those trees have now matured, and therefore most of the site now is comprised of densely packed, highly flammable pine trees, with virtually no space between the trees. While it is stated elsewhere in the DEIR that these trees are 20-30 feet tall, this is not true for all of the trees (or is outdated information as they have continued to grow). Many are probably now in excess of 40 feet tall, and many may be over 50 feet tall. No study of this has been done or provided in the DEIR, nor is there any study offered of how much more quickly such an artificial forest that has been grown for timber production purposes would burn in a wildfire compared to the natural forest that it replaced. We submit that the artificial forest that is on the site now, is much more densely packed that the natural forest it replaced, and that it is more flammable and presents an even higher fire danger than previous natural forests did. The natural forest mostly burned to the ground in the Fountain Fire, and has been replaced by an even more highly fire-danger artificial forest, that exists on the site now.

P20-4

Comment Letter P20

There is nothing in the Shasta County Zoning Code that specifically allows the construction or operation of a large scale industrial wind turbine facility anywhere in the County. There is no specific zoning ordinance or section of the General Plan that specifically addresses large scale industrial wind turbine facilities, defines them, or provides any restrictions upon their construction or use. Shasta County has never considered, much less passed, any zoning or General Plan amendment specifically addressing large scale industrial wind turbine facilities, and there is only one other in the county, the Hatchet Ride Project, which was also built on a site that is not zoned for large scale industrial wind turbine facilities (there is no such zoning in Shasta County) and that project violates the General Plan and Zoning Plan and Open Space Plan for all of the same reasons that the Fountain Wind Project would. The fact that the County has allowed one illegal large scale industrial wind turbine facility in violation of its own zoning, General Plan, and Open Space Plan laws and regulations, does not excuse the County from allowing a second such facility to be built illegally on County timberlands in the highest fire danger zones in the County and State of California.

P20-5

Timber Production Zoning (often referred to as TP or TPZ), is set forth in Chapter 17.08 of the Shasta County zoning code. Section 17.08.010 provides that the "purpose of the TP District is to preserve lands devoted to and used for the growing and harvesting of timber, that meet the requirements of the California Timberland Productivity Act of 1982, and to provide uses compatible with the growing and harvesting of timber." This section goes on to explain that TP zoning in Shasta County "is equivalent to the timberland production zone referred to in the act." Then, and perhaps most significantly, Section 17.08.010 provides that **"Land within a TP District is subject to all conditions and restrictions applicable to a timberland production zone."** Section 17.08.020 provides the uses that are permitted in a TP District. They are (1) forest management, (2) "grazing, beekeeping, watershed management, fish and wildlife habitat, and other uses directly incidental to and wholly compatible with the primary use," (3) hunting, fishing, camping "and similar recreational uses not involving any permanent improvement of the land or interfering materially with the primary use," and (4) Christmas tree farm. A commercial large scale industrial wind turbine facility is not on the identified list of permitted uses of lands zoned TP in Shasta County.

P20-6

Comment Letter P20

Section 17.08.030 provides additional uses that are possible with a use permit. That list includes living quarters for persons necessarily and fully employed on the premises, other uses incidental to forest management, including wood processing installations, development of mineral resources . . . "provided the use will not significantly detract from the use of the property for forest management" (and noting that it won't be deemed significant if the development which will preclude forest management is only in limited areas), processing of diatomaceous earth, and in subsection (d) "the erection, construction, or alteration, of a gas, electrical, water, or communication facility or other public improvements, in accordance with Government Code Section 51152."

Subsection (d) noted above appears to exist to allow transmission lines, gas lines, communication lines such as telephone lines across TP district timberlands. Stringing electrical lines through a TPZ zone (which appears to be allowed), and building an industrial power plant to generate electricity for 100,000 homes with massive infrastructure spread across 4,500 acres, are two vastly different things.

Nothing in any of these provisions allows a massive billion dollar construction and operation of the largest wind turbine development in Northern California that would begin with the clear cutting and conversion of thousands of acres of timberland, into an industrial facility with 72 skyscrapers spread across thousands of acres of former timberlands. And such a facility, in any event, would not be "compatible" with the primary use of lands to produce and harvest timber. This is true because the Project would provide thousands of possible ignition points that could spark a wildfire that could easily burn all of the timberlands in Eastern Shasta County to the ground. Such a facility is not "incidental" to forest management, nor is it "compatible" with such primary use, under any plain reading of the zoning code.

P20-6 cont.

And perhaps most importantly, this entire Chapter of the zoning code makes the TP District lands subject to the restrictions of the State law known as the California Timberland Productivity Act of 1982. The zoning code states expressly that Shasta County TP zoned timberlands are subject to all of the restrictions and conditions applicable to a "timberland production zone" under the Act. See Zoning Code Section 17.08.010. This is why TP lands are often referred to as

Comment Letter P20

"TPZ," as they are subject to all of the restrictions and conditions of Timber Production Zones under the state Timberland Productivity Act of 1982. The State Act is superior to the County Zoning Code, and the Zoning Code specifically incorporates and limits use of TP lands to the restrictions and conditions of TPZ lands under state law. State law governs here, and the construction of a large scale industrial wind turbine facility is not specifically allowed in a Timber Production Zone under the California Timberland Productivity Act of 1982 either.

None of this is disclosed in the DEIR, and clearly the Project cannot be built without a change in the Shasta zoning code and General Plan. The Applicant has never applied for such a change, and Shasta County has never adopted a zoning ordinance or General Plan designation that would allow such a facility to be built anywhere in this County. The County, furthermore, does not have the authority to allow the building of such a facility in a Timberland Production Zone, as that would be in violation of State law as well.

P20-6 cont.

The County's General Plan also does not allow the construction or operation of a large scale industrial wind turbine development on the County's timberlands. Section 6.2 of the County's General Plan addresses Timberlands and notes that the County's Timberlands Element is a combination of planning requirements from the mandated Land Use, Conservation, and Open Space Elements. None of these elements specifically reference or allow large scale industrial wind turbine developments anywhere in the County, and certainly not in the County's Timberlands. Timberlands, in the General Plan, "shall be zoned so as to restrict their use to growing and harvesting and to compatible uses and shall be entered as a timber preserve element of the County General Plan." As noted, a large scale industrial wind turbine facility that removes 4,500 acres of timberland and converts it to an industrial facility instead, posing various risks of harm including potential wildfires and destruction of all surrounding timberlands, is not a "compatible" or "incidental" use. Clearly, the County could not give a permit to clear cut 4,500 acres of Timberland, and build a giant housing project, chemical plant, or a collection of retail buildings there instead, and then claim that such is a "compatible use" to forest management. That would stand the General Plan and Zoning Code on its head, and would mean that the County could deem anything to be "compatible". That is not the law.

P20-7

Comment Letter P20

And again, the County does not have the power to even attempt to do this in a Timber Production Zone under state law, as here. The Project Site is in a Timber Production Zone governed by state law, and that state law is incorporated into the TP District zoning under the County Zoning Code. The state law allows the creation of timber preserves for the purpose of growing and harvesting timber, and only allows additional "compatible" uses permitted by the county or city. But importantly, the use must be "compatible." Here, the clear cutting of the forest in order to build the largest industrial wind turbine facility ever built in Northern California over 4,500 acres is not a "compatible" use. If it were, it would mean that the state law and Shasta county zoning code are meaningless, that the County could deem "compatible" any development that involves clear cutting the forest, removing it from use as timberlands, and building an industrial development there instead, or anything else the County wants to allow on the cleared land. That cannot be and is not the law, and likely a Court would so hold.

P20-8

Shasta county has never provided an outside legal opinion stating that it can allow clearcutting of timberlands in order to build giant industrial developments on them instead, in TP or TPZ lands, whether under County zoning and General Plan provisions, or under the California State Timberland Productivity Act of 1982. No Court has ever ruled that this is permissible, and the County has never cited any legal authority for such a proposition.

P20-9

Lands in Timberland Production Zones are taxed differently than other lands in the County. Generally speaking, they are taxed when the trees are harvested, as opposed to normal property taxes collected annually based on assessed value. State law contains numerous restrictions on what can be done in Timberland Production Zones, though state law does allow a county to permit a "compatible" use, and that usually means something incidental to forest management and the growing and harvesting of timber. Again, generally speaking, to build almost anything is forbidden in a Timberland Production Zone (with certain exceptions), unless it is a "compatible" use. Since large scale commercial developments that have nothing to do with forest management or harvesting of timber are not "compatible" especially as here where thousands of acres of timberland would be clear cut in order to build 72 skyscrapers on the cleared land, no Use Permit would be valid to build such a Project on such lands. In order to do such an

P20-10

industrial development on property reserved for timber production in a TPZ zone, an owner would have to remove the property first from the TPZ zone by having the property re-zoned into another zoning classification that would permit or allow the proposed development. Neither the owner of the Project Site, nor the Applicant, has ever done that here, and moreover, there is no other zoning district in Shasta County, no other zoning designation in Shasta County, that could be obtained, that expressly permits a large scale wind turbine facility to be built, because the County has never adopted such a zoning classification, nor has it ever amended its General Plan to allow such a development or zoning classification (nor designated, if it did so, where in the County such developments would be allowed—and if this were ever to be done, it is likely the County would not allow such developments in high fire danger zones). But as it stands now, the Project Site is zoned TP, and is subject to the restrictions of a Timber Protection Zone under state law, which would not permit such a development at the Project Site.

P20-10 cont.

Finally, the Project also would violate the County's Open Space Plan, even if it were allowed by applicable zoning, which it is not.

Shasta County's Parks, Trails, and Open Space Plan (the "Open Space Plan") is never addressed in the DEIR at all. The purpose of the Open Space Plan is to encourage parks, trails, and the preservation of Open Space in Shasta county. Numerous benefits of preserving ridge lines as open space, and encouraging the development of parks and trails, are described in detail in the Open Space Plan, and will not be repeated here. Instead, I hereby incorporate by reference the entire 125 pages of content of the Open Space Plan, as though set forth in this letter verbatim, and submit that the Project conflicts with nearly every sentence on every page of the Open Space Plan. This is not disclosed or discussed in the DEIR, and therefore the DEIR violates CEQA by excluding this important information and keeping it from decision-makers and the public. In addition, given that the Project conflicts with the General Plan, which includes the Open Space Plan, and is not allowed by applicable TP or TPZ zoning, and the zoning and General Plan problems cannot be cured by issuing a Use Permit (zoning changes, and amendments to the General Plan and Open Space Plan would be required first), any Use Permit granted by the County would be illegal, void or voidable, and of no force or effect. The DEIR violates CEQA, moreover, and is inadequate as it omits all of this important information.

P20-11

2. The DEIR Is Clearly Biased In Favor of the Project, And Therefore Violates CEQA, As the Lead Agency Is Supposed To Be Neutral, But Here Is Acting As A Proponent Of The Project Instead.

In addition, the Planning Commission and staff appear to have pre-decided that the Project should be approved and built no matter the environmental and other costs to the county and its residents. Their bias in favor of the Project in the DEIR is palpable. The Department of Public Resources website at the top of its first page depicts giant wind turbines as a backdrop, even though Shasta County is not a suitable county for such projects given the high fire danger here (or at least the high fire danger zone portions of the county are not suitable for such development).

P20-12

If the Project is approved and not enjoined by the Courts, County Planners and the Board of Supervisors should be held accountable, if not voted out and replaced, for permanently destroying the rural nature of the County, for permanently destroying many livelihoods and businesses that depend on tourism and which are already suffering from the covid lockdowns, for permanently destroying the inter-mountain communities by turning them into ghost towns no one will want to live in, for permanently destroying the enjoyment residents and tourists used to get from hiking, recreating, or just plain relaxing and taking in the beautiful views to the East in our county, and for forcing 180,000 residents of the county and millions of tourists to look at and drive by or through giant monstrous wind turbines, against their will, if they will even dare to look that direction again without shuddering at the massive eyesores destroying the views to the East or dare to drive through a forest of wind-scapers each taller than Shasta dam or the Statue of Liberty, in order to reach the Eastern Part of the County. In short, public officials who created or approved of the DEIR, and who may later approve the Project, should be held accountable for permanently destroying the beauty and essence of what we all love about Shasta County, and for placing county residents at greater risk of imminent harm from more wildfires by recklessly allowing the largest wind turbine facility ever built in Northern California to be sited in the highest fire danger zones of the County and indeed the entire State of California.

Clearly County Planners, staff, and the Board of Supervisors, do not have the best interests of County residents at heart. To date, in the way they have conducted

themselves so far, they appear willing to sell out their friends, neighbors, and 180,000 residents of Shasta County to Big Wind at all costs. Everyone knows that this Project does not benefit Shasta County in any way. Everyone knows that it will destroy the County as a tourist destination and as a once-beautiful place to live, and that it will not only decrease tourism, but also decrease county tax revenues by depressing property values and tax receipts from tourism. In addition, it will cause a net **decrease** in employment, because the supposed 12 "new jobs" will be more than offset by the jobs lost and businesses that may shut down entirely due to the inevitable decline in tourism. Less tourists means less money going to businesses in Eastern Shasta county, because no one will want to live or recreate in that part of the county anymore. And that means less tax revenue to the County too.

Moreover, any environmental damage to the water sources and streams in the area of the Project, whether through landslides, or contamination by pollutants such as toxic herbicides and petroleum products, or by catastrophic changes in the landscape caused by construction and potentially by wildfires, may permanently negatively impact what are now pristine headwaters for streams in the Project area that flow into the Pitt, then into Lake Shasta, and ultimately into the Lower Sacramento river. Thus, the negative impacts to streams and water sources in the headwaters within the project area, could extend hundreds of miles all the way down the Sacramento River into the Bay and out into the ocean through the Golden Gate. Already today, the lack of restrictions on various forms of mining in Shasta county has created what are now toxic waste sites that send contaminated water into Lake Shasta and ultimately down the Sacramento River system every time it rains. In short, the County should be protecting its timberlands and the headwaters of the streams that flow into Lake Shasta, such as Hatchet Creek, Montgomery Creek, Cedar Creek, and Little Cow Creek, not building huge industrial facilities in timberlands that comprise the headwaters of those streams. Many streams to the West have already been destroyed, now the County Planners are refusing to protect the streams to the East as well. This abject bias on the part of County Planners and staff is evident in the DEIR's refusal to consider *any* alternative site at all for the Project that would have less negative environmental impacts, including a refusal to consider any alternative site that

P20-13

would be outside of a high fire danger zone. This violates CEQA for numerous reasons discussed further herein. P20-13 cont.

In addition to negative impacts to headwater streams in or near the Project area, that flow down through my properties and provide domestic water to me and other residents in the area, the Project turbines, if built, will also be visible from and destroy the views from the upper reaches of my ranch (including the peak known as Hillcrest), and from my entire property on Montgomery Creek, which is very close to some of the proposed turbine sites. It will also totally destroy the rural nature of these lands, and further destroy the scenic beauty of this entire area of Shasta County. This is so because the turbines will be visible, not just from my nearby properties, but from as many as four different counties, from Interstate Highway 5, and likely from as far away as 100 or more miles away (not 30 miles as set forth in the cursory study of view impacts in the draft EIR). I also own a home on O'Brien Mountain above Lake Shasta, from which these turbines will be visible, as well as acreage in the far northeastern corner of the County, from which the turbines will be visible dozens of miles away. I also own property in Redding, from which the turbines will be visible. As discussed further in another section of these comments, the negative impact on the viewshed and scenic beauty of Shasta County is not adequately addressed in the Draft EIR. That, of course, assumes that the Project, which will create thousands of additional wildfire ignition points and possibilities, does not cause a wildfire in the area, which, of course, would or could completely destroy the entire area, including the Project itself and vast amounts of timberlands and several communities, and result in concomitant loss of life, loss of homes and businesses in nearby communities and possibly as far away as Redding, and potentially devastate the whole eastern portion of Shasta County causing irreparable harm and human tragedy and billions of dollars in damages from which the County and its residents may never recover. Indeed, such a tragedy would likely bankrupt the Project, and result in hundreds of lawsuits seeking billions of dollars of damages from the County which could potentially bankrupt the County too. Can't happen? Just ask PG&E. P20-14

Comment Letter P20

3. The Description of the Project Violates CEQA Because It Is Too Vague.

CEQA requires that the description of the Project be at least sufficient to provide notice of what it is that is proposed to be built and where, and sufficient for the impacts to be properly identified and analyzed, and further to be able to analyze and evaluate potential mitigation measures and reasonably feasible alternatives. The Project description in the Draft EIR does none of these things because it is too vague, and therefore the Draft EIR violates CEQA. P20-15

Early descriptions of the Project called for up to 100 wind turbines to be built on or across some 29,000 or more acres (very early descriptions cast an even wider net). Materials distributed by the Project Applicant or its predecessors, and the project Application itself, show different projects contemplated in the past, showing different leasehold areas, different numbers of turbines, different potential turbine arrays, and different layouts for roads and infrastructure, such that these past proposals and maps have caused a great deal of confusion in the public and particularly among residents of the inter-mountain communities that will be most affected by the proposed Project. Local residents have been told to wait for the draft EIR as the project description may change, and the proponent and County will describe whatever the current proposal is in the DEIR. Indeed, many past proposals appear to have been very different from what is described in the DEIR. But the DEIR, now that it has been published, contains a project description that is too vague to determine what is being proposed to be built now, or where, including how many turbines are proposed to be built, how tall the turbines will be, where the turbine sites will be if only 38 turbines will be built, and fundamentally, just what the project is now. Instead, the County has elected an approach that hides such facts from the public, and makes it exceedingly vague as to what might be built or where. P20-16

First, the description of the Project site is too vague. On page 2-1, the DEIR says the Application for Use Permit (UP 16-007) is to construct, operate, maintain, and decommission wind turbines and related infrastructure within an approximately 29,500 acre leased area encompassing 74 Shasta County Assessor's Parcels. It goes on to say that the Project would be developed with an 4,464 acre area (Project Site), where the permanent project facilities would be sited, and that the

Comment Letter P20

Project Site includes all areas where either temporary or permanent disturbance may occur.

Figure 2-1 on p. 2-2 is a map that claims to delineate the outline of the "Lease Hold Area Parcel Boundary" in heavy black line, and a lighter line to delineate the "Project Site." It is nearly impossible to see any difference between the two, and once cannot tell from the supposed map what is considered the "Project Site." P20-17

Presumably, were the Use Permit granted, the construction area, the wind turbines themselves, and the associated infrastructure, would be confined in the Permit to the Project Site and to specific locations within a metes and bounds defined 4,464 acres. The DEIR does not adequately describe, depict or delimit where the metes and bounds of those 4,464 acres are, nor does the Project description commit to not building anything or siting any turbines outside of these (still ill-defined) 4,464 acres. This affects virtually all of the rest of the DEIR and virtually every purported study of potential impacts, because the area where construction and permanent improvements will be is not adequately defined, and there is no firm commitment to not build outside the Project Site. P20-18

Second, what is to be built, inside the Project Site, is not adequately described in the DEIR either. This glaring defect, which invalidates the entire DEIR and requires that a completely new EIR be drafted (and essentially that the County and Applicant must start the CEQA process over again after providing, for the first time, an adequate description of the proposed Project), is intentionally hidden from the public in the DEIR. P20-19

The Project Overview section on page 2-1 says that the initial proposal was for 100 wind turbines, but that that has been decreased "from 100 to up to 72 turbines, and an increase in maximum height from 591 feed to 679 feet tall, as measured from ground level to vertical blade tip..." This is misleading, as it suggests that there will be 72 turbines now, each of which will be up to 679 feet tall, and a total nameplate capacity of 216 MW. But this is not true either. The Project overview goes on to describe the benefits of having fewer turbines (72 instead of 100), and how that means less roads, collection systems, and related infrastructure. But the description never says how many turbines will be built if each is 679 feet tall. P20-20

Comment Letter P20

This entire section of the DEIR is miseading and inadequate under CEQA because it is designed to hide from County decision-makers and the public the fact that if 679 foot tall turbines are used, only 38 will be required to reach the maximum nameplate capacity of 216 MW, not 72. This fact, intentionally hidden from any mention in the Project Description, or elsewhere in the over 600 pages of text in the DEIR, can be ascertained from page 1 of the "Administrative Draft—Not For Public Review, Fountain Wind Project Visual Resources Technical Report," which **has been buried in order to hide the bombshell fact that the DEIR tries to hide--if 679 foot tall turbines are used, there would only be 38 turbines, not 72.** Yet all the maps in the DEIR are for 72 turbine sites, and this affects multiple studies referenced in the DEIR for everything from geological issues, biological issues, how many birds will be killed, wildfire risk, hydrology, types of pads and construction necessary, evacuation and fire prevention plans, and, of course, visual impacts.

The failure to specify whether the Project is to build 72 turbines of one size, or only 38 turbines of a slightly taller size, renders the Project description too vague as to what is to be built, and where, and therefore violates CEQA.

P20-20 cont.

Nowhere in the DEIR, moreover, have we been able to find any map or depiction of where the 38 turbine sites would be if 38 turbines of the 679 foot tall variety were to be built. This too renders the Project too vague to comply with CEQA. Essentially the County is saying that here are 72 proposed turbine sites, they are not final and may be moved, and we want to hide the fact that if we use 679 foot tall turbines, as proposed, we will only need 38 turbine sites, but we are not going tell you where the 38 turbine sites will be, and which 44 of the proposed 72 turbine sites will be eliminated. The county is saying that it wants to be able to play whack-a-mole and place the 38 turbines anywhere it wants to, outside the planning and CEQA process, and pretend that that doesn't impact any of the studies that have been done, when it plainly does. This violates CEQA and renders the project description too vague, and further invalidates virtually every study of impacts relied upon for the DEIR because one cannot adequately assess potential negative impacts, mitigation measures, or alternatives, if the project description does not tell you if there will be 72, 38, or some other number of

turbines, what those turbines will be, how tall they will be, or where they will be located. This also renders Alternatives 1 and 2 in the DEIR invalid, as they assume there will be 72 turbines, and analyze impacts (and changes in nameplate capacity) if six on the other side of Highway 299 are removed, and if additional setbacks are imposed on a few others. But neither of these Alternatives says what happens if there are only 38 turbines to begin with, and if so, what the comparison would be of the Project to either Alternative 1 or 2, or if there are only 38 turbines, Alternatives 1 and 2 become moot, and then there are no Alternatives at all.

P20-20 cont.

P20-21

The project description is therefore fatally flawed under CEQA. The above-referenced Technical Report further indicates that "the difference between these two turbine sizes would be detectable from 1 mile away but it would not be discernable at 3 miles away." Setting aside that there is no substantial evidence to support this statement in the DEIR or the Technical Report, it ignores the elephant in this particular room—that if properly studied and disclosed, human beings will likely be able to tell the difference between 38 turbines that are each 679 feet tall, and 72 turbines that are each 50 or so feet shorter. The DEIR project description does not deal with this at all. The buried Technical Report lacks substantial evidence to support the false conclusion, essentially, that "you can't tell the difference from 3 miles away," by ignoring that if the taller turbines are used, the permit would allow only 38 of them before the project would reach the maximum nameplate capacity, and anyone could see the difference between 38 turbines and 72 turbines from many miles away, maybe even from distant cities or other counties. Therefore the visual impact of a 38 turbine project, and the visual impact of a 72 turbine project, are vastly different, but the project description will not tell the public which it is going to be, or even if it might be something inbetween.

P20-22

These turbines are not small structures, regardless of whether there are 72 that are nearly 600 feet tall, or only 38 that are slightly taller at 679 feet tall. Each of either type would alone be the tallest structure in all of Northern California, the tallest structure in nearly all of California, outside major cities like Los Angeles or San Francisco (and even then, we are not sure if one would be taller than the tallest skyscrapers there). So to have a project description that doesn't say if there are going to be 72 of them, or 38 of them but slightly taller, and no

P20-23

Comment Letter P20

comparison between those two alternatives, and no environmental impact analysis of the difference, and no disclosure of which 38 sites would be used for the taller turbines if selected, means the project description is too vague to determine environmental impacts, mitigation measures, or reasonable alternatives.

P20-23 cont.

In order to correct the inadequate, vague project description under CEQA, the County must either define the Project as 72 3.0 MW turbines of a certain height to be constructed on certain designated turbine sites within the Project Site and specified on a map (and specify the locations, not just say they could be moved), or define what would be a much different Project, comprised of 38 5.7 MW turbines of 679 feet in height, to be built on 38 designated turbine sites within the Project Site and specified on a map (showing exactly where each of the 38 turbines would be located). And the EIR would have to revise Alternatives 1 and 2 to describe which turbines are being referred to therein, and what the difference in those Alternatives would be if the shorter or taller turbines were used (or eliminated, or moved). The types of turbines and potential manufacturers for these different Projects must also be specified, or there is no support for the supposed conclusions that there is little risk of the nacelles catching on fire, or that there will be fire suppression systems in the nacelles, or what the effectiveness of such systems might be. It should be disclosed, if true, that 679 foot tall turbines have never been built in the United States. That such technology is new and untested in the United States. That the Project proposes to build the largest, untested wind turbines ever built in the USA, in the highest fire danger zones in the State of California, not knowing if there might be manufacturing or design defects that could cause them to catch on fire. That there is no operational history of such turbines being operated anywhere in the USA in highly combustible timberlands without causing a wildfire for a significant length of time. That the County proposes to use Shasta County as a test facility, hoping a wildfire won't be caused, and thereby converting the local population into unwilling participants in a test of unproven technology that could fail, with disasterous consequences in terms of loss of life and loss of surrounding homes and businesses.

P20-24

P20-25

Moreover, the entire assessment of fire risk in the DEIR is inadequate under CEQA

P20-26

and unsupported if the County will not even disclose how many turbines, of what height, of what manufacture, and in what locations, are going to be built. How can the risk be properly assessed for 38 turbines of taller height if it is not disclosed which of the 72 proposed sites would be used if there are only 38 of the taller variety to be constructed. Those 38 sites, currently unidentified, for taller turbines, would impact any geological, or geotechnical study, any site survey, any analysis of cultural impacts, any analysis of visual impact, any analysis of biological impacts, and of course fire risks, fire prevention plans, evacuation plans, possible ignition points, road building, and on and on. The failure to properly define any Project, with any identified number of turbines, of a particular height, on particular sites, is fatally defective under CEQA.

P20-26 cont.

One possibility, in a new EIR, or in a new Application to the County for a new properly defined Project, would be to define the Project as 38 5.7 MW turbines of up to 679 feet tall (identifying the potential turbine manufacturers or models), with a defined Project Site, on 38 proposed turbine sites, identified on a map with GPS coordinates. That might be the beginning of a legally permissible project description under CEQA. But that has not been done here. Another possibility would be to posit that project description and then provide as an "Alternative" a description and analysis that would be an alternative to the 38 turbine project, an identified "Alternative" of having 72 slightly shorter turbines, spread over a larger area, with a map defining where those 72 slightly shorter 3 MW turbines would be located, and then, as CEQA requires, comparing the benefits and relative impacts, mitigation measures, etc. between the 38 taller turbine project, and the 72 shorter turbine project Alternative. But the DEIR does none of this. It could also very well be that a project with only 38 of the slightly taller turbines would be arrayed in a smaller Project Site, affecting the description of the Project Site as well. The failure to do any of this in the DEIR violates CEQA.

P20-27

It cannot be argued in defense of the DEIR that by not specifying how many turbines will be built, of what height, of what capacity, or on what turbine sites, the DEIR is allowing a range of possibilities within the Project description, so that later decisions can be made by the Applicant as to what to build and where to put them within the approximately 4500 acre project site. This is akin to a project description that says the project is to build 38 or 72 skyscrapers, or some other

P20-28

Comment Letter P20

number inbetween, somewhere in the 4500 acres of the site, on turbine sites to be determined in the future, and that may change. This is too vague because it deprives the County decision-makers and the public of the very information necessary to make important decisions about the Project, and defeats the primary purpose of an EIR, which is to provide information to make such decisions in an informed way. By having an ill-defined, if not undefined Project, the County and the public are deprived of the information concerning the pros and cons of having either 72 shorter turbines, or 38 slightly taller turbines, and deprived of the information necessary to make an informed decisions between these two alternatives. The fire impact, biological impacts, geological considerations, and certainly the visual impacts may be completely different. The locations of the 38 turbines, if that was a defined alternative, would be important information for local communities and homeowners, such as "would any of them be near Moose Camp?," "would any be on the other side of highway 299?", what would the setbacks be for the 38 sites from water sources, from the highway, from other roads and houses?" where would they be visible from, and on what ridge lines would they be built?," what roads could be eliminated if there were only 38 turbines?," would there be a decrease in fire risk?," "would the 38 turbine project or project alternative kill less birds?," would the 38 turbine project alternative mean a much smaller Project Site? And so on. None of the information necessary to answer any of these questions and likely hundreds of others is provided in the DEIR. None of the studies of the relative benefits or negative impacts of 72 vs 38 turbines, or the sections proposing mitigation measures (which could be completely different, and could also change depending on which sites were chosen for the 38), or information to choose between these alternatives, is in DEIR, and no studies of the 38 turbine alternative, which may have a lot less impact than the 72, has been done at all.

P20-28 cont.

The only conclusion that can be reached under CEQA then, is that the impermissibly vague Project description, and failure to address whether it will be 72 or 38 turbines, of different heights, violates CEQA and renders all of the studies appended to the report as irrelevant and insufficient, because none of them address the effect of having only 38 (albeit slightly taller turbines) instead of 72, and no such new studies can be completed until the County or Applicant tells us where the 38 slightly taller turbines would be located, and which of the 72

proposed turbine sites would be eliminated. Finally, if the County were to try to correct these many deficiencies in the DEIR by creating a project description in the Final EIR that described the 72 turbine project, or the 38 turbine project, or one or the other as Alternatives, or both, it would also, at a minimum, have to re-do all of the aesthetic studies, biological and bird studies, geological studies (depending on where the different sized turbines would be located), the entire fire risk study (and additional studies to be done, as discussed in a later section of this letter), and many of the other studies referred to in this DEIR that do not address, study, or analyze a 38 slightly taller turbine alternative. Further, if the County tried to get around all of this in a Final EIR by dropping any reference to the 38 taller turbine possibility, it would still violate CEQA by not including an analysis of the 38 taller turbine possibility in its discussion of a "reasonable range of alternatives" as required by CEQA.

P20-28 cont.

4. The "Project Objectives" And The Section on Alternatives Violate CEQA Because The Main Goal On Which All Other Stated Goals Are Based—To Develop, Construct And Operate A Commercial Wind Energy Generation Facility Capable Of Generating UP To 216 MW of Wind Energy (With Further Goals Limiting This to This Specific Site and No Other)—Is Too Narrow. Read together, the "Project Objectives" are Designed to Mean That The Project's Main Goal Is To Build The Project, On This Site, In Shasta County And Nowhere Else. This Creates Nothing More Than A Tautology—That The Main Project Objectives of the Project Are To Build The Project Here And No Place Else, and Any Other Alternative Will Not Be Considered Because It Does Not Meet The Main Goals Of Building This Project on This Site. This violates CEQA, As This Tautology Is Then Used As a Straw Man for the County To Refuse to Consider all Other Reasonable Feasible Alternatives, Apart from Alternatives 1 and 2, which are just tiny variations on the Project at the Same Site, Creating Only Two Choices—The Project or No Project. Elimination in This Way of All Other Reasonable and Feasible Alternatives, and the Refusal To Consider, Study, or Analyze Any and All Other Reasonable and Feasible Alternatives, Violates CEQA.

P20-29

A lot is at stake here, but you would not know that from reading the Draft EIR. The Project provides zero benefits for residents of Shasta County, but that is never disclosed or analyzed in the Draft EIR. If a proper analysis had been done

and included in the Draft EIR, County decision makers and the public would be able to see at once that there are no benefits to Shasta County residents from the Project, and that it only provides dire burdens for County residents, including the destruction of the scenic beauty of the entire County since the eyesores of the largest turbines ever built in the United States spread over tens of thousands of acres and multiple ridgelines will be visible from almost everywhere in the County including the I-5 corridor and all major cities, the Project will kill large numbers of raptors and other birds and wildlife, the Project will substantially increase wildfire risk and create thousands of new potential ignition points in the Eastern hills and forests above Redding which could easily spark a wildfire that could burn several communities to the ground, including Redding itself, and which risk cannot be adequately mitigated because the Project would be located in the highest fire dangers zones in the entire State of California (and where substantial evidence shows that any wildfire would spread extremely quickly and could not be controlled before massive loss of life and property, as has recently occurred in the Carr fire, the Zogg fire, the Delta and Hirz fires, in the Fountain Fire on this very site, and in the Camp fire in Paradise, recent fires near Santa Rosa, the August Complex fires all over the State, and many other fires throughout California and the Western United States). None of this is adequately addressed or analyzed in the DEIR.

P20-30

With respect to the Project Objectives, we begin by noting what is <u>not</u> a Project Objective. **There is no objective to make the Project safe.** I repeat, there is no objective to make the Project safe or to protect the public. PG&E has been held criminally liable for placing profits over safety. PG&E has since changed corporate policies, management, and operations to place the highest emphasis on safety. Safety is notably absent as a goal of the subject Project.

P20-31

There is no objective to build the Project in an area outside of a high fire danger zone. There is no objective to eliminate the risk of catastrophic wildfire by siting the Project or turbines outside of high fire danger zones. **There is no objective to minimize bird kills by locating the Project outside of flyways, or nesting areas for raptors.** There is no objective to protect bats or other birds. **There is no objective to avoid harm to endangered or threatened species.** There is no objective to avoid harm to habitat for such species. **There is no objective to**

Comment Letter P20

locate the Project outside of lands sacred to Native Americans, or to avoid disturbance of cultural resources. There is no objective to provide alternative energy in a manner that would have a minimal negative impact on the local population and County in which the Project is built. **And there is no objective to provide electricity to Shasta County, or any finding that additional electricity is needed in Shasta County.** Apparently all of these types of goals have been rejected, and any other goals that would involve doing little or no environmental damage in Shasta County, while providing substantial benefits to the County, has been rejected. The source of the Project Objectives should be identified in the DEIR, and whether the County had any input into, or has approved of these objectives (or disagrees with any of the objectives) should be disclosed in the DEIR.

P20-31 cont.

The first stated Project Objective is not to build a safe Project, or to protect the public, but instead, to simply "develop, construct, and operate a commercial wind energy generation facility capable of generating up to 216 MW of wind energy." The Objectives go on to specify that further goals are to connect the Project to "Northern California electrical grid (NP15)" with a footnote to explain that NP15 corresponds to PG&E's electric service territory, meaning that the second goal is to develop and build a 216 MW wind turbine project to feed into the PGE power grid in Northern California for the PG&E electrical service territory. Thus, the Project has to be 216 MW, it has to be wind (no other type of energy), and it has to connect to the PG&E grid in Northern California managed by the California Independent System Operator, in order to meet these objectives. The third Objective further limits this by saying the Project be located in "close proximity to an existing transmission line with sufficient capacity to reduce impacts and costs associated with building new transmission infrastructure." This limits the Project further to being built near an existing large substation and high voltage transmission lines that feed into the PG&E power grid.

The fourth Project Objective is to assist California in meeting the renewable energy generation targets set in Senate Bill 100. While the DEIR is constructed in such a way as to imply that only wind power will do, this is not the case under SB 100, and the DEIR omits the important information that nothing in Senate Bill 100

P20-32

requires any additional wind power development to be built anywhere, and certainly does not require any additional wind power development to be built in Shasta County. In fact, it only accelerates renewable energy goals on a statewide basis, and various types of alternative energy projects could be built elsewhere in the State (at appropriate locations), or even in alternative locations within Shasta County, that would assist the State in meeting the goals of SB 100, or the goals could be met through conservation or in other ways. Nothing in SB 100 requires any new alternative energy project to be built in Shasta County at all. These facts should be disclosed in the DEIR in order to make what is stated in the DEIR now, not misleading.

Moreover, Shasta County does not need any additional sources of electricity, and already provides more alternative energy in the State that almost any other County, as Shasta County has Shasta Dam, and several other hydroelectric dams and projects on the Sacramento, Pitt, and McCloud Rivers, and numerous other smaller streams, including streams in the area of the Project, and also already has one of the largest wind power projects in the State (Hatchet Ridge). There is no need to further burden Shasta County residents with more adverse environmental impacts to create additional electrical power that is not needed in the County, and would over burden the Northern California power grid and make it even more unsafe than it is now. These facts are not disclosed, and no analysis of this is provided in the DEIR now. Such facts and analysis should be added to the EIR in order to make what is there now, not misleading.

P20-32 cont.

The fifth Project Objective is to create temporary and permanent jobs in Shasta County and contribute to the County's tax base. The DEIR fails to disclose that the Project would cause a net decrease in jobs in the County, due to the loss of jobs from a loss or decline in tourism, and from flight from the local inter-mountain communities which will no longer be desirable places to live. That means local businesses throughout Eastern Shasta County will suffer lost revenue, and many may close, causing an increase in unemployment. There is no study of this offered in the DEIR, and therefore there is no evidentiary support for the conclusion that there would be 12 more jobs in the county as a result of the Project. These facts should be studied and disclosed in the EIR in order to make what is in there now, not misleading.

Comment Letter P20

The Sixth objective is to obtain entitlements to construct and operate a commercially financeable wind energy project. The seventh is to support landowners through diversification of revenue streams. The eighth is to offset approximately 128,000 metric tons of carbon dioxide emissions generated by fossil fuels. And the ninth is to provide emissions-free energy for approximately 100,000 households.

As a threshold matter, there is a complete lack of evidence in the DEIR that the proposed Project would meet any of these goals, other than the overall false tautology attempted to be created here--that the building of the Project on this site and no other would meet the main goals (read together) of building the Project on this site and no other.

Put another way, the Applicant and/or County should not be able to define the main goals of the Project in such a way that they create a *fait accompli*, that it has to be a 216 MW of wind power (and no other type of alternative energy), it has to feed into the Northern California grid of PG&E and be next to pre-existing substation, interconnect, and high power lines (and therefore has to be only this Site), it has to create jobs and tax revenue in Shasta County (and therefore cannot be built in another more suitable location in another county), it has to be commercially financeable (and therefore has to be this huge, another way of saying it has to be this Project of 216 MW, and not a smaller or many smaller ones at other sites elsewhere that might have less negative impacts), it has to benefit these particular landowners at this site by giving these particular landowners of this site an additional revenue stream (an apparent reference to the lease by the timberland owner to the turbine project whereby the landowner gets revenue from the turbine project after clearcutting thousands of acres of what would otherwise have been timberland in order to construct the turbine project—another way of saying that the goal is to build this Project at this Site in order to financially benefit the owners of this Site), it has to offset 128,000 metric tons of carbon dioxide emissions generated by fossil fuels (another way of saying that by their calculation 216 MW of wind power at this site will offset 128,000 metric tons of carbon dioxide, and therefore it has to be this Project at this Site), and it has to provide emissions-free energy for approximately 100,000 households (again, based on their calculation that the 216 MW wind project at this site will provide

P20-32 cont.

such energy for approximately 100,000 homes, this is just another way of saying it has to be this Project at this Site).

Suppose that the County and/or Applicant had stated, in plain language instead, what this really means--that the Project Objective is "the construction and operation of a 216 MW wind project comprised of up to 72 wind turbines at the 4,654 Project Site shown on Map A, that connects to the nearby Northern California power grid as shown on Map B Project Location, in order to make large profits for the owners of the land and the project, after paying interest on commercial financing and paying a small number of workers to build and operate the project, in order to provide the specific electricity that we have calculated that this Project in this location will produce." **This is really what the County has done in laying out the "Project Objectives," as they have been drafted in a way to intentionally eliminate any other possible or reasonably feasible alternatives, at any other reasonably feasible locations, that would eliminate most if not all of the substantial negative impacts of the Project.**

P20-32 cont.

5. The Discussion of Reasonable Alternatives is Inadequate and Violates CEQA Because It Refuses to Consider Any Alternatives, Much Less a "Reasonable Range of Alternatives" as Required by CEQA.

Having defined, in simple terms, narrow objectives that boil down to essentially mean that the objective of this project is to build this project at this site, and no other, the County then refuses to consider, or in the language used repeatedly in this DEIR, the "County elect[s] not to carry forward [each and every reasonable feasible alternative suggested by the public in the scoping comments] for more detailed review," because any other alternative would not meet the main objectives of the project, which are to build 216 MW of wind power in Shasta County (at this site). Further, the County will not even address much less consider building the project on any other site anywhere on the planet, not even at any other location in Shasta County. This use of narrow project objectives to eliminate any other reasonable and feasible alternatives, as noted above, makes the consideration of reasonable feasible alternatives in the DEIR inadequate under CEQA. The County does this in the DEIR by framing the goals in a narrow way such that they cannot be accomplished in any other way than building this project at this site, and couples this with a refusal to consider any reasonable

P20-33

feasible alternative that would not build this specific project at this specific site. This is done intentionally to avoid any consideration of building the Project somewhere else where it would have less negative impacts. The inadequate consideration and analysis of reasonably feasible alternatives in the DEIR therefore violates CEQA. See e.g., *Laurel Heights Improvement Ass'n v. Regents of University of California* (1988) 47 Cal. 3d 376.

Indeed, the County states, incorrectly, that CEQA does not require it to consider any other sites. The County further states that it may confine its consideration of reasonable alternatives to only alternative projects on this specific site, and then rejects consideration of any of those alternatives as well. Even the Regents in *Laurel Heights* considered other alternatives, including off-site alternatives, but were still held to have included an inadequate analysis of reasonable, feasible alternatives, and therefore violated CEQA. Id.

The County misstates the law, and provides a flawed legal summary of CEQA as applied to the required analysis of reasonable alternatives at pp. 2-27 to 2-29 of the DEIR. This also violates CEQA because it misleads the public as to the meaning and intent of CEQA, and the applicable requirements.

P20-33 cont.

For example, the County misreads CEQA Guidelines (14 Cal. Code Regs. Section 15126.6) to mean that the County's discussion need focus on ***either*** reasonable, feasible alternatives to the proposed project on the same site, ***or*** other locations, but not both. This is a misreading of both CEQA and the Guidelines, and would also undermine the policy objectives of CEQA. The County then refuses to consider any off-site alternatives at all, claiming that CEQA does not expressly require this, and therefore the County declines to do so. However, to fail to consider alternative sites, in the present situation where the Project site is manifestly unsuitable, would be to completely disregard all of the policy objectives underlying the "reasonable alternatives" portion of CEQA, as well as requirement to consider a "reasonable range of alternatives."

The public, and if necessary any Court that may later review the sufficiency of the DEIR, must understand what the County and the Applicant are trying to do here. They are proposing to build the largest wind energy project ever built in

Northern California in the highest fire danger zone in the entire State of California, after the worst fire season in California history in which over 4 million acres of mostly timberland burned, over 30 people were killed, and hundreds if not thousands of homes, businesses, and other structures were destroyed, causing billions of dollars of damages, without ever considering in the EIR any alternative location at all. And this after other recent years in which Shasta County itself experienced the largest wildfires in the history of this County, including the Carr Fire, the Hirtz fire, the Delta fire, the Zogg fire, and others, and after over 1000 homes were burned and several people have lost their lives in wildfires in this county alone. The recent Zogg fire killed four people and nearly burned into Redding during the public comment period on this DEIR. Yet this DEIR refuses to consider any reasonable feasible alternative at all, whether to build another similar project somewhere else, or to build this Project somewhere else where it would be more safe and would pose little or no wildfire risk. Since no reasonable feasible alternatives are considered in the DEIR at all, the DEIR violates CEQA.

P20-33 cont.

6. The elephant in the room that the County and the Applicant are trying to avoid is any consideration of the most obvious reasonable, feasible alternative to the Project at this site--which is to build this Project or a similar project in another location that is not in a high fire danger zone and does not destroy the scenic views enjoyed by 180,000 county residents and millions of tourists.

The failure and refusal of the County to consider, analyze, or even discuss the most obvious reasonable and feasible alternative, which is to build the project or a similar project (perhaps of another alternative energy type) in another location that is not in the highest rated fire danger zones in the State of California, and is not near or visible from large population centers in Shasta County, violates CEQA. CEQA requires a lead agency to analyze a reasonable range of alternatives to a proposed project that could feasibly attain most of the basic objectives of the project while substantially reducing or eliminating significant environmental effects. The DEIR is written and designed, intentionally, to avoid ever discussing and allowing decision-makers and the public from having any information about, the most obvious reasonable alternative of building the project or a similar project anywhere else than here, in order to avoid all of the negative

P20-34

environmental impacts, including high fire risk of building the project in the highest fire danger zones in the State after multiple massive wildfires in the County and surrounding areas. The County is also trying to avoid discussion of any alternative project or site for this project that would avoid the destruction of the scenic views in Shasta County that the DEIR says is substantial and unavoidable, the risk to raptors and other birds that the DEIR says is unavoidable and substantial, the risk to cultural resources that is significant as the project is currently proposed to be built on lands sacred to the Pitt River Tribe, and other biological, geologic, hydrologic, and various other negative impacts and concerns. All of this can be avoided by building this project or a similar project in a more suitable site virtually anywhere else, and by refusing to even consider much less discuss **any** alternative site, the discussion of project alternatives in the DEIR is inadequate and violates CEQA.

The County and consultant who prepared the DEIR struggle mightily to avoid considering any alternative site that would solve all of the problems with this Project, but in doing so they violate CEQA in multiple ways.

P20-34 cont.

The first thing the County does to avoid the consideration or study of any alternative site, anywhere on the planet, or even anywhere else in Shasta County, is to say that CEQA doesn't expressly require the lead agency to consider any alternative sites, and then goes on to misread or misapply the Guidelines, reading them to say that alternatives to the project **or** alternative locations may be considered, and therefore the lead agency is required to consider one or the other but not both. The referenced guideline that contains the "or" that the County misconstrues, is just a description in the Guidelines of what may be considered when the lead agency considers "a reasonable range of alternatives" that could feasibly attain most of the basic objectives of the Project. The requirement is to consider a reasonable range of alternatives and the present DEIR fails to do so.

Second, the DEIR ignores the fact that here, where an alternative site, or even a reasonable range of alternative sites, could virtually eliminate all of the significant negative impacts of the Project while still attaining the *legitimate* objectives or a fair reading of the objectives of the Project, the failure to consider or discuss **any**

Comment Letter P20

alternative sites at all, violates CEQA as a matter of law. For example, the PG&E grid is quite large, and spans dozens of counties. Thus, a project could be build in another county that could still feed into the PG&E grid. But no such locations, of which there are likely dozens, are discussed or analyzed in the DEIR.

This is because the County has not fulfilled the requirement under CEQA of analyzing a reasonable range of alternatives, and actually goes so far as to refuse to consider any alternatives at all. The DEIR also therefore violates the rule of reason in this portion of CEQA, and all of the policy considerations underlying CEQA's requirements concerning the consideration of reasonable alternatives, which include providing information about other reasonable, feasible alternatives that might mitigate or eliminate some or all of the negative impacts of the Project so that decision-makers and the public can make reasoned decisions about the Project. This DEIR violates all of these provisions and principles of CEQA because it is an obvious exercise and attempt to eliminate or avoid the consideration of any alternatives at all, apart from Alternatives 1 and 2, which are strawmen, like rearranging the deck chairs on the Titanic. To use the Titanic analogy, the DEIR intentionally avoids considering any of the plethora of alternatives that will actually avoid the sinking of the ship, but offers two alternative ways to rearrange the deck chairs, and then claims that it considered reasonable alternatives. This is a sham. In short, the County here does everything possible to try to justify a refusal to consider any alternative to placing the Project in the highest fire danger zone in the State of California, and probably the most unsuitable site in the entire county, given that the Project Site was the site of one of the most devastating wildfires in Shasta County history, and is now again covered with densely packed highly flammable pines and firs that could spark another wildfire in the same area.

P20-34 cont.

Put another way, by unduly rejecting consideration and discussion of any other similar projects, and any other more suitable locations, which together means the rejection from discussion or consideration of any other alternatives at all, the County has violated CEQA's requirement to consider and discuss a reasonable range of alternatives. As discussed previously, Alternatives 1 and 2 are not really alternatives at all, because they simply discuss movement of a few of the 72 turbine sites, while the defective vague project description itself never committed to build 72 or 38 or any other number of turbines in any fixed locations in the first

place, or even committed to how many turbines would be built at all. If the project description had properly described only 38 sites, for the slightly taller turbines, and eliminated 44 of the 72 proposed turbine sites as unnecessary, and if the sites at issue in Alternatives 1 and 2 were among the as yet unidentified 44 sites eliminated, those Alternatives would make no sense, and not be alternatives at all. The "Alternative" of building only 38 slightly taller turbines, is not presented as an "Alternative" in the DEIR, to be considered or discussed, studied or analyzed, it is subsumed in an impermissibly vague project description, just as Alternatives 1 and 2 make no sense and are not alternatives at all if the project description is so vague as to not commit to any specific number of turbines of any specific height at any specific sites. Thus, the DEIR at present really does not consider any reasonable, feasible alternatives at all.

While CEQA does not require *every* reasonable, feasible alternative to be discussed and analyzed, it does require a "reasonable range" of alternatives to be discussed and analyzed. **Here the County created artificial constructs, throughout the DEIR, in a transparent attempt to eliminate from consideration any reasonable, feasible alternative to the Project at all, apart from Alternatives 1 and 2, which both are the same Project, at the same site, with a few turbines eliminated or moved around like deck chairs on the Titanic, in a transparent attempt to avoid discussing alternatives that would keep the ship from hitting icebergs, sinking, and killing most of the people onboard, or in this case, from alternatively locating the Project somewhere outside a high fire danger zone and away from population centers where there would be little or no adverse wildfire, visual or other negative impacts.** This portion of the DEIR is plainly inadequate under CEQA.

P20-34 cont.

Another way the DEIR tries to avoid the consideration of any other sites, or any other similar projects, any of which would likely avoid almost all of the significant negative impacts of the Project on this site, is by unduly restricting the Project Objectives to 216 MW of wind power in Shasta County next to pre-existing power lines and infrastructure to connect to the Northern California grid, so that the County can later claim that no other site, and no other project, could fit these criteria, and therefore no other alternatives need be considered. This is the type of tautology discussed previously. To illustrate the problem, suppose that the

Comment Letter P20

County's DEIR proposed to build up to 72 turbines comprising nameplate capacity of up to 216 MW on the middle of the Sundial Bridge in downtown Redding. And suppose further that the County framed the Project Objectives as building 216 MW of wind power on a large white bridge across the Sacramento River near downtown Redding. Then, after hundreds of objections, that a giant wind power project in the middle of the Sundial Bridge is inappropriate, unsafe, and would have a myriad of significant unavoidable environmental impacts, the County prepares a DEIR that refuses to consider building the Project at any other location because CEQA does not require the County to consider any other location, and because the main project objective was "to construct a wind energy project on a big white bridge over the Sacramento River next to downtown Redding" and given that these are the main objectives, no other alternatives will be considered. This is exactly what the County has done here.

A court is likely to reject the narrow construct of the Project Objectives that the County designed in order to try to avoid consideration of any alternative projects or locations, and focus instead on any legitimate objectives such as local or state needs or programs that the project is intended to fill.

P20-34 cont.

In this case, there is one such program identified in the objectives, SB 100. It may be true that building a 216 MW wind power project at the Project Site could be argued to be consistent with the goals of SB 100. But even so, the County has not considered a reasonable range of alternatives that might also assist the state in obtaining the goals of SB 100 without all of the negative environmental impacts to residents of Shasta County posed by the proposed Project. Such reasonable range of alternatives would begin with other types of alternative energy projects, such as solar, hydroelectric, and cogeneration facilities, including building such other alternative energy facilities at alternative locations (not in high fire danger zones, not close to cities or towns, not in the headwaters of pristine stream systems, etc.). But the County refuses to consider any such alternatives at all, which violates CEQA. Next, one might consider as within the reasonable range of feasible alternatives conservation and demand-side management, other distributed energy resources, or improving the efficiency of the existing electrical structure in California, since SB 100 only sets as goals of requiring a certain percentage of the electrical power in California coming from qualifying renewable

energy sources by certain target years. Conservation, and use of less electricity by the public, industry, and agriculture, or advances in technology and energy efficiency, could meet the goals of SB 100 without building the largest wind power project in Northern California in the highest fire hazard zone in the State, but the County refuses to consider any such alternative, even though such alternatives would be among those in a reasonable range of alternatives to assist the State in achieving the goals of SB 100.

This DEIR is also impermissibly designed to avoid having to analyze, discuss, or respond to the fact that there is no need for 216 MW of additional wind power in Northern California. The current Hatchet Ridge wind project, already installed in Shasta County, is performing well below its nameplate capacity on a consistent basis, and approximately 20% of the electricity produced by that project is curtailed. That means that 20% of the power produced by the already existing wind project in Shasta County is not needed, and is actually refused, by the operator of the Northern California grid. There is no evidence in the DEIR that the grid operator or PG&E is requesting additional wind power be supplied into the grid from Shasta County or from anywhere. Indeed, Shasta County and other areas of Northern California are experiencing less demand for electricity, not more, and the Northern California grid is currently unsafe, and the source of multiple wildfires, even in recent weeks, and is likely unable to safely handle the additional power from the proposed Project.

P20-34 cont.

But none of this is discussed in the DEIR, because of the false construct used to eliminate all discussion of any reasonable feasible alternatives, much less a reasonable range of alternatives.

Next, even assuming that more wind power into the grid is needed or desirable, and ignoring that no proof or analysis of this is offered in the DEIR (wind power being notoriously unreliable, as the wind doesn't blow 24 hours a day, and sometimes doesn't blow much at all for several days), one would expect a reasonable range of alternatives to also include reasonable and feasible alternative sites for a 216 MW wind project. But the County also rejects and refuses to consider any and all alternative locations for such a project.

Comment Letter P20

The reasonable range of alternative locations that might be considered, had the County chosen to comply with CEQA instead of trying to avoid consideration of any alternatives at all, would likely include two different types of alternative locations. The first would be repowering of existing wind power facilities. There are many existing wind power facilities that are no longer operating, or are operating inefficiently, and which could be "repowered" meaning that the existing turbines could be decommissioned, and new larger more efficient turbines installed in their place. This is obviously desirable because many of the negative environmental impacts of such projects (such as negative impact on viewsheds, roads, and infrastructure), have already occurred, and not much in the way of additional negative impacts would be imposed by replacing old turbines with new ones. Indeed, there would potentially be many benefits. And all of the negative impacts of building a new massive wind turbine facility in the highest fire danger zones in the State (this Project) in a pristine watershed, ruining the scenic views for 180,00 residents and millions of tourists, would all be avoided. The scoping comments suggested several potential repowering sites, such as Dillon, Tule Wind, Phoenix Wind, Manzana Wind, Mountain View III, and Shiloh, all of which are already owned or controlled by the Project Applicant or its affiliates. There are many other additional wind facilities that could be acquired by the Applicant and repowered, other than the ones already owned by its affiliates. In the present case, the Project is merely leased, not owned by the Applicant. The Applicant could easily lease other lands that could be used instead, without all of the negative impacts. But the County won't consider any such alternative site, or any other alternative at all, saying that it will not consider any repowering alternative for the same reasons it won't consider any alternative site.

P20-34 cont.

The second type of alternative that would still involve building 216 MW of wind power, would be building this Project or a similar project, but at another more suitable location, outside of a high fire danger zone, and outside of the view shed of a major city like Redding, or the I-5 corridor that services millions of vehicles and tourists every year, and that does not adversely impact sacred Tribal lands. But the County categorically refuses to consider any alternative location anywhere else, no matter how superior, much less a reasonable range of alternative locations.

Comment Letter P20

The County even refuses to consider any alternative locations within Shasta County, where there may be alternative areas that do not pose the high fire danger (such as bald ridges far to the East that have no trees), and which cannot be seen from Redding or I-5. But the County uses the same circular logic--if the Project is to build 72 wind turbines in the middle of the Sundial Bridge, we will not consider any alternative location, because then it would not be 72 wind turbines in the middle of the Sundial Bridge. (Or to be fair, replace "Sundial Bridge" in the above sentence with "Project Site"). It may be that building the Project or a similar project at a more remote location that would not have as many adverse impacts, and no fire danger at all, might be somewhat more expensive, but CEQA provides that this is just one consideration, and that would be no excuse for refusing to consider any alternatives at all.

Similarly, it is likely that there are more suitable locations outside of Shasta County, particularly in large windy areas of California that already have thousands of wind turbines, and already have the associated substations and high power lines to connect to. But here, the County has created additional objectives of 12 new jobs in the County and increased tax revenue to the County, to try to justify the notion that the Project has to be located in Shasta County (even though at the same time the County refuses to consider any alternative locations in the County). Even if the County were in a new DEIR to consider alternative locations within the County, any continued refusal to consider alternative locations outside the County, would still violate CEQA. This is so because the consideration of reasonable alternatives is subject to a rule of reason.

P20-34 cont.

No one would locate and build a billion dollar massive electrical project in the highest fire danger zone in the entire State for the purpose of creating 12 jobs. Setting aside the fact that the Applicant may bring 12 people in from out of state to fill those jobs, and may also bring from outside the county or State temporary construction workers with special expertise to build the project, the benefit to the County in terms of jobs is de minimus, and ignores all of the jobs that will be lost in the County due to a decrease in tourism, and by creating an inter-mountain area where no one will want to live. Thus, many local businesses will likely have to close, for lack of business, and more than 12 jobs will likely be lost, not gained.

Similarly, such a huge project will no doubt decrease county tax revenues. Less tourists means less hotel taxes, less sales taxes, and less business activity overall in the Eastern part of the County, and possibly even in Redding. Property values in the inter-mountain area will plummet. They already have, just by the threat that the Project might be built someday. Many homes in the inter-mountain area may end up being abandoned, or at a minimum rents will go down if anyone is willing to still live there at all. Similarly, there will be increased costs to the County from increased homelessness, drug addiction, depression, possible suicides, and all of the other social ills that come from trying to live in the shadow of massive wind turbines, or generally trying to live in depressed communities. The Project will likely create a downward spiral for the local communities there, again, as less people will want to live there, or even travel to that part of the County. All of this will negatively impact County tax revenues, setting aside the human tragedy of it all.

So there is no benefit to the County from this, and any "reasonable range of alternatives" would have to include alternative locations outside the County as well, particularly in areas of the State that are far removed from population centers, and which already have thousands of wind turbines such as San Gorgonio, Tehachapi, Altamont Pass, and the central Delta, among others.

P20-34 cont.

7. The DEIR Fails To Disclose That These Turbines Are Far Larger Than Most of The Wind Turbines in California, That The Taller Turbines Proposed Are Untested In The Field, And That Few If Any Have Ever Been Constructed In California or Elsewhere In the United States, Such That They Have No Record of Safe Operation.

You would never know this from reading the draft EIR, that the proposed turbines would be among the largest and tallest turbines ever built in California, or even in the entire United States (such facts being wholly excluded from the Draft EIR). Such excessively tall turbines comprise untested, new technology that could itself pose new and different risks, none of which are addressed in the Draft EIR. Indeed, Figure 2-4a in the Draft EIR is false and misleading, in that it is meant to depict "typical turbines" and doesn't even show the tallest proposed turbines for

P20-35

this Project which are so tall than they would be off the page in Figure 2-4a, taller than the highest level shown on the chart.

The proposed turbines, moreover, would be the largest construction project in the history of Shasta County, apart from Shasta dam, and each of the proposed 72 turbines (or 38 if the tallest were selected on yet unidentified sites) would be as tall or taller than Shasta dam—again, such facts are completely absent from the Draft EIR. Each proposed turbine would be far taller than the Statue of Liberty (another fact excluded from the Draft EIR). If the County were to be honest, the DEIR would disclose that the Project proposes to construct and operate *72 massive and giant structures, each one alone a skyscraper in its own right, with moving parts and flammable and combustible materials, in the highest fire danger zones of the State, each of which would alone be the tallest structure ever built in Shasta County or in any of the 13 northern California counties, each taller than the Statue of Liberty, each as tall or taller than Shasta Dam, each taller than any of the Pit River dams, and together a massive eyesore spread over tens of thousands of acres essentially ruining the views from most of Shasta county forever.* This would be a far more accurate description of the Project than what is contained in the draft EIR.

P20-35 cont.

Virtually no one has ever seen turbines this tall in real life, because none this tall have ever been built in Northern California to my knowledge. There are no pictures of these turbines (assuming some that tall have been erected elsewhere in the country or the world somewhere) in the Draft EIR. There is nothing in the Draft EIR that really shows the incredible scale of these turbines, and as noted the one drawing, Figure2-4a, is false and misleading. Why are there no comparison pictures in the Draft EIR to show how much larger the proposed 72 (or even taller 38) turbines are than the much smaller (and fewer) turbines in the Hatchet Ridge project? Why is there no accurate depiction of what the turbines would look like to nearby homes and communities, including to homes and businesses in close proximity, such as homes in Montgomery Creek, Round Mountain, and Moose Camp? Why is there no picture of what the 72 turbines would look like from all points of scenic Highway 299, from Redding to Hatchet Ridge, from Anderson to Lakehead? Why is there no picture of what it would look like to look up at one of these monsters from a car driving beneath them on Highway 299? The drawings

and pictures in the draft EIR are insufficient to demonstrate to decision-makers and the public how large the scale of these new taller turbines really is, how much larger and taller they are than the Hatchet Ridge turbines, and what they would look like from different points near and far. The small number of pictures in the DEIR now do not convey the scale and are designed to make it look as though the wind turbines will be virtually invisible from a few miles away, and are therefore inadequate and misleading. It is not clear whether the DEIR currently contains any depictions of the 679 foot tall turbines at all.

P20-35 cont.

The proposed Project would further pose significant unavoidable harms and hazards, not adequately addressed in the Draft EIR, including significantly increased risk of wildfires that cannot be adequately mitigated. The wildfire risk posed by the Project should clearly be denoted in the Draft EIR, even if mitigated, as unavoidable significant harm (or if truth be told, unavoidable risk of "catastrophic" harm from wildfires), for all of the reasons set forth below.

8. The Risk of Catastrophic WildFire Cannot Be Adequately Mitigated, and the Discussion of Wildfire Risk is Insufficient Under CEQA and Therefore Violates CEQA.

As discussed in more detail below, there have been insufficient studies done, and the Draft EIR does not provide sufficient evidence or analysis to support, the erroneous and unfounded conclusion in the Draft EIR that the proposed mitigation measures for wildfire risk will reduce a "significant impact" to a "less than significant impact." Just ask the families of the dead in Paradise, or families of victims of the Carr Fire, or Zogg fire, or many of the other fires in California, Oregon, and Washington in recent years, if carrying a fire extinguisher on a truck, or some other minor measure listed as "mitigation" for fire in the Draft EIR would have actually prevented any of disastrous wildfires in Shasta county or other similar high fire risk areas that have cost so many lives and caused billions of dollars of damages in recent years.

P20-36

No study of the over 8500 wildfires in California in 2020 is provided, much less any study of the dozens of major fires this year, or in recent years, or in the last

100 years, in the Draft EIR. No study of increased risk from wind turbines, and from utility lines, that have been the cause of many major fires, even going so far as to bankrupt PG&E, the largest utility in the country, is provided in the draft EIR. A study of every fire caused by, or within a wind turbine development, anywhere in the world, in the last 50 years, should be provided in the Draft EIR. There is no study in the draft EIR of additional risk posed by the fact that the proposed turbines are far larger and taller than most of the thousands of other wind turbines in California, and that there is no multi-year history or evidence that these new monstrosities do not pose unique risks of their own, which could add to fire risk. There is no study of why there are very few, if any, wind turbine projects in the world that are sited in high fire danger areas, such as timberlands, particularly in areas that have been the subject of frequent lightning strikes, and catastrophic fires, like Northern California, and in particular, Shasta County. There is no study of the diminished risk of siting wind farms in areas with no trees where there is little or no risk of wildfires in the DEIR, and as noted, no discussion of this obvious reasonable alternative to eliminate wildfire risk.

P20-36 cont.

Moreover, there is no mention in the DEIR of the fire caused one year ago in Washington by a similar wind turbine project owned and operated by an affiliate of the project Applicant in the draft EIR. In that case, a wind turbine caught on fire, literally shed burning material down and spread fire out into the surrounding area. Likely nearly all of the same "mitigation measures" were in place in that project, but a turbine still caused a wildfire. That project was built in the high desert among scattered Junipers, and therefore the fire, which spread to 500 acres and took several days to extinguish, was less severe than what would have happened if the same fire occurred in the Project Site, which spreads over thousands of acres of heavily forested land that poses a much greater fire danger than the land around the recent turbine fire in Washington. No analysis of this is provided in the draft EIR, no study of the increased risk if such a turbine fire occurred here. No study of why the "mitigation measures" in that project did not prevent that fire. No comparison of those "mitigation measures" to the ones proposed here, which might prove that they were ineffective in preventing the Washington fire, and therefore likely ineffective for preventing such a fire here. No mention or study of that event or of similar events in wind farms around the world in the Draft EIR is provided at all. The failure to do such studies, and

Comment Letter P20

analyze them in the DEIR, renders the fire risk discussion in the DEIR inadequate and therefore violates CEQA.

Similarly, there is no study and no evidence from actual helicopter pilots who have fought wildfires in Shasta County, as to whether these "tallest ever to be built in Northern California" turbines would be an impediment to fighting a fire in the Project site, and if so, what the increased risk of spread to surrounding areas would be from the inability to use aircraft to fight a fire in the Project site, and therefore increased risk that such a fire could become another Carr fire and burn into Bella Vista or Redding. There are no statements under oath or reports or statements from pilots, or from Cal Fire, or from search and rescue personnel that use helicopters in wildfire situations in Shasta County or surrounding counties, as to whether helicopters would be allowed to be flown among these turbines during a wildfire, or what other limitations or impediments the turbines might pose to firefighters. The reference to events in Australia are incomplete and inadequate. Substantial evidence that wind turbines have restricted aerial fire fighting efforts in Australia is provided with this letter as part of Exhibit A, directly contradicting the unsupported statement in the DEIR to the contrary.

P20-36 cont.

Moreover, we have had massive fires right here in Shasta County this year and in recent years, and even in the Project site itself. Helicopters borrowed from the Carr fire were used to help put out a fire in Montgomery Creek two years ago, during the first week of the Carr fire, but there were no 679 foot tall wind turbines in the way then. That fire could have easily spread to become another Carr fire were it not able to be attacked from the air. As it was, the entire town of Montgomery Creek had to be evacuated for two days. None of this is disclosed, discussed, or analyzed in the DEIR. Helicopter pilots right here in Shasta County should be able to speak to the issue, but none have been interviewed, and no study of this is offered in the DEIR.

Airplanes have also been used to fight fires in this County, but nothing in the Draft EIR indicates that actual pilots of air tankers used to fight fires in Shasta County have been interviewed, or any evidence compiled as to whether the Project would essentially become a no fly zone during a wildfire because of the turbines. No study is offered from Cal Fire of the risks for firefighters and pilots posed by

such large wind turbines spread across thousands of acres in a high fire danger zone that is sure to burn at some point in the 40 year life of the proposed Project. Similarly, no study of the increased risk to firefighters or the public if helicopters and airplanes could not be used to effectively fight a fire in the Project site has been done or analyzed. No study of how quickly the inability to use helicopters or airplanes would add to the spread of a fire, further jeopardizing lives in the surrounding communities, has been done. No study of what greater risk to the lives of firefighters and rescue personnel is posed if the presence of the turbines would negatively impact the ability to use helicopters to rescue injured fire fighters has been done. All such studies, if done, would likely suggest that such a Project never be built in a high fire risk area of densely packed forest near towns and communities. But like the refusal to consider a reasonable range of alternatives, or alternative sites, the DEIR goes out of its way to not discuss or analyze any of the major fires in Shasta County or Northern California that have recently killed dozens of people and caused billions of dollars of damages, such as a study of how fast each such fire travelled after ignition. For example, if such a fire traveled several football field lengths per minute, all of the "fire plan" for the Project would not turn a "substantial risk" into a "less than significant impact" as is the bogus unsupported conclusion in the DEIR now. Nor has a definitive study been done of the exit routes for each of the residences in a 50 or 100 mile radius, as a wildfire started in the Project site could quickly spread to surrounding communities and block any exit on Highway 299 as occurred near Mammoth Pools Reservoir earlier this summer, in the Delta fire two years ago (which closed Highway 5), in another fire this year that closed Highway 5 in southern Oregon, and in Paradise in the Camp fire two years ago, tragically killing dozens of people, and as has occurred in many other recent fires. There is no mention, much less an analysis of what happened in any of those fires, and why people were unable to get out in time, in the Draft EIR. In the recent Creek fire, which is still burning during the public comment period of this DEIR, over 200 people had to be airlifted by helicopter when the only exit road was blocked by the fire. There were and are no wind turbines there, but what if people had to be airlifted from among the turbines at the Project site (Project personnel, or firefighters, or homeless people or residents lost in the smoke, or residents of Moose Camp trying to flee through the Project site)? If they could not be rescued from the air, because the turbines would essentially create a no fly zone, what would happen to those people? The

P20-36 cont.

Comment Letter P20

answer is sad, and can really only be "mitigated" by building the Project somewhere else, outside of a high fire danger zone, in order to avoid any such situation from happening.

The DEIR says that the mitigation for this problem is that the Project will give the GIS coordinates of the turbines to Cal Fire. That's it. The impediment to arial fire fighting among 72 of the tallest structures ever built in the North State, in dense smoke and chaos of a fastly moving wildfire in the crowns of the densely packed pines surrounding the turbines for tens of thousands of acres, is that the locations of the impediments will have been given to Cal Fire. That's it. The obvious implication of this is that Cal Fire will use the GIS coordinates to map out a huge no fly zone over the Project site and surrounding area, eliminating the possibility of aerial fire fighting and eliminating any rescues from the air. There is no study presented, no facts at all, to counter the obvious significant unavoidable and unmitigated negative impact here, that the entire Project Site would likely become a no fly zone. The DEIR presents no substantial evidence to the contrary. If any fire there could not be fought from the air, and no rescues from the air could be performed, it also follows that the fire would be more likely to spread beyond the Project area more quickly to become another Carr fire, or August Complex, threating surrounding communities, and Burney to the East, and Bella Vista and Redding to the West. In short, the presence of the turbines could not only start, but also exacerbate any fire, and also impede firefighting efforts from the air and otherwise, and this simply cannot be adequately mitigated.

P20-36 cont.

In short, there have been no real studies done of the impact of the turbines on arial firefighting efforts, air rescue efforts, or on the resulting additional spread of a wildfire for lack of arial firefighting, posed by the Project. Nor is there any study included of how or where a wildfire in various portions of the tens of thousands of acres in the Project leasehold might spread, in what directions, or at what speed, or of how much time, if any, local residents would have to evacuate, and whether, even with mitigation measures, there is still a very real possibility of a Camp fire-like event, with dozens of people dying, unable to get out in time, given the fact there is only one highway in or out, and such highway might be blocked by fire, or by burning cars, as occurred in Paradise. No mitigation measures can change the fact that there is only one two lane highway, Highway 299, in or out of

the area, and therefore if Highway 299 is blocked, there is a very real possibility the local residents may not be able to get out in time. This cannot be mitigated, and therefore the wildfire risk cannot be reduced through mitigation to be a "less than significant" impact as a matter of law.

There is simply insufficient evidentiary support in the Draft EIR, and several additional studies would have to be done of other wildfires, how they were caused, how fast they spread, the devastation caused by each, and the effectiveness or ineffectiveness of each of the so-called "mitigation measures" proposed, to see if such mitigation measures, if employed, would have prevented each of those wildfire situations, 8500 of which occurred in California this year alone. The reality is the site is clearly unsuitable, and the Project should not be built in a high fire danger zone where, as here, there is only one two lane highway to get in or out of the area in a wildfire situation, and that highway could be blocked by fire. It is likely, if proper studies were done and included in the DEIR, that with the added impediments of 72 skyscraper structures in the fire zone, any fires caused by or that occur in the Project Site would be even worse than baseline conditions because of the presence of the Project. Common sense dictates this, but the point is that no study has been done and no substantial evidence offered to support a conclusion that the mitigation measures proposed would make the fire danger from placing a massive industrial wind turbine project of the type known to cause wildfires in the middle of the highest fire danger zones in the State, and the existence of which would exacerbate any fire and impede arial fire fighting efforts, yet somehow the risk, after mitigation, is a "less than significant impact." The evidence and analysis on this subject in the DEIR is woefully inadequate and insufficient to support such a conclusion, and therefore this section of the DEIR violates CEQA.

P20-36 cont.

It is highly unlikely that the so-called mitigation measures noted in the Draft EIR would eliminate fire risk, back to baseline levels, and would have prevented each of the thousands of wildfires that occurred in California this year if they had occurred at the Project site. Indeed there have been in the past, and will in the future be, tens of thousands of fires in California during the 40 year life of this Project. The last major fire on the Project Site itself, the Fountain Fire, was the 20th largest fire in California history, and among the top few major fires in Shasta County history, and it occurred less than 40 years ago. The project site has

burned before, has now been replanted, and is likely to burn again, but such a fire would have an even greater potential to occur and become catastrophic if the Project is built there because the Project itself is much more likely to cause additional fires that would not have occurred if it was not built, as the Project creates thousands of additional potential ignition sources and locations throughout an area of several thousands of acres located in the highest fire danger zones in the State.

It is more likely that adequate studies, not yet performed or included in the DEIR, would show that the presence of the Project would exacerbate the fire risk in the subject area, even with the mitigation measures in place. But none of the major fires in Shasta county, or in other nearby counties, many of which have been declared State or national disasters, are analyzed in the draft EIR at all. **All of these additional studies need to be done, and the results analyzed, before the County could ever conclude under CEQA that such so-called mitigation measures, again akin to rearranging the deck chairs on the Titanic, would mitigate to a "less than significant impact" the extreme catastrophic fire risk posed by building the proposed Project in one of the most fire-dangerous sites imaginable in the entire State of California. Indeed, nothing can adequately mitigate the insanity of constructing and operating 72 of the largest wind turbines ever built and intentionally locating them in the highest fire danger zone in the county, and indeed the entire State of California, in the middle of a tinder dry forest of highly flammable, densely packed pine trees, while refusing to consider much less address any alternative of locating the Project somewhere else where there is less risk, or no such fire danger at all, such as on treeless ridges elsewhere in the County or in other counties.**

P20-36 cont.

And while failing and refusing to conduct any such studies, or to even consider building the Project in a different site with less fire risk, the Draft EIR cavalierly concludes, that after proposing to adopt some minor mitigation measures, like spark arresters, a fire prevention plan that is not provided and is of unknown content, and fire extinguishers, etc., there will be a "less than significant impact" from risk of a catastrophic wildfire. This ridiculous conclusion is clearly wrong, unsupported, and unsupportable. There is significant increased wildfire risk posed just by lightning that routinely occurs in the Project site (which lightning

will naturally seek out 72 of the largest and tallest metal structures ever built by human beings in a tinder dry forest, and which lightning could splinter on impact to ignite the surrounding forest). So again, in proper context, the DEIR should disclose that the Project is really a proposal to build 72 of the largest lightning attracting structures ever built by human beings, in the middle of the highest fire danger zones in California, a state large parts of which are still on fire as of this writing. Even if a fire is caused naturally, the existence of this massive project there will pose additional complications to fire fighting and could delay efforts to keep such a fire from spreading to surrounding communities. There is also significant risk of fire being sparked by human negligence or by the wind farm operations themselves, or by all of the additional human activity on the site, that otherwise would not be there at all. Or a fire could be sparked by the turbines themselves catching on fire and not self-extinguishing before spreading sparks from on high to the surrounding forest. See Exhibit A to this letter. There is simply no way that all of these dangers can be adequately mitigated to somehow pose a "less than significant impact."

P20-36 cont.

This shortcoming of the Draft EIR alone, only underscores the truth of this matter—that any wildfires that may occur as a result of, or be exacerbated by, this Project, and that could occur from any number of potential causes, will likely, if and when they occur, completely destroy a good portion of Shasta County, kill many dozens if not hundreds of nearby residents trying to flee for their lives, destroy dozens if not hundreds or thousands of structures and homes, cause billions of dollars of damages, and could actually burn many men, women, and children alive, as has occurred in recent fires in Shasta county and neighboring counties, including in the recent Zogg fire in Shasta county, which occurred in the last 30 days and is not even mentioned in the Draft EIR.

If allowed to stand, the unsupported conclusion in the Draft EIR that the mitigation measures proposed will transform the significant wildfire risk—itself truly a catastrophic risk—into a "less than significant impact," could also very well become the subject of future trials, both civil and possibly criminal, to assess liability and responsibility for any wildfire that occurs on the Project site. This is not hyperbole. PG&E was found criminally liable for the natural gas explosion in San Bruno in 2010 by a federal jury, and more recently pled guilty to 84 counts of manslaughter for fire deaths in Butte county allegedly caused by

Comment Letter P20

PG&E electrical equipment. There were hundreds of court cases against PG&E arising out of fires caused by electrical lines in recent years, driving it into bankruptcy in the face of tens of billions of dollars of claims, and possible PG&E negligence is under investigation as the cause of the Zogg fire less than 30 days ago which burned several Shasta County residents alive. This is a very serious matter, and the fire risk portion of the Draft EIR is wholly inadequate and unsupported by sufficient studies to ever conclude that the fire risk posed, with some mitigation measures akin to more rearranging of deck chairs on the Titanic, is a "less than significant impact."

The Fountain Wind Project could cause or contribute to a catastrophic wildfire that could cost the lives of many innocent citizens in the intermountain communities, and could further cause the destruction of hundreds of homes and businesses, and indeed entirely destroy a large part of Shasta County. This risk is not adequately studied or addressed in the DEIR. Such a fire with attendant loss of life will result in hundreds of lawsuits against the Project (which will likely file bankruptcy), and against the County, if it willingly continues to refuse to consider alternative sites for this Project that do not pose such fire risk (as the current Draft EIR refuses to do), and concludes based on insufficient studies and insufficient evidence and analysis, that the Project poses "less than significant impact" in terms of fire risk, which will never stand up in Court when hundreds of injured plaintiffs sue the County. Such a bogus unsupported conclusion cannot withstand scrutiny under any judicial CEQA review, given all of the recent catastrophic fires in Shasta County and neighboring counties in recent years caused by electrical infrastructure or power lines, all of which is largely ignored in the draft EIR (some fires are mentioned or listed, but not studied or analyzed). **Nor is the risk of large fires causes by dry lightning storms sufficiently analyzed, given that the turbines and other Project infrastructure will attract more lightning strikes in the Project area. (Wind turbines attract lightning).**

P20-36 cont.

Such lightning fires have become massive infernos in recent years, burning across various counties in Northern California and elsewhere. The recent August Complex fires, the largest fires in California history, some of which are still burning as of this writing, have burned over 1 million acres and spread across several counties. These fires all over California this summer were caused by

hundreds or thousands of lightning strikes in a short period of time, causing hundreds of fires, many of which combined to form even larger fires, which then spread quickly to become raging infernos over vast areas of California. The proposed Project and its turbines could draw more lightning strikes to this extreme high fire danger area of Shasta County, causing, potentially, even worse fires than what Shasta county and the rest of California have recently experienced.

The recent fire in Santa Cruz County (started by the same dry lightning storms as the August Complex and many other fires this summer), burned 29% of the land area of that county. It destroyed over 900 homes, and killed one person who could not get out in time. That fire, like others in the State, was actually the result of twenty fires caused by the same lightning storm that combined to one giant fire in a short period of time. That is but one recent example of a large portion of an entire county being burned by a complex of lightning fires. The same type of complex fire system, with multiple fires burning out of control across a wide area, could easily occur in the Project site and surrounding area, as a result of this Project attracting lightning strikes, or otherwise causing fires from human activity, machinery, or Project operations, and these types of complex fires should be studied in the Draft EIR, as well as contingency plans to address such a complex of multiple fires across thousands of acres littered with giant monstrous wind turbines. Several catastrophic fires in Northern California, none of which are analyzed or studied in the Draft EIR, and many many others, several the largest in history, have all occurred in the last 120 days. Some are still burning as of this writing.

P20-36 cont.

The Carr fire killed several people just two years ago, jumped the Sacramento river, and burned into West Redding, burning over 1000 homes and businesses to the ground, and causing a "fire tornado" seven thousand feet into the sky that could be seen from Space. Why is none of this included in the draft EIR? All of this information should be. It appears human negligence was the cause. Also human negligence was the possible cause of the Fountain Fire, in the very Project site at issue in the early 1990's. The Camp fire, in Paradise, burned the entire town of Paradise, and killed dozens as they tried to flee for their lives, but could not get out in time. I believe it has been concluded that electrical lines were the cause.

Same for catastrophic fires in Santa Rosa I believe. Many of these fires grew to thousands or tens of thousands of acres within hours. **The mitigation measures proposed in the Draft EIR are plainly insufficient to have prevented or put out most of these tragic fires quickly before they spread, had they occurred in the Project site. The proposed mitigation measures are insufficient to stop the spread of fires in the Project site before they become major conflagrations and human tragedies, particularly because fires spread more quickly in the highest fire danger zones, and in steep inaccessible areas such as this, and in areas of high winds such as this. So there is no way that the fire risk posed by this Project, which is ill-advised to be located in the highest fire risk zone in the State, can ever pose a "less than significant impact". That is simply not possible in the highest fire risk zone in the State, and the conclusion of "less than significant impact" is pure nonsense, and is unsupported by substantial evidence. To have a 216 MW wind project at this site no matter what the cost, when there is no reason to have any additional wind turbines in Shasta County at all, is beyond negligent and short sighted.** Clearly the Draft EIR was prepared by a biased consultant for a biased audience in the Planning Department that wants more wind power, regardless of the cost and risk to local residents and regardless of the permanent damage to the scenic beauty of our county that draws tourists from around the world and is one of the main reasons we all live here. The destruction of our beautiful county should not be the price paid to advance the "green power" goals of the Planning staff's progressive politics, especially when it is totally unnecessary. **This Project can be built elsewhere, on a different site that doesn't pose the same fire risk, such as on bald ridges in the eastern part of the County, or in another county, and still meet the green power goals of the progressive left.**

P20-36 cont.

That the Draft EIR is clearly biased in favor of the Project and the construction of more wind turbines in Shasta County, regardless of the costs in terms of human life and environmental consequences is even more alarming when one considers what the consequences of another devasting wildfire in the county would be. The consultant and the Planning Department should not be willing to turn a blind eye to the catastrophic fire risk to county residents posed by this Project and the vast human tragedy that would unfold from such a fire. The obvious answer to this problem is to build the Project somewhere else where there is no extreme fire

risk. To site such a wind project in the middle of a tinder dry forest in the highest fire danger area of the State is beyond reckless.

After such a fire, if it occurs and people die, it is quite possible that this Draft EIR or Final EIR (if it doesn't change), will be part of the evidence in civil and possible criminal trials against the County and/or County officials, just as evidence of PGE's conduct leading up to the San Bruno disaster was admitted into evidence in PG&E's criminal trial not too long ago (PG&E was found guilty), and would have been admitted in the criminal trial of PG&E in Butte County, if PG&E had not plead guilty to 84 counts of manslaughter there recently after 84 wildfire deaths attributed to electrical equipment there. And those who prepared this DEIR, or passed upon its adequacy, will be called upon to testify as to why they refused to consider alternative sites that would not pose the same extreme fire risk, and how they concluded, against all available evidence, that with certain mitigation measures, there was no significant fire risk posed by the Project, and that if mitigated by mitigation measures that will likely make no difference at all, no substantial risk to human life, to homes and businesses, by wildfires at the Project site, and therefore that, if mitigated, there was "less than significant impact." Good luck to county officials who will have to try to sell that to local juries of Shasta county citizens after a catastrophic wildfire that kills dozens of people and burns hundreds of homes, like the Carr fire. Try selling that to a jury if a fire starts in the Project site due to a fire in one of the turbines, or lightning striking the turbines, or human negligence in connection with wind farm operations. The project itself, facing billions in damages (as PG&E did from recent fires) will go bankrupt, just like PG&E, and hundreds of plaintiffs will sue the County as the deep pocket, potentially ruining the County forever and forcing the County into bankruptcy too. Yes, counties in California have gone bankrupt before. Is it really worth it, or can the county consider alternative areas of the county for the Project that would not pose such a high fire danger?

P20-36 cont.

The Draft EIR clearly violates CEQA, and is wholly inadequate in assessing fire risk and the likelihood that mitigation measures won't eliminate all or most fire risks posed by the Project. This is especially true because a fire at the Project site could easily quickly spread and become catastrophic. Moreover, given the location, the draft EIR should conclude that *any* fire there has the potential to

become catastrophic. The Draft EIR contains insufficient studies or evidence, therefore, to support the bogus conclusion that mitigation measures will turn the risks of a catastrophic wildfire on the Project site into a "less than significant impact." For all of the foregoing reasons, and others, the fire section of the DEIR is inadequate and violates CEQA.

Several additional studies of wildfires in California and elsewhere, and their causes, therefore, need to be done, particularly those involving electrical equipment or lightning, and including whether each of the proposed mitigation measures proposed here, would prevent each such fire. Similarly, comprehensive studies of all fires caused by wind turbines around the world should be done and analyzed. In addition, studies should be done of how fast a fire could spread in the Project site and beyond if one occurred here, how (unlikely) it is that if multiple lightning strikes hitting the turbines and spreading to the surrounding forest causing several fires across the area that the mitigation measures proposed would make any significant difference, studies of the negative impact that the largest turbines ever built, if sited here, would have on fighting such a fire, the increased risk to firefighters, the time necessary for each address in the surrounding area to get its residents out alive, should highway 299 be blocked (as occurred in other similar fire, like Paradise), and so on. No such studies are in the present Draft EIR, and the cursory discussions that at times touch on such matters are inadequate. Indeed, the entire fire risk analysis should be scrapped, and the County should start over, after first analyzing and studying the thousands of wildfires that have occurred in California timberlands in recent years, and the many fires that have been caused by wind turbines around the world. Mitigating to prevent some but not all fires is not good enough. A fire is almost bound to happen (maybe several) on the project site during the 40 year life of this Project, but without 38 or 72 lightning attractive towers, and without those impediments to arial fire fighting efforts, any such natural fires might be more likely to be put out quickly by fire crews and helicopters like the fire in Montgomery Creek two years ago that was contained to 50 acres (while the nearby Carr fire raged to hundreds of thousands of acres, and crossed the Sacramento River into West Redding just a day or two later). The so-called mitigation measures can't fully eliminate the risk of catastrophic fire here, but by building the Project somewhere

P20-36 cont.

else where there are no trees, no forest, the *additional* wildfire risk can almost be completely eliminated.

In sum, the fire risk section should be completely rewritten and, if done properly, will likely conclude, based on actual studies and substantial evidence, that the risk of catastrophic fire is so great here and so serious, that even the suggested mitigation measures would be insufficient to turn the fire risk into a "less than significant impact" and therefore conclude, instead, that the risk of a catastrophic wildfire posed by siting the Project in a heavily forested area that is rated the highest fire risk in the State and in Shasta County, even with the proposed mitigation, poses a significant and unavoidable risk of harm to the lives and homes of thousands of people within at least a 50 mile radius of the Project, including to the entire City of Redding. Indeed, recent fires still burning today have burned across multiple counties, and have burned hundreds of square miles. The Fountain Fire in the subject Project site nearly reached Burney in the 1990's, and a fire starting in the Project site and spreading West could easily burn all of Montgomery Creek, Moose Camp, Round Mountain, Bella Vista and northern and eastern portions of Redding.

P20-36 cont.

These changes to the Draft EIR fire risk section are necessary, not only to comply with CEQA, but if additional studies and analysis concludes that risk of catastrophic fire is unavoidable, even with mitigation measures (like the risk of killing raptors), **the Planning Commission and the public need to know this, so that the Planning Commission can also consider the potential legal liability of the County if it were to decide to proceed to allow the Project to be built anyway, the catastrophic fire occurs, and hundreds of lives are lost and billions of dollars of damages are suffered as a result of the County's permitting decision and refusal to consider alternative sites for the Project.** The County will no doubt face hundreds of lawsuits as a result, and the County, already struggling from covid and other wildfires, may never recover. And, of course, the entire area around the Project site, and the nearby communities, will be destroyed for years to come, none of the Project benefits will be realized, and many lives may be lost or otherwise destroyed.

The County should not issue the requested Use Permit and the Applicant should start looking for an alternative site outside of high fire danger zones. Most all of

P20-37

Comment Letter P20

the sections of the Draft EIR are inadequate and violate CEQA. The Planning Department should ultimately choose the No Project Alternative over the proposed Project, and over Alternatives 1 and 2, which are largely the same as the Project but with a few deck chairs rearranged to deflect attention away from the elephant in the room—that the Project should be sited in another part of the County or elsewhere that is not a high fire danger zone.

P20-37 cont.

More studies are clearly necessary here with respect to the catastrophic wildfire risk and danger here, and all of the additional studies referenced above should be done, and others too if the County was really serious about this. And the Planning Commission should also further consider issuing a moratorium on such permits, while it revisits County zoning ordinances and the General Plan in order to prevent wind turbine projects, including this one, from ever being built in high fire risk zones such as the tinder dry timberlands at issue here. For some reason, the Planning Commission and Board of Supervisors appear unwilling to revisit the County's zoning ordinances and General Plan, even in light of all the wildfires in recent years and loss of life, and it appears, regardless of how many more County residents keep dying in such fires, and regardless of how many more homes or businesses are burned to the ground in fire after fire after fire, the County won't even put the moratorium request on its agenda, much less on the ballot.

P20-38

The DEIR should disclose why the Planning Commission and Board of Supervisors won't put the Stop Fountain Wind moratorium request on the agenda of any public meeting for discussion. People are dying in these wildfires. More people were burned alive from wildfire just two weeks ago. The DEIR should disclose the Moratorium request from the Stop Fountain Wind organization and disclose all of the reasons why (if there are any) County officials refuse to discuss or consider, much less issue a moratorium in order to have time to study recent wildfires and problems with electrical lines and infrastructure starting many such fires, and then revisit zoning and the General Plan and consider changes that would ban industrial wind turbine developments in high fire danger zones. These many failures and gross negligence by the County will be prominently featured front and center in the Plaintiffs' cases against the County if the Project causes a major wildfire, goes bankrupt, and hundreds of victims sue the County for billions of dollars and force the County into bankruptcy too. As stated previously: Can't happen? Just ask PG&E.

P20-39

Comment Letter P20

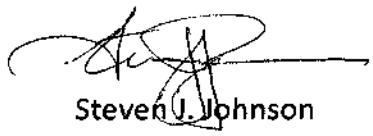
The fire risk section of the Draft EIR should be a total embarrassment to Shasta County. It needs to be completely redone after additional studies and analyses mentioned in this letter, including risks to firefighters, helicopter pilots, rescue crews, and of course the general public left to try to escape a fast moving wildfire without being killed. The "less than significant impact" conclusion after the supposed mitigation measures is unsupported and unsupportable under CEQA, and the fire risk section is inadequate and lacks substantial evidence for its conclusions and therefore violates CEQA for too many reasons to count.

P20-39 cont.

Please don't finish reading this letter without looking at the attached pictures and materials and seriously thinking about the consequences to real human beings, including families, children, friends, neighbors, and even the elderly in our beautiful county, all of whom live here for a reason, and all of whom enjoy the views of our beautiful mountains, and who love this county that you propose to ruin forever. Consider the people who could potentially lose their lives, homes, or businesses in the next horrific wildfire. Please consider what you are doing carefully with this DEIR in refusing to consider alternative locations for this project that do not pose the risks of multiple irreparable harms that this worst of all possible sites for a project like this poses to the residents of Shasta County.

P20-40

Sincerely,



Steven J. Johnson

Letter P20: Steven J. Johnson

P20-1 The commenter's preference for hydroelectric power over wind power is acknowledged. See Final EIR Section 2.1.1., *Input Received*, regarding comments that do not bear on the adequacy or accuracy of the EIR.

P20-2 Regarding the County's consideration of COVID, see Response P6-2. As explained in Final EIR Section 2.1.1, *Input Received*, requests that the County undertake a Countywide planning effort specific to the siting of wind energy generation projects do not bear on the adequacy or accuracy of the County's CEQA analysis of the proposed Project.

P20-3 See Response P17-5 regarding the Project's consistency with the Shasta County General Plan and Zoning Plan.

Impacts relating to wildfire are analyzed in Draft EIR Section 3.16 (at page 3.16-1 et seq.). The first paragraph of the section discloses that that the California Department of Forestry and Fire Protection (CAL FIRE) has assigned a "Very High Fire Hazard Severity Zone" rating throughout Shasta County, and that Round Mountain, Montgomery Creek, and Burney all are listed as communities at risk by CAL FIRE's Office of the State Fire Marshal. The County acknowledges the commenter's concerns about wildfire, but without specifics, the comment does not provide enough information for the County to provide a more detailed response.

P20-4 Contrary to the suggestion in this comment, existing timber production on the Project Site as well as existing zoning designations are discussed in Draft EIR Section 3.8, *Forest Resources*. Existing vegetation and fuels onsite are discussed in Section 3.16.1.3 under the heading "Fuels" which discusses the existing fuels onsite and how the size and composition of fuels onsite influences fire behavior.

P20-5 See Response P17-5 regarding the Project's consistency with the Shasta County General Plan and Zoning Plan.

P20-6 See Response P17-5 regarding the Project's consistency with the Shasta County General Plan and Zoning Plan. As noted in Response P20-2, requests that the County undertake a Countywide planning effort specific to the siting of wind energy generation projects are beyond the scope of the CEQA analysis for this Project.

P20-7 See Response P17-5.

P20-8 See Response P17-5.

P20-9 See Response P17-5.

P20-10 See Response P17-5. Because questions of property taxation do not bear on potential impacts to the physical environment, they are beyond the scope of the EIR for this Project.

P20-11 The Open Space Plan[48] speaks for itself. While this Plan was presented to the Shasta County Board of Supervisors for consideration, it was not adopted by the Board and so does not represent official County policy. In any event, the introduction to the plan (at page 1) states: "This plan is intended to help coordinate public, private and non-profit agency resources, identify community needs for parks and recreation, and provide a set of clear and achievable recommendations for the County to consider when updating policy or evaluating projects that enhance the community's parks and recreation opportunities. Based on this intent, the plan provides an in-depth review of the County's current assets, discusses the issues and opportunities it faces, and provides a series of policy and project recommendations for the County to consider." The Project Site consists of private property where public access currently is restricted (Draft EIR at page 2.5.4.1, at page 2-16; see also Section 3.1.4.14, at page 3.1-23). The County has no expectation that the goals and policies of the Open Space Plan would restrict lawful uses of private property. For these reasons, the County respectfully disagrees with the commenter's conclusion that a CEQA violation has occurred with respect to the Open Space Plan.

P20-12 The County acknowledges the stated concern about what is perceived by the commenter to be bias in favor of the Project. However, the choice of graphic presented on the County's website does not bear on the adequacy or accuracy of the Draft EIR, which addresses potential impacts on the physical environment. See, e.g., impacts that would be less-than-significant, or less-than-significant with mitigation measures incorporated, which are summarized in Section ES.6.1 (at page ES-6), including impacts related to wildfire, and hydrology and water quality. Potential significant unavoidable impacts to Aesthetics, Air Quality, Biological Resources, and Cultural and Tribal Cultural Resources are summarized in Draft EIR Section ES.6.2 (at pages ES-6 and ES-7). Without some example of bias from the EIR or the Project, the comment does not provide enough information for the County to provide a detailed response.

P20-13 Contrary to the statement in this comment, the Draft EIR identifies the No Project Alternative, which would avoid all impacts of the Project, as the environmentally superior alternative (Draft EIR Section 4.3, at page 4-2) and identifies the resource considerations for which the Project would result in reduced impacts relative to the Project in Draft EIR Table 4-1, *Summary of Impacts of the Project and Alternatives* (at page 4-3 et seq.). See Response T2-4 regarding why off-site alternatives were not considered in detail in this EIR.

P20-14 The County acknowledges this opinion about the adequacy of the Draft EIR's analysis of the negative impact of the Project on the viewshed and the County's scenic beauty. However, it is not clear what is the basis for the opinion. The Draft identifies a significant unavoidable impact (both at the Project-specific level and cumulatively) on scenic vistas and the existing visual character or quality of public views of the site and its surroundings.

[48] MIG, Inc., 2009. Shasta County Parks, Trails and open Space Plan. https://www.co.shasta.ca.us/docs/libraries/resource-management-docs/ces-parks/parks-trails-open-space-plan.pdf?sfvrsn=5704f989_0. August 2009.

See Draft EIR at pages ES-6 (summarizing significant unavoidable impacts), ES-8 (table identifies Impact 3.2-1 as significant and unavoidable), and 3.2-20 through 3.2-41 (analyzing Impact 3.2-1). Without some indication of what more is needed, the comment does not provide enough information for the County to address the concern in more detail.

The commenter's opposition to the Project on the basis of its aesthetic effects and potential wildfire risks is acknowledged and has been included in the record, where the County may consider it as part of the decision-making process.

P20-15 The County acknowledges, but disagrees with, the commenter's opinion that the Draft EIR's description of the Project is too vague. CEQA's requirements for an adequate project description are set for in CEQA Guidelines §15124 and include: the precise location and boundaries of the proposed project; a detailed map and map showing the project's location in its regional context; a statement of project objectives; a general description of the project's technical, economic, and environmental characteristics; and a statement describing the intended uses of the EIR. Draft EIR Chapter 2, *Description of Project and Alternatives*, meets these requirements. As discussed in more detail below, it describes in text and tables and shows in figures the regional and local context of the Project Site, identifies project objectives, and describes details of reasonably foreseeable activities associated with the construction, operation and maintenance, and decommissioning and site restoration of the Project. CEQA Guidelines §15124 cautions that an EIR's project description "should not supply extensive detail beyond that needed for evaluation and review of the environmental impact."

What is proposed to be built is described in Section 2.1, *Project Overview* (at pages 2-1 through 2-3) and with greater specificity in Section 2.4, which describes the proposed wind turbine generators (at page 2-8 et seq.), the electrical collector system and communication system (at page 2-10 et seq.), the proposed substation, switching station, and interconnection facilities (at page 2-12 et seq.), and other infrastructure (at page 2-14). Graphics of what is proposed to be built are provided on page 2-9 (typical wind turbine), and page 2-13 (preliminary switching station and substation site plan), page 2-5 (road network).

Section 2.2, *Project Location* (at page 2-3 et seq.) describes where Project components are proposed to be built, i.e., on an approximately 4,464-acre Project Site within a larger overall ownership. See also, Figure ES-1 (at page ES-3), Figure 2-1 (at page 2-2), and Figure 2-3 (at page 2-5), each of which shows the Project Site within the context of the overall ownership. Figure 2-2, *Site Plan* (at page 2-4) shows the locations of the proposed meteorological towers, potential turbine locations (which are numbered for ease in identification), underground and overhead electrical lines, new roads and existing roads to be improved, the batch plant, staging areas, O&M facility, and substation and switching station site relative to the surrounding communities of Wengler, Hillcrest, Montgomery Creek, Round Mountain. For larger context, see Figure 3.2-5 (at page 3.2-18) and Figure 3.2-6 (at page 3.2-19), each of which identifies other communities within a 30-mile radius of the Project Site. The approximately

4,464-acre Project Site also is outlined in red in Figure ES-1, *Project Location* (at page ES-3). Figure ES-1 shows the larger lease hold area in black, and outlines in yellow the Assessor's Parcels that make up the overall ownership.

The Draft EIR is clear and consistent in its disclosure that up to 72 wind turbines are proposed. See, e.g., Draft EIR at pages ES-1, 1-1, 2-1, 2-6, 2-7 (Table 2-1, *Project Components and Disturbance Areas*), and 2-8. All 72 potential turbine sites are shown in Figure 2-2, *Site Plan* (at page 2-4). Draft EIR Section 2.4.1, *Wind Turbine Generators*, explains, "The 72 turbine sites represent feasible locations for a range of turbine models, each with different dimensions, generating capacity, and layout requirements. Prior to construction, the Applicant would determine which model would be installed based on component availability from the manufacturer, data on on-site wind resources, and other Project-specific factors." The Draft EIR is equally clear and consistent in its disclosure that individual turbines could be up to 679 feet tall. See, e.g., pages ES-1, 1-2, 2-1, 2-8, 3.4-42, 3.11-13, and 3.16-16.

The Draft EIR analyzed the potential impacts that could result from either of two turbine models: one with a generating capacity of 3.0 MW, the other with a generating capacity of 5.7 MW. In either event, the Project proposes to produce a maximum total nameplate generating capacity of up to 216 MW. See Final EIR Section 1.2.3, *Changes to the Project Since Issuance of the Draft EIR*, which identifies an additional turbine model with a generating capacity of up to 6.2 MW as an option.

The choice of model would affect not only the total number of turbines installed, but also the total height of the turbines installed. See Final EIR Table 1-1, *Comparison of Turbine Options*, for details about the three turbine options under consideration. As the Project was proposed in the use permit application and as analyzed in the EIR, the Applicant retains flexibility to choose among the turbine options and, if the Project is approved, could elect to construct turbines of different heights within the Project Site so long as the maximum generation capacity is not exceeded.

No matter whether 72, 37 or 34 turbines would be constructed, they would be located on one of the potential sites shown in Draft EIR Figure 2-2, *Site Plan* (at page 2-4), modified by the micro-siting that has occurred since publication of the Draft EIR as described and shown in Final EIR Section 1.2.3.

The Draft EIR provides a reasonably conservative analysis of the potential impacts of the Project in that it analyzes, on a resource by resource basis, which aspect of the turbine options would cause the greatest environmental impact. For example, the analysis of impacts to visual resources in Draft EIR Section 3.2, *Aesthetics* (at page 3.2-1 et seq.) analyzes the visual impacts that would result if the tallest towers were constructed at each of the 72 potential locations shown on Figure 2-2.[49] By

[49] This configuration would never be realized because its generation capacity would exceed the requested permit limit (a total generating capacity of up to 216 MW).

contrast, the analysis of potential impacts to birds and bats in Draft EIR Section 3.4, *Biological Resources*, considers the greatest rotor swept area (see, e.g., page 3.4-37).

In light of the specificity provided in the Draft EIR, it is not clear form the comment what additional clarification is requested. Without additional details, the County does not have enough information to provide a more detailed response.

P20-16 The Draft EIR analyzes impacts of the Project as described in Chapter 2 (at page 2-1 et seq.). See Response P20-15. Any earlier description has been superseded.

P20-17 See Response P20-15 regarding the Draft EIR's description and depiction of the approximately 4,464-acre Project Site within the larger ownership.

P20-18 In light of the figures and description provided of the Project Site, including identification of Assessor's parcels (see Response P20-15), inclusion of a metes and bounds description is not required to allow for informed public decision-making. The comment is correct that a use permit would be specific to the Project Site. No construction activities or other ground disturbance (and no turbines) would be sited outside of the Project Site.

P20-19 As indicated in Response P20-15, it is not clear from the comments what additional specific information about the proposed components is believed not to have been described or analyzed in the Draft EIR.

P20-20 See Response P20-15, which explains the relationship between the numbers, heights and locations of the proposed turbines.

P20-21 For the reasons described in Response P20-15, the County disagrees with the suggestion that the Draft EIR's description of the Project is flawed. As with the Project, the turbines that would be constructed consistent with Alternative 1 or Alternative 2 would be located on one of the potential sites shown in Draft EIR Figure 2-2, *Site Plan* (at page 2-4), except as restricted by the specifics of the alternative. See also Response P20-15, which clarifies that, as the Project was proposed in the use permit application and as analyzed in the EIR, the Applicant retains flexibility to choose among the turbine options. If the Project is approved, the Applicant could elect to construct turbines of different heights within the Project Site so long as the maximum generation capacity is not exceeded.

P20-22 The County agrees that the visual impacts of thirty-seven, 679-foot-tall turbines would be different than the visual impacts of seventy-two, 500-foot-tall turbines and asserts that information included in the Aesthetic Resources Technical Memorandum indicating that the difference in turbine heights is not discernible at a distance of 3 miles or more is not supported by substantial evidence. This difference, however, does not result in a flawed EIR because, as discussed in Response P20-15, the Draft EIR evaluates whichever aspect of the range of turbine options (e.g., height, number, rotor swept area) would result in the greatest potential impact. CEQA requires a lead

agency to initiate its environmental analysis as early in the process as possible, so as to afford the greatest potential to modify the proposal (through project refinements, mitigation measures, or alternatives) to avoid or reduce potential effects. Final design is not required to initiate CEQA review. Further, the CEQA analysis of aesthetic resources effects does not compare the visual impact of a 679-foot-tall turbine to a 500-foot-tall turbine; rather the analysis considers the effects of the Project as described in the CEQA project description (Draft EIR Chapter 2. The Aesthetic Resources analysis does not cite or repeat the information including in the Technical Memorandum comparing the visual effect of the various turbine heights, but instead analyzes the effect of the Project as proposed. The County disagrees with the commenter's characterization of the Technical Memorandum as "buried" in that it was included in the Draft EIR as Appendix A.

P20-23 See Response P20-15.

P20-24 See Response P20-15 regarding the Project; see Response P20-21 regarding the alternatives.

P20-25 Relevant specifications of the turbine options under consideration are presented in Final EIR Table 1-1, *Comparison of Turbine Options*. Unlike these specifications, the names of the manufacturers would have no bearing on whether the construction, operation or decommissioning of a turbine could cause a significant impact. For this reason, they have not been identified.

Potential nacelle fire risk is evaluated in the context of Impact 3.16-2 (Draft EIR at page 3.16-16 et seq.). It would be addressed by Mitigation Measure 3.16-2b, *Nacelle Fire Risk Reduction* (at page 3.16-21). The inclusion of an automatic fire suppression system in the nacelle of each turbine would be required by the third component included in Mitigation Measure 3.16-2b (at page 3.16-21).

The Draft EIR concludes in Impact 3.16-2 (at page 3.16-16 et seq.) that Project would, unless mitigated, exacerbate wildfire risks and expose people to pollutant concentrations or a significant risk of loss, injury or death from a wildfire or the uncontrolled spread of a wildfire. Mitigation identified to reduce the severity of the risk to a less-than-significant for purposes of CEQA include Mitigation Measure 3.16-2a, Fire Safety; Mitigation Measure 3.16-2b, Nacelle Fire Risk Reduction; and Mitigation Measure 3.16-2c, Emergency Response Plan. (at pages 3.16-19 through 3.16-22). Collectively, these measures would require the Applicant and its contractors to implement fire safety measures to prevent fire and be prepared to respond immediately if a fire should ignite, and would require collaboration with area fire protection agencies to reduce the risk of wildfire ignition and spread. The comment provides no information suggesting how these measures would be inadequate to address Project-related fire risk. Nonetheless, the commenter's concerns about turbine-related fire risks are acknowledged.

P20-26 See Response P20-15, which explains the relationship between the numbers, heights and locations of the proposed turbines. The analysis of potential environmental impacts

in the Draft EIR considers the maximum potential number and height of turbines in order to evaluate the greatest potential environmental impact. Ultimately, the final design may include fewer turbines or shorter turbines than those evaluated in the Draft EIR. However, turbine heights and number of turbines would not exceed those identified in Draft EIR Section 2.4.1.

P20-27 The commenter's suggestions are acknowledged. However, as described in Response P20-15 regarding the Project and in Response P20-21 regarding the alternatives, the County disagrees with the commenter's conclusion about whether the project description provides sufficient detail. As discussed in Response P20-22, final design is not required for purposes of CEQA.

The range of alternatives evaluated in the Draft EIR considers alternatives that would include fewer turbines and a smaller Project Site. See Section 2.5, *Description of Alternatives* (at page 2-27 et seq.), the analysis in Chapter 3, *Environmental Analysis* (at page 3.1-1 et seq.), and the comparative evaluation in Chapter 4, *Comparison of Alternatives* (at page 4-1 et seq.). This comment's suggestion of different alternatives with fewer turbines or a smaller site does not affect the sufficiency of the existing range of alternatives.

P20-28 See Response P20-15. As noted, up to 72 turbines could be constructed where shown in the EIR, which provides an analysis that covers the greatest potential levels of impact that could result regardless of whether 3.0 MW capacity turbines, 5.7 MW capacity turbines, or 6.2 MW capacity turbines are available should the Project be approved.

Regarding potential effects of turbines and proximity to Moose Camp, see Response P4-1 and P4-3 regarding visual impacts, see Response P4-6 regarding noise and shadow flicker, Response P4-7 regarding surface waters and groundwater, Response T3-4 regarding water rights, Response P4-8 regarding the number of trips and vehicle types that could use local roads to access the Project Site, and Response P11-2 regarding potential impacts on use of the Moose Camp helipad.

P20-29 As described in Draft EIR Section 2.5.2.1 (at page 2-29), CEQA does not require lead agencies to evaluate of off-site alternatives. See Response T2-4 regarding why off-site alternatives were not considered in detail in this EIR. That the commenter would prefer to see different or additional alternatives is acknowledged, but this preference does not render the existing range developed, screened, and carried forward for more detailed review as described in Draft EIR Section 2.5 (at page 2-27 et seq.) to be inadequate. See Response T2-3 regarding Project objectives and benefits.

P20-30 The commenter's opposition to the Project based on its potential impacts to aesthetic resources (as analyzed in Draft EIR Section 3.2), birds and wildlife (as analyzed in Section 3.4), and wildfire risk (as analyzed in Section 3.16) is acknowledged and has been included in the record, where the County may consider it as part of the decision-making process. However, without some information about why or how the commenter

feels the analysis to be insufficient, the County does not have enough information to provide a more detailed response.

P20-31 See Response T2-3 regarding project objectives, including as one of the four threshold criteria for identifying suitable alternatives as part of the CEQA process and or an explanation that, while the public's objectives may be considered by decision-makers, they are not among the enumerated CEQA considerations. See Response T5-2 regarding the Applicant's identification of the objectives for its Project and the County's role in their regard as being to identify and rely on those among them that are "basic" in screening potential alternatives.

P20-32 The project objectives speak for themselves. The commenter's opinions about them, and about Shasta County's electricity needs, are acknowledged, but do not support a conclusion that the Draft EIR is inadequate as a CEQA document. No data, information or other evidence is provided to support claims made regarding the Project's impact on regional revenue streams and, in any event, economic concerns are beyond the scope of this EIR and CEQA, which focuses on impacts to the physical environment.

The Applicant submitted a use permit application to construct, operate, and ultimately decommission the Project described in Draft EIR Chapter 2, as modified in Final EIR Section 1.2.3. The County has prepared this EIR to evaluate the potential direct, indirect and cumulative effects of the Project to inform a decision as to whether to approve, approve with modifications, or deny the permit application. The EIR supports this effort by analyzing the impacts of the Project, considering mitigation measures and alternatives that would modify the Project, and evaluating a No Project Alternative. As explained in Draft EIR Section 1.1, *Purpose of this Document* (at page 1-1), the County is not a Project proponent, but rather the lead agency for purposes of CEQA and the decision-maker for purposes of the requested use permit.

P20-33 Contrary to the suggestion in this comment, the Draft EIR analyzes three alternatives to the Project: No Project Alternative, which is described in the Draft EIR (at page ES-36 et seq. and page 2-34 et seq.); Alternative 1, South of SR 299 (at page ES-37 and page 2-35 et seq.); and Alternative 2, Increased Setbacks (at page ES-38 and page 2-38 et seq.). The comment is correct that the Draft EIR explained the rationale (i.e., failure to meet one or more of the screening criteria identified in Section 2.5.1, at page 2-27 et seq.) in each instance where a potential alternative was not carried forward for more detailed review.

Contrary to the suggestion that the County chose not to carry forward reasonable, feasible potential alternatives that were suggested by the public in the scoping comments, see Draft EIR Section 2.5.3.2 (at page 2-38), which explains: "Scoping comments suggested that the County consider a reduced-project alternative (i.e., one with fewer turbines and/or a more concentrated placement of turbines) and a modified project alternative that would relocate the proposed turbines to the south relative to the existing proposal. Alternative 1 responds to these suggestions." See also Draft EIR

Section 2.5.3.3 (also at page 2-38), which explains: "Scoping comments suggested that the County consider a project alternative that would move turbines further away from Moose Camp, and expressed concerns about noise, vibration, and safety. Alternative 2 has been designed to respond to these suggestions."

See Response T2-4 regarding why off-site alternatives were not considered in detail in this EIR.

The County is well-aware of the fire history within and near the Project Site. See Draft EIR Section ES.2.2 (at page ES-2) and Section 2.2 (at page 2-3), which describe the project location by reference to the Fountain Fire burn scar; Section 3.16.1 (at page 3.16-1 et seq.), which describes the environmental setting for the analysis of potential impacts relating to wildlife; and Section 3.1.3.1 (at pages 3.1-5 and 3.1-6), which describe the area's fire history as part of the cumulative scenario. Wildfire considerations are documented in Section 3.16, *Wildfire*, the first sentences of which acknowledge that CAL FIRE has assigned a "Very High Fire Hazard Severity Zone" rating throughout Shasta County, and that Round Mountain, Montgomery Creek, and Burney all are listed as communities at risk by CAL FIRE's Office of the State Fire Marshal (Draft EIR at page 3.16-1). See also the discussion of Impact 3.16-2 (Draft EIR at page 3.16-16 et seq.), which concludes that the Project would, unless mitigated, exacerbate wildfire risks, and which recommends mitigation measures to reduce the potential impact to a less-than-significant level. By disclosing these impacts in their local and regional context, the EIR will inform decision-makers about the potential environmental consequences of the Project.

P20-34 The comment appears to overlook the EIR's analysis of a No Project Alternative, which would avoid all of the potential impacts of the proposed wind energy development on the Project Site.

See Response T2-4 regarding why off-site alternatives were not considered in detail in this EIR. See Response T3-5 regarding the County's disclosure and consideration of significant unavoidable impacts. See Response P20-15, which explains the relationship between the numbers, heights and locations of the turbines proposed by the Project. See Response T2-3, which explains that the public's objectives may be considered by decision-makers, but are not among the enumerated CEQA considerations. The comment correctly states that the Draft EIR did not carry forward for more detailed review a conservation and demand side management alternative (see Draft EIR Section 2.5.2.4 at page 2-32 et seq.) or a repowering alternative (at page 2-29 et seq.). Decision-makers will weigh the potential benefits (e.g., jobs, renewable energy generation) and burdens (e.g., significant unavoidable impacts) of the Project as part of the decision-making process. The commenter's opinions in this regard are acknowledged, and have been included in the record where the County also may consider them as part of the decision-making process.

P20-35 CEQA does not require a comparison of the Project with other projects, but rather requires analysis of the potential significant direct, indirect, and cumulative effects of the Project. Photographic simulations have been prepared as though the tallest of the proposed turbines were located in the maximum number of potential locations, resulting in a conservative analysis that tends to overstate rather than understate potential impacts. See Figures 3.2-7 through 3.2-13b in Draft EIR Section 3.2, *Aesthetics* (at page 3.2-23 et seq.). See also Response P20-15, which explains the relationship between the numbers, heights and locations of the proposed turbines. The simulations, which model actual Project details (i.e., maximum height, maximum number of locations), more closely approximates the scale of the Project in the visual environment than Figure 2-4a, *Typical Wind Turbine* (at page 2-9). As explained in Response P4-1, the seven viewpoints from which photographic simulations were prepared are representative of the range of viewer sensitivities, landscapes, and land uses in the Project viewshed, and not intended to be comprehensive of from every point along SR 299. See Final EIR Appendix A4, which includes the visual resources technical report from Draft EIR Appendix A as updated to delete the word "draft" to avoid confusion, and to include larger-format simulations for greater ease in review.

The County disagrees with the suggestion in the comment that, if approved, the Project would be part of the landscape "forever." As disclosed in Draft EIR Section 2.4.6, *Operation and Maintenance* (at page 2-22), "for CEQA purposes, the life of the Project would be coterminous with the term of the use permit that is required for its operation, i.e., 40 years." See Draft EIR Section 2.4.7 (at page 2-23 et seq.) describing Project Site decommissioning and site restoration activities.

The Project's potential significant and unavoidable impacts are summarized in Draft EIR Section ES.6.2 (at pages ES-6 and ES-7) and in Table ES-2 (at page ES-8 et seq.) and examined in Section 3.2, *Aesthetics* (at page 3.2-1 et seq.); Section 3.3, *Air Quality* (at page 3.3-1 et seq.); Section 3.4, *Biological Resources* (at page 3.4-1 et seq.); and Section 3.6, *Cultural and Tribal Cultural Resources* (at page 3.6-1 et seq.). See Response T3-5, which explains that the County would balance the benefits of a proposed project against any significant unavoidable environmental effects it may have as part of the decision-making process. Contrary to the suggestion in this comment, and as discussed below, impacts relating to wildfire were determined to be less than significant with the implementation of recommended mitigation measures.

P20-36 The commenter's preference for additional study is acknowledged and is now part of the record of information that will be considered as part of the County's decision-making process. The fire history in Shasta County and projected future fire regime are considered in Section 3.16.1.2 of the Draft EIR. The potential for the Project turbines and associated infrastructure to increase wildfire risk is evaluated under Impact 3.16-1.

See Response T2-4 regarding why off-site alternatives were not considered in detail in this EIR.

Legal proceedings involving PG&E, including its entry into and emergence from bankruptcy, and speculation about similar lawsuits that may be filed are beyond the scope of the CEQA process for this Project.

Regarding aerial firefighting, see Response P26-55. The commenter's disagreement with the Draft EIR's conclusion that Mitigation Measures 3.16-1a, 3.16-1b, 3.16-2a, 3.16-2b, 3.16-2c would reduce the impacts of the Project to near baseline levels is acknowledged and will be included in the record for the consideration of County decision makers. See Draft EIR Section 3.16 and Impact 3.16-1 regarding emergency access.

P20-37 The commenter's preference for the No Project Alternative is acknowledged and has been included in the record, where the County may consider it as part of the decision-making process.

The County acknowledges that conducting further studies could shed additional light on issues evaluated in the EIR; however, as indicated by the California Supreme Court in *Laurel Heights Improvement Association v. Regents of the University of California* (1988) 47 Cal.3d 376, 410, this fact does not provide a basis to challenge an EIR. As stated in CEQA Guidelines §15204, "CEQA does not require a lead agency to conduct every test or perform all research, study, and experimentation recommended or demanded by commenters. When responding to comments, lead agencies… do not need to provide all information requested by reviewers, as long as a good faith effort at full disclosure is made in the EIR." Because a good faith effort at full disclosure has been made here, the requested additional studies have not been conducted.

P20-38 As explained in Final EIR Section 2.1.1, *Input Received*, requests that the County undertake a Countywide planning effort specific to the siting of wind energy generation projects (including requests for a moratorium) are beyond the scope of the CEQA analysis for this Project. The County's response to-date to such requests are a matter of the public record of the Board of Supervisors.

P20-39 See Response P20-36.

This letter includes lengthy exhibits. The exhibits themselves are provided in Final EIR Appendix D2, Exhibits to Letter P20, Steven L. Johnson. Responses addressing the exhibits are provided below.

P20-40 The County acknowledges receipt of photos included with the comment of wind turbine fires. See Response P20-25, which discusses this EIR's consideration of potential turbine fire risks.

The County acknowledges receipt of the July 7, 2013, article entitled, *14,000 Abandoned Wind Turbines Litter the United States*, and notes that the County would require financial assurance mechanism to cover the cost of decommissioning if, for any reason, the Applicant were not available to decommission the Project or restore the Project Site. See Response T5-4 for details.

The County acknowledges receipt of the January 15, 2013, Australian press release regarding the challenges of fire fighting near industrial wind energy developments. Regarding potential impacts on aerial firefighting, see Response T3-3.

The County acknowledges receipt of this undated additional input regarding wind turbine fires. The article identifies the top three causes of accidents in wind turbines as blade failure, fire, and structural fire. See Response P20-25, which discusses this EIR's consideration of potential turbine fire risks. See also the analysis of potential hazards resulting from tower failure or rotor failure in Impact 3.11-3 (Draft EIR at page 3.11-12 et seq.).

The County acknowledges receipt of the September 8, 2020, article entitled, *The True Cost of Wind Turbine Fires and Protection*, which discusses costs and causes. See Response P20-25, which discusses this EIR's consideration of potential turbine fire risks.

The County acknowledges receipt of this January 7, 2016, article regarding the deaths of two turbine mechanics in the Netherlands. The County acknowledges that workers installing and maintaining wind projects are exposed to hazards that can result in injuries and fatalities. The Occupational Safety and Health Administration (OSHA) regulates worker safety on wind projects in the United States pursuant to the agency's general industry standards. Reported incidents have involved falls, severe burns from electrical shocks and arc flashes/fires, and crushing injuries.[50] The Draft EIR analyzes the potential for the Project to create a significant hazard to the public or the environment through reasonably foreseeable upset or accident conditions in Draft EIR Section 3.11, *Hazards and Hazardous Materials*. See, e.g., Impact 3.11-2, involving a release of hazardous materials into the environment (at page 3.11-10 et seq.), Impact 3.11-3, involving tower failure or rotor failure (at page 3.11-12 et seq.), Impact 3.11-4, involving ice shed (at page 3.11-14 et seq.), Impact 3.11-5, involving pesticide application (at page 3.11-15 et seq.), and Impact 3.11-6, involving shadow flicker (at page 3.11-16). Whether death could occur as a result of the Project is evaluated at page 3.1-17 and page 3.9-13 et seq. relating to potential rupture of a known earthquake fault; at page 3.9-15 et seq. relating to seismic-related ground failure, including liquefaction and landslides; at page 3.3-4 relating to emissions of PM2.5; at page 3.11-12, relating to tower or rotor failure; and at page 3.16-16 et seq. relating to wildfire.

The County acknowledges receipt of this undated article entitled, *California Lawmaker Demands Probe of PG&E's Chief Regulator for Lax Oversight*. As described in Draft EIR Section ES.3 and Section 1.1 (at pages ES-4 and 1-1, respectively), the California Public Utilities Commission (CPUC) is a "responsible agency" for purposes of the CEQA process for this Project. Accordingly, the CPUC may rely on the analysis in the EIR when considering whether to approve, approve with modifications, or deny those aspects of the Project that are within the agency's permitting authority. See Table ES-1,

[50] OSHA, 2021. Green Job Hazards: Wind Energy. https://www.osha.gov/dep/greenjobs/windenergy.html. Accessed January 8, 2021.

Summary of Permits and Approvals, for additional details. Comments about the CPUC and the implementation of its duties are beyond the scope of this EIR, which focuses on the potential significant direct, indirect, and cumulative effects of the Project.

The County acknowledges receipt of this copy of the Butte County District Attorney's June 16, 2020, report entitled, *The Camp Fire Public Report: A Summary of the Camp Fire Investigation*. As noted in Response P20-33, the County is well-aware of the fire history within and near the Project Site. The report speaks for itself, and does not comment on the adequacy or accuracy of the EIR for the proposed Project.

Comment Letter P21

Gmail

Elizabeth L Lattin <elizabethllattin@gmail.com>

Fountain Wind response-Attn Steve Kerns Chairman of Planning Commission

Elizabeth L Lattin <elizabethllattin@gmail.com> Tue, Oct 20, 2020 at 12:32 PM
Draft To: fw.comments@co.shasta.ca.us
Bcc: "clerkoftheboard@co. shasta. ca. us" <clerkoftheboard@co.shasta.ca.us>

Fountain Wind Project
Comments in response to DEIR
Beth Messick
10-20-20

Please find my comments in regards to the Fountain Wind DEIR.

I. CEQA Laws broken
Public Resource Code broken
Case Law ignored

II Narrative things not considered in DEIR

III I will address each summary(that I had time to review in depth), including which code/law apply and briefly why.

IV Narrative Summary

V Appendix reference material to support my position.

Comment Letter P21

Gmail

Elizabeth L Lattin <elizabethllattin@gmail.com>

Fountain Wind response-Attn Steve Kerns Chairman of Planning Commission

Elizabeth L Lattin <elizabethllattin@gmail.com> Tue, Oct 20, 2020 at 2:03 PM
Draft To: fw.comments@co.shasta.ca.us
Bcc: "clerkoftheboard@co. shasta. ca. us" <clerkoftheboard@co.shasta.ca.us>

1. Section21083, Public Resource code
Reference Section 21003 and 21100 Public Resource code

" EIR's shall be written and may use appropriate graphics so that decision makers and the public can rapidly understand the document."

2. 15146 'section 21083, Public Resource Code;
Reference: Sections 21003, 21061, and 21100 of Public Resource Code

"The degree of specificity required in an EIR will correspond to the degree of specificity involved in the underlying activity which is described in the EIR."

3. 15147 Technical detail
'Section 21083, Public resource code;
Reference: Sections 21003,21061, and 21100, Public Resource Code.

" The information contained in an EIR shall include summarized technical data, maps, plot plans, diagrams and similar relevant information sufficient to permit full assessment by reviewing agencies and members of the public"

4. CEQA 15126.4(1)(A): Feasible Measures which would minimize significant impacts.

"shall distinguish between measures which were proposed by project proponents.. and other measures proposed by the lead, responsible or trustee agency or other persons"

5. CEQA Guidelines 15126.4(A)(4)

Ensure that mitigation measures are fully enforceable through legally binding instruments.

6. CEQA Guidelines 15126.4(b), 15064.5

For historic resources guidelines provides specific recommendation mitigation measures.
Whether the Project would cause a substantial adverse change in the significance of an archaeological resource.

7. CEQA 15064(f)(2) and 15126.4(a)(1)(A) "avoidance and minimization measures
Lotus v. Department of Transportation
"traffic management plans, use of energy efficient lighting, solar panels, construction lighting that will be shielded and directed away from neighbors.... These are not considered mitigation measures."

Comment Letter P21

Comment Letter P21

Gmail

Elizabeth L Lattin <elizabethllattin@gmail.com>

Fountain Wind response-Attn Steve Kerns Chairman of Planning Commission

Elizabeth L Lattin <elizabethllattin@gmail.com> Tue, Oct 20, 2020 at 5:05 PM
Draft To: fw.comments@co.shasta.ca.us
Bcc: "clerkoftheboard@co. shasta. ca. us" <clerkoftheboard@co.shasta.ca.us>

Please allow me to introduce you to the Round Mountain area with common knowledge thru wikipedia that remarks " This plan, called TANC(Transmission Authority of Northern California), was halted by citizens who produced presentations statewide, showing that the Department of Energy data conflicted with the projects stated goals. This 1.4 billion dollar TANC project was stopped in about 90 days" As I was on the steering committee for StopTANC, I can tell you there is just not enough green energy in NE California to warrant TANC. But if you add a few small(by Federal standards) green projects, the Federal Government will use that to push the TANC project through again. Which will destroy eastern Shasta county thru Cottonwood. This needs to be considered under cumulative impacts.
There are a few issues that have not been addressed in the EIR or the DEIR or were ignored or hidden.

P21-1

1. Radar was never addressed either under communication, energy or aviation. Radar is very significant in regards to weather and to aviation. Lower level radar is already blocked by Mt. Lassen; this project would further block the response from the east of the valley. Amazingly, radar is definitely impacted by wind turbines, particularly on hilly ground and tall turbines.
This is so evidenced by the fact that NOAA ROC(Radar Operation Center) will analyze wind wind turbine siting proposals, whether requested by agencies or by public notification. Radar is extremely important for weather forecasts; industrial wind turbine farms raise the local temp by a minimum of 1 degree centigrade, we could be needing more accurate radar not less. This would greatly affect our weather, forests, gardens.
Also radar will affect 'keeping track' of our planes, enough so that The Air Force has case law in regards to turbines.

P21-2

2. I must insist on a study in regard to shear factor, turbulence, and the wake effect that appears to have totally been ignored.
As a resident whose property is surrounded by the project on three sides- up against a landslide cliff.My property was off the grid and included two Whisper turbines as part of my power array. You could hear the erratic winds hitting the turbines but was more evidenced by the display of erratic charging to the battery bank, along with complete shutdown of the turbine. Theses turbines were only15-20ft off the ground and had to be placed separately so as not to affect each other. I have included pertinent information as to why this is an important issue to address. MUST HAVE STUDY!

P21-3

3. New state law Sb 901 Chapter 626 Fuel Breaks/ Greenbelts

"Must include measures to preserve undeveloped ridgelines to reduce fire risk and improve fire protection."
Yes I know that it is possible that project can't be held to this law as it was passed after the application date but the purpose and treatment validate fire risk and that infrastructure would increase the risk and protection.

P21-4

4. Water resources not addressed- Springs

Springs were not considered in water resources, or geology or hazardous materials. Yes wells were addressed but not springs, of which there are approximately 35- one is mine. I have provided you with a map showing springs just in a small part of the area impacted.
To protect the residents and assurances of potable water into the next 40+ years, I would highly suggest that pre and post measurements be taken as to quantity and quality due to the amount of blasting, grading, traffic and weight over the project area.
Would also include inspection of the waterways in the area by The Army Corp of Engineers as they are now reviewing not just navigable waterways but also creeks and streams. Said inspection would give an idea whether this is even a good idea before approval.

P21-5

Comment Letter P21

5. This may not seem important but was not even recognized as a risk,
Cyber attack. I already knew we were at risk of physical attack at the substation but never considered that a hack could cause a disruption of service. Could a hack override turbine controls or sensors, interfering with ability to communicate with the turbine.
What kind of prevention measures are in place. Think this bears further investigation or a why not.

P21-6

6. Possibility of cumulative impact of accidents over lifetime of the project. Either from soil collapse, separations of towers, fragments, fire and nacelle. Needs consideration.

P21-7

Comment Letter P21

Gmail

Elizabeth L Lattin <elizabethllattin@gmail.com>

Fountain Wind response-Attn Steve Kerns Chairman of Planning Commission

Elizabeth L Lattin <elizabethllattin@gmail.com> Wed, Oct 21, 2020 at 1:09 AM
Draft To: fw.comments@co.shasta.ca.us
Bcc: "clerkoftheboard@co. shasta. ca. us" <clerkoftheboard@co.shasta.ca.us>

Your Executive Summary

Only truthful statements in DEIR:
ES.8 Environmentally Superior Alternative
The CEQA guidelines define the environmentally superior alternative as the alternative with the least adverse impacts to the project area and it's surrounding environment. The NO Project alternative is considered the environmental superior alternative for CEQA purposes because it would avoid all impacts of the project.

P21-8

First, I must comment that I can't find who contributed specifically to any mitigation measures. What areas were written or contributed by the project, the lead agency, ESA, other agencies, or even a single individual. I could not find what education level, special training, specific experiences qualify these individuals to make these decisions to exclude, mitigate, or contribute to this DEIR.

Secondly, I was unable to find specific technical information in regards to virtually every section in most areas of justification, decisions, mitigation.

Thirdly, I defy anyone other than a speed reader to read this document rapidly as required by CEQA. You, the experts, have had at least 19 months to write and 'perfect' this documents, but you give non experts 11 weeks to read, research, understand and comment during dealing with Covid restrictions and PSPS events. You don't expect much, I'd almost think that there is an agenda to support this project!

Detective questions apply to the breaking of CEQA or case law, whether lack of specificity, mitigation or lack thereof, These are questions like who(project. lead agency, ESA, private individual), their qualification, why, support measures, monitor, compliance, comsequences, etc.

P21-9

Alternatives- not enough information to do a real comparison, as most logical alternatives were rejected out of hand , as they didn't meet project objectives.
Bio mass was rejected even though it fits great with the county's general plan. In order to meet the project's power production requirements, with the larger power producing turbines, they only need about 35 turbines. Why was this not presented as an alternative? Once again who proposed these alternative- specifically.

P21-10

Comment Letter P21

Aesthetics- ES-2 You admit there is no mitigation available to significant impact to view shed in general.

3.2-2 I totally disagree that there is no mitigation needed for impact highway view shed if you admit that there could be significant degradation to the character and visual quality.

3.2-3 I totally disagree that no mitigation is needed for lighting, whether construction lighting x 2+years or red strobe lights x 40 years. They ruin the viewing of the night sky to the east as far as the hills to the west of Redding eastward. Sorry you amatuer astronomers and those who watch moonrise. Much less those who live to the east of the project site, on hills, who wish to watch sunset, you get to see shadow flicker, hope you don't have neurological issues.

P21-11

So, how were these decisions made, what technical information validated these decisions and by whom, specifically.

Air Quality

3.3-1a AQMD will monitor these records, I presume, but how often and if problems are found, how would they be resolved?
3.3-2b Ditto above, along with what specific ground cover, what specific dust palliatives and soil stabilizers? How often will AQMD monitor this. If you accept their mitigated levels and they exceed these limits, how will you hold them accountable?
3.3-4 Not enough information throughout the document are types of substances, chemicals, etc. used to come to a less than significant impact. Why wasn't blast fumes addressed? What about a minimum of 5-10 times the amount of concrete used? Types of pesticides not addressed other than in Health effects.

P21-12

Once again in regards to mitigations: Who proposed, why was this decision made, how will it be monitered, if out of compliance, what are the consequences?

Biological Impact- Scrape the majority and start over again!

The original study was done prior to the application to the lead agency, hence not CEQA compliant. A survey done 9 years ago, not done under CEQA, paid for directly by project proponents is illegal and unacceptable.
This study was done in 2011 of the McCloud area south, with addendums added periodically.Migratory birds use the flight path directly over the project, not up the McCloud area. The project area is the lowest hilly area between Lassen and Shasta, hence their pathwayThere are guidelines available through US Fish and Wildlife Service for land based wind energy, quite extensive particularly about siting- these should have been followed but quessing didn't fit the project's plans for permanent placement. Study didn't address migratory songbirds, even though we have lost 60-100% of these birds in the last 50 years.What mitigation measures would you use for soaring raptors- you say none and yet I can think of a couple, granted extreme but still better than none. Stop turbines during migratory season, turn them off from sunset to sunrise, avoid use while raptors soar.
Past surveys of 'takes' were extremely inadequate. Birds are thrown much further than studied, depending upon their weight and speed of turbine blades.
Dead birds on the ground last from 12-24 hrs. Feed is scarce, predators are hungry- gone. There is even a pack of coyotes at HatchWind that no longer hunt, they scavenge and are quite fat and sassy.

P21-13

3.4-3, 3.4-4, 3.4-6, 3.4- Same detective questions

Who decided mitigation, what criteria used, proof, how monitored assessment compliance, consequences?

P21-14

3.4-9 No water fowl- Are you _____ kidding me?

P21-15

Comment Letter P21

Canadian geese and snow geese collapsed or dead on hillsides, resting at local ponds after storms. Better try again

P21-15 cont.

3.4-12, 3.4-13 Amphibians, same detective questions

Who decided mitigation, why, justification, monitor, compliancy, consequences.

P21-16

3.4-15. Riparian and wetland habitat

Out of 35,000-40,000 acres it shouldn't be too difficult to keep from destroying any, much less 150 acres of riparian habitat- oh yes you mitigate by setting up another elsewhere. It took nature 100s-1000's of years to create these area and during this time of climate change, you are going to do it in a couple years; what sounds presumptuous.

Detective questions: who made the plan, what reasoning, how accomplished, how measured, when, who monitors, compliancy, consequences?

P21-17

3.4-16
What type of restoration, what compensation, what enhancements?

Detective questions: Who made the plan, how is it justified, exactly how accomplished and measured, monitors, compliancy, consequences....

You are going to get tired of the detective.

P21-18

Communications

3.5-1 Mitigation measures for "over the air", just how far from the project site? How do you decide interference with a new owner that can't show a before? Specifically how will you resolve receiver interference through coordination. How quickly, what if it doesn't work?

I know from my experience as a flight nurse that communications can be interfered with by electrical interference, But I will defer my comments to Angel Baga.

P21-19

3-6 Cultural

Other than making sure you abide by CEQA and case law, I will defer my comments to the Pit River Nation.

P21-20

3-9 Geology

Boy is this a joke?!? Are we talking about the same land?

Common knowledge of Round Mountain per wikipedia "The geography in Round Mountain has been at times very unstable. Several homes, a store and a nightclub have been among buildings destroyed by landslides. Many of the powerlines in the area appear to be constantly repaired due to shifting foundations. After both the Fountain Fire and the introduction of more powerlines, slides in the area increased. The location of a major road construction project in 2009 of

P21-21

Comment Letter P21

"the fountain" became the scene of major shifting, road buckling, and surface water eruption in the first rain season after construction."
My own ranch is a large landslide, whose eastern slope(in the project area) is an active sliding area. One winter the water and mud came down that cliff so forcefully that it picked up a 5,200 gallon tank, full of water, and threw it 30 ft through the forest; finally it settled on a new plateau of mud, trees and other debris.

3.9-3, 3.9-4, 3.9-5 Land slides, soil erosion, unstable soil,lateral collapse
You try and negate these but they are well documented in the area.
Someone mentioned corrosive soil present and it's never mentioned again. But the soil is corrosive to concrete and steel, how will this be address. Specifically will any chemicals be used as a barrier between the soil and concrete base?
Someone mentioned the Montgomery Creek Formation and nothing further, although you have a turbine placed right on top of a seam.

P21-21 cont.

3.9-7.No septic as soil won't perc

Wonder why that is?
Too much clay-impenetrable?
Too high a water table?
Too much slope?

P21-22

So after consideration there needs to be a further study done of area as many things were not appropriately addressed. For any further, it's the detective questions: who planned, decided, how, when, monitored, compliance, consequences?

P21-23

Hazards

3.11-1, 3.11-2, 3.11-4, 3.11-5, 3.11-6,
Specifically who made these decisions?
3.11-3, 3.11-7
Who and why were these mitigation measures chosen? What about failure? Are there consequences for the project?
Here we go with those detective questions.....

P21-24

Hydrology and water quality

There has not been a complete review of the water situation in and directly outside the project area. This whole area is fluid due to waterways, excessive rainfall, unstable soil, and erosion.
Springs were not addressed and wells only superficially. The Army Corp of Engineers should have been brought into consultation initially. along with the state water control board or water master. There should be pre and post measurements of both wells and springs for quantity and quality and compensation preset for a degrading of quantity or quality. Here water is life! Springs are well known for disappearing if too much interference.

As for any further, you know all the detective questions.

P21-25

Transportation

3.14-1, 3.14-2, 3.14-3
So you will develop a Traffic Plan without Shasta County having a fire or FEMA approved Evacuation Plan. Has there been a traffic pattern study done of Deschutes, 299E- I can't find it. Would all your deliveries be scheduled around traffic patterns or project convenience? Since all the trips planned were for deliveries, should you not have considered the 400 employees? Will their arrivals be scheduled according to traffic patterns? Who will pay for repairs needed to alternative route for local traffic, ie. Buzzard's Roost, Oak Run Rd.,

P21-26

Comment Letter P21

3.14-4Who picked this mitigation? How will it decrease to less than significant? One death due to the inability to evacuate whether from self emergency or community emergency is one too many. Who will cover the cost of any law suite from a failure of this plan?

P21-26 cont.

Utilities and Services
We are not out of the drought, one good winter does not repair in one year. Can't predict water availability from anywhere but Burney Water District only committed to the construction phase, not long term. Do you have a back up plan? How can you guarantee the ability to recycle these blades or nacelles?
How can you guarantee the removal down to the pad if there will be a minimum of 75-100ft. or more of steel reinforced concrete tower? Can these be removed and how specifically. Are you willing to set up Bond to cover the cost of said 'decommissioning'?
Once again detective questions where appropriate.

P21-27

Wild Fire

Oh boy what a crock! No one should have contributed to this section unless they have actively fought fire hopefully locally. I have, so I will.
3.16-1
Well at least we all agree that virtually everything about this project has the potential of significant impact in our extremely high fire risk area. GPS is notorious for being inaccurate at least by a few feet. Air drops are not done to towers as they are ineffective. Air drops need to be 100-200 ft to the forest to be effective. Ground trucks can't pump anywhere near nacelle height. Ground crews will not get any closer than the perceived throw distance of turbine blades. Given smokey conditions, your close dip tank will be useless. Facing real fire a minimum of 30% of your employees will be unable to function.

3.16-2
Who will write this fire plan and what are their qualifications to do so?
Will the coordinator be a firefighter? Will they have other responsibilities than tending to 72 turbines? Is the lightning coordinator working all night during storms, dry or otherwise?

All these mitigation measures are good practices for anyone living in our fire area. I went so far as to have a 3in water main and 2in standpipes with fire department connections. As good practice, I see nothing here that qualifies for a reduction to less than significant or down to base line.

3.16-4 says that it reduces significant risk but doesn't show how.

All the detective questions apply to mitigation measures. I defer all further comments to Kelly Tanner.

P21-28

Narrative summary

Comment Letter P21

Must make sure that no company that has ever been associated with West, or Standtech has any ability to supervise the construction as that would be a direct conflict of interest. P21-29

Due to the length of the document (which obviously took months, lots of people and $ to assemble), power outages, the COVID situation. I was unable to address all the topics that I desired but will rest assured that others have caught the challenges.

I don't know whether I am more disappointed in my county planning dept, the project,ESA, or my own inability to engage the public; probably the county as I pay their salary.

All through school I taught my daughter that 'it was not how little you had to do to get an A but how much you had to do to critically understand the subject. Guess that's why she teaches at Ohio State with a PhD. P21-30

I feel like this is a D or C- in the Northern California Area.

I would hate to think that any monitoring would be handled with this type of inadequacies .

What other malfunctions are going on in our county government, Detective questions again? Who profited from Hatchet Wind? When, How?

After a reasonably complete review of available information from I feel is an incomplete document. I must recommend an absolute,"NO PROJECT' alternative!

Appendix

Comment Letter P21

Lio Salazar

From: Elizabeth L Lattin <elizabethllattin@gmail.com>
Sent: Wednesday, October 21, 2020 8:33 AM
To: Fountain Wind Project
Subject: Fwd: Fountain Wind DEIR Steve Kerns, Lio salazar

--------- Forwarded message ---------
From: **Elizabeth L Lattin** <elizabethllattin@gmail.com>
Date: Wed, Oct 21, 2020 at 8:21 AM
Subject: Fountain Wind DEIR Steve Kerns, Lio salazar
To: <fw.comments@co.shasta>

Add to my forthcoming comments;

Cumulative impacts- Are we discussing cumulative impact to our on going increase with infrastructure or are we discussing to ongoing impact to social approach of our population? We are approached as we are the poor relative that owns some thing you want and are treated like a group of 'Hillbillies'. There are other places you could do these projects but people think that we would be easy to 'pull the wool over our eyes'. P21-31

All of the detective questions apply.(see main body) P21-32

Beth Messick

Comment Letter P21

Lio Salazar

From: Elizabeth L Lattin <elizabethllattin@gmail.com>
Sent: Wednesday, October 21, 2020 3:06 PM
To: Fountain Wind Project
Subject: Can't turn the brain off!

Add this please, also to fire and geo.

We had a fire in Big Bend last week- not sure size. Cal Fire sent a spotter and two small water planes, good thing the local volunteers were able to handle as guess what; Big Bend Road is still down to one lane x 3years. The reason for this closed area is due to the landslides that the geo study says are less than significant if they exist at all. How does your Traffic and fire plan address the Big Bend Rd? Be specific- remember the McCloud and River Rd are not always open, especially in the winter. P21-33

One mitigation plan causes problems for another.
You plan on clear cutting 2,000-3,000 acres for construction; not just for construction but can be used as fire mitigation? The problem with this plan is now you have ground that will not allow water to be absorbed into the soil, no plants, no roots, nothing to hold the soil. Part of my concern is already existing areas affected but what large new problem is looming if we have a wet winter, no soil cover; mudslides, and landslides, that's what. The first winter after the Fountain Fire, there were massive mudslides, changing of watercourses, after just a few months. P21-34

If a landslide or mudslide happens on my property during or after construction due to water or mud, be assured I will sue you, especially after I warned you! I would advise that anyone associated with this project have the highest Liability coverage they can get as there are so many ways for this to go awry!

Hopefully that's the last..

1

Comment Letter P21

Appendix

Comment Letter P21

Gmail

Elizabeth L Lattin <elizabethllattin@gmail.com>

ceqa mitigation
1 message

Kelly Tanner <kwillett2@hotmail.com> Mon, Oct 5, 2020 at 1:36 PM
To: Elizabeth L Lattin <elizabethllattin@gmail.com>

CEQA 15126.4 (1)(A): Feasible Measures which could minimize significant adverse impacts. The discussion of mitigation measures shall distinguish between the measures which are proposed by project proponents to be included in the project and other measures proposed by the lead, responsible or trustee agency or other persons which are not included but the lead agency determines could reasonably be expected to reduce adverse impacts if required as conditions of approving the project. This discussion shall identify mitigation measures for each significant environmental effect identified in the EIR.

Comment Letter P21

Gmail

Elizabeth L Lattin <elizabethllattin@gmail.com>

Cultural Resources statute

3 messages

Kelly Tanner <kwillett2@hotmail.com> Sat, Oct 17, 2020 at 8:22 PM
To: Elizabeth L Lattin <elizabethllattin@gmail.com>

Cultural and Tribal Cultural Resources

a) Whether the Project would cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5.

Impact 3.6-1: The Project could cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. **(*Less than Significant with Mitigation Incorporated*)**

Since it is noted that FW11 "qualifies for listing in the California Register under Criterion 4, for its ability to yield additional information in prehistory. The prehistoric component of F11 is therefore considered a historical resource for the purposes of CEQA.

P21-35

Madera Oversight Coalition, Inc. v. County of Madera (2011) notes "Guidelines section 15126.4, subdivision (b) addresses mitigation measures related to impacts on historical resources. When the particular historical resource is archaeological in nature, the discussion contained in the EIR is governed by subdivision (b)(3) of that guideline"

(3) Public agencies should, whenever feasible, seek to avoid damaging effects on any historical resource of an archaeological nature. The following factors shall be considered and discussed in an EIR for a project involving such an archaeological site:

(A) **Preservation in place is the preferred manner of mitigating impacts to archaeological sites. Preservation in place maintains the relationship between artifacts and the archaeological context. Preservation may also avoid conflict with religious or cultural values of groups associated with the site.**

(B) Preservation in place may be accomplished by, but is not limited to, the following:

1. **Planning construction to avoid archaeological sites;**

2. **Incorporation of sites within parks, greenspace, or other open space;**

3. **Covering the archaeological sites with a layer of chemically stable soil before building tennis courts, parking lots, or similar facilities on the site.**

4. **Deeding the site into a permanent conservation easement.**

Madera Oversight Coalition, Inc. v. County of Madera (2011) In its introductory sentence to subparagraphs (A) through (D), Guidelines section 15126.4, subdivision (b)(3) states that "[t]he following factors shall be ... discussed in an EIR...." Subparagraph (A) mentions preservation in place, which is described as "the preferred manner of mitigating impacts to archaeological sites." Subparagraph (B) lists four methods of accomplishing preservation in place. *Because the introductory sentence uses the word "shall," the discussion of the factors set forth in subparagraphs **(A) through (D) is mandatory***. (Guidelines, § 15005, subd. (a) ["shall" and "must" are mandatory].)Also, we interpret the word "factors" to include preservation in place generally as well as the four methods listed in Guidelines section 15126.4, subdivision (b)(3)(B). Therefore, the EIR's discussion of mitigation measures for impacts to historical resources of an archaeological nature must include preservation in place, and the discussion of preservation in place must include, but is not limited to, the four methods of preservation in place listed in subparagraph (B).

Comment Letter P21

Gmail

Elizabeth L Lattin <elizabethllattin@gmail.com>

Cultural Resources statute

3 messages

Kelly Tanner <kwillett2@hotmail.com>
To: Elizabeth L Lattin <elizabethllattin@gmail.com>

Sat, Oct 17, 2020 at 8:22 PM

Cultural and Tribal Cultural Resources

a) Whether the Project would cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5.

Impact 3.6-1: The Project could cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. **(*Less than Significant with Mitigation Incorporated*)**

Since it is noted that FW11 "qualifies for listing in the California Register under Criterion 4, for its ability to yield additional information in prehistory. The prehistoric component of F11 is therefore considered a historical resource for the purposes of CEQA.

Madera Oversight Coalition, Inc. v. County of Madera (2011) notes "Guidelines section 15126.4, subdivision (b) addresses mitigation measures related to impacts on historical resources. When the particular historical resource is archaeological in nature, the discussion contained in the EIR is governed by subdivision (b)(3) of that guideline"

(3) Public agencies should, whenever feasible, seek to avoid damaging effects on any historical resource of an archaeological nature. The following factors shall be considered and discussed in an EIR for a project involving such an archaeological site:

(A) **Preservation in place is the preferred manner of mitigating impacts to archaeological sites. Preservation in place maintains the relationship between artifacts and the archaeological context. Preservation may also avoid conflict with religious or cultural values of groups associated with the site.**

(B) Preservation in place may be accomplished by, but is not limited to, the following:

1. **Planning construction to avoid archaeological sites;**

2. **Incorporation of sites within parks, greenspace, or other open space;**

3. **Covering the archaeological sites with a layer of chemically stable soil before building tennis courts, parking lots, or similar facilities on the site.**

4. **Deeding the site into a permanent conservation easement.**

Madera Oversight Coalition, Inc. v. County of Madera (2011) In its introductory sentence to subparagraphs (A) through (D), Guidelines section 15126.4, subdivision (b)(3) states that "[t]he following factors shall be ... discussed in an EIR...." Subparagraph (A) mentions preservation in place, which is described as "the preferred manner of mitigating impacts to archaeological sites." Subparagraph (B) lists four methods of accomplishing preservation in place. *Because the introductory sentence uses the word "shall," the discussion of the factors set forth in subparagraphs **(A) through (D) is mandatory***. (Guidelines, § 15005, subd. (a) ["shall" and "must" are mandatory].)Also, we interpret the word "factors" to include preservation in place generally as well as the four methods listed in Guidelines section 15126.4, subdivision (b)(3)(B). Therefore, the EIR's discussion of mitigation measures for impacts to historical resources of an archaeological nature must include preservation in place, and the discussion of preservation in place must include, but is not limited to, the four methods of preservation in place listed in subparagraph (B).

Letter P21: Beth Messick-Lattin

P21-1 The County acknowledges the community's experience with public engagement, and has invited and encouraged it in the context of this Project. See, e.g., Draft EIR Section 1.4, *CEQA Process Overview* (at page 1-4 et seq.) and Final EIR Section 1.3.1, *Agency and Public Review of the Draft EIR*. Outreach has occurred via web-postings, the posting of notices at the Office of the County Clerk and the State Clearinghouse, direct mailings, newspaper notifications, and the County's Project-specific email listserv. As indicated by the length of the list in Table 2-1, *Commenting Parties*, community response has been strong. Comments about the TANC project, however, are unrelated to the Draft EIR for this Project and beyond the scope of this CEQA process.

As explained in Draft EIR Section 3.1.3, *Cumulative Effects Approach* (at page 3.1-3) and consistent with CEQA Guidelines §15355, the cumulative impact from multiple projects is the change in the physical environment that results from the incremental impact of the proposed project when added to other closely related past, present, and reasonably foreseeable probable future projects. The cumulative scenario for this Project consists of trends; projections contained in one or more local, regional, or statewide planning documents; and the incremental effects of past, present, and reasonably foreseeable probable future projects, including timber management and harvesting, timberland conversion, the area's fire history, weather extremes, other wind projects, power lines and electrical infrastructure, mining projects, and the other present and reasonably foreseeable probable future projects listed in Table 3.1-4, *Potentially Cumulative County Projects* (at page 3.1-9), and Table 3.1-5, *Other Potentially Cumulative Projects within Shasta County* (at page 3.1-10).

The TANC project appropriately was not included as a related project in the cumulative scenario for this Project. It was not approved, and so is not a "past project" causing ongoing impacts that could combine with those of the Project to cause or contribute to cumulative impacts, and without an active application on file or identified funding, the TANC project also is not a "present or reasonably foreseeable probable future project." Accordingly, the County disagrees with the suggestion that the exclusion of the TANC project from consideration as part of the cumulative scenario was in error.

P21-2 The United States (through the National Weather Service) operates a system of 160 Doppler weather radars. The nearest Doppler radars to the Project Area are KBBX, located south of Chico, and KBHX, located south of Eureka. KMAX, located just north of the California-Oregon border, also provides some coverage of the Project Area.[51] These are located 80 to 120 miles from the Project Site. The National Weather Services' Radar Operations Center (ROC) has developed four distance-based zones to address potential effects of wind turbines on radars, from a "No Build Zone" of 4 km (2.5 miles) from a radar to a "Notification Zone" between 36 and 60 km (22 to 37 miles)

[51] National Weather Service Radar Operations Center, 2020. NEXRAD Coverage Below 10,000 Feet AGL. Available online at https://www.roc.noaa.gov/WSR88D/PublicDocs/CONUScoverageNspgsW_TJUA.pdf.

from a radar. Beyond this "Notification Zone" the ROC indicates that a proposed wind farm would be "clearly out of the RLOS [Radar line-of-sight], would have no impact on the radar data, except in some anomalous propagation conditions, in which case impacts would be low."52 The proposed Project, along with the existing Hatchet Ridge Wind Project, are over 80 miles from a Doppler radar and would be within the area considered to have no impact on radar data. No mitigation would be required.

Impact 3.5-2 addresses FAA regulation of turbines and potential effects on aviation navigational systems, including radar. As stated therein, it is unlikely that the Project would cause physical or electromagnetic interference with aircraft navigational systems due to the distance to the nearest airport. However, the FAA will review the proposed Project, and implementation of legally required measures, if any are identified by the FAA, also would ensure that this impact would remain less than significant. See Response 19-4 for additional details.

P21-3 "Wind shear" is a measurement found by comparing the wind speed at two different pressure levels or heights, where the difference produces an eddy of rotating air. The resulting turbulence can affect turbine power production. "Wake effect" occurs downstream from a rotating turbine, where wind speed is reduced. As the air flow proceeds downstream, the wake spreads and then recovers. Wake effect can be internal or external, meaning that turbines within a wind farm can cause wake effect for other turbines within the same project or for a downwind project's turbines.

This comment does not present any facts, data, or other information as evidence that turbulence or "wake effect" that could be caused by the Project would result in a potential significant adverse impact to the physical environment. Nonetheless, partly in response to this comment, Stantec evaluated the potential wake effects of the Project and submitted a memorandum documenting its conclusions.[53] The County has independently reviewed the memorandum, and finds its conclusions to be sufficiently documented, consistent with CEQA, and persuasive. In summary, wake effects are economic rather than environmental impacts. Because the CEQA Guidelines are clear that "[e]conomic or social effects of a project shall not be treated as significant effects on the environment" (CEQA Guidelines §15131 (a)), the consideration of wake effect is beyond the scope of the CEQA process for this Project. See also the responses to comments made in Letter 39, received from Pattern Energy, for more information about the County's consideration of potential wake effects in the context of this Project.

P21-4 Senate Bill 901 amends Section 4290 of the Public Resources Code to direct the State Board of Forestry and Fire Protection, on and after July 1, 2021, to update certain regulations pertaining to very high fire hazard severity zones in state responsibility areas (the entire Project Site is in such an area). No such updates have yet been adopted; therefore, the potential effects of this component of Senate Bill 901 on the

52 National Weather Service Radar Operations Center, 2016. How the ROC Analyses Wind Turbine Siting Proposals. Available online at https://www.roc.noaa.gov/WSR88D/WindFarm/Analyses.aspx.

53 Stantec, 2020. Response to Comment Letter re: Fountain Wind Energy Project Wake Effects. December 11, 2020.

Project area cannot yet be known. CEQA does not direct a lead agency to speculate about future regulation in analyzing the physical environmental impacts of a proposed project. Nonetheless, the Draft EIR analyzes potential wildland fire impacts in accordance with known and existing laws, regulations, and policies, as well as existing physical conditions, consistent with the requirements of CEQA.

P21-5 See Response P4-7 regarding the Draft EIR's analysis of potential impacts to surface waters and groundwater, including from blasting, if it occurs, and the measures that would be taken to help ensure protection of all surface and subsurface waters including springs. Such measures would include the implementation of Mitigation Measures 3.4-15a and 3.12-2. The County acknowledges receipt of the map of springs, which map has been included in the record together with the recommendation that pre- and post-construction measurements be taken. However, comments received do not support a conclusion that the analysis of potential impacts is inaccurate or inadequate, or that the proposed mitigation measures would not be as effective as reported in the analysis. In addition, the Regional Water Quality Control Board has primary authority over potential water quality degradation and would be involved in the Project through permitting processes including: Construction Stormwater General Permit; Notice of Intent to Comply with Section 402 of the Clean Water Act, SWPPP and SPCC Plan; Industrial Stormwater General Permit; approval of O&M SWPPP and SPCC Plan; and Section 401 certification if USACE determines jurisdictional waters of the U.S. would require a Clean Water Act Section 404 permit.

The suggestion that water quality should be monitored pre- and post-construction is not warranted due to the proposed activities and the industry standard best management practices that would be required to comply with the aforementioned regulatory requirements. However, the Construction Stormwater General Permit does require the SWPPP to contain a visual monitoring program, a chemical monitoring program for non-visible pollutants, and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. While implementation of these best management practices has proven effective across the entire state at minimizing water quality impacts, the additional monitoring requirements would ensure that they would remain effective through construction.

Information and input were requested from agencies (including the U.S. Army Corps of Engineers) during the scoping phase of the CEQA process[54] and with issuance of the Draft EIR. The Army Corps' potential role in Project oversight is identified in Draft EIR Table 2-8, *Summary of Permits and Approvals* (at page 2-41), which identifies the agency's permitting authority as inclusive of Clean Water Act Section 404 Nationwide Permit if jurisdictional waters of the U.S. could be affected by construction or operation of the Project. The Corps did not provide input during scoping (see Draft EIR Appendix J, *Scoping Report*) or following issuance of the Draft EIR (see Final EIR Table 2-1, *Commenting Parties*). CEQA's inquiry regarding potential significant

54 Shasta County, 2019. Fountain Wind Project NOP Distribution List. January 7, 2019.

environmental effects is separate from and independent of other agencies' administration and enforcement of resource-specific permitting regimes, including the U.S. Army Corps of Engineers' implementation of the NPDES program. Requirements imposed by the Corps in that context would be in addition to mitigation measures and conditions of permit approval imposed by the County. As the Court of Appeals recently confirmed, CEQA does not limit agencies' authority to impose requirements on projects pursuant to other laws. *Santa Clara Valley Water District v. San Francisco Bay Regional Water Quality Control Board* (2020) 59 Cal.App.5th 199.

P21-6 Wind energy equipment includes both internal plant data and external information that requires network communication capabilities, local and remote connectivity among wind plant field devices, control equipment, control centers, and business networks that can introduce significant cybersecurity concerns. Considering potential cybersecurity vulnerabilities, the United States Department of Energy's Office of Energy Efficiency and Renewable Energy published a Roadmap for Wind Cybersecurity in July 2020.[55] The Roadmap acknowledges that "successful cyber-intrusions and attacks on wind energy systems" have already occurred and "will likely increase in sophistication and number."

Such events have the potential to affect turbine equipment and the power grid. For example, the first publicly-known cyber incident to directly affect a renewable energy source occurred in March 2019. The "attempted exploitation of a vulnerability within a firewall" disrupted communications between a control center and renewable energy generation sites for a Utah-based wind owner/operator for less than 5 minutes. In another incident, a wind project technician accidentally downloaded malware onto a laptop, and then inadvertently infected his workplace when he logged in the next day. The impacts of successful malware intrusions can range from "slowing down, impeding, or muddling process communications" without affecting turbine operations to malicious access over control systems that affect stable power generation and lead to blade throw. The Draft EIR analyzes the potential for the Project to result in blade-throw-related hazards in Impact 3.11-3 (at page 3.11-12 et seq.), and concludes that the impact would be less-than-significant with the implementation of Mitigation Measure 3.11-3, *Mandatory Setbacks* (at page 3.11-14).

The Roadmap notes that the market (current as of July 2020) offers "few and underdeveloped wind-specific cybersecurity services, products, and strategies" to address cyber threats, and that "available cybersecurity options may be cost-prohibitive." Nonetheless, the potential environmental effects of a cybersecurity breach have been evaluated in the Draft EIR and found to be less than significant with the implementation of the identified mitigation measure. Accordingly, no further mitigation is warranted under CEQA.

[55] U.S Department of Energy, 2020. Roadmap for Wind Cybersecurity. https://www.energy.gov/sites/prod/files/2020/07/f76/wind-energy-cybersecurity-roadmap-2020v2.pdf. July 2020.

P21-7 The potential for the Project to create a significant direct or indirect hazard to the public or the environment through reasonably foreseeable upset or accident conditions is evaluated in Draft EIR Section 3.11, *Hazards and Hazardous Materials*. See, e.g., Impact 3.11-2, involving a release of hazardous materials into the environment (at page 3.11-10 et seq.), Impact 3.11-3, involving tower failure or rotor failure (at page 3.11-12 et seq.), Impact 3.11-4, involving ice shed (at page 3.11-14 et seq.), Impact 3.11-5, involving pesticide application (at page 3.11-15 et seq.), and Impact 3.11-6, involving shadow flicker (at page 3.11-16). The potential for these incremental impacts to cause or contribute to cumulative impacts is analyzed in Draft EIR Section 3.11.4 (at page 3.11-22), which says: "Regarding potential impacts that could occur during normal turbine operations, no other turbines could experience tower failure, blade throw or ice shedding. There is no existing cumulative impact to which the project or an alternative could contribute, and the cumulative effect would be less than significant."

Regarding potential cumulative effects associated with wildfire risk, Draft EIR Section 3.16.4 (at page 3.16-27 et seq.) identifies an existing significant adverse cumulative impact "[g]iven the vulnerability of the county to large severe fires, and the presence of other projects near the Project Site that also could be sources of ignition." The analysis concludes that the incremental, Project-specific contribution to this condition would not be cumulatively considerable for purposes of CEQA because access roads, vegetation clearance provisions, and emergency suppression equipment would be incorporated into the Project to substantially reduce wildfire ignition sources and provide for quick response to any ignitions that may occur on the Project Site.

P21-8 The comment is correct: Draft EIR Section 4.3 (at page 4-2) identifies the No Project Alternative as the environmentally superior alternative because it would avoid all impacts of the Project.

P21-9 Draft EIR Chapter 5, *Report Preparation* (at page 5-1 et seq.), identifies agency and other contributors to the preparation of the EIR who had a direct role in the drafting or editorial review of the analysis in Section 5.1, *Lead Agency*, Section 5.2, *Consultant*, and Section 5.3, *Subconsultants*. Relevant professional credentials are listed. Draft EIR Section 5.4 (at page 5-2 et seq.) identifies the entities consulted and recipients of the Draft EIR and/or the Notice of Availability.

Reference materials relied upon in the analysis are listed at the end of every resource section in Chapter 3, *Environmental Analysis*. See, e.g., Section 3.2.6 (at page 3.2-50) identifying references cited in the analysis of impacts to Aesthetics; Section 3.4.5 (at page 3.4-78 et seq.) identifying references cited in the analysis of Biological Resources, and Section 3.16.5 identifying references cited in the analysis of potential impacts relating to Wildfire.

Regarding the commenter's preference for additional time for review, see Response T5-1.

P21-10 The comment is correct that potential alternatives that did not meet most of the basic objectives of the Project [or another of the screening criteria outlined in Draft EIR Section 2.5.1, *Alternatives Development and Screening* (at page 2-27 et seq.)] were not carried forward for more detailed review. For example, a potential biomass alternative initially was considered but was not carried forward for the reasons explained in Section 2.5.2.3 (at pages 2-31 and 2-32).

See Response P20-15, which explains the relationship between the numbers, heights and locations of the proposed turbines. As clarified in Final EIR Table 1-1, *Comparison of Turbine Options*, the 3.0 MW, 5.7 MW, and 6.2 MW generating capacity turbines are options proposed as part of the Project. The decision not to present the different turbine options as stand-alone alternatives is consistent with CEQA, which directs that an EIR is not required to consider alternatives to a component of a project, but rather should focus on alternatives to the project as a whole. *Big Rock Mesas Property Owners Association v. Board of Supervisors* (1977) 73 Cal.App.3d 218, 227 (EIR not deficient for failure specifically to describe alternatives to the amount of grading proposed for the project).

P21-11 Consistent with the Draft EIR (at pages ES-6, ES-8, 3.2-20 et seq., and 3.2-47), the comment correctly states that the Project would have a significant and unavoidable impact to aesthetics, both at the Project-specific level and cumulatively.

The County acknowledges the commenter's disagreement with conclusions reached. This disagreement, however, does not undermine the validity of the data or analysis in the EIR, or the conclusions reached. The aesthetics analysis was performed using the methodology described in Draft EIR Section 3.2.4.1 (at page 3.2-17 et seq.) and environmental standards. It considers input received during scoping (Draft EIR at page 3.2-1, Appendix J, *Scoping Report*), technical input prepared by resource experts (Appendix A) that was independently reviewed by the County and its consultant team, reference materials cited in Section 3.2.6 (at page 3.2-50), and the professional technical resource expertise of the preparers of the EIR (Draft EIR Chapter 5). The commenter indicates that mitigation is needed, but does not provide specific information regarding the potential impacts of Project lighting that would support a different impact conclusion than presented in the EIR. Further, the commenter does not describe any mitigation measures that the commenter would assert would mitigate significant light and glare effects, if such a conclusion were made. Therefore, while the commenter's opinions are noted, the County chooses to rely on the data, other information and analysis documented in the Draft EIR. See Responses A2-1, P4-1, and P34-12 for addition details regarding the feasibility of mitigation for impacts to visual character and quality, and for potential impacts relating to light and glare.

P21-12 Mitigation Measure 3.3-1a speaks for itself. As stated, "A compliance log shall be maintained by the Applicant and made available to the Shasta County Department of Resource Management upon request." If problems are identified, then the Shasta

County Department of Resource Management would have the full extent of its enforcement authority available.

Mitigation Measure 3.3-2b would require the implementation of Mitigation Measure 3.3-1a regarding Tier 4 Final Emission Standards for Off-road Construction Equipment as well as Mitigation Measure 3.3-1b're requirements regarding idling restrictions and fuel use. Neither of these measures requires ground cover, dust palliatives, or soil stabilizers.

Fugitive dust control is, however, required by Mitigation Measure 3.3-2c. The AQMD has review and enforcement authority over the agency's own standard measures. Consistent with state law, the County assumes that the AQMD will perform its regulatory duties in accordance with its authority. The level of detail requested (i.e., to identify the specific ground covers, palliatives, and stabilizers) is not known at this stage of the environmental review process; however as required by Cal OSHA, once identified, all products to be used would require Safety Data Sheets (SDSs) be available to employees, and that employee information and training programs be documented. Even without these specifics, though, the EIR provides decision-makers with information to enable them to make a decision that intelligently accounts for environmental consequences. The comment does not suggest otherwise.

The potential impacts of construction emissions are analyzed in Draft EIR Section 3.3.3.2, *Direct and Indirect Effects of the Project* (at page 3.3-13 et seq.). See also page 3.11-3, which explains that federal, state, and local laws govern the use of explosives. Applicable environmental protection measures require the avoidance or minimization of impacts to sensitive environmental resources (including biological resources, cultural resources, wells and springs), and nearby residents (including from vibration, dust or noise). See also, Mitigation Measure 3.12-2, *Best Management Practices for Blasting* (at page 3.12-15 et seq.), which would be required if blasting is need on the Project Site. The comment correctly states that the Draft EIR analyzes the potential impacts of pesticide use. See Impact 3.11-5 (at page 3.11-15 et seq.).

Mitigation measures to address the potential significant impacts to Air Quality were developed on the basis of input received during scoping (Draft EIR at page 3.3-1, Appendix J, *Scoping Report*), technical input prepared by resource experts (Appendix B), reference materials cited in Section 3.3.5 (at page 3.3-31), and the professional technical resource expertise of the preparers of the EIR (Draft EIR Chapter 5).

For purposes of oversight and enforcement, the County will finalize the draft mitigation monitoring and reporting program (MMRP) provided in Final EIR Appendix G. Once finalized, the MMRP will identify each proposed mitigation measure, required implementation activities and schedule, the party responsible for monitoring implementation, and the required monitoring and reporting activities and schedule. The County would be primarily responsible for enforcing the procedures for monitoring

through its designated environmental monitor. The environmental monitor would note any problems with monitoring, notify appropriate agencies or individuals about any problems, and report the problems to the County. The County would have the authority to halt any construction, operation, or maintenance activity associated with the Project if the activity is determined to be a deviation from the approved Project or adopted mitigation measures.

P21-13 The biological resources analysis was performed using the methodology described in Draft EIR Section 3.4.3.1 (at page 3.4-36 et seq.). It considers input received during scoping (Draft EIR at page 3.4-1, Appendix J, *Scoping Report*), technical input prepared by resource experts (Appendix C) that was independently reviewed by the County and its consultant team, reference materials cited in Section 3.4.5 (at page 3.4-78 et seq.), and the professional technical resource expertise of the preparers of the EIR (Draft EIR Chapter 5). As described in Draft EIR Appendix C7, avian studies performed during the development and review of the Project were designed to address the questions posed under Tier 3 of the USFWS *Land-based Wind Energy Guidelines*[56] and Stage 2 of the USFWS *Eagle Conservation Plan Guidance*,[57] while also collecting data comparable to those recommended in the more dated California Wind Energy Guidelines.[58] Acknowledging that the commenter may prefer to see additional or different information in the EIR, the difference of opinion does not reflect a vulnerability in the document. The adequacy of the EIR is to be evaluated based on whether, as a whole, it reflects a reasonable, good-faith effort at full disclosure of the potential significant impacts of the Project. The County believes that the EIR, including the analysis of biological resources, does so. See also Response A3-15 and Response A3-30, which address substantially the same comments made here.

P21-14 Mitigation measures to address the potential significant impacts to Biological Resources were developed on the basis of input received during scoping (Draft EIR at page 3.4-1, Appendix J, *Scoping Report*), technical input prepared by resource experts (Appendix C) that was independently reviewed by the County and its consultant team, reference materials cited in Section 3.4.5 (at page 3.4-78 et seq.), and the professional technical resource expertise of the preparers of the EIR (Draft EIR Chapter 5).See Response P21-12 regarding the MMRP.

P21-15 As described in the Draft EIR at page 3.4-23, "Five species of waterfowl were recorded during two years of surveys within the Project Site, with snow goose (*Chen caerulescens*) accounting for the majority of use in winter and fall, and greater white-fronted goose (*Anser albifrons*) accounting for nearly all spring use (Appendix C4a, Appendix C4b). Other waterfowl species observed over the two years of surveys included the cackling goose (*Branta hutchinsii*), Canada goose (*Branta canadensis*), and tundra swan (*Cygnus columbianus*). Tundra swans were observed rarely but in large flocks. Waterfowl were observed most frequently during winter and during

56 USFWS, 2012.
57 USFWS, 2013.
58 CEC and CDFG, 2007.

migration." Further (at page 3.4-24), "Waterbird use, comprising two species, American white pelican (*Pelecanus erythrorhynchos*) and sandhill crane (*Antigone canadensis*), was highest in winter. No waterbird use was recorded in summer. Almost all the waterfowl and waterbird use occurred in the fall and winter indicating that these birds were migrating over the area and neither using migratory stop-over habitats within the Project Site nor breeding there." Additionally, the Draft EIR (at page 3.4-24) finds that, "From the results of two years of avian point count studies conducted within the Project Site, the site contains some stopover habitat for migratory birds including raptors and songbirds, but not for waterfowl or waterbirds (Appendix C4a, Appendix C4b). Based on survey observations and lack of stopover habitat for waterfowl in the Project area, impacts to Canadian geese and snow geese are not anticipated beyond those characterized in Draft EIR Impact 3.4-9.

P21-16 See Response P21-14 regarding biological resources-related mitigation measures. Studies on amphibians focused on potential habitat for six species that occur in the region where the Project Site is located and are discussed on Draft EIR page 3.4-17. Of these species, no state or federally-listed amphibians (i.e., Shasta salamander, California red-legged frog, and Cascades frog) occur on the Project Site based on described species' ranges and/or lack of suitable habitat on the site. In addition, the *Terrestrial Species Conservation Measure* discussed under Impact 3.4-14 will be considered by County decision-makers for adoption as a COA (Draft EIR Impact 3.4-14 at pages 3.4-61 to 3.4-62) to further reduce potential impacts on non-listed amphibians that may occur on site.

P21-17 The County acknowledges the commenter's disagreement with proposed mitigation. Pursuant to CEQA Guidelines §15204(c), "Reviewers should explain the basis for their comments, and should submit data or references offering facts, reasonable assumptions based on facts, or expert opinion supported by facts in support of the comments." Without such information, the comment does not enough information for the County to provide a more detailed response. Regarding biological-resources-related mitigation measures in general, including those that address riparian and wetland habitat, see Response P21-14.

P21-18 Mitigation Measure 3.4-16b (at page 3.4-65) and Mitigation Measure 3.4-16c (at page 3.4-66) speak for themselves. The Applicant would be responsible for preparing the Spill Prevention, Control, and Countermeasures (SPCC) Plan identified in Mitigation Measure 3.4-16b item g) and the Reclamation and Revegetation Plan identified in Mitigation Measure 3.4-16c. The County Planning Division would be responsible for reviewing and approving these plans with input from, or in coordination with, the Shasta County Environmental Health Division, CDFW, USFWS, and/or other agencies with relevant expertise. See Response P21-12 regarding the MMRP.

P21-19 As explained in Draft EIR Section 3.5.1.1 (at page 3.5-2), the study area evaluated as part of the analysis of communications interference includes the potential impact zone

for Project interference on communications signals. See Table 3.5-1, *Study Areas and Database Search Distances for Relevant Communications Types* (at page 3.5-2).

Draft EIR Section 3.1.2.1, *Environmental Baseline* (at page 3.1-1) explains that the significance of a project-caused change in the physical environment is measured relative to the actual physical environmental conditions in the area where the project and its alternatives would be implemented. These conditions are referred to as the "baseline." For this Project, baseline conditions generally (unless as otherwise noted in a specific resource section) were those as they existed in January 2019 when the Notice of Preparation (NOP) was published. For purposes of the analysis of impacts relating to Communication Interference, baseline conditions were as they existed in January 2019. Any owner who was not present in January 2019 was not included as part of the baseline condition. See Response P21-12 regarding the monitoring and enforcement of mitigation measures via the MMRP.

Responses to comments of Angel Baga are provided above in the context of Letter T3.

P21-20 Noted. Responses to comments received from Tribal entities and members are provided in Final EIR Section 2.3.2 and in the Final EIR as Confidential Appendix D.

P21-21 The analysis of potential impacts to geology and soils in Draft EIR Section 3.9 (at page 3.9-1 et seq.) was performed using the methodology described in Draft EIR Section 3.9.3.1 (at page 3.9-14) and environmental standards. It considers input received during scoping (Draft EIR at page 3.9-1, Appendix J, *Scoping Report*), reference materials cited in Section 3.9.5 (at page 3.9-22 et seq.), and the professional technical resource expertise of the preparers of the EIR (Draft EIR Chapter 5). Conclusions are based on facts and analysis in the Draft EIR, rather than opinions Acknowledging the commenter's personal experience, the County chooses to rely on the data, other information and analysis of impacts of the Project within the study area identified in Draft EIR Section 3.9.1.2 (at page 3.9-3) as documented in the EIR.

Corrosive soils are described at page 3.9-3, areas for consideration are shown in Figure 3.9-2 (at page 3.9-4), and related impacts are analyzed in the context of Impact 3.9-6 (at page 3.9-18 et seq.). The analysis concludes that the Project would result in a less-than-significant impact, although it could be located on expansive or corrosive soil as defined in California Building Code Section 1803.5.3, based on requisite adherence to design requirements consistent with the most updated version of the California Building Code and a site-specific, final design-level geotechnical report.

Scoping input identified the presence of Montgomery Creek formations, which are described as "extremely permeable" primarily alluvial fan deposits of sand and mixed rocks, and questioned whether such deposits are suited for the proposed foundations. See Draft EIR at page 3.9-1 and Appendix J, *Scoping Report*. See Section 3.9.1.1 (at page 3.9-1) and Figure 3.9-1, *Geologic Units* (at page 3.9-2), which describes and shows the local geology as including outcrops of Eocene-age Montgomery Creek Formation near the central western border of the overall ownership.

Figure 3.9-1, which was prepared using information from the California Geologic Survey, does not show Eocene-age Montgomery Creek Formation within the Project Site. However, regardless of the geologic materials present at the Project Site, it is rare for any geologic units in and of themselves to preclude development. Rather, the identification of the geotechnical characteristics of the underlying geologic materials will inform the geotechnical approach such as site preparation and foundation type that is suitable for the site materials and design of the improvement. As stated in the Draft EIR (at page 3.9-18), the required geotechnical investigation would analyze the site-specific conditions within the Project Site where foundations, footings and other infrastructure would be located as identified in final designs, and would identify any specific measures to address relevant site preparation, design or other requirements consistent with the most updated version of the CBC to ensure sound and safe construction.

P21-22 Impact 3.9-7 (at page 3.9-19) concludes that the Project would have a less-than-significant impact relating to the capability of on-site soils to support the use of septic tanks. The EIR discloses that on-site soils could be incapable of disposing the anticipated volumes of wastewater if the system is not designed appropriately. However, Shasta County Department of Resource Management's Environmental Health Division would regulate the appropriate design of any system to be installed on the Project Site through its permitting authority. Adherence to requirements of a septic system permit would ensure the system would be installed properly and within adequate soils that meet minimum County standards.

P21-23 The County disagrees that further study is required. See Response P21-12 regarding mitigation measures and the MMRP.

P21-24 The analysis of hazards and hazardous materials was performed using the methodology described in Draft EIR Section 3.11.3.1 (at page 3.11-9) and environmental standards. It considers input received during scoping (Draft EIR at page 3.11-1, Appendix J, *Scoping Report*), technical input prepared by resource experts (Appendix F) that was independently reviewed by the County and its consultant team, reference materials cited in Section 3.11.5 (at page 3.11-23 et seq.), and the professional technical resource expertise of the preparers of the EIR (Draft EIR Chapter 5). Conclusions are based on facts and analysis, rather than opinions. See Response P21-12 regarding the MMRP and oversight and enforcement of compliance with the requirements of mitigation measures.

P21-25 The analysis of hydrology and water quality was performed using the methodology described in Draft EIR Section 3.12.3.1 (at page 3.12-11) and environmental standards. It considers input received from the Central Valley Regional Water Quality Control Board and members of the public during scoping (Draft EIR at page 3.12-1, Appendix J, *Scoping Report*), reference materials cited in Section 3.12.5 (at page 3.12-24 et seq.), and the professional technical resource expertise of the preparers of the EIR (Draft EIR Chapter 5). Conclusions are based on facts and analysis, rather than opinions.

Acknowledging that the commenter may prefer to see different or additional information, the County disagrees that more is required. As stated in CEQA Guidelines §15204(a), "CEQA does not require a lead agency to conduct every test or perform all research, study, and experimentation recommended or demanded by commenters. When responding to comments, lead agencies need only respond to significant environmental issues and do not need to provide all information requested by reviewers, as long as a good faith effort at full disclosure is made in the EIR." Draft EIR prepared for this Project, including the analysis of potential impacts to hydrology and water quality, does so.

P21-26 As set forth in Mitigation Measure 3.14-3, *Traffic Management Plan* (Draft EIR at page 3.14-14 et seq.), the Applicant would be required to prepare a traffic management plan at two points over the use permit period: first, prior to the issuance of construction or building permits and, second, prior to the removal of materials from the Project Site during decommissioning. The timing of any County or FEMA adoption of a formal evacuation plan would be separate from and independent of the Applicant's obligations pursuant to Mitigation Measure 3.14-3.

The Traffic Control Plan required as part of the Traffic Management Plan would include measures designed to minimize the potential hazard to the public associated with limiting motorist, bicyclist, and pedestrian views on roadways and introducing obstructions on SR 299. No full roadway closures on SR 299 are anticipated to be required as part of the Project and, therefore, detours to the alternative routes identified by the commenter (Buzzard's Roost, Oak Run Road) would not be necessary. Instead, detours to route vehicular traffic, bicyclists, and pedestrians around lane or shoulder closures, if they occur, would be provided within the SR 299 right-of-way. Additionally, the Traffic Control Plan would include information detailing the timing of deliveries to/removals from the Project Site of heavy equipment and building materials. This information would be subject to review/approval by the Shasta County Public Works Department and Caltrans, and could be modified, if deemed necessary, to avoid specific hours of the day. However, as shown in Table 3.14-5 on page 3.14-11 of the Draft EIR, operating conditions on SR 299 with the addition of Project-generated construction traffic, are anticipated to meet Caltrans standards (LOS C or better) during the peak travel times. It is customary for construction projects to begin work (and so for workers already to be on site) during AM peak hour traffic. Therefore, it is not anticipated that any such restrictions on time of day for travel to or from the Project Site would be necessary.

The analysis of transportation impacts was performed using the methodology described in Draft EIR Section 3.14.1.1 (at page 3.14-7 et seq.) and environmental standards. It considers input received during scoping (Draft EIR at page 3.14-1, Appendix J, *Scoping Report*), technical input prepared by resource experts (Appendix H) that was independently reviewed by the County and its consultant team, reference materials cited in Section 3.14.5 (at page 3.14-19), and the professional technical resource expertise of the preparers of the EIR (Draft EIR Chapter 5). Conclusions and

recommended mitigation measures are based on facts and analysis, rather than opinions. Acknowledging that the commenter may disagree with thresholds relied upon, conclusions reached, or mitigation measures identified in the analysis, the County chooses to rely on the data, other information and analysis documented in the Draft EIR.

Among the data and other information relied upon, the analysis discloses and considers information specifically about Deschutes Road. See Draft EIR page 3.14-2 ("On the two-lane rural section of SR 299 between Deschutes Road (on the east edge of Redding) and Elm Street (on the west edge of Burney), the peak-hour volume ranges from between 320 and 490 vehicles per hour."), Table 3.14-1, *SR 299 traffic Volumes – Existing Conditions* (at page 3.14-3), Table 3.14-2, *SR 299 Peak-hour Level of Service – Existing Conditions* (at page 3.14-4), and Table 3.14-5, *SR 299 Peak-hour Level of Service – Project Construction* (at page 3.14-11).

As explained in the Project Description (Draft EIR Section 2.4.5.3, at page 2-19), "Delivery of Project components would be coordinated through the California Department of Transportation (Caltrans) and County encroachment permit processes and timed to minimize traffic disruptions."

The analysis of direct, indirect, and cumulative transportation impacts expressly considers worker trips in the evaluation. Draft EIR Section 3.14.3, *Methodology* (at page 3.14-8) explains: "Construction period trip generation was calculated based on the types of delivery, construction, operations, maintenance and worker vehicles required during the various phases of the Project. Vehicle trips into and out of the Project Site were estimated using the projected number of deliveries, the required types of equipment and material, and the projected number of employees necessary to construct the Project over the estimated construction period."

The comment does not provide substantial evidence that the Project would cause a potential significant CEQA impact to alternative local traffic routes. As explained in CEQA Guidelines Section 15204(c), "Reviewers should explain the basis for their comments, and should submit data or references offering facts, reasonable assumptions based on facts, or expert opinion supported by facts in support of the comments. Pursuant to Section 15064, an effect shall not be considered significant in the absence of substantial evidence." Without substantial evidence of a potential significant impact to Buzzard's Roost or Oak Run Road, there is no basis pursuant to CEQA to require payments to repair those roads.

P21-27 As explained in Draft EIR Section 2.4.8.1, *Water and Wastewater* (at page 2-24) with emphasis added in italics, "Project construction *and long-term operation* includes the use of potable water from one or more new onsite water supply wells to be drilled at the O&M facility location or from the importation of water by truck from the Burney Water District." This is consistent with the water supply assessment provided in Draft EIR Appendix I (at page 1.1).

The County cannot and in the Draft EIR does not guarantee that blades or nacelles would be recycled at the end of their useful life. See Response T5-4 regarding the disposal of turbine components following decommissioning and regarding a Project-specific Decommissioning Plan and financial assurances.

P21-28 See Response P26-55 regarding aerial firefighting. Regarding Mitigation Measure 3.16-2a, the Fire Prevention Plan will be drafted by the Applicant based on consultation with the Shasta Trinity Unit of CAL FIRE and the Shasta County Fire Department. The FPP will be submitted to the Shasta County Department of Resource Management, Planning Division for approval prior to issuance of any development permits for the project. The County shall have an opportunity to consult with Shasta Trinity Unit of CAL FIRE and the Shasta County Fire Department make comments on and revisions to the FPP, which the Applicant shall incorporate into a revised FPP for approval. As described in Mitigation Measure 3.16-2a on Draft EIR page 3.16-19, "The Fire Coordinator shall be responsible for ensuring that crews have sufficient fire suppression equipment, communication equipment, shall lead and coordinate fire patrols, ensure that the required clearances are followed onsite, and ensure that all crew members receive training on the FPP and its components."

The commenter's disagreement with the conclusions reached under Impact 3.16-2 is acknowledged. The commenter questions how measures outlined in Mitigation Measure 3.16-2a could reduce the impacts of the Project to near baseline levels. CEQA does not require avoidance or complete offset of potential significant impacts, but rather than they be reduced to a less-than-significant level i.e., to a significance level that is below established thresholds. That a residual impact would remain following the implementation of recommended mitigation measures is acknowledged. See Response P26-56, which explains how the proposed mitigation would reduce Project impacts to a less-than-significant level by reducing the wildfire risk introduced by the Project to near baseline conditions. This would be done by building preventative measures and emergency response measures into Project construction and operation, reducing the likelihood of the Project igniting a fire, and also by providing Project equipment and staff with the resources necessary to react to an on-site fire quickly in order to prevent the spread of wildfire. Therefore, after mitigation the risk introduced by the Project would not be significantly greater than the risk posed by other existing land uses such as timber harvesting. Regarding comments made by Kelly Tanner, see responses to Letter P45.

P21-29 This suggestion does not bear on the accuracy or adequacy of the EIR's evaluation of impacts of the Project or alternatives but is acknowledged and has been included in the record.

P21-30 Regarding the commenter's preference for additional time for review, see Response T5-1. The County acknowledges the stated preference for the No Project Alternative, and has included it in the record where it may be considered by decision-makers as part of their deliberations.

P21-31 Draft EIR Section 3.1.3 (at page 3.1-3 et seq.) explains that the analysis of cumulative effects analyzes the significance of the incremental direct and indirect impacts of the Project on the physical environment together with the impacts of other past, present, and reasonably foreseeable probable future projects, where different impacts could overlap in the same geographic area and occur at the same time. Social impacts are not impacts on the physical environment, and so are beyond the scope of CEQA and this EIR.

P21-32 See Response T2-4 regarding why off-site alternatives were not considered in detail in this EIR.

P21-33 The Draft EIR acknowledges that landslides could occur. Section 3.9.1.2 discloses and the analysis thereafter considers the fact that "the Project Site includes relatively steep slopes where landslides, debris flows, or rock falls could occur." See, e.g., Draft EIR at page 3.9-16.

The Draft EIR discusses local access to the Project Site in Section 3.14.1.2 (at page 3.14-2). Three existing access roads currently used for logging that intersect with SR 299 would provide local access to the Project Site, which are identified in the Draft EIR as West Access, North Access, and East Access. Big Bend Road would not be used for Project Site access during project construction or operation. The Draft EIR provides peak hour and daily traffic volumes on SR 299 in the vicinity of Big Bend Road in text and in Table 3.14-1, *SR 299 Traffic Volumes – Existing Conditions* (at page 3.14-3) as well as in Table 3.14-2, *SR 299 Peak-hour Level of Service – Existing Conditions* (at page 3.14-4), and Table 3.14-5, *SR 299 Peak-hour Level of Service – Project Construction* (at page 3.14-11).

Section 3.14.4, *Cumulative Analysis* (at page 3.14-18) expressly considers temporary lane closures on SR 299 in the vicinity of Big Bend Road. It identifies a Caltrans roadway pavement project "located along the study roadway segment of SR 299 between Big Bend Road and Tamarack Road (Milepost 60.1 to 73.1) and would occur directly adjacent to the Project Site. Although the precise dates of Project construction activities are unknown at this time, it is possible that the Caltrans pavement project could overlap with Project construction activities. Detailed construction information on the Caltrans project is unavailable at this time, but it would be reasonable to assume that this type of project would require temporary lane closures, which would necessitate the use of temporary traffic controls (e.g., flaggers, traffic cones, signage). These features, in combination with the increased construction traffic generated by the Project, could cause noticeable temporary traffic delays on SR 299, resulting in a potential significant cumulative impact." The analysis proceeds to evaluate whether the Project's incremental contribution would be cumulatively considerable, and concludes that it would not, based on the implementation of mitigation measures that would reduce the severity of the Project-specific increment.

P21-34 In Impact 3.9-4, the Draft EIR explains, "The Project would include ground-disturbing activities during construction, operation and decommissioning that could increase the

risk of erosion or sediment transport, if not managed appropriately" (at page 3.9-16) and that "erosion could occur as a result of timber clearance and harvesting activities" (at page 3.9-17). However, appropriate management would occur in the context of the Project. The analysis concludes that the impact would be less than significant based on implementation of the required stormwater pollution prevention plan (SWPPP) and adherence to the requisite best management practices (BMPs) during the construction, and operations and maintenance phases, as well as the BMPs included in the timber harvest plan (THP) that would be required for timber clearance and harvesting.

P21-35 See Final EIR Section 1.2.3, *Changes to the Project Since Issuance of the Draft EIR*, which explains that a Project modification has been made to avoid impacts to FW 11.

This letter includes lengthy exhibits. The exhibits themselves are provided in Final EIR Appendix D3, Exhibits to Letter P21, Beth Messick-Lattin. Responses addressing the exhibits are provided below.

P21-36 See Final EIR Section 2.1.1, *Input Received*, which explains that CEQA does not require a detailed response to comments that are not specific to the Draft EIR or the CEQA process for this Project. Nonetheless, the County acknowledges receipt of the following:

- CEQA Portal Topic Paper on mitigation measures as revised February 10, 2020.
- This information provided by CalRecycle regarding MMRPs. Regarding the MMRP for this Project, see Response P21-12.
- The May 2014 summary of the *Lotus v. Department of Transportation* decision.
- Wikipedia information about Round Mountain, California.
- The undated Air Force Law Review article entitled, *When Wind, Wind Turbines, and Radar Mix*. Potential impacts of the Project relating to communications interference are analyzed in Section 3.5. Specifically regarding air navigation, see page 3.5-7. Potential impacts to air navigation also are analyzed in Section 3.2, *Aesthetics* (at page 3.2-12)), in the context of emergency response (see Section 3.1.4.14, *Public Services*, at page 3.1-21, and Response P11-2 specifically regarding potential impacts to use of the Moose Camp helipad), and regarding aerial firefighting (see Response T3-3).
- The National Weather Service's explanation of how the agency's Radar Operations Center (ROC) analyzes wind turbine siting proposals in reliance on the Department of Commerce's National Telecommunications and Information Administration (NTIA), which acts as a clearinghouse for relevant information. In Draft EIR Appendix D, see Section VI the Engineering Report Concerning the Effects Upon FCC Licensed RF Facilities, which discloses that the NTIA was notified of the Fountain Wind Project May 6, 2020. Receipt also is acknowledged of the ROC's information about weather radar and frequently asked questions.
- Proposed legislation regarding the update of fire prevention regulations for fuel breaks and greenbelts in hazardous fire areas.

- May 19, 2020, article entitled Effects of Two-Dimensional Steep Hills on the Performance of Wind Turbines and Wind Farms. See Response P21-3 regarding wind shear, turbulence and wake effect.
- September 1, 1990 article entitled, *Effects of Wind Shear and Turbulence on Wind Turbine Power Curves*. See Response P21-3 regarding wind shear, turbulence and wake effect.
- October 31, 2019, article entitled, *First-of-a-kind U.S. Grid Cyberattack Hit Wind, Solar*. See Response P21-6 regarding cybersecurity.
- June 7, 2017, article entitled, *Computational Fluid Dynamics (CFD) Investigation of Wind Turbine Nacelle Separate Accident over Complex Terrain in Japan*. See Response P21-3 regarding wind shear, turbulence and wake effect.
- September 2017 article entitled, *Wind Turbine Accidents: A Data Mining Study.* See Response P21-7 regarding the potential for the Project to create a significant direct or indirect hazard to the public or the environment through reasonably foreseeable upset or accident conditions.
- December 22, 2015 article entitled, *Do Wind Turbines have to Brake Themselves if the Wind Speed Becomes Too High?*
- 2016 article entitled, *Analysis of Throw Distances of Detached Objects from Horizontal Access Wind Turbines*. See Response P21-7 regarding reasonably foreseeable upset or accident conditions.
- July 2, 2014, article entitled, *Wind Turbine Rotor Fragments: Impact Probability and Setback Evaluation*. See Response P21-7 regarding reasonably foreseeable upset or accident conditions.
- February 11, 2019, article entitled, *Analysis of Blade Fragment Risk at a Wind Energy Facility*.
- Geologic map of the Montgomery Creek formation. See Response P21-21.
- An undated article entitled, *Review of Soil Corrosivity Testing for General Building Materials*. See Response P21-21.
- Article entitled dangers of *Toxic Fumes from Blasting*. See Response P21-12 regarding the analysis of potential impacts of construction emissions and Mitigation Measure 3.12-2, *Best Management Practices for Blasting*, the implementation of which would reduce potential impacts of blasting.
- An article and supplementary materials regarding *Decline of the North American Avifauna*. See Draft EIR Section 3.4, *Biological Resources*, which analyzes potential direct, indirect, and cumulative effects of the Project on avian species and other wildlife.
- March 23, 2012 USFWS *Land-Based Wind Energy Guidelines*. See Response P21-13.
- A list of birds with hand-written stars noted.

- *Guidelines for Determining Significance Cultural Resources: Archaeological, Historic, and Tribal Cultural Resources*. These guidelines were prepared by the Society for California Archeology. The analysis in Draft EIR Section 3.6, *Cultural and Tribal Cultural Resources*, is consistent with these guidelines.

Comment Letter P22

Sept. 11, 2020 (1)

To Whom It May Concern:

My name is Victoria Dawn Rasmussen. I just turned 60 years old. My property is at 17500 Cold Deck Lane, Round Mountain, CA. 96084 I have lived there 25 years. I developed it myself. It was a bare piece of land with trees when I bought it. The fountain fire had jumped the property because there was a fire line cleared around it.

My boys and I camped on it. Then we moved

Comment Letter P22

Rasmussen (2)
9/11/20

an older 14 X 55 Mobile - home on to it. We ran a generator for 6½ years before we got electricity.

The manufactured home down the road came up for sale, so "The LORD" allowed me to purchase it. Ron Smith and his crew from Alpine Mobile moved it and set it up.

My point(?) is I have been through a lot living in the mountains. I love my place. It is beautiful with a view of Mt. Shasta.

Comment Letter P22

Rasmussen (3)
9/11/20

I've worked hard, suffered through severe winters, done without just so I could pay my property off. My children were young and went through it too. as well

And Now that it's all coming together from what I understand, a company from Australia? is just going to come in and ruin the natural environment with gigantic wind mills. That my property, my Life's work will just go down in

P22-1

Comment Letter P22

Rasmussen 4
9/11/20

resale value by 75%
and I won't even be
compensated?

If I lived in the city
and a freeway came
through my property,
I would be compensated.
And it may not even be
a shake because I would have
already been in the city.

But I'm in the moun-
tains, the middle of no
where; In one of the
most beautiful places
in the world, with
creeks and waterfalls

P22-1
cont.

Comment Letter P22

9/11/20 (5)

and magnificent views!
Why would you want
to destroy such a won-
derful habitat?
VR The PGE substation is
down below my place.
Over the years it has
gotten 3 times "brighter"
and it is also "louder".
The surveillance system
intercom wakes me up
all night long.
I want to know will
these windmills bring in
more power lines, lights
and noise? How

P22-1 cont.

Comment Letter P22

9/11/20 (6)

would you expect me to stand it? What if it were you, your property, your community? If I were property compensated I would move.

Sincerely,

Victoria ~~Rasmussen~~

Victoria

Obviously, someone is going to be making a lot of money from ~~the~~ Windmill Project but they aren't giving up anything for it. It is being built on the (unwilling) sacrifice

P22-1 cont.

Comment Letter P22

9/11/20 (7)

of men, women and children's Dreams, lives, possessions stability and future, not to mention, their money as well in the form of decreased property value.

Most people who live in the mountains could not sell their homes and properties and get an equal place in the city.

So, if you, the ~~city~~ county board/committee who made these decisions were to allow this Windmill

P22-1 cont.

Comment Letter P22

9/11/18

project to carry through, those same people will never be able to leave the area unless they win the Lottery or have an inheritance come in!

To whom it may concern:

Now Oct 18 2020 I do not think that it is fair that the committy expect common folk to understand an umteen page impact report that my brother in law said he would need a lawyer to interpret it for him because he was trying to help me!

Victoria

Victoria Dawn Rasmussen
(530) 337 111
PO Box 164 Red Mtn 96084

P22-1 cont.

Letter P22: Victoria Rasmussen

P22-1 As explained in Final EIR Section 2.1.1, comments about the location of the Applicant's headquarters office, property values, potential changes to community character or a way of life, and who might benefit financially from the Project are beyond the scope of CEQA and this EIR, which focuses on the potential significant direct, indirect, and cumulative environmental effects of the Project on the physical environment. Other factors, such as the aforementioned, may be considered by decision-makers outside the CEQA process.

The sights and sounds of existing features in the landscape, including the PG&E substation identified in the comment, have been considered in the EIR as part of the baseline condition and in the cumulative context to the extent they continue to cause ongoing impacts that could combine with those of the Project.

The power lines and electrical infrastructure proposed as part of the Project are described in Draft EIR Section 2.4. See, e.g., the description of the electrical collector system and communication system (at page 2-10 et seq.) and the Project substation, switching station and interconnection facilitates (at page 2-12). The Project's potential to cause a significant impact associated with the creation of a new source of substantial light or glare is analyzed in the context of Impact 3.2-3 (Draft EIR at page 3.2-42 et seq.). The potential significance of Project-generated noise is disclosed and analyzed in Draft EIR Section 3.13 (at page 3.13-1 et seq.). The Project's potential to cause aesthetic impacts is analyzed in Draft EIR Section 3.2, Impact 3.2-1 and Impact 3.2-2.

Comment Letter P23

Lio Salazar

From: Elizabeth Murphy <murphyelizabeth@me.com>
Sent: Tuesday, October 20, 2020 6:47 PM
To: Fountain Wind Project
Subject: Fountain Wind EIR

Mr. Salazar,

This email is in regards to the Fountain Wind Project's Environmental Impact Report. As a resident of Montgomery Creek in Shasta County, I am concerned about several issues that I feel were not adequately addressed.

First and foremost, the EIR does not address how the 650 foot tall wind turbines will affect fire protection, should the need arise. Is it the understanding of the Planning Commissioners that these 33,000+ acres will not ever need helicopters or air tankers to help battle a future fire in the area? What is the alternative that the US Forest Service is able to put into place?

Secondly, the EIR does not address the potential pollution both to the land and air if the turbines were to burn in a wildfire. Did Shasta County require a bond upfront to make sure that in the case of a fire or when the turbines become obsolete the company is responsible for returning the land to how it was before the wind farm was created? P23-1

Third, the EIR did not include photo simulations of how the turbines will impact the residences of Moose Camp, of which I am one. It does not address the actual distance from the turbines to each of the homes in the region. Will noise be an issue? What decibel level will be perceived at each of the homes in the area? Will light flicker hinder the view? How much vibration will the turbines cause on the volcanic earth and to our homes? P23-2

Fourth, the EIR does not address our water wells and the existing water table in which we rely. Will construction and maintenance of the turbines cause any contamination or change in the level of the water? P23-3

Fifth, the EIR has not specifically said how many trips will be made through our neighborhood on Moose Camp Road. How large of vehicles will be traversing on Moose Camp Road? What fuel type will the vehicles use? Will they add pollution to the homes that line Moose Camp Road? Will they vibrate the area? What decibel level will the vehicles emit? P23-4

Finally, given our fragile ecosystem in the area, I do not believe the Fountain Wind Project needs the large number of turbines or even the enormous size of these turbines in order to produce energy.

I believe a more thorough EIR is necessary before our Shasta County Planning Division can make a decision on the next step in the process. P23-5

Elizabeth Murphy
19601 Sycamore Road
Montgomery Creek, CA 96065

Letter P23: Elizabeth Murphy

P23-1 See Response T3-3 regarding aerial firefighting. See Response P15-4 regarding air pollution and turbine fires.

P23-2 See Responses P4-1 and P4-3 regarding visual impacts, see Response P4-6 regarding noise, vibration, and shadow flicker.

P23-3 See Response P4-7 regarding surface waters and groundwater and Response T3-4 regarding water rights.

P23-4 See Response P4-8 regarding the number of trips and vehicle types that could use local roads to access the Project Site, as well as vehicle emissions, noise, and vibration on sensitive receptors, including existing homes.

P23-5 The County acknowledges that the commenter may prefer to see additional or different information in the environmental analysis of the Project. However, as explained in CEQA Guidelines §15204, "the adequacy of an EIR is determined in terms of what is reasonably feasible, in light of factors such as the magnitude of the project at issue, the severity of its likely environmental impacts, and the geographic scope of the project. CEQA does not require a lead agency to conduct every test or perform all research, study, and experimentation recommended or demanded by commentors. When responding to comments, lead agencies… do not need to provide all information requested by reviewers, as long as a good faith effort at full disclosure is made in the EIR." The EIR, including the analysis of impacts within and near Moose Camp and its residents, satisfies this requirement for the reasons explained in the Responses above.

Comment Letter P24

Lio Salazar

From: Douglas Murphy <dougmurphy@mac.com>
Sent: Tuesday, October 20, 2020 7:15 PM
To: Shasta County BOS
Subject: Fountain Wind Project Comment

As a homeowner in the neighborhood am concerned that the full impacts of the proposed Fountain Wind project have not been adequately reviewed and mitigated. Mine and 49 other residents are less than 2,000 feet from the proposed 679 foot wind turbines yet little to no mention of the serious impacts is mention in the plan study. I believe a r honest, adequate review would warrant consideration of increased setbacks for visual and noise issues, review of fire and safety concerns and construction impacts to what is currently a quiet community.

The impact report barely mentions the Moosecamp community, obscures its location in low-resolution maps and provides no simulation of the visual impact of having such tall active spinning structures located so close to the residences. Dismissing visual impacts out of hand is not an adequate review of actual negative impacts. The same dismissal of noise impacts, oscillating shadows and blinking FAA lighting is not an adequate review for mitigations. P24-1

Fire is a primary concern for rural communities. With current advances in fighting fires from the air would there be any conflicts between the wind turbines and the use of aircraft dropping water or retardant should there be a fire? On a related safety note our community has an emergency helipad long used by public safety agencies. Would the wind turbines alter the use of this important facility? P24-2

Construction impacts are also given inadequate study in this report. What is the specific use of Moose Camp Road and Moose Avenue during construction? How many trips by what type of vehicles will there be? Depending on that use is that compatible with a small residential community? If construction is completed what will be done to mitigate curious gawkers who will be drawn to what would be the tallest structures in the county? P24-3 P24-4

In summary this report falls far short of a full review of the logical impacts of this project and is thus lacking the mitigations logically required. I strongly request that the study be rejected as inadequate or the project be redesigned to mitigate the impacts on my nearby residential community. P24-5

Respectfully,

Doug Murphy
19615 Sycamore Street
Montgomery Creek, CA 96065

Letter P24: Douglas Murphy

P24-1 The County disagrees that the only mention of Moose Camp is restricted to a single footnote. See, e.g., Draft EIR Section ES.2.2 (at page ES-2), Section 2.2 (at page 2-3), and Section 3.1.4.10 (at page 3.1-19), all of which describe the location of the Project site relative to Moose Camp; Draft EIR pages ES-38 and 2-38, both of which describe the development of Alternative 2 as responsive, in part, to scoping input received requesting that the County consider an alternative that would move turbines farther from Moose Camp; and Section 3.2, *Aesthetics*, which describes the Mountains Communities Character of the area (including Moose Camp) in the context of the analysis of impacts to aesthetics (at page 3.2-10), and describes key observation point (KOP) 1 as representative, in part, of nearby residents traveling along Moose Camp Road (at page 3.2-22).

See Responses P4-1 and P4-3 regarding visual impacts, see Response P4-6 regarding noise and shadow flicker.

P24-2 See Response T3-3 regarding aerial firefighting. See Response P11-2 regarding potential impacts to the Moose Camp helipad.

P24-3 See Response P4-8 regarding the number of trips and vehicle types that could use local roads to access the Project Site.

P24-4 The comment does not make clear what potential significant adverse impact could result if curious people would be attracted to the Project during the operation and maintenance phase. Access to the Project Site would be gated and controlled, and workers would be present on-site during all phases of the Project, including construction, operation and maintenance, and decommissioning.

Impacts on transportation, air quality, greenhouse gas emissions, and noise all are addressed in the Draft EIR. Without an explanation of the basis for the comment, data or references offering facts, reasonable assumptions based on facts, or expert opinion supported by facts in support of the comment, the County does not have sufficient information to provide a detailed response.

P24-5 See Response P23-5 regarding how the adequacy of the EIR is determined.

Comment Letter P25

Lio Salazar

From: Spencer Murphy <murphyspencer1@gmail.com>
Sent: Tuesday, October 20, 2020 8:44 PM
To: Fountain Wind Project
Subject: Fountain Wind Project Environmental Impact Report

Shasta County Planning Commissioners,

This email is in regards to the Fountain Wind Project's Environmental Impact Report. As a resident of Montgomery Creek in Shasta County, I am concerned about several issues that I feel were not adequately addressed.

First and foremost, the EIR does not address how the 650 foot tall wind turbines will affect fire protection, should the need arise. Is it the understanding of the Planning Commissioners that these 33,000+ acres will not ever need helicopters or air tankers to help battle a future fire in the area? What is the alternative that the US Forest Service is able to put into place? P25-1

Secondly, the EIR does not address the potential pollution both to the land and air if the turbines were to burn in a wildfire. Did Shasta County require a bond upfront to make sure that in the case of a fire or when the turbines become obsolete the company is responsible for returning the land to how it was before the wind farm was created? P25-2

Third, the EIR did not include photo simulations of how the turbines will impact the residences of Moose Camp, of which I am one. It does not address the actual distance from the turbines to each of the homes in the region. Will noise be an issue? What decibel level will be perceived at each of the homes in the area? Will light flicker hinder the view? How much vibration will the turbines cause on the volcanic earth and to our homes? P25-3

Fourth, the EIR does not address our water wells and the existing water table in which we rely. Will construction and maintenance of the turbines cause any contamination or change in the level of the water? P25-4

Fifth, the EIR has not specifically said how many trips will be made through our neighborhood on Moose Camp Road. How large of vehicles will be traversing on Moose Camp Road? What fuel type will the vehicles use? Will they add pollution to the homes that line Moose Camp Road? Will they vibrate the area? What decibel level will the vehicles emit? P25-5

Finally, given our fragile ecosystem in the area, I do not believe the Fountain Wind Project needs the large number of turbines or even the enormous size of these turbines in order to produce energy.

I believe a more thorough EIR is necessary before our Shasta County Planning Division can make a decision on the next step in the process. P25-6

Spencer Murphy
19615 Sycamore Road
Montgomery Creek, CA 96065

Letter P25: Spencer Murphy

P25-1 See Response T3-3 regarding aerial firefighting.

P25-2 Regarding a Decommissioning Plan for the Project and financial assurances, see Response T5-4. See Response P15-4 regarding air pollution and turbine fires.

P25-3 See Responses P4-1 and P4-3 regarding visual impacts, see Response P4-6 regarding noise, and vibration, and shadow flicker.

P25-4 See Response P4-7 regarding surface waters and groundwater and Response T3-4 regarding water rights.

P25-5 See Response P4-8 regarding the number of trips and vehicle types that could use local roads to access the Project Site as well as regarding the Draft EIR's analysis of air quality, noise, and vibration impacts.

P25-6 See Response P23-5 regarding how the adequacy of the EIR is determined.

Comment Letter P26

DEIR Comments

Introduction:

Project Objectives: They are too narrowly focused. They do not reflect the underlying fundamental purpose or objectives of the developer for developing this project. They reflect a prejudicial bias meant to eliminate reasonable alternatives that don't generate revenue for the County. Revenue generation through jobs and taxes is a County goal not the developers. County revenue generation may be a beneficial consequence for the County but it is not the developer's fundamental project objectives. The County's desires should not be co-mingled with the project objective. The developer would gladly pay no taxes, no community enhancement funds, and as few workers as possible during construction, operation and demolition in order to reduce those costs and maximize corporate profits. This DEIR is inadequate because it prejudicially eliminates alternatives, many of which were mentioned in the scoping comments and is likely open to a successful court challenge because it violates CEQA by creating too narrowly focused prejudicial Project Objectives. The objectives listed in the EIR for the nearby Hatchet Ridge Wind development are a truer reflection of project objectives for a Wind Energy Development.

P26-1

P26-2

The article linked below discusses case law regarding too narrowly focused prejudicial objectives that led to the EIR being invalidated.
https://www.manatt.com/insights/newsletters/real-estate-and-land-use/using-project-objectives-to-select-a-reasonable-ra

- When preparing project objectives, the objectives must be consistent with the project purpose to ensure the alternatives analysis considers a reasonable range of alternatives that would meet the project objectives.
- When a project has an undefined term, the EIR need not speculate but must consider all "reasonably foreseeable" impacts.

P26-3

Project Alternatives: Because of the improper prejudicial objectives almost all reasonable alternatives have failed to be examined or were improperly disqualified. The fundamental objective of the project is to produce electrical power by what is defined as renewable means to be placed on the nation's electrical grid for sale at a profit. And to do so with less greenhouse gas generation than traditional fossil fuel electrical power generation in order to aid in the reduction of the supposed globally warming effect of burning fossil fuels for electrical generation. A reasonable alternative that was not fully considered because of the narrow objectives that meets this goal is the repowering of existing Electrical Wind Generation Facilities owned by the Parent company of the project applicant, Avangrid. Avangrid owns and operates several Wind facilities around the country that could benefit from them being retrofitted with the new larger bladed technology existing today. For much less of an environmental impact the existing facilities could be repowered to produce substantially greater power, profit, and carbon reduction thus meeting the true fundamental goals of this project.

P26-4

Comment Letter P26

There is no valid reason why the alternatives would have to be a Wind Energy System if the more basic and characteristic objective of helping to meet SB100's renewable energy mandates were truly considered. Instead Wind Energy Systems is included to restrict viable alternative for consideration so that this project as proposed would be the only solution to meeting the objectives. In fact other forms of renewables would be even more desirable if they were dispatchable (i.e. predictable and able to be dispatched to meet an immediate or planned energy need on the CA grid) and would produce just as many if not more jobs and sales revenue for the County. One such alternative that could be viable for this area that should be considered or addressed as to why is not included for consideration is Geothermal Electrical Power generation. There are existing hot springs not far from the project site that may even be located on land owned by the same entity that the proposed project is leasing from. There are new technologies that facilitate in drilling to the more productive depths typically required by most geothermal power generation systems that could be applied if needed. This area is closely located to two active volcanoes Mount Shasta and Mount Lassen, available thermal energy is likely readily accessible and should be thoroughly examined.

P26-4 cont.

Another Project Alternative lacking from this DEIR for consideration even though it would meet the too narrowly defined Objectives is that listed in the Appendix (A) Aesthetics, of this DEIR, in the Fountain Wind Project Visual Resources Technical Report. Within that report further discussion of the larger higher nameplate capacity turbines, that are also discussed elsewhere in this document, are listed along with a description of how the project could install only 38 of these large turbine each with a nameplate capacity of 5.7 MW and still meet the objective of having the 216 MW total nameplate capacity for the Project. The option of installing 38 5.7 MW turbines should be listed as alternative 3 or 4 after geothermal thermal power generation within this DEIR. There should also be a thorough analysis of the 38 Turbine option including all of the reduced environmental impacts that may occur. This DEIR is incomplete and inadequate without this further alternative analysis. It makes no sense to list the option of 38 turbines within the Aesthetic Appendix section of this document but not include that description of the Project and associated analysis within the DEIR alternative section. The inconsistency of the project description and discussions within this DEIR implies an unstable project description making it impossible to fully evaluate at this time.

P26-5

Any analysis of alternatives within this DEIR should also take into account the general reduction in output capacity of Industrial Wind Turbine developments for this area and as proposed for this Project. As part of the Wildfire Mitigations this Project would shut down on Red Flag Warning days which would affect output capacity. The comparative analysis should for this and the Curtailments ordered by CA ISO, as discussed later in this document under the Energy section. These curtailments being necessary because of the unpredictability non-dispatchable nature of Wind Energy versus other forms of renewables such as geothermal and biomass/cogeneration. And it should also account for the decrease in operating efficiencies that occur over time for Wind Developments, which are well known to occur, as also discussed later in this document under the Energy Section. According to available wind Production records, the composite output of Wind Developments in the San Gorgonio Pass ranged from 14-19.5% from 1998 through 2006, with the average percentage of nameplate capacity being approximately 16.9% for that

P26-6

time period, and this is in what is considered a high resource area. https://www.wind-watch.org/documents/wind-energy-production-records-from-the-san-gorgonio-pass-calif/ . Without taking these known impacts on the operating capacity of this proposed Project into account the decision maker cannot possibly make a valid comparison of alternatives. The reduction in capacity for the reasons mentioned is very significant and needs to be accounted for otherwise this DEIR is incomplete as written.

P26-6 cont.

3.A General Plan Land Use and Zoning

1. **Approval Criteria for Electrical Transmission & Distribution Projects:**

   According to the Shasta County Code Subsection 17.92.025(g): (G.) High Voltage Electrical Transmission and Distribution Projects may **only be approved** or conditionally approved if **all of the following** findings are made based on substantial evidence in the record:

   1. *The proposed project is consistent with the General Plan and any applicable specific plan(s);*
   2. *There is a demonstrated need for the proposed project;*
   3. *The project is justified when compared with alternatives, and there are no feasible alternatives that would substantially reduce the adverse effects of the project as proposed; and*
   4. *The proposed project will not be detrimental to the health, safety, peace, morals, comfort, and general welfare of persons residing or working in the neighborhood of the proposed project or be detrimental or injurious to property and improvements in the neighborhood or to the general welfare of the County.*

   However, the FWP does not meet any of the criteria of this section of the Shasta County Code. The project **is not** consistent with the County's general plan for its Rural Community Centers with regard to their general welfare and development.

   1. The proposed project is not consistent with the General Plan, particularly concerning the Rural Community Centers and the recognition that this area is a "Gateway" to the Fall River valley and other tourist attractions in the area and it is not consistent with the County's Open Space Plan. The General Plan is out of date and in need of revision, it has not been updated since 2004. The General Plan does not even include or mention the development of industrial wind turbine projects let alone where they would/should be located. Some of these same issues were objections by community members during the Hatchet Ridge Project in 2006 and still have not been resolved.
   2. There is no demonstrable need for several reasons: i) Shasta County already produces more renewable energy that it uses via its Hydro, biomass and the

P26-7

P26-8

Comment Letter P26

Hatchet Ridge generation facilities. ii) CAISO is expected to curtail as much as 20% of the renewables energy produced this year and this was before the Covid-19 shutdown and it is expected to curtail even more in the coming years according to CAISO. iii) PG&E has already met its 2030 and beyond RPS requirement. In fact 78% of PG&E's electrical energy production was non-fossil fuel based in 2017 according to PG&E documents, and iv) the developer has not found a buyer for the power and even if they do it will likely be for someplace outside Shasta County or even the State. There simply is no legitimate need for the power this Project will produce anywhere in Shasta County.

3. The project is not justified when compared to alternatives. Before developing on virgin land, old turbine sites, in less fire prone desert regions should be considered for repowering. As an example: 460 older wind turbines will be replaced with 11 new turbines by Brookfield Renewable Partners in the San Gorgonio Pass area of California later this year, if approved. And there are thousands of other turbines in San Gorgonio and Altamont pass regions alone that could be repowered. The USFWS lists forest as places to avoid when developing Wind Facilities and the American Bird Conservancy also lists the project area as a place to avoid when considering siting of Wind developments. This DEIR has incorrectly defined the Project Objectives so narrowly that legitimate and viable alternatives were prejudicially eliminated from consideration. Both Biomass/co-generation and geothermal are a couple of alternatives that have either been unduly eliminated or not considered at all. With the dire need to clear the forest of dead trees due to drought and pest infestation in order to reduce the devastating effects of wildfire within the State, a Biomass facility would have lots of available fuel while also reducing the States wildfire risk.
4. And finally, the project **will be detrimental** to the health, safety, peace, morals, comfort, and general welfare of persons residing or working in the neighborhood of the project and **it will be injurious** to property in the neighborhood and to the general welfare of the County. As evidenced by the many significant environmental impacts, the well over 2000 petition signatures from throughout the County and the Pit River Tribal resolution in opposition to this project.

   Should a wildfire break out because of the Project will create thousands of additional ignition points that are not located in the area now then many lives could be loss and homes destroyed. As we have witnessed just recently over 17,000 firefighters are risking their lives and working to save our communities across the State from the devastating wildfires. With the cumulative impacts of another Industrial Wind Development Project in the area it will only be a matter of time before this Project introduces another wildfire and it could occur when firefighting resources are stretched beyond capacity across the state causing even greater harm when the fire breaks out. As the DEIR states the wind turbines alone will inject wildfire and additional lightening risk just due to their height and

P26-8 cont.

Comment Letter P26

mechanics. Countries and Communities around the World are restricting any additional industrial wind turbine developments within their forested areas due to the increased wildfire risk they bring. Australia has prohibited any additional wind turbine developments within their forested lands due to a wildfire caused by a turbine, destroying over 200,000 acres. The Applicant themselves indicate they will "substantially increase the wildfire risk above baseline conditions" and work to minimize the impacts by wildfire safety plans and training. It is impossible to introduce another culturally devastating project and wildfire risk and not cause the harm to the community as outlined in this finding of fact. The proposed financial benefits from the Project will not provide any general welfare benefits to the residents residing in Shasta County, or those in this Rural Community Center, and will only introduce additional air quality and health related illness and many other harmful impacts in direct opposition to this zoning approval criteria.

P26-8 cont.

This DEIR needs to fully explain how this Project meets the criteria specified within the County's Zoning Code identified above.

2 Other General Plan and Zoning Code Conflicts:

All of these required findings have not been met and cannot be met!

1. The proposed project is not consistent with the General Plan since the plan has not been updated since 2004 and is out of date. The General Plan energy section does not even include the development of industrial wind turbine projects let alone where they would/should be considered and what other factors need to be considered for successful results.
These same objections were presented by community members during the Hatchet Ridge project and still have not been resolved. In addition the Project conflicts with the written intent regarding the Rural Community Centers that will be completely surrounded by the Project.

P26-9

The DEIR also does not indicate how the Project supports or the objectives of the Fire and Safety portion (54firesafety) of the General Plan. Figure FS-1, within the 5.4 Fire Safety and Sherriff Protection portion of the General Plan, clearly identifies the entire Project site within the "Very High Fire Hazard Severity Zone". The DEIR indicates the Project indicate will take the current wildland fire hazard assignment to substantially higher than baseline conditions so it conflicts with the Introduction section 5.4.1 itself:

> *This element discusses conditions and issues relevant to the protection of public health and safety from fire damage. It also addresses sheriff protection in Shasta County. These topics are required under the State mandated safety element which reads:*
> *"A safety element for the protection of the community from fires...wildland and urban fires." (Government Code Section 65302(g).*

P26-10

Comment Letter P26

The Project does not add any safety elements for the protection of the community from fires but will only add additional significant ignition points that are not within the development site currently.

As stated in SCC section 5.4.3 Objective FS-1: *"Protect development from wildland and non-wildland fires by requiring new development projects to incorporate effective site and building design measures commensurate with level of potential risk presented by such a hazard and by discouraging and/or preventing development from locating in high risk fire hazard areas."*

As outlined in this objective, the level of potential risk presented by the Project should be enough for the denial of the use permit. In review of the wildfire section of the DEIR the level of significance is "potentially significant" and the mitigation measures listed will do nothing to reduce the threat of wildfire (wildland or non-wildland) but only add to the dangers. Additionally further updates are needed within the General Plan and SSC to incorporate verbiage that no additional large scale industrial developments within the heavy forested timber lands in Shasta County will be allowed in order to meet the FS-1 safety objective.
The tens-of-thousands of additional ignition sources for the Project fall within both Hazard Classifications (wildland fires and Non-wildland fires) since the development is proposed in the "Heavy" Fuel Load classification and will include structural, chemicals, petroleum, electrical, vehicle and other man-made material fires. As outlined in this section of the General Plan the non-wildland fires also pose the greatest threat to human life and property.

P26-10 cont.

Page 5.4.02 of the General Plan identifies the wildfire safety issues with regards to topography:

The influence of topography on fire hazard increases with slope, as steep slopes cause fires to burn faster and increase travel time for emergency equipment. Thus, as slope increases, the ability to control fire decreases.

The Project indicates that the topography of the development site will include steep slopes which as stated above will hinder the travel time for emergency equipment and will cause the fire to burn faster. The type of topography for the development site in conjunction with the inclusion of both hazard classifications will only add to the difficulty and/or inability to provide effective and sufficient wildfire support in the best of circumstances.

Page 5.4.02 of the General Plan states "*As a general rule, wildland fire hazards do not preclude development; yet they do require that development meet special standards commensurate with the degree of risk. The State of California has adopted minimum fire safety standards per Section 4290 of the Public Resources Code. The California Department of Forestry and Fire Protection (CDF) is responsible for administering these standards."*

P26-11

Comment Letter P26

In addition to the conflict with the overall safety objective FS-1, where in the DEIR are these special standards commensurate with the degree of risk identified, weighted, and thresholds identified? Also, where in the DEIR does it show how these special standards will be mitigated and against what measures? Has the CDF been contacted to review the Project and provided a response regarding how these special standards are aligned with the degree of risk? If they have been contacted where is the data to support development efforts for these special standards commensurate with the degree of risk?

P26-11 cont.

So pursuant to Zoning Plan Section 17.92.020.F., no use permit should be granted, based on wildfire facts alone, due to the fact the Project's will be detrimental to the health, safety, peace, comfort, and general welfare of the persons residing or working in the neighborhood.

3 Non-Existent or Misapplied Zoning Codes

The land proposed for the FWP is classified as Timber Production (TP) or Unclassified (U). The following are zoning code application issues that should cause the County to deny the use permit for the proposed project.

1. The applicant sites the Shasta County TP zoning code **SCC Section 17.80.030(D)** which states that with a use permit the following is allowable: *"The erection, construction or alteration of a gas, electrical, water or communication facility, or other public improvements, in accordance with Government Code Section 51152;"* as being applicable to this project. However, while the code does allow for an electrical facility the FWP is anything but that. With as many as 100 Industrial Wind Turbines (IWTs) that are nearly 600 feet tall, strewed out over 50 square miles of land stretching across a major east west corridor, Hwy 299, with 10s of miles of transmission lines and nearly 1000 acres of permanently cleared forest land, this development should not be considered a "facility" and is not likely what was intended by the authors of this zoning code. The FWP is a Wind Farm or a Large/Industrial Scale Wind Energy System, not a "facility." Even if it were to be construed as some form of facility there is a height limit of 45 feet for commercial structures within Shasta County. Until Shasta County adopts well-constructed zoning codes for these Industrial Wind Energy Systems they should not try to apply codes that were never intended for this type of development.

   By comparison to themselves, the developer refers to the nearby Hatchet Ridge Project as a "Wind Farm" in the project description of the Environmental Initial Study, dated 28 June, 2018, not a "facility." They incorrectly invoke SCC Section 17.88.035 (as further discussed in item #2 below) which applies to "small wind energy systems" not facilities, associating themselves with a "wind energy system"

P26-12

Comment Letter P26

in this case. The developer refers to themselves as a project, a "wind Farm" by comparison, or a "wind energy system." Nowhere do they call themselves a "facility" so **SCC Section 17.80.030(D)** should not apply to this development and the county does not have existing zoning codes for an Industrial Scale Wind Energy System so this use permit should be denied.

P26-12 cont.

2. In the EIS the FWP developer also incorrectly sites **SCC Section 17.64.040** stating: *"a wind energy system is allowed with approval of a use permit in the U district as long as it is not otherwise prohibited by law and not inconsistent with any portion of the General Plan. Per SCC Section 17.88.035, a Use Permit is required in all districts for wind energy systems which do not meet the definition of "small wind energy system," defined as being greater than 50 kilowatts in size. Consistency with the General Plan is further discussed in Section 2.10.*

SCC Section 17.64.040 actually states: "*The following uses are permitted in the U districts if a use permit is issued:*

B. All other uses not otherwise prohibited by law and not inconsistent with any portion of the general plan." As you can see there is no mention of "wind energy system" in this portion of the county code.

The developer has used this as a catch-all, where anything not illegal or inconsistent with the general plan is allowable, including the FWP, but there is further guidance and clarification in the subsequent sections for the Unclassified zoning district regarding developments. In particular, in **SCC Section 17.64.050 Site Development Standards (c)** its states: "*Maximum Structural Height. The maximum structural height requirements are the same as the height requirements established by the appropriate zone district that would be used to implement the general plan designation applied to the lot."* In other words whatever project is proposed to be developed on the Unclassified parcel it must be consistent with other portions of the zoning code that would normally apply to that particular type of development. **Nowhere in the SCC are 600 foot tall structures permitted in any zone or for any type of developments.** Commercial properties are limited to 45feet with some allowance for roof top antennae, chimneys, etc. but by no means a 600 foot tall structure.

P26-13

In **SCC Section 17.88.100 Public uses, public utilities and high voltage electrical transmission and distribution projects (*B)* Public uses and public utilities are permitted if a use permit is issued, except that public utility transmission lines, towers, distribution poles and lines, regardless of height, and gas pipelines, which are not associated with high voltage electrical transmission and distribution projects, are permitted uses*. As stated in this section of the SCC, transmission lines, poles and towers regardless of height are allowed but the IWTs are not any of those. The project has some of those, but the IWTs are a commercial electrical generating structure and should be limited in height as would any other commercial facility or structure. The FWP is also not a public utility and this project is not for

Comment Letter P26

public use so this zoning code should not be applied to it either. The California Energy Commission (CEC) refers to wind farms as electrical generation facilities. According to both the CEC and CPUC, they are not an Electric Service Provider (ESP), an Investor Owned Utility (IOU) (as is PG&E, SDG&E, etc.) or a Public Owned Utility (POU). In the CEC's Renewable Portfolio Standard Eligibility Guidebook, Ninth Edition, April 27, 2017, they are not listed as Load-Servicing Entity (LSE) which are retail sellers of electricity to the public, wind farms are considered electrical generation facilities and should therefore follow those guidelines for facilities until Shasta County adopts comprehensive zoning codes for large scale wind energy systems.

SCC Section 17.02.430 Public Utility *"Public utility" means the use of land for public utility purposes by an entity providing pipeline, gas, electrical, telephone, telegraph, water or sewage service that is subject to the jurisdiction of the California Public Utilities Commission. "Public utility" also includes the use of land for utility purposes, whether or not owned, controlled or operated by a public entity, whose services are performed for or commodities delivered to the public or any portion thereof. Private energy production, transmission relay, repeater, translator, radio and television towers and equipment and cable television facilities are also considered public utilities. "Public utility" does not include airports or television, radio or community television antenna system administration offices or other types of administrative offices or maintenance yards*. In this section Shasta County provides its definition of public utility, unfortunately it is not consistent with either the CEC or the CPUC and its use for this project would allow the application of inadequate zoning codes for this Large/Industrial Scale Wind Energy System although it still would not allow the erection of 600 foot tall electrical generators. Even with the application of this code to the project it is still not a transmission or distribution system so the height of the IWTs should not be addressed as some sort of transmission tower hence there is still a zoning height issue. In fact in most cases the transmission of power from the IWTs is likely to be underground to their substation with overhead transmission to the PG&E sub/switching station in Round Mountain. Once again what the County needs before moving forward on any system of this size is comprehensive and clearly applicable zoning codes. A better set of codes are written for a small wind energy system which has very little environmental impact than exist for these Large/Industrial Wind Energy Systems. This permit should be denied until the proper codes and plan are in place.

P26-13 cont.

Also, in **SCC Section 17.88.100 (C)** *A use permit shall not be issued for a public use or utility or a high voltage electrical transmission and distribution project in a resource district unless findings are made that there is not a reasonable alternative site outside of a resource district, and the impacts from the project on the resource land have been reduced to the lowest reasonable level.* There are reasonable alternatives locations to this project with much lower risks of wildfires so the use permit should not be granted on this basis as well.

Also, nowhere in **SCC Section 17.92.025 Use permits for high voltage electrical transmission and distribution projects**, is there any allowance for 600' tall Industrial Wind Turbines. All of the guidance in the Shasta County Code related to

Comment Letter P26

high voltage transmission and distribution systems are not directly applicable to the IWTs, nor were these sections ever meant to be applied to them. These sections are meant to deal with the electrical distribution systems we see typically throughout this area.

3. The only Shasta County Code which directly applies to wind energy systems are those defined in SCC Section **17.88.035 Small wind energy systems**. In this section, wind turbines no taller than 80 feet are allowed on parcels of land no smaller than five acres. This section also only applies to systems that are less than 50 Kilowatts in size. As noted by the applicant a wind energy system that does not meet the requirements of a small system may be permitted with an approved use permit. However, as discussed earlier, an approved use permit on unclassified land is governed by SCC Section 17.64.040 & 050 as discussed above which does not allow for nearly 600' tall industrial wind turbines. The developer incorrectly refers to SCC Section 17.92.020m as governing the preparation of a use permit but this code does not exist, this section ends at 'j.' SCC Section 17.92.020(a-j) does govern use permits but does not create non-existent zoning codes for large/industrial wind energy systems or alter the allowable height for facilities.

   Shasta County does not have **any existing zoning codes** that allow large/industrial wind energy system developments directly or via a use permit. There is none of the necessary guidance needed to correctly specifying where and how these systems can be developed or even if they should be allowed to be developed in Shasta County. Thoughtfully developed zoning codes and associated General Plan modifications with a vison for the future of Shasta County regarding Industrial Wind Energy Systems needs to be in place before the granting of a use permit should even be considered. The Hatchet Ridge Wind Farm should never have been permitted until the necessary zoning guidance was in place and should not be used as a precedence for any further such developments such as the FWP. Future zoning codes regarding these type of systems should consider the appropriate setbacks, transmission line issues, noise, infrasound, etc. In light of the recent catastrophic fires in our area Large/Industrial Wind Energy Systems should not be allowed in Tiers 2&3 high fire risk zones as defined in the CPUC fire Hazard Map and that of Cal Fire. Because this development exceeds all allowable existing height restrictions for an electrical facility on Timber Production zoned parcels and there is no zoning code governing large/industrial wind energy systems on Unclassified zoned parcels, a "use permit" should not be granted.

P26-13 cont.

3.1.4.10 Land Use and Planning Further Considerations

As outlined in the first moratorium request, dated June 11th, 2019, I don't agree that the current General Plan and Shasta County Zoning Codes outline Large Industrial Wind Energy Conversion Systems sufficiently to protect the surrounding residents and communities. It is due to the lack of requirements in these area that Big Wind energy developers will continue to target Shasta

P26-14

Comment Letter P26

County with little regard to the safety, health, peace, comfort, or general welfare of the residents working and residing in the area.

> *Adopting the moratorium would allow the County Planning Department, Commissioners, and the Board of Supervisors, time to study and make changes to the County's General Plan and Zoning Codes for industrial scale wind developments within the County. Shasta County Code (SCC) does not currently address any type of Large Scale Wind Energy Conversion System and these unique types of developments should not be lumped into the "Unclassified" or "Timberland" development language of "Public Utility" without the proper due diligence of developing appropriate General Plan and Zoning Code updates; the applicant identifies themselves as a Wind Energy Generation Development not a Public Utility. Nor should they be developed under SCC 17.88.035 which addresses small wind energy systems and is wholly inadequate for these unique industrial developments. Many communities throughout the Country have developed specific zoning regulations because of the unique issues inherent with these types of developments. Due to Shasta Country's lack of proper Energy Siting Regulations or Ordinances for these types of developments, approving any further projects of this type under the current zoning code will likely lead to litigation for years to come. These Industrial Wind Turbine developments do not support the Shasta Country General Plan objectives regarding the quality of life for Shasta County residents, particularly for those in the Rural Community Centers. The General Plan recognizes that the Rural Community Centers provide opportunities for persons desiring to live in an environment characterized by few, if any urban services, and in close proximity to the surrounding natural environment. The natural, as opposed to the man-made environment, is the dominant theme in Rural Community Centers, and physical access to the natural environment for living and recreational purposes is an important element of daily life in them. Placing Industrial Wind Turbines in these environments is diametrically opposed to the General Plan's objectives for these areas.*

P26-14 cont.

The response by the Planning Department, memo dated August 15th, 2019, Subject: Consistency of Large Scale Wind Energy Facilities with the General Plan and Zoning Plan does not address the issues raised by the Citizens in Opposition to the Fountain Wind Project. We still find that the issues regarding large scale industrial wind projects do nothing to protect the residents and community members who are subjected to these industrial developments without comprehensive guidance in place for the residents and developers alike.

The generalization of the verbiage within current zoning code and as indicated in the memo "In the absence of an established term for such systems, they are referred to as "large scale wind energy facilities" in this memorandum. If Shasta County wants to approve large scale industrial projects why would there be an absence in an established term? This generalization outlined in the current General Plan and zoning code only allows Shasta County to approve what they want without regard to applying due diligence and needed General Plan and zoning updates providing clear guidance and how these "wind energy systems" are defined. In addition the memo indicates that "Furthermore, pursuant to Zoning Plan Section 17.88.100.B, public utilities are

Comment Letter P26

permitted in all zoning districts with the approval of a use permit. Pursuant to Zoning Plan Section 17.02.430, public and private facilities which produce energy for public consumption are classified as public utilities." How can they be considered a public utility without any oversight from the CPUC? The Project DEIR states that they are not under the oversight of the CPUC since they are not considered a public utility so who will provide the oversight for such projects within Shasta County?

If Shasta County wants to consider and approve Large Scale Wind Energy Systems then they need to take the time to properly update and outline how they are defined and approved within Shasta County. The last General Plan was updated in 2004 and is out of date even in relation to the approval of the Hatchet Wind Development since wind energy is not listed as an energy source at that time within the General Plan. The General Plan lists solar, biomass, cogeneration and hydroelectricity. Without the needed updates to the General Plan and Zoning code Shasta County relies upon the developers to set the standards that they want in place to suit their needs and not the needs of the surround residents and community members. Other Counties throughout the Country have taken the time to review and publish Large Scale Industrial Zoning updates based on input and feedback from community members and independent industry standards without due influence by developers who approach Shasta County.

Within the current General Plan or Zoning Code where are the following questions answered for the developers or residents? What is the maximum height the County will consider for the proposed turbines? Will they be considered in the forest areas which rate at the highest wildfire risk in the County? How close can they be to residents and/or property lines? What is the maximum numbers that the County will consider per development? How close can they be to communities? What will their decommissioning plan look like and will any financial account be established prior to approval, evaluated on a yearly basis, to execute the decommissioning plan? Does a power purchase agreement need to be in place prior to approval of the special use permit?

P26-14 cont.

3.4 Biological Considerations

Habitat Conservation Plans: Are the Habitat Conservation Plans of the Land Owner and the developer consistent?

P26-15

Avian Impact: According to the CEQA guidelines the cumulative effect of similar projects in an affected area must be considered. The nearby Hatchet Ridge Wind Turbines cause additional impacts to many of the significantly impacted areas of this proposed Project. One of the cumulatively impacted areas is the numerous birds and bats that would be killed.

The two year post construction study for the Hatchet Ridge Wind Development determined that the kill rate for all birds was 1.93 per turbine per year. 1.2 of these were large birds that included a large number of waterfowl. Over 300 waterfowl were killed during the first two years of operation based on the study's findings. The kill rate for bats was 12.02 per turbine per year. Using these kill rates, the additional 72 turbines, that are as much as 50% taller with a blade swept kill zone more than 250% larger, over a 20 year co-operational period would kill over

P26-16

Comment Letter P26

4500 birds with over 2800 of them being large birds and almost 28,000 bats . If the larger swept area, but not the additional height, is accounted for using simple proportionality the numbers would be over 8600 birds with over 5300 of them being large birds and nearly 54,000 bats. Unfortunately, some of the existing populations of the various species that make up these totals would likely die off in the area because their Pre-Industrial Wind Development populations would not be sufficient to maintain their existence in the area, given the Turbine induced mortality rates. This would likely be particularly true for raptors like the eagles and ospreys and various hawks and falcons because of their naturally low reproductive and survival to breeding age rates. Unlike smaller birds with higher reproduction rates the larger birds, especially raptors, cannot reproduce fast enough to make up for these losses due to these supposedly environmentally friendly killing machines.

It is highly probable that these kill rates and the actual numbers of bird deaths due to the Hatchet Ridge Development are much higher that the post construction study indicated because of the significant flaws in the study itself. During the study it was noted that some of the numbers were reduced the second year of the study. This is likely due to a higher scavenger rate as the local predators had been trained as to where to go for food and the earlier initial predation/scavenger rates were quickly outdated. Even those initial rates were likely incorrect because of the design of the study in which mice were seeded in the detection zones pre bird count to determine the predation rate. The problem again is that the seeding with mice created a learning curve in which the predators initially would not have been very active but by the time the seeding with mice was to conclude the scavengers were well trained as to where to look for food. The scavenger rate of the study did not account for this learning curve therefore it would have concluded that the scavenger rate was much lower than it actually was once the study officially started counting bird and bat kills. With the local scavengers especially well trained by the second year of the study many caucuses would not have been found.

The Hatchet Ridge study was also flawed for additional reasons as explained below. The kill rates were determined using only 22 of the 44 Hatchet Ridge turbines and they were searched only once every two weeks and with a search distance of only 208 feet, half of the 416 foot turbine height and only approximately 93% of this areas was considered searchable. With blade tip speeds over 200 mph, simple physics shows that the throw distance, without even considering the winds that would be spinning the turbine, would be up to nearly 1500 feet vice the 208 feet used in study. The physics that govern this distance is much like a baseball bat striking a ball. Birds falling within 208ft of a turbine, were more likely the exception than the rule. Manufacturers of similarly sized turbines caution personnel to wear safety gear when within 1400-1500ft of them, due to ice throw, blade failures or objects striking the blades. With a properly designed study the mortality rates for both birds and bats is probably many time greater.

P26-16 cont.

The cumulative impact from the Project considering the already devastating nearby Hatchet Ridge Development is just too much for this area and will result in the loss of species locally and irreparable harm to the local environment with possible associated global impacts, including an increase in the local mosquito population and the possible increase and spread of mosquito borne diseases. There already exists a significant occurrence of heartworm disease in dogs in the area which is a mosquito borne disease that affects our beloved pets. Such a loss of bats as described above is likely to make this situation much worse and lead to other diseases impacting the regional human population such as the West Nile Virus amongst others. This is a very

P26-17

Comment Letter P26

significant and unavoidable environmental impact that needs to be clearly explained in this DEIR.

P26-17 cont.

Also, Waterfowl are protected by the Migratory Bird Treaty Act (MBTA) of 1918, and there are no take permits that allow a wind company to protect itself from liabilities for their accidental or negligent killing. Each of these deaths is a violation of that Act. The USFWS often does not prosecute if reasonable efforts are made to avoid the killing. In the case of Hatchet Ridge there were no mitigation methods implemented other than to study the impact after the fact and even then no further mitigations have been imposed. Typically study results are compared to other similar operations but the contractor who conducted the Hatchet Ridge Bird Mortality Study could not find another similar wind development to compare to because there were no other industrial wind developments in forested lands in all of the western US. All other western wind facilities are located in either desert, grassland, or sage & chaparral landscapes. The fact that none could be found in forested areas in all of the Western US is also consistent with recommendation by both the USFWS and the CDFW for siting of Industrial Wind Developments. It is also consistent with recommendations from the American Bird Conservancy. In fact, the American Bird Conservancy recognizes this area, including the Project area, as a globally significant avian area and that it is part of the Pacific Flyway. The Hatchet Ridge Development should never have been approved due to its impact on the avian and bat populations alone and neither should this Project, especially considering the cumulative impacts and what we now know about the devastating effects that Industrial Wind Turbines have on our local bird and bat populations since the Hatchet Ridge Development. Even with the flawed study, the mortality rates are just too high.

P26-18

The contractor also noted during the study of the Hatchet Ridge avian impacts that the large number of waterfowl killed was surprising given that in other parts of the country where waterfowl are present near wind facilities they do not see nearly as many deaths. They noted that the deaths coincided with inclement weather events. As has been previously pointed out in the Scoping Comments for this Project, the general area is part of the Pacific Flyway and during inclement weather you can hear and see many of the snow geese and others migratory birds flying especially low as they work their way over the ridge, making them particularly vulnerable to the decimating effects of these unnaturally tall deadly obstructions. This situational impact will be even more significant and much deadlier given the much taller height, swept area and blade tip speed associated with this Project's proposed turbines and the fact that the total area covered by Industrial Wind Turbines would be much larger. Migratory birds would have to avoid a much larger array of killing turbines strewn along the slopes and ridge tops of the local terrain as they try to make their way up and over Hatchet Ridge through inclement weather.

Since the Hatchet Ridge Development has been in place I no longer see the bald eagle that was often flying around the vista point on Hatchet. I also no longer see the bald eagle or the pair of Ospreys that frequented my large pond until just earlier this year, when I saw both for a brief time, otherwise they have been absent from the area of my pond which is a couple of miles from the Hatchet Ridge Development and Hatchet Ridge, for over ten years. I have not seen the pelicans on my pond since the Hatchet Ridge Turbines went in and the numbers of Canadian Geese both nesting and stopping over is much fewer than ever before. Just before the Hatchet Ridge Development was installed I would frequently see as many as 100+ Canadian Geese and White Fronted Geese on my pond; I have not seen that since the Hatchet Ridge Development.

Comment Letter P26

The impacts on the waterfowl for this area will just multiply significantly due to the cumulative impact of this additional Wind Development. P26-18 cont.

Often these deaths are compared to the numbers killed by cats and buildings but this is misleading because we don't have many cats running wild in the area and there aren't any tall buildings with large glass surface areas and neither the cats nor the buildings are much of a problem for bats. The birds that are killed in other areas by cats and buildings are small birds with high reproduction rates. Unlike smaller birds with higher reproduction rates the larger birds, particularly raptors and vultures, cannot reproduce fast enough to make up for the losses of these supposedly environmentally friendly killing machines.

The DEIR is also inadequate because it did not establish a technical advisory committee to address the many environmental impacts, particularly those for the Avian and Bat issues, as is typically done and as was done for the nearby Hatchet Ridge development. P26-19

In fact there appears to be serious conflict of interest in that most of the Biological studies and data used in this report was conducted by a contractor that the applicant had hired and paid for. The hired consultant completed their report and submitted it in January of 2017 just several weeks after the Special Use Permit application was signed by the County and the developer at that time, Pacific Wind LLC, in November of 2016. Why isn't West, Stantec or other consultants hired by the developer listed in the DEIR? Where is the unbiased assessment of the true biological and other environmental impacts of this Project? The County has inappropriately relied on the developer funded studies vice acting as the unbiased contracting agency for an independent assessment of the impacts. We were assured by the County early on in this effort that they would not rely on the developers hired consultants and would instead require that the developer provide the County funds with which they would independently solicit and hire consultants so that there would not be any biases or conflicts of interest by any of those conducting studies or providing other inputs to the County for this effort. That is clearly not the case with this Project and those studies and data not obtained independently by the County through their own contractual efforts should be disregarded and redone with an independent consultant. P26-20

3.5 Communication Interference

As an electrical engineer who has worked in the research, development, test and evaluation areas of Satellite communications/navigation and other Position, Navigation and Timing Systems for the Department of Defense for nearly 30 years, I noted an area not analyzed in this section and that is that of the impact of the Project's turbines on the use of the Global Positioning System (GPS) and other similar satellite based position, navigation and timing aids such as GLONASS and GALILEO and the Wide Area Augmentation System (WAAS). These systems are used by both aviation and terrestrial user for Positioning, Navigation and timing. Inference with the use of these systems, especially GPS could impact emergency responders and others within or near the project site. P26-21

The use of GPS was critical in recent rescue operation during the Berry Fire just this year. A Huey Helicopter was used to rescue dozens of persons trapped by the raging wildfire in low to know visibility situations. The Huey Helicopter was often being guided by Air Force drone operators who flew above the operations and were able to direct the Huey through dense smoke as the drones were able to use GPS and onboard sensors to penetrate the smoke and guide the helicopter to the rescue site. This DEIR needs to conduct a study that quantifies the impact that

the turbines will have on GPS solutions for anyone in or near the project site. Including private aircraft approaching the site from down slope lower altitudes.

GPS is very susceptible to interference, blockage and multi-path effects from signals reflecting off of surfaces such as buildings, towers, etc. especially those with highly reflective metal surfaces. It is likely that the GPS solutions of persons within the project site or nearby, will experience such interfaces and multipath effects at various times throughout the day depending on their position and the position of the satellites used in the position solution relative to the towers and blades that are likely to interfere. This interference could be problematic for anyone calling in a situation to first responders and attempting to give the GPS coordinates of the situation to them. It could also be a problem for anyone trying to navigate to a particular location, even if the location is accurate, because there could be interference to the navigation solution as they try to locate the reported position. This situation may also impact aerial operations depending on how much they may rely on GPS for obstacle avoidance and other operations. This DEIR mentions how the developer would provide Cal Fire with coordinates of the Turbine locations to them so they could avoid them during aerial firefighting operations. As mentioned above, even if the coordinates are accurate navigating to them could be problematic if the aircraft were flying at low altitudes and were relying heavily on GPS to avoid the Turbines or even other obstacles in the area.

P26-21 cont.

GPS relies on being able to track multiple satellites, generally at least four, unless it assumes part of the solution such as altitude or time, them fewer than four can be used but will likely not be nearly as accurate because of the errors in the assumed parameters. The satellites generally used by a GPS receiver are spread out, often near the horizon. An approximation of what a GPS receiver will do in choosing satellites is to attempt to maximize the volume of a tetrahedron with the four satellites as the base and the user or receiver as the apex. This minimizes the Dilution of Precision and maximizes the accuracy of the GPS solution. This methodology would likely be interfered with for anyone located in the project area. The reflections off of the towers and blades could cover large distances. There could also be a problem of rotor modulation due to the spinning blades that could cause a decrease in the signal-to-noise ratio and interfere with the ability of the GPS receiver to determine an accurate solution. The greater problem though may be the false solution for position, velocity or time that could be generated by the multipath effects which are not always readily apparent to a user or the GPS receive as can a reduction in the signal-to-noise ration mentioned above. Further analysis should be done in this important impact area.

3.6 Cultural and Tribal Resources

As the Report acknowledges, and the Tribe has previously shared with the County, the Project Site is a place of refuge used since time immemorial for ceremony, healing, prayer, fasting, hunting, gathering, and other sacred traditional uses. Furthermore, the Tribe states there may be burial sites within the proposed Project Site. Traditionally and for cultural reasons, graves were not fenced as in a cemetery plot which increases the likelihood that unmarked graves might be disturbed by the Project's ground disturbing activities. The highlands and ridges in the project areas are locations where only very specially trained people would go for traditional purposes. However, these places may ultimately become the final resting place for those traditional people. The Tribe attributes

P26-22

great significance to such places, and accordingly, requests that they be avoided for all development purposes.

The Tribe, their Cultural Representatives, Traditional Ecological Knowledge keepers have expertise regarding its ancestral homelands and therefore have serious concerns about the Project's propensity to disturb ancestral remains located within the Project Site. As the Report describes, there is at least one site with prehistoric value where several obsidian flake tools were found, which is indicative of tribal use and habitation. As the presence of cultural obsidian within the Projects area is indicative of prior use, if the project is permitted, ground disturbing activities will surely result in additional discoveries. Given that the obsidian tools are located within the Tribe's ancestral homelands, these are Tribal Cultural Resources under CEQA and should be avoided and preserved in place.

It is against the Tribe's deep cultural beliefs to remove, disturb, or displace Tribal Cultural Resources. In addition, removal or displacement of Tribal cultural resources destroys the context and history in which these unique resources exist. These types of activities not only harm the Tribe and community psychologically and physically, but they also erase the significant history and prehistory of the Pit River people whom have been here since time immemorial. Further, significant Historical Properties such as these are integral to the identity, culture, and religious practices of the Pit River People.

P26-22 cont.

The Pit River Tribe and others provided comments for the 2019 Scoping Report expressing concern that Project construction, operation, and maintenance would infringe on the freedom of religion and the cultural practices of the Pit River Tribe and other Indian tribes in the region, and that the Project would adversely affect sacred sites, traditional plants, and the viewshed of mountains held sacred by the Tribe. Additionally, the numerous water sources in the entire area of potential effect are known places of great cultural significance. These waters are also among the cleanest of waters, in which the Tribe and community can currently use with no filtration. The County recognizes and designates the Project Site as a Tribal Cultural Resource and, due to the fact that there is no way to mitigate these adverse impacts, are obligated to protect these Tribal Cultural Resources and determine a "No project alternative" as the only viable conclusion.

Under CEQA, "no public agency shall approve or carry out a project for which an environmental impact report has been certified which identifies one or more significant effects on the environment that would occur if the project is approved or carried out unless . . . (1) [c]hanges or alterations have been required in, or incorporated into, the project which *mitigate or avoid* the significant effects on the environment; (2) [t]hose changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency; [or] (3) Specific economic, legal, social, technological, or other considerations, including considerations for the provision of employment opportunities for highly trained workers, make infeasible the mitigation measures or alternatives identified in the environmental impact report . . . [and these considerations] outweigh the significant effects on the environment."

The DEIR identified the following significant impacts that the Project would have on cultural resources:

Comment Letter P26

1. (Impact 3.6-1, Cultural Resource FW 11) Project-related disturbance of a historical resource would be a significant impact and could occur, for example, during grading and excavation associated with construction of turbine foundations, pads, or domestic water wells; trenching for the underground electrical collector lines or other below-ground facilities and infrastructure; or the soil borings that would be collected to an approximately 50-foot depth to ensure that the proposed turbine foundations would be stable.

2. (Impact 3.6-2 Tribal Cultural Resources) Project-related disturbance of human remains would be a significant impact and could occur if, for example, grading, excavation, or soil borings associated with construction of facilities and infrastructure.

3. (Impact 3.6-3 Tribal Cultural Resources) In the event that construction activities disturb tribal cultural resources, damage would be considered a significant impact and is unavoidable under all proposed mitigation measures.

4. The proposed PG&E interconnection would cause significant an unavoidable impact to tribal cultural resources.

P26-22 cont.

Since it is noted that FW11 "qualifies for listing in the California Register under Criterion 4, for its ability to yield additional information in prehistory. The prehistoric component of F11 is therefore considered a historical resource for the purposes of CEQA.

The area designated as FW 11 contains several ancestral artifacts making it a historic and tribal cultural resource under CEQA. For such resources, the preferred method for mitigating impacts is avoidance and or preservation in place. It is the Tribe's stance that the County has not adequately mitigated the significant impacts the Project would impose upon the historical and tribal cultural resource located at FW 11. FW 11 is located directly on a proposed road between turbines B05 and C10. Despite this knowledge the County has not proposed an alternative that would avoid or preserve this historical and tribal cultural resource. All proposed alternatives include this road despite there being a second proposed road that would run parallel to it.

Where several mitigation measures are available, CEQA requires the County to identify the basis for its selection of each mitigation measure. Formulation of mitigation measures "shall not be deferred until some future time." The DEIR provides that the Developer will "relocate project components unless infeasible" but does not address specific details as to how it will relocate nor does it commit to relocation as a mitigation measure as required under CEQA. The specific details of a mitigation measure may be developed after a project is approved but only "provided that the agency (1) commits itself to the mitigation, (2) adopts specific performance standards the mitigation will achieve, and (3) identifies the type(s) of potential action(s) that can feasibly achieve that performance standard and that will [be] considered, analyzed, and potentially incorporated in the mitigation measure." The County must contact the Pit River Tribe to address the specific details of how the Developer intends to relocate the project components to avoid and preserve this historical and tribal cultural resource FW 11. However, this area should not be disturbed at all and a "No Project" alternative be chosen..

Comment Letter P26

Madera Oversight Coalition, Inc v. County of Madera (2011) notes "Guidelines section 15126.4, subdivision (b) addresses mitigation measure related to impacts on historical resources. When the particular historical resource is archaeological in nature, the discussion contained in the DEIR is governed by subdivision (b) (3) of the guideline".

(3) Public agencies should, whenever feasible, seek to avoid damaging effects on any historical resource of an archaeological nature. The following factors shall be considered and discussed in a DEIR for a project involving such an archaeological site:

> (A) Preservation in place is the preferred manner of mitigating impacts to archaeological sites. Preservation in place maintains the relationship between artifacts and the archaeological context. Preservation may also avoid conflict with religious or cultural values of groups associated with the site.
>
> (B) Preservation in place may be accomplished by, but is not limited to, the following:
>
> a. Planning construction to avoid archaeological sites;
>
> b. Incorporation of sites within parks, greenspace, or other open space;
>
> c. Covering the archaeological sites with a layer of chemically stable soil before building tennis courts, parking lots, or similar facilities on the site;
>
> d. Deeding the site into a permanent conservation easement.

P26-22 cont.

Madera Oversight Coalition, Inc. v. County of Madera (2011) in its introductory sentence to subparagraphs (A) through (D), Guidelines section 15126.4 subdivision (b)(3) states that "[t]he following factors shall be … discussed in an EIR…" Subparagraph (A) mentions preservation in place, which is described as "the preferred manner of mitigating impacts to archaeological sites." Subparagraph (B) lists four methods of accomplishing preservation in place. Because the introductory sentence uses the word "shall," the discussion of the factors set forth in subparagraphs (A) through (D) is mandatory. (Guidelines, § 15005, subd. (a) ["shall" and "must" are mandatory.] Also, we interpret the word "factors" to include preservation in place generally as well as the four methods listed in Guidelines section 15126.4, subdivision (b)(3)(B). Therefore, the EIR's decision of mitigation measures for impacts to historical resources of an archaeological nature must include preservation in place, and the discussion of preservation in place must include, but is not limited to, the four methods of preservation in place listed in subparagraph (B).

What must be included in an EIR's discussion of the factors referenced in Guidelines section 15126.4, subdivision (b)(3) because the regulation requires the factors to be discussed without regard to whether or not they are feasible, the discussion must state whether the factor is a feasible mitigation measure and the reasons for the determination. This interpretation is derived in part from the general requirement that EIR's describe feasible mitigation measures that could minimize significant adverse impacts. (Guidelines, § 15126.4, subd. (a)(1))

Comment Letter P26

Furthermore, when more that one of the factors referenced in Guidelines section 15126.4, subdivision (b)(3) is available to mitigate an impact, the EIR's discussion should include "the basis for selecting a particular measure." (Id., subd. (a)(1)(B).) Also, the discussion must distinguish between those measures that are proposed by the project's proponents and those proposed by other persons. (Id., subd. (a)(1)(A).)

Stated otherwise, "preferred manner" means that feasible preservation in place must be adopted to mitigate impacts to historical resources of an archaeological nature unless the lead agency determines that another form of mitigation is available and provides superior mitigation of the impacts. Furthermore, the regulatory language that includes preservation in place among the factors that "shall be considered and discussed in an EIR" (Guidelines, § 15126.4, subd. (b)(3)) means that, when the preference in not followed, the EIR shall state why another type of mitigation serves the interests protected by CEQA better than preservation in place. The broad concept of "interests protected by CEQA" here because a particular historical resource of an archaeological nature may be of interest to the public in general and to particular groups for different reasons, and different types of mitigation may protect certain aspects of that resource better than other aspects. For example, the interests protected by capping or covering an archaeological site before building (§ 21083.2, subd. (b)(3)) are different from the interests protected by relocating the resource to another location. (Madera Oversight Coalition, Inc. v. County of Madera (2011).)

P26-22 cont.

"Preservation in place is the preferred manner for mitigating impacts on historical or archaeological sites, but data recovery is also permitted, especially where the interest is in the information to be obtained regarding history and prehistory. (Madera Oversight Coalition, Inc. v. County of Madera (2011).) For significant sites that cannot be avoided through redesign, additional excavations may be appropriate mitigation. This type of mitigation is often referred to as data recovery. While information is obtained from a data recovery project, the excavated portion of the site, as well as the entire area impacted by the project, is destroyed. The purpose of Phase 3 is to recover, analyze, interpret, report, curate, and preserve archaeological data that would otherwise be lost due to unavoidable impacts to a significant resource. The method usually involves an archaeologist excavating in a controlled manner part of the site that will be impacted using a Lead Agency-approved data recovery plan that is informed by the results of the Phase 2 test excavations. The recovered materials are analyzed pursuant to specific research issues or questions and the results are included in an analytical report. If Phase 3 data recovery excavations are proposed, the Initial Study question on archaeological sites should indicate that there is a less than significant impact after mitigation and would be identified a Class II impact in the CEQA document for the project, or that there is a Guidelines for Determining Significance 14 Cultural Resources: Archaeological, Historic, and Tribal Cultural Resources potentially significant impact resulting in a Class I impact. Conducting Phase 3 data recovery excavations may not reduce the impact to the resource to less than significant. The Conducting Phase 3 data recovery excavations may not reduce the impact to the resource to less than significant. The determination whether the impact is Class II or remains Class I after data recovery depends on the nature of the site and the amount that is being destroyed. This determination should be based on careful consideration by professional archaeologists and consultation with the Native American community.

(https://scahome.org/wp-content/uploads/2020/04/CEQA-Guidelines-for-Cultural-Resources_21APR2020.pdf

"[P]ublic agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects." An alternative or mitigation measure is "feasible" if it's "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors." The DEIR admits that the Project would cause a substantial adverse and unavoidable change in the significance of the tribal cultural resources regardless of any mitigation measures adopted.

The DEIR outlines the following mitigation measures:

> 1. Relocate project components unless infeasible, in which case develop an Archaeological Research Design and Treatment Plan (ARDTP), which would address the establishment of Environmentally Sensitive Areas; treatment and recovery of important data contained within the portions of the historical resource located within and adjacent to the Project Site; construction worker cultural resources sensitivity training; archaeological and Native American monitoring; inadvertent discovery protocols; and provisions for curation or reburial of recovered materials. The results of the report would include recommendations for archaeological and Native American monitoring in Environmentally Sensitive Areas and the protocol to follow should additional cultural materials be identified during construction activities. After mitigation, the County concludes that the impact would be less than significant.
>
> The proposed impact is significant and unavoidable. There is no location where this project would be feasible. Therefore, the only acceptable alternative is "No project alternative".
>
> 2. In the event human remains are uncovered during ground-disturbing activities work would immediately cease, the Shasta County Coroner would be contacted to evaluate the remains, and the procedures and protocols under Section 15064.5(e)(1) of the CEQA Guidelines would be followed. Pursuant to Health and Safety Code Section 7050.5, no further disturbance would occur until the County Coroner made the necessary findings as to origin and disposition. If the remains were determined to be of Native American descent, the coroner would have 48 hours to notify the Native American Heritage Commission which would then identify the person thought to be the most likely descendent of the deceased Native American. The most likely descendent would make recommendations for means of treating the human remains and any associated grave items. After

P26-22 cont.

Comment Letter P26

mitigation, the County concludes that the impact would be less than significant.

It is culturally and racially insensitive of the County to conclude that by following the Most Likely Descendant (MLD) process, when a Pit River burial is impacted, and conclude that it will somehow reduce the impact to a level of less than significant. If the County or the Project would have consulted the Tribe and its Tribal Cultural Representatives, then they would have known that to consider moving burials or cultural resources from such significant areas is a direct violation of their traditional ways and the law. This proposed impact is **significant and unavoidable** and cannot be mitigated. Therefore, the "No project alternative" is the only morally and ethically acceptable alternative.

3. In consultation with the affiliated Native American tribal representatives, the proposed Project shall be redesigned to avoid any adverse effect on the significant tribal cultural resource, if feasible (as defined in 14 Cal. Code Regs. §15364). If preservation in place of the tribal cultural resource is documented to the satisfaction of the County not to be a feasible option, the Project proponent shall implement a use and interpretive program in consultation with affiliated Native American tribal representatives. The interpretive program may include artist installations, preferably by local Native American artists, oral histories with local Native Americans, artifacts displays and interpretation, and educational panels or other informational displays. After mitigation, the County concludes that the impact would remain **significant and unavoidable.**

The desecration and destruction of a tribal cultural site cannot be replaced with an interpretive program and art installations. The suggestion that a significant tribal cultural resource can be destroyed for this project and then take those culturally sensitive artifacts and create an art display is morally and ethically abhorrent. This project has been shown to be unnecessary on many levels due to its inefficiencies and significant and unavoidable environmental impacts and its approval is motivated by greed due to the money it would generate for the developer, land owner and the County. A "No Project" decision is the only morally and ethically acceptable conclusion for this Project.

P26-22 cont.

3.7 Energy

The DEIR describes six major wind resource areas in California and the project site is not one of them. This area has marginal winds which is one of the reasons the developer is trying to install some of the largest on-shore turbines in the nation in this area. Hatchet Ridge consistently produces less than 25% of nameplate capacity because of the marginal wind resources even

though they have an optimal site along Hatchet Ridge. The environmental impacts of this project aren't worth the limited amount of energy this project will produce.

The need to reduce atmospheric carbon may be used as a possible excuse for approving the Fountain Wind Project despite the many environmental impacts, some of them life threatening. Besides this being only a marginal wind resource area we also know that the energy production of this project will be further diminished for various environmental and electrical grid resource management reasons by CA ISO and possibly by the eventual purchaser of the power produced as the supplier manages their portfolio of power supplied to meet the States RPS requirements. Some of these issues that need to be addressed in this DEIR in order to provide the reader and decision maker with a more accurate and complete understanding of the energy production issues are as follows:

1. **Further Reduction in Efficiency Due to Red Flag Warnings:** The DEIR states that the Fountain Wind Project would shut down on Red Flag Warning days, not just during PSPS events. There is likely to be an ever increasing number of days annually when this would occur, which significantly reduces any supposed benefit of this project. Further analysis should be performed to evaluate the average number of Red Flag days over the last decade or more. The analysis should include a trend analysis as well so that an accurate estimation of the number of Red Flag days, including a probable yearly growth of those days, over the life of the project can be made. The number of Red Flag days could be an even greater concern ten years from project start when federal tax credits would cease and the project would have to be profitable enough on its own to continue operating. Too many wind projects have been abandoned over the years as the credits cease and their profitability does as well. This DEIR in incomplete without this analysis. How can decision makers make an accurate assessment without a clear understanding of the number of days this project will be operational? The DEIR should also specify how this plan will be monitored and enforced, what would be the penalties or consequences of not following the plan? Who determines what constitutes and emergency situation in which the developer could continue to operate and what would be the extent of the operation? P26-23
2. **CAISO Curtailment of Non-Dispatchable Wind and Solar Energy:** CA ISO will curtail 20% or more of the wind and solar power produced this year because the power isn't always needed when the sun is shining or the wind is blowing. CA ISO expects the curtailment of renewables to continue to increase as more come online. It is also anticipated by both CA ISO and PG&E that there will be even less demand for power as more rooftop solar comes online due to the mandate for new homes to have it and more and more existing homes adding it. It is also anticipated by both entities that new and ongoing energy efficiency efforts will continue to reduce the demand for additional power in the coming years. This is part of the reason that PG&E is not seeking to purchase any renewable power in the near future and had petitioned the CPUC for permission not to do so. All of these factors should be included and analyzed in the discussion of the energy produced by this project and how it is or is not needed. A projection of the anticipated curtailment over the next ten years should be performed to help in evaluating the usefulness of this project. During the first 6 months of 2020 CA ISO curtailed over 1.2 Million MW hours of power; that's the equivalent of shutting down over 5 Fountain Wind Projects during that same time frame. Why should the P26-24

Comment Letter P26

residents of Shasta County be subjected to the significant environmental impacts for power that isn't truly needed in the County or elsewhere in the State?

P26-24 cont.

3. **Replacing Green Energy with Green Energy – Wasteful Use of Energy:** The power may be used by a utility or power provider such as PG&E to replace renewable hydro or nuclear power because according to the nonsensical definition of the State, hydroelectric power from 30 MW or larger plants and nuclear plants, isn't green and yet they are. The power produced from the larger hydroelectric plants and nuclear plants have long ago paid back the carbon needed to construct them and are now producing very green power relative to the carbon cost. The energy produced by this Project is likely to be greatest at the same time that hydro generation is at its maximum which is during the rainy season. This can also produce a glut of power that CA ISO must curtail as mentioned above. Sometimes this can lead to zero or even negative market rates for power because Wind Energy is able to sell their power in these conditions for less than zero and still make a profit due to the federal tax credits that they would still receive for each unit of energy produced. This artificially low price has a wasteful impact on the profitability of the existing hydro and other viable sources of power making it more difficult for them to generate the revenue needed to operate and maintain their systems properly. This artificial market situation also wastefully drives the costs up for rate payers because the cost to maintain and operate the hydro plants must still be recovered and many utilities like PG&E are allowed to pass on the fixed costs of those hydro plants to the rate payer. Rate payers are already paying for the supplementation of costs to the Wind industry through the federal tax credits and then have to pay again because of the effect on the sustainability and net cost of hydro or other non-supplemented renewables. This is wasteful and unnecessary and should be conveyed in this DEIR so that decision makers and the public have a clear understanding of the impacts of this Project. To eliminate or curtail these sources of power artificially to meet an arbitrary RPS target is wasteful and does nothing to truly reduce atmospheric carbon or to provide power that wouldn't otherwise be available. None of PG&E's nearby Pit River hydroelectric plants count towards California's renewable energy goals nor does the Shasta Dam, yet they produce many times the power that this unnecessary project will. The following is the energy breakdown for PG&E in 2017 and it is clear from this data that the existing power available for consumption within the PG&E service territory is very green, as much as 78% and that to add this project within this area would be a waste of resources. If the power generated by this project is to be used elsewhere then that is where the electrical generating facility should be constructed in whatever form that best suits that particular location and need. This project is a wasteful use of energy within the PG&E service territory. This DEIR should clearly identify where and by whom this power will be used in order for decision makers and the public to be able evaluate its benefit if any.

P26-25

Comment Letter P26

PG&E Emission Factors - 2017

Electricity Portofilo	PG&E
Eligibile Renewables	33%
Coal	0%
Large Hydro	18%
Natural Gas	20%
Nuclear	27%
Other	0%
Unspecified	2%
Total	**100%**
Total Renewable	78%
Total Coal	0%
Total "Gas"	22%
Emissions Factors	**PG&E**
lb CO2e/MWh	210.00
MT CO2e/MWh	0.095

Assumes 'unspecified' is combined cycle natural gas generation

Conversion Factor
MT/lbs
0.000453592

Electricity Portfolio Sources:

CEC Power Content Labels https://ww2.energy.ca.gov/pcl/labels/2017_index.html

Emissions Factor Sources:

PG&E Corporate Responsibility and Sustainability Report (2019). Available: PG&E 2019. Corporate Responsibility and Sustainability Report. http://www.pgecorp.com/corp_responsibility/reports/2019/assets/PGE_CRSR_2019.pdf

What this State needs is more dispatchable energy. Energy that can be counted on to cover the deficits that can occur on hot summer months or especially cold winters during the days and hours it is needed not just when the wind is blowing or the sun is shining. The inability of the power from this project to meet the general utilities dispatchable needs to be articulated in this report so that decision makers have a clearer understanding of the wastefulness of this project given that so much of what it produces does not meet the energy needs of the community or State because it is not reliable, predictable or dispatchable. Relying on this unpredictable power will just lead to more blackouts during those times of high demand. 110% fossil fuel backup power generation capability must continue to be maintained in the State so there is clearly no net savings in resources. In fact the backup plants must be run in a suboptimal standby mode which wastes large amounts of fuel, not dissimilar to sitting in traffic with your car idling waiting to be used to move forward. Because the power generated by this project and many other renewable projects isn't dispatchable utility providers like PG&E must continue to run/maintain or purchase dispatchable power sources which causes a wasteful double paying for power because they must also have the backup power available when need to avoid blackouts and maintain a quality of service that exceeds what is seen in many third world countries. This double paying and other costs of maintaining sufficient backup capability because of the unreliability of Wind and solar power costs the utilities and rate payers billions of dollars and is past on in increased billing costs. This wasteful condition needs to be addressed in this DEIR so that decision makers have a clear understanding of how the power from this project does little to nothing to reduce atmospheric carbon and meet the energy needs of this area or the State. A more reasonable and financially prudent course

P26-26

Comment Letter P26

to meet the 100% clean energy needs of the State would be to further develop clean natural gas and then transition to nuclear, such as the small modular nuclear currently being developed by the Department of Energy, as well as the continued research and development into dispatchable renewables such as geothermal and biomass. This project is a wasteful use of energy and other resources at best.

P26-26 cont.

4. **Wake and Turbulence Impacts on Efficiency and Wastefulness:** There is also the issue of turbine wake effects within the project site and beyond as well as Wind Shear and whether it has been accurately measured. There is significant turbulence in mountainous forested areas anyway that can also effect Wind Shear, which may be why Hatchet Ridge generally only produces between 20-22% of nameplate capacity. Additionally, there is also turbulence created by the turbines themselves, called wake that can affect other turbines downwind of them even over long distances. According to Bo Schou Nielsen and Henrik Stiesdal of Bonus Energy A/S: The combination of trees, forests and wind turbines causes problems in different fields and the resource assessment may be severely compromised if the tree effects are not taken properly into account. The trees will cause increased turbulence that has to be added to the ambient turbulence and the turbulence generated by wakes. This will affect loads and power performance. The trees will cause displaced, increased and possibly distorted shear. This will affect loads and power performance. Bonus always urges caution: Validated models lacking in this study. Experience shows that developers often underestimate or overlook the presence of forests and trees. Experience shows that effects of trees and forests persist for longer distances than predicted by developers. Experience shows that trees grow and will continue to add to the problem of increased turbulence: The developer should take caution regarding modelling of turbulence from trees and forests. They should apply principles in Sten Frandsen model to the addition of turbulence. High shear creates problems with power curves: The basic assumption is that the hub-height wind speed represents the average wind speed across the rotor disc. This assumption is not bad for normal shear and no trees. The slight un-linearity of the wind profile is taken into account in normal power curve calculation. For high shear and a zero-displacement the un-linearity becomes important. A 2.3 MW with 82.4 m rotor and 60 m hub height has 3.5% less apparent power at 10 m/s if sited near a 20 m forest with m = 0.25 than if sited in open terrain with m = 0.14 Bonus uses the following rules of thumb for evaluation of possibility of power curve measurement: Shear not to exceed 0.20. This shear expected possible if tree height does not exceed a horizontal level of – Hub height - 2/3 D for R <= 5 D or – Hub height - 1/2 D for R = 10 D and – A linear increase in the range 5-10 D. No restrictions apply for R > 10 D. Rule of Thumb regarding Power Curve: The height of trees in the vicinity of a WTG, measured above the horizontal level of the WTG bottom flange, should not exceed the following limits, where R is the distance from the WTG to the trees, Hh is the hub height above the tower bottom flange and D is the rotor diameter: For R <= 5D: Hh - 0.67D. For 5D < R <= 10D: Hh - 0.67D + 0.17D*(R/(5D)-1). Primary conclusion: Do not site wind turbines near trees. According to the DEIR this area has not been studied sufficiently by the Fountain Wind developer, so it is likely to be an issue that will further reduce their operating efficiency and impact the nearby Hatchet Ridge development. The developer and this DEIR should provide data and associated analysis of the turbulence and wind shear measurements and modelling. Given the proposed taller turbines it is likely that the existing data and measurements from the

P26-27

Comment Letter P26

installed MET towers is insufficient to fully address and ascertain the probable power output of this Project. It is suggested that extrapolating Wind Shear characteristics based on sub-hub-height wind measurement data is inaccurate especially in a forested environment. LiDAR or SoDAR measurements and data sufficient to accurately determine the power curve and estimated power output should be included in this DEIR. How else can a clear and accurate picture of the viability of this project be determined?

P26-27 cont.

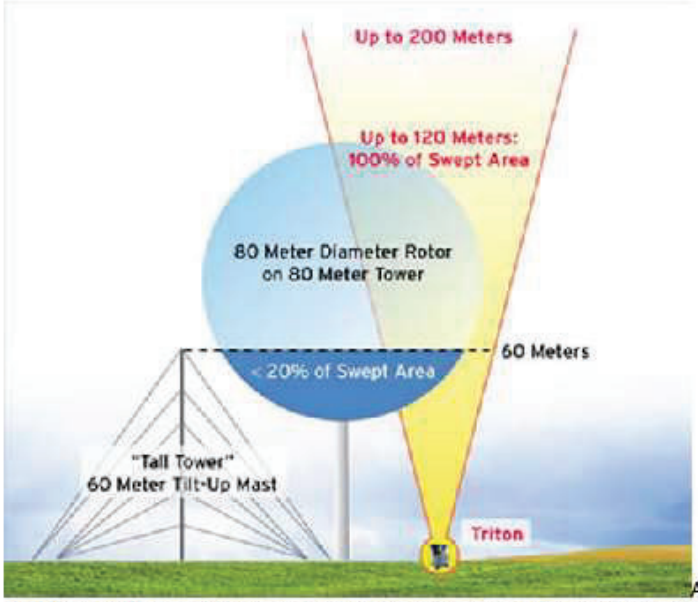
Comment Letter P26

The following is an explanation of SoDAR and a possible source of instrumentation:

Published on *Wind Energy Center* (https://www.umass.edu/windenergy)

Home > SODAR

SODAR [1]



As the wind energy industry expands and larger-scale projects are developed, wind turbines are becoming larger in rotor diameter as well as in hub height. Accordingly it is becoming difficult to accurately assess the wind resource with standard cup anemometers mounted on standard height (60m) meteorological (met) towers. For this reason, attention is being directed to other methods of wind speed measurement, such as SODAR (Sonic Detection and Ranging). Since the SODAR can measure wind speed as a function of height and is relatively easy to transport and assemble, the technology is very appealing.

The SODAR is able to measure wind speed by taking advantage of the Doppler shift phenomenon, which refers to the apparent change in frequency of an acoustic signal that is perceived by a fixed observer relative to the moving source. High frequency (typically 4500 Hz) acoustic signals are emitted from the SODAR in three directions, one beam in the vertical and two orthogonal beams tilted approximately 17 degrees from vertical. The acoustic waves are reflected off of moving, turbulent layers of air in the atmosphere thereby causing a portion of the signal to return to the SODAR. The reflected signals are then measured by the SODAR and an FFT (Fast Fourier Transform) is performed to analyze the frequency content of the signal. The Doppler-shifted frequency is calculated at a range of heights (up to 200m) in each direction and the vector wind speed can then be calculated.

Further explanation of LiDAR and SoDAR measurement technologies and techniques can be found at the following link: http://www.mdpi.com/2072-4292/3/9/1871/pdf .

P26-27 cont.

Comment Letter P26

Also the effect of Wind Shear on power estimation is further explained in the following articles (The influence of wind shear in wind turbine power estimation A. Honrubia∗, A. Vigueras-Rodr´ıguez†, E. Gomez L´azaro´ ∗, D. Rodr´ıguez-Sanchez´ ‡, ∗Wind Energy Department. Renewable Energy Research Institute. Department of Electrical Engineering. Escuela de Ingenieros Industriales. University of Castilla-La Mancha. 02071 Albacete, Spain. Email: andres.honrubia@uclm.es †Wind Energy Department. Renewable Energy Research Institute. Albacete Science & Technology Park. Albacete, Spain. ‡Solar and Energy Efficiency Department. Renewable Energy Research Institute. University of Castilla-La Mancha). . Further studies regarding the effects of wake on energy output are discussed in the following articles: (1) Wind Turbine Interference in a Wind Farm Layout Optimization Mixed Integer Linear Programming Model Rosalind Archer1, Gary Nates2, Stuart Donovan3, University of Auckland and Hamish Waterer4, University of Newcastle, Department of Engineering Science, University of Auckland, Private Bag 92019,Auckland, New Zealand School of Mathematical and Physical Sciences, University of Newcastle, University Drive, Callaghan NSW 2308,Australia. (2) Experimental investigation of wake effects on wind turbine performance M.S. Adaramola, P.-Å. Krogstad* Norwegian University of Science and Technology, N-7491 Trondheim, Norway, Contents lists available at ScienceDirect Renewable Energy journal homepage: www.elsevier.com/locate/renene. (3) Interference of Wind Turbines with Different Yaw Angles of the Upstream Wind Turbine Ahmet Ozbay1 , Wei Tian2 , Zifeng Yang3 and Hui Hu4 () Iowa State University , Ames, Iowa, 50011 .

P26-27 cont.

Any impacts to the nearby Hatchet Ridge project due to wake or other turbulence interference is counterproductive when it comes to both energy production, the reduction of atmospheric carbon, and safe reliable operations. The increased turbulence from trees and wake can not only reduce energy output but can also affect the longevity of the turbines subjected to it. Not only those of the Project itself due to the self-interference effects but the nearby aging Hatchet Ridge turbines could be affected by this as well. This reduced longevity could manifest itself in premature blade or mechanical failures that could also add to an increased risk of a turbine fire. Litigation between wind developers has occurred in some areas of the Country because of these turbulence impacts. The data and analysis related to turbulence caused by the trees and associated wake effects need to be part of this DEIR in order to properly assess the efficiency of the turbine and the reasonableness of siting them in the proposed project area. This DEIR is incomplete and insufficient without this additional data.

5. **Loss of Carbon Sequestration from Forests**: The project will also eliminate the carbon sequestering benefit of hundreds of thousands of trees making it even less effective at reducing atmospheric carbon. This needs to be taken into account when analyzing the net carbon footprint of this project and whether it offers any benefit in that regard being to take into account the numerous efficiency impacts sited above. The energy portfolio makeup of the purchaser of this power should also be included in an analysis of the net benefit of this project regarding needed power as well as carbon reduction. The analysis for the attempted Terra Gen wind energy project in Humboldt County did this as part of their DEIR to evaluate its benefit to the environment. The net benefit for this power is reduced when looking at the power source makeup of PG&E since much of their power is produced from clean natural gas, hydro, biomass, or other renewables. Replacing clean power with supposedly clean power of this project doesn't provide a net benefit for the environment, costs the taxpayers millions of dollars through tax credits and severely

P26-28

Comment Letter P26

impacts the local environment as well as the environment elsewhere through the operations needed to produce the components of this development. This development will release massive amounts of carbon during production (including the mining of rare earth metals, ores, smelting, etc.), transportation, site construction, maintenance and operation. Should it start a wildfire because of the developer's poor choice of locations, then all benefits would be lost and irreparable harm done to people, property and the environment. A wildfire would also likely severely impact the existing electrical grid in this area and elsewhere as the 500kV WAPA lines that run through the area and into the nearby Round Mountain Substation that the project ties into through a 230kV lines that connects directly to the substation.

P26-28 cont.

6. **Estimated Efficiency and Number of Homes Powered:** Another area that needs to be addressed when it comes to the usefulness of the energy produced by this project, is the estimated efficiency of the turbines themselves and how many homes it would be power. The percentage of nameplate capacity used in this DEIR is way too high for this area. As already mentioned in the DEIR the project area is not one of the major wind resource areas within the State. With the local marginal winds you'll get marginal power output, which will be further marginalized due to the turbulence issues mentioned above as well as the other impacts to the actual power produced also mentioned above. The Hatchet Ridge Wind Development produced about 20-22% of nameplate capacity and that was over the first decade after its construction, which is normally the best producing years for wind turbines. The power output of wind developments drops off over the years by as much as 1.7% per year for the first 10 years and then by as much as 3.6% per year after that for the remaining life of the project, according to a recent paper published out of the Lawrence Berkeley National Laboraorty (**How does wind project performance change with age in the United States?** *Author:* Hamilton, Sofia; et al. **Sofia D. Hamilton, Dev Millstein, Mark Bolinger, Ryan H. Wiser, Seongeun Jeong**
Energy Technologies Area, Lawrence Berkeley National Laboratory, and Department of Civil and Environmental Engineering, University of California, Berkeley, California, Joule 4, 1–17 (2020). doi: 10.1016/j.joule.2020.04.005).

P26-29

According to this DEIR the proposed Project meets the objectives it lists, as such it claims to power over 100,000 homes per objective #9 and footnote #6. In footnote #6 it claims that it would produce 605,491 MWh of usable power over a year's period. With a nameplate capacity of 216 MW this would imply that the project would operate at 32% of nameplate capacity. This number is way too high for this area. It is more typical of a high wind resource area in the Midwest not those here in California, except maybe off-shore, and especially not here locally. As mentioned above the Hatchet Wind development with the more optimum site on top of Hatchet Ridge only produced between 20-22% during its first ten years of operation and is likely producing even less now. A developer will often overestimate the power produced by their proposed project as a means to aid in its financing. The Federal Production Tax Credit (PTC) is granted per the amount of power produced. When a developer is seeking financing they will often engage in tax equity financing it which they use their projected tax credit as equity since the credit is transferable and could be sold to a more tax efficient entity and therefore loans or revenue can be generated against this tax equity and then used to help finance the Project. So there is an obvious incentive for the developer to overestimate the

power its project will produce; additionally, it can aid in getting the project approved by local authorities such as Shasta County because they claim to power more homes than they actually would, producing more supposedly green power than they actually would and generate more tax revenue from energy sales than they actually would, but it all sounds enticing to the local municipalities and they are often overly eager to push the project through or to falsely judge it worthy of approval by overriding considerations. This DEIR is inadequate without an accurate power curve estimate based on actual measured data. The MET towers alone are likely not sufficient sources of data for the especially tall turbines proposed by this Project. LIDAR or similar technologies need to be used to correctly measure the turbulence across the especially high swept blade area and an accurate wake modeling and analysis also needs to be performed, as previously, so that a true estimate of the production capacity of this Project can be made. How else can the benefit versus cost to the environment be determined, or whether the project would be a wasteful use of energy, or what the true carbon savings would be, or any supposed benefits be determined without this more accurate data and modeling analysis?

Even the number homes powered by the energy produced from this Project is misleading, in that the developer is using an average for energy users in all of California, 496.5kWh per month, instead of using the average for those within the PG&E service territory and more specifically Shasta County. The project specifies in its narrowly defined Project Objectives that it needs to be located within PG&E's service territory, as such, it should use a more appropriate number such as the average for those in Shasta County, which has a much higher value than the average for the State; especially when considering that the highest average usage of power per year within the County is by those living in the cities such as Redding and Anderson, which also contain most of the County residents. The average power used by most residents of Shasta County is 798 kWh/month in the summer and 578 kWh in the winter, for an annual average of 686 kWh. Using the value of 686 kWh and a more appropriate starting value of 25% of nameplate capacity, the number of homes potentially served, before accounting for all of the many other curtailments from CA ISO and PSPS and Red Flag shutdowns would be on the order of 57,465 homes = ((8760 hr./yr.) *216 MWh *1000 kWh/MWh*25%)/ (686 kWh/mo. * 12mo./yr.) Even the estimate of a 25% capacity is likely overly generous due to the many issue already mentioned above, which again points to the need for the already identified missing data and analysis in order for this DEIR to be complete. Although these Turbines would be significantly taller than those of the Hatchet Ridge development they are in a less desirable area further downslope and would also likely be subject to much more turbulence and wake effects. At 20% of nameplate capacity the Project would only power a little over 45,970 homes. When considering the anticipated 20% curtailment by CA ISO in 2020 alone and the Red Flag curtailments which would likely be on the order of another 5-7% (PG&E had 23 days of PSPS events for this area in 2019, which would have been less than the actual number of Red Flag Warning days that year), the number of homes powered would more accurately be around 34,202 homes. If this power goes elsewhere the number of homes could be even less. The Department of Energy (DOE) calculates the average electrical power used per household within the US to be approximately 12,000 kWh per year. Using the DOE values the number of homes powered from the useable and dispatchable energy would be closer to 23,463 homes per

P26-29 cont.

Comment Letter P26

year but of course this too is before taking into account the large amount of power loss as heat due to the I^2 * R losses of the transmission system or the average aging and reduction in production as mentioned above. Within 10 years due to aging turbines and infrastructure the useable power could easily be down another 20% thus powering a little over 18,770 homes and just continue to diminish further throughout the remainder of the Project life. This DEIR is incomplete and misleading without these facts and data included as mentioned above, in order for decision makers and the public to have a more accurate understanding of the net benefit or lack thereof of this project.

P26-29 cont.

7. **Current State of the Electric Grid:** Additionally, the current state of the electrical grid and how the energy produced by this project could impact it should be considered in this DEIR. This is an important consideration in this section because, unless the impacts to the existing grid and its state of operation is considered then the energy needed to produce, transport, construct, operate and maintain this project would be a gross waste should the connected grid fail and any power produced be wasted or worse a fire ensue. The DEIR for this Project would have you believe that the PG&E bankruptcy, their dismal safety record and the current state of our electric grid are not environmental concerns. The PG&E bankruptcy and its related issues are not even mentioned. Following is a listing of the PG&E service calls in the Bay Area alone due to its many grid failures for the first 13 days of October 2020; it is obvious from this data that we cannot assume that there grid is safe and that it is safe to connect any additional power to it:

P26-30

P26-31

10/13/2020 bay area calls or service. - 4 calls so far.
10/13/2020 1:16 AM Pole Fire 1179 Alicante Drive Pacifica
10/13/2020 10:45 AM Wires Down 951 Crockett Avenue Campbell
10/13/2020 4:22 PM Wires Down Old Santa Cruz Highway/Idylwild Road Los Gatos
10/13/2020 6:52 PM Wires Down 10th Avenue/Bay Road North Fair Oaks
10/12/2020 bay area calls for service. - 13 calls total.
10/12/2020 7:50 AM Wires Down 245 S Spruce Avenue South San Francisco
10/12/2020 8:35 AM Wires Down 1416 Sunshine Valley Road Montara
10/12/2020 9:38 AM Wires Down 180 Washington Street Novato
10/12/2020 10:26 AM Wires Down 105 Park Lane Brisbane
10/12/2020 10:40 AM Wires Down Etheldore Street/Sunshine Valley Road Moss Beach
10/12/2020 12:43 PM Wires Down 935 El Rio Drive San Jose
10/12/2020 2:49 PM Wires Down 657 N 14th Street San Jose 10/12/2020 2:54 PM Electrical Emergency 20177 Las Ondas Way Cupertino
10/12/2020 2:58 PM Wires Down 657 N 14th Street San Jose Second call 9 minutes later
10/12/2020 3:02 PM Wires Down 875 Brennan Way Livermore
10/12/2020 4:30 PM Wires Down H Street/8th Street Union City
10/12/2020 7:34 PM Wires Down 7500 San Felipe Road San Jose
10/12/2020 8:57 PM Wires Down S 5th Street/E Reed Street San Jose
10/11/2020 bay area calls for service. - 1 call total.
10/11/2020 9:54 AM Wires Down 1586 Via Lobos San Lorenzo
10/10/2020 bay area calls for service. - 5 calls total.
10/10/2020 9:32 AM Wires Down 640 Cabrillo Highway San Mateo County
10/10/2020 11:32 AM Wires Down 622 University Avenue Los Gatos
10/10/2020 1:31 PM Wires Down 11301 Magdalena Avenue Los Altos Hills

Comment Letter P26

10/10/2020 1:32 PM Electrical Emergency 390 Magdalena Avenue Los Altos
10/10/2020 5:47 PM Wires Down 300 Camaritas Avenue South San Francisco
10/9/2020 bay area calls for service. - 3 calls total.
10/9/2020 7:29 AM Wires Down 7 Bay Road Menlo Park
10/9/2020 10:32 AM Wires Down 6235 Mojave Drive San Jose
10/9/2020 2:40 PM Wires Down 268 Sonoma Street San Jose
10/8/2020 bay area calls for service. - 4 calls total.
10/8/2020 10:16 AM Wires Down 1067 Meadowsweet Drive Corte Madera
10/8/2020 3:06 PM Wires Down Chapman Road/Skyline Blvd Woodside
10/8/2020 4:58 PM Wires Down 916 Sycamore Drive Palo Alto
10/8/2020 6:02 PM Wires Down 2879 Louis Road Palo Alto
10/7/2020 bay area calls for service. - 7 calls total. - Repeat pole fire.
10/7/2020 5:49 AM Wires Arcing 10th Avenue/Michael Drive Redwood City
10/7/2020 8:25 AM Pole Fire 1150 McGinness Avenue San Jose Pole Fire previously on 9/28/20 at this same location
10/7/2020 8:56 AM Wires Down Park Road/Redwood Drive Woodacre
10/7/2020 11:16 AM Wires Down 812 7th Avenue San Bruno
10/7/2020 11:49 AM Electrical Emergency 58 Birch Avenue Corte Madera
10/7/2020 4:07 PM Electrical Emergency 21 Princess Street Sausalito
10/7/2020 6:26 PM Wires Down Carter Street/Guadalupe Canyon Parkway Daly City
10/6/2020 bay area calls for service. - 4 calls total.
10/6/2020 12:10 PM Wires Down 2832 Fordham Street East Palo Alto
10/6/2020 3:10 PM Wires Down 22 Brennfleck Street San Anselmo
10/6/2020 3:26 PM Wires Down 360 Summit Drive Redwood City
10/6/2020 8:07 PM Wires Down 15651 Kennedy Road Los Gatos
10/5/2020 bay area calls for service. - 7 calls total.
10/5/2020 8:26 AM Wires Down 1040 Sunset Drive San Carlos
10/5/2020 9:53 AM Wires Down 695 Veterans Blvd Redwood City
10/5/2020 11:39 AM Wires Down 19225 Shoreline Highway Marshall
10/5/2020 3:25 PM Wires Down 3062 Woodside Road Woodside
10/5/2020 6:57 PM Pole Fire Tampa Way/Seminole Way San Jose
10/5/2020 7:39 PM Pole Fire 545 W Santa Inez Avenue Hillsborough
10/5/2020 8:21 PM Pole Fire 888 S Capitol Avenue San Jose
10/4/2020 bay area calls for service. - 4 calls toal. A fairly quiet Sunday...for once.
10/4/2020 9:04 AM Wires Down 2511 Washington Avenue Redwood City
10/4/2020 2:06 PM Wires Down Buck Meadows Drive/Los Trancos Road Portola Valley
10/4/2020 8:15 PM Pole Fire Auzerais Avenue/Gregory Street San Jose
10/4/2020 8:23 PM Pole Fire 1390 S 1st Street San Jose
10/3/2020 bay area calls for service. - 13 calls total.
10/3/2020 9:46 AM Pole Fire 4840 Alpine Road Portola Valley
10/3/2020 9:47 AM Wires Down 200 Santa Helena Avenue Millbrae
10/3/2020 10:07 AM Wires Down 20587 Cedarbrook Terrace Cupertino
10/3/2020 12:00 PM Wires Down Glenloch Way/Sylvan Way Redwood City
10/3/2020 12:31 PM Wires Down County Road/Skyline Blvd Woodside Wires Down previously on 10/1/20 at same location.
10/3/2020 2:48 PM Pole Fire 1903 E Bayshore Road Redwood City
10/3/2020 2:58 PM Wires Down 210 Pope Street Menlo Park
10/3/2020 4:36 PM Electrical Emergency 5 Parkview Circle Corte Madera
10/3/2020 6:50 PM Wires Down 537 W Sunset Blvd Hayward

Comment Letter P26

10/3/2020 7:23 PM Wires Down Manor Blvd/Edgemoore Street San Leandro
10/3/2020 8:01 PM Electrical Emergency 69 Fawn Drive San Anselmo
10/3/2020 9:16 PM Pole Fire 7165 La Honda Road La Honda
10/3/2020 10:15 PM Wires Down 279 Sylvan Way Redwood City
10/2/2020 bay area calls for service. - 12 calls total.
10/2/2020 1:31 AM Pole Fire 145 Baytech Drive San Jose
10/2/2020 8:24 AM Wires Down Vestal Street/N 10th Street San Jose
10/2/2020 8:31 AM Electrical Emergency 630 Drake Avenue Marin City
10/2/2020 11:55 AM Wires Down 1100 Kings Mountain Road Woodside Wires Down previously on 6/8/20 and again on 7/18/20 at this same address.
10/2/2020 1:29 PM Wires Down 1784 Parrott Drive San Mateo
10/2/2020 2:47 PM Wires Down 2151 Hanover Street Palo Alto
10/2/2020 3:04 PM Wires Down Robleda Rpad/Chapin Road Los Altos Hills
10/2/2020 4:19 PM Wires Down 375 Macarthur Avenue San Jose Wires Down on 10/1/20 at this same location.
10/2/2020 5:08 PM Wires Arcing 1512 Burlingame Avenue Burlingame
10/2/2020 9:37 PM Pole Fire W Reed Street/Almaden Avenue San Jose
10/2/2020 9:46 PM Wires Down Fulton Street/Lincoln Avenue Redwood City
10/2/2020 11:25 PM Electrical Emergency 411 Montford Avenue Mill Valley
10/1/20 bay area calls for service. - 8 calls total.
10/1/2020 6:54 AM Wires Down 3 Fremont Way Woodside
10/1/2020 8:46 AM Wires Down Laurel Street/Oak Street San Carlos
10/1/2020 9:38 AM Wires Down County Road/Skyline Blvd Woodside
10/1/2020 12:56 PM Wires Down S 21st Street/Santa Clara Street San Jose
10/1/2020 12:58 PM Wires Down 567 Mac Arthur Drive Broadmoor
10/1/2020 1:48 PM Wires Down 1216 Vine Street San Jose
10/1/2020 3:32 PM Wires Down 375 Macarthur Avenue San Jose
10/1/2020 4:01 PM Wires Down 724 Newhall Road Burlingam.

The DEIR also does not accurately address the safety issues at the Round Mountain substation and incorrectly state that it's only the 500kV lines that are affected when CPUC documentation clearly show that the 230 kV and lower voltage transmission lines are also severely impacted. The CEQA process itself does not adequately address many of the recent issues including those related to PG&E, the electric grid and COVID-19. Even though the ultimate responsibility for resolution of these issues largely fall to other entities, our local governing bodies are responsible for how they plan and act upon the information that has come to light through recent events. Some of that recent information includes the following: We know the CPUC allowed PG&E to defer maintenance in order to meet legislated RPS goals and it will now take years for PG&E to harden its electric grid and that we must endure PSPS events near the FWP project area in the meantime. We know the Round Mountain Substation has serious problems that affect not just the 500 kV lines but the 230kV lines which the FWP connects to. We know that the electric grid lacks the storage and backup capacity to handle the erratic and unreliable power of Wind and Solar as evidenced by the recent rolling blackouts. We know that according to CAISO they will curtail as much as 20% of California's renewable power this year and will likely pay other states to take the excess and that it will get worse as more renewables come online We know that California is years ahead of its overly aggressive RPS goals and that there is no dire need to add additional Wind power.

P26-32

Comment Letter P26

According to this DEIR the Fountain Wind Project's connection to PG&E's 230 kV high voltage power line is independent of the issues at the Round Mountain substation, but this is blatantly false. Connecting the highly variable power from Fountain Wind will exacerbate an already unsafe and unreliable situation at the substation and at other interconnected portions of the grid. According to the 2018-2019 California ISO Transmission Plan, page 81, the Round Mountain 500/230 kV buses frequently experiences over voltage conditions during non-peak operations. It further states that the voltage varies significantly on a daily basis due to solar generation and that the hourly fluctuations are expected to increase in the future with more solar integration and the expansion of the Energy Imbalance Market. Adding the additional highly variable power of wind energy into these interconnected electrical busses will just add to the existing problem. The Transmission Plan further states on page 82, that "Having high voltage on 500 kV system will result in high voltages on 230 kV and to some degree the 115 kV and 60/70 kV lower voltage networks." High voltages have been regularly observed across PG&E's system and pose ongoing challenges to system operators. Real-time voltages have ranged between 488 kV and 558 kV which is outside acceptable limits, especially on the high side. The solution outlined in the Transmission Plan is to install a 500 million-volt-amp-reactive (Mvar) device that can both absorb and supply power, at the Round Mountain substation. This solution was determined without considering the additional highly variable power of Fountain Wind which will detrimentally affect supply and demand on the 230 kV bus and correspondingly on the 500 kV bus and ultimately reduce the solutions effectiveness. The interconnection of the 230kV and 500 kV busses is further demonstrated by the CAISO solicitation for Round Mountain Dynamic Reactive support in which they outlined two acceptable implementations of the 500 Mvar solution. Alternative solution 2, allows the bidder to install two +/- 250 Mvar systems at both Round Mountain and the connected Table Mountain substations. For ConnectGen to say that the issues at the Round Mountain Substation are irrelevant because they would connect to PG&E's 230 kV transmission lines just prior to the substation and not directly to it, demonstrates a real lack of understanding or a deliberate attempt to mislead the public. Because the Round Mountain Substation is not operating at acceptable standards, and won't be until at least 2025, the special use permit should be denied when it comes before you for a vote. Ref: a) California ISO 2018-2019 Transmission Plan, March 29, 2019. b) Round Mountain 500 kV Area Dynamic Reactive Support Description and Functional Specifications for Competitive Solicitation, May 14 2019.

P26-32 cont.

When addressing the state of the electrical grid the recent executive order by President Trump securing the United States Bulk-Power System should also be considered and addressed within this DEIR. On May 1, 2020, President Trump issued an "Executive Order on Securing the United States Bulk-Power System," meant to prevent cyberattacks to and interference with the US electric grid by foreign adversaries. The Order prohibits the procurement of bulk-power system (BPS) electric equipment if the US Department of Energy and/or other national security and intelligence agencies determine that the BPS equipment was produced by, or is connected with, a foreign adversary and its use presents a security risk. The types of BPS equipment covered by the Order includes: "items used in bulk-power system substations, control rooms, or power generating stations, including reactors, capacitors, substation transformers, current coupling capacitors, large generators, backup generators, substation voltage regulators, shunt

P26-33

Comment Letter P26

capacitor equipment, automatic circuit switches, instrument transformers, coupling capacity voltage transformers, protective relaying, metering equipment, high voltage circuit breakers, **generation turbines**, industrial control systems, distributed control systems, and safety instrumented systems." This order will likely have a direct impact on the safety related upgrade schedule (currently 2024-2025) for the Round Mountain substation and connecting of the Fountain Wind project's electrical power to PG&E's electric grid. It would also likely impact other major components of the Fountain Wind Project itself. Additionally, many Industrial Wind Turbine components such as the blades and the Main Bearings for the Nacelles are mostly produced in China, particularly the Wuhan District, causing some turbine manufactures supply issue due to COVID-19. Given these uncertainties and the probable delay of needed safety upgrades to the local electrical grid (including the Round Mountain Substation and PG&E's infrastructure) because of equipment shortages and/or procurement restrictions, the Fountain Wind Project should not be considered for approval until the full impact of this Order and the extent of the delays are determined. The project itself is likely in jeopardy of timely completion due to the many supply issues resulting from this order and the impacts of COVID-19. President Trump's recent "Executive Order on Securing the United States Bulk-Power System." This order is meant to prevent cyberattacks to and interference with the US electric grid by foreign adversaries. The order addresses the very real threat from adversarial nations, like China, to our US infrastructure. In like manner, we should examine other activities of China related to all areas of our economy and infrastructure for the purpose of ensuring our national security. US Senator Charles Grassley conceived the federal wind tax credit program nearly 30 years ago. It was meant to expire in 2002 when the Wind Energy Industry was supposed to become self-sufficient. It's now nearly 20 years later and the industry is still suckling at the federal tax bottle, at the expense of American Taxpayers and lobbying to further this corporate welfare program as part of the next COVID-19 relief bill. The Production Tax Credit portion of the tax relief program has cost the US tax payer over $65 Billion since its inception. A large amount of this money has gone to corporations whose major shareholder is the Communist Party of China (CCP). According to US Senator Tom Cotton, many Chinese companies operating in the US are doing so for the purpose of spying on our country or gaining control of key infrastructure and industry. Communist China dominates the Wind Energy, controlling five of the ten largest Wind Turbine manufacturers. In 2016, China controlled 28.2% of the wind turbine manufacturing market vs 9.2% for US firms and had five times as many workers (509,000) as did the US (102,500). Chinese-owned Goldwind is the second-largest wind turbine producer in the world and controls 25 percent of the Chinese market. Its Chairman Wu Gang was previously the Chinese Communist "Party Committee" secretary at Goldwind's parent company, Xinjiang New Energy. In 2010, Goldwind opened a U.S. subsidiary, with intentions to exploit Grassley's tax credit program and expand its control of the US wind energy and electric power grid operations. Goldwind now owns several US Industrial Wind sites and has partnered with Warren Buffett's Berkshire Hathaway on further developments. Buffett stated, "I will do anything that is basically covered by the law to reduce Berkshire's tax rate. For example, on wind energy, we get a tax credit if we build a lot of wind farms. That's the only reason to build them. They don't make sense without the tax credit." We should not be allowing the exploitation of the US taxpayer, further control of key US Industry, the sacrifice of our

P26-33 cont.

P26-34

Comment Letter P26

national security due to electrical grid failure or sabotage and control and the devastation of our local environment and native culture for the benefit of the Chinese Communist Party or any foreign corporation or adversary. ? This DEIR should address the impacts of the executive order on the electrical grid including PG&E's service territory and their ability to perform upgrades and other needed maintenance as well as the completion of the needed Round Mountain Substation safety upgrade and the ability of the developer to complete this project should it be approved. There is a finite amount of time in which the developer must complete the project in order to qualify for the federal tax credits. Should the project be delayed because of supply chain or security issues and it cannot complete the project in time to qualify for the tax credits will it still be a viable project. Will the developer be able to complete the project or will they walk away from it, leaving it in a partial state of completion and thus wasting huge amounts of resources and contributing to the increase in atmospheric carbon and possibly leave the County to land owner to clean up the mess?

P26-35

3.16 Wildfire

The areas surrounding the project area are rated as a "very High Fire Hazard Severity Zone. Existing site conditions are windy with steep terrain with grades up to 25%. There is also a history of dry lightning events and fires in and near the project site. As correctly noted in the DEIR there is limited ingress and egress for communities near the project site. In addition the project and surrounding areas are known to have a high fuel load due to the pine/oak forest and highly flammable understory brush such as manzanita and large amounts of forest floor flammable biomass due to logging and/or years of accumulation since any major fires in the area. The fuel type and loads for this area are expected to burn quickly with taller flame height that could easily lead to torching and fast moving crown fires. This is why Wind Turbine developments are not typically located in forested areas, the risk is just too high and can't be mitigated. Hatchet Ridge Wind Development was the first to be located in forested lands in all of the Western United States at the time and it should never have been approved. It's a fire waiting to happen. Fortunately the smaller number helps to reduce some of the probability of a fire. Wind turbine developments are typically located in grasslands, farm lands or desert area for this very reason.

The proposed Project will add to anthropogenic sources in what was otherwise Timber Production operations with infrequent human activity in the area. As noted in the DEIR, the heavy fuel loading, hot temperatures, critically low humidity, and strong north winds characteristic of Shasta County and the proposed project site contribute to the ongoing major wildfire threat for this area. The DEIR further identifies the frequent steady and occasional strong winds for the area. The high winds frequently occur in the early morning hours after 2:00 am. This is when most people would be caught unaware by a fire that could occur in the project area. With the high winds and already noted fire conditions the fire would quickly spread before emergency response or anyone in its path had time to respond. The resulting catastrophe would be much like the Camp Fire of 2018 which destroyed much of Paradise California.

CAL FIRE designates the project site as "high" to "very high" Fire Hazard Severity Zones. These are the highest severity zones. It doesn't get any more dangerous. Many of the local

Comment Letter P26

residents already can't get fire insurance on their homes without going through the Sates Cal Fair Plan because of the high fire danger for the area. This project and its activities will just add to the probability of a major fire in the area. Governor Newsome's 45 day plan that was published after the Camp fire calls on agency's to identify ways to reduce the threat of wildfires not increase them. Welding vs not welding, blasting vs not blasting, grading vs not grading, thousands of vehicle trips through the area vs infrequent logging operations, large lightning attraction source vs natural landscapes. It is obvious to even the casual observer that this project will significantly add to the risk of a major fire and the loss of property and life of anyone in its path. The risk is unacceptable as compared to a "no Project" alternative. P26-36

Even the population numbers listed in the document are wrong. The numbers listed are from the 2010 census and are likely much higher as projected from the trend. The small communities of Oak Run, Whitmore, Millville, Bella Vista and Palo Cedro should also be mentioned since they could be in the immediate path of fire started on the project site. Some of these communities are less than 10 miles from the project and all of them could be quickly devastated should a fire start due to this project. Ingress and egress is also very limited for these communities and the resulting casualties could be very high. P26-37

3.16.1.3 Regulatory Setting

The National Fire Plan (NFP) and most of the documents listed are out dated. This NFP plan was written in 2002 and it along with the other documents sited in this section do not reflect the new normal of California's fire season and threats especially for this area. Many of California's most devastating fires have occurred since these regulatory documents were in place. They have little to prevent the devastating wildfires like the Carr, Camp, Hertz, Delta and many more past fires or the ongoing fires of 2020. These plans and the following of them have not prevented these devastating fires and will not mitigate the threat of wildfires that this projects multiplies for this area. This was written in 2002 and yet most of the fires of concern have occurred since then so it's obviously not very effective or followed or both. The National Cohesive Wildland Fire Management Strategy (2009) is more than 10 years old. The North American Electric Reliability Corporation Standards (2006) is nearly 15 years old and while PG&E was conducting business and yet did not prevent the thousands of PG&E caused fires over the years including the tragic nearby Camp Fire which killed 85 persons and the more recent Kincaid fire caused by one of their 230kV lines. P26-38

The States 2018 Strategic Fire Plan for California is more recent but has not been fully implemented and does nothing to reduce or mitigate the immediate threat of wildfire for the project area and nearby communities. The two primary goals listed within this plan are for (1) fire prevention and suppression activities to protect lives, property, and ecosystem services; and (2) natural resource management to maintain the State's forests as a resilient carbon sink to meet California's climate change goals and to serve as important habitat for adaption and mitigation. The plan has not been implemented to any significant extent in this area. Fire prevention activities have not increased in this area other than those carry out by individual land owners and this project would be in direct contradiction to the second goal as does not maintain the State's forests as a resilient carbon sink. With over 4700 acres of forests cleared to make way for this

Comment Letter P26

project and the release of significant amounts of carbon stored in the soils do to construction activities this project destroys a great deal of carbon sink capacity and in fact release huge amounts of carbon not just here but worldwide due to the carbon cost of mining, smelting, construction, etc. that is unavoidable except through a "no project" alternative. Any perceived carbon savings from the production of wind generated electrical power will be quickly lost in a project caused wildfire. The DEIR incorrectly claims that the goals and objectives of this and related developed fire plans don't directly apply to them. These goals and plans as promulgated by the Governor and the Board of Forestry and Fire protection are intended to apply to all forested lands within the State of California. Should a fire break out within the project area it will be the State's Cal Fire that will be fighting it within the forested lands so in general the goals and objectives of these plans do apply to this project and all of this area.

P26-38 cont.

California Public Utilities Commission (CPUC) General Orders (GO): The project developer is not an investor-owned utility and states that the GOs do not apply to them for their development of various aspects of the project such as the switching station and collector lines. What governing documents do they have to follow and why aren't they referenced here? The GOs identified below have been in place and the general requirement for safe operation and maintenance of the electrical systems governed have always been a requirement. And yet we have had and continue to have 1000's of PG&E caused fires. In recent investigations and testimony by PG&E executives as part of the recent PG&E bankruptcy proceedings we know that it will take many years (10-14 years by PG&Es own admission) to correct the dire and neglected PG&E electrical grid. We experience PSPS events because the PG&E grid is not hardened (safe) enough to be operated during particularly high fire threat events. These events point out very clearly that PG&E's grid is unsafe at present. It is unreasonable and irresponsible to add the projects power to PG&E's grid at this time.

P26-39

We also know that the nearby Round Mountain substation is in need of repair as it and connected substations experience thermal overload and voltage regulation issues. Largely caused by voltage regulation issues on the 500kV lines that connect to the substation. This project would connect to the 230kV lines which also feed into the substation and are affected by the unsafe conditions caused by the 500 kV lines as outlined in California Independent System Operator (CAISO) documentation.

The Fountain Wind Project's connection to PG&E's 230 kV high voltage power line is NOT independent of the issues at the Round Mountain substation. Connecting the highly variable power from Fountain Wind will exacerbate an already unsafe and unreliable situation at the substation and at other interconnected portions of the grid thus increasing the risk of an unintentional fore and making it unsafe if not impossible to conduct routine maintenance at time of over voltage conditions. According to the 2018-2019 California ISO Transmission Plan, page 81, the Round Mountain 500/230 kV buses frequently experiences over voltage conditions during non-peak operations. It further states that the voltage varies significantly on a daily basis due to solar generation and that the hourly fluctuations are expected to increase in the future with more solar integration and the expansion of the Energy Imbalance Market. Adding the additional highly variable power of wind energy from this project into these interconnected electrical busses will just add to the existing problem. As mentioned earlier inn this section high

P26-40

Comment Letter P26

winds and often the windiest times for this area occur in the early morning hours after 2:00 am. This would be a non-peak operating time and would exactly when you would not want to add the power generated by this project to the 230kV lines. It is also a further indication of how inefficient this project will be given the likely hood that CAISO will issue a need for curtailment at during these times. The CAISO Transmission Plan further states on page 82, that "Having high voltage on 500 kV system will result in high voltages on 230 kV and to some degree the 115 kV and 60/70 kV lower voltage networks." High voltages have been regularly observed across PG&E's system and pose ongoing challenges to system operators. Real-time voltages have ranged between 488 kV and 558 kV which is outside acceptable limits, especially on the high side.

P26-40 cont.

The solution outlined in the Transmission Plan is to install a 500 million-volt-amp-reactive (Mvar) device that can both absorb and supply power, at the Round Mountain substation. This solution was determined without considering the additional highly variable power of Fountain Wind which will detrimentally affect supply and demand on the 230 kV bus and correspondingly on the 500 kV bus and ultimately reduce the solutions effectiveness. The interconnection of the 230kV and 500 kV busses is further demonstrated by the CAISO solicitation for Round Mountain Dynamic Reactive support in which they outlined two acceptable implementations of the 500 Mvar solution. Alternative solution 2, allows the bidder to install two +/- 250 Mvar systems on the 230 kV buses at both Round Mountain and the connected Table Mountain substations. For this DEIR to state that the issues at the Round Mountain Substation are irrelevant because they would connect to PG&E's 230 kV transmission lines just prior to the substation and not directly to it, demonstrates a real lack of understanding or a deliberate attempt to mislead the public.

P26-41

Because the Round Mountain Substation is not operating at acceptable standards, and won't be until at least 2025, the special use permit should be denied. The unsafe condition at the Round Mountain substation cannot be mitigated by the developer and moving forward with this project significantly increases the risk of a wildfire in an already very to extremely high wildfire threat zone. A "no project" is the only responsible alternative at this time. Moving forward with this dangerous project opens the contractor and County up to significant liability litigation.

Ref: a) California ISO 2018-2019 Transmission Plan, March 29, 2019

b) Round Mountain 500 kV Area Dynamic Reactive Support Description and Functional Specifications for Competitive Solicitation, May 14 2019

PG&E Company Emergency Response Plan: This plan exists regardless of the project and does not apply to most of the project. Even with this plan in place the PG&E grid is unsafe as it has not been hardened at this time. Even not we are about to go through a PSPS event per the phone call we just received from PG&E on 9/6/2020. The period for this PSPS event is approximately 48 hours. How would anything about this project fix this existing deficiency I PG&E's electrical grid? How does this plan reduce the threat of wildfire? It simply outlines what PG&E's response would be after the fact.

P26-42

PG&E Fire Prevention Plan: This plan also existed prior to many of the more recent catastrophic PG&E caused fires such as the Camp Fire. It has not mitigated the existing threat. It will take many years to reduce the threat to a point where PSPS events are no longer needed. This project does nothing to implement this plan or reduce the threat of wildfire. This plan does not directly

Comment Letter P26

apply to this Project since by the developers own admission very little of the project falls under CPUC oversight and regulation since it is not an Investor-owned utility. The project seems to want to pick and choose when certain regulations apply to them and when they don't for the benefit of implying that the project's impact to wildfire safety is less than significant. Much of the project is not to be owned, operated or maintained by PG&E nor does much of the CPUC regulations apply and yet the DEIR lists these plans and standards as though they apply directly. What regulations actually apply to this project? What specific procedures must they follow? The PG&E standard cited here S1464 prohibits crews traveling in the "Very High" to "Extreme" fire rated area of the project from burning, welding, smoking and driving off cleared roads and restricts other operations until lines have been cleared and deemed safe and yet this project will be conducting most if not all of those activities as it blasts, clears land of trees and brush, grades, welds, etc. The developer will be in violation of this standard as it attempts to construct and operate this project in the extremely dangerous fire hazard zone of this area.

P26-42 cont.

California Emergency Response Plan: Did not save the town of Paradise during the Camp Fire and would not save the local communities either.

P26-43

Shasta County General Plan: Under the Shasta County General Plan Element 5.4 Fire Safety and Sheriff Protection objective **FS-1** directs the County planners to protect public health and safety from fire danger by "discourage and/or preventing development from locating in high risk fire hazard areas." This project and even the consideration of its construction and approval is in violation of this objective. Because of the known high fire danger of this area this project should not be approved. This is an example of one of the reasons that the Citizens In Opposition to The Fountain Wind Project (CIOFWP) officially requested that a moratorium be put in place so that the County could further study and define what parts of the County were suitable for Wind Development projects but as noted above even the existing General Plan recognizes that projects with the potential to be a source of fire should be prevented from developing in High Fire Hazard Zones such as where this project is to be located. How does consideration of this project for development not violate this objective at the risk to life and property of the local communities? Why can't the County allocate specific less hazardous areas for these types of developments? Many local residences cannot get home owners fire insurance on their properties because of the high fire danger even with appropriate defensible space why would the County even consider the possible approval for this project in this area? Why isn't the new understanding of our the fire hazard for this area pose enough of an imminent threat to allow the County to responsibly implement a moratorium and define appropriate zoning and development zones for these type of industrial developments?

Policy **FS-b** requires that all known fire hazard information be reported as part of every Use Permit. Contrary to this requirement the DEIR is analyzing the possibility of this Project being developed in some of the Highest Fire Hazard zones in the State without fully considering all of the known fire hazards. This DEIR is choosing to ignore the unsafe condition of PG&E's electrical grid and the Round Mountain Substation because those issues are claimed to be somebody else's responsibility. Even though they are part of this environment and are sources of known fire hazard and unsafe conditions. FS-b requires that all available information regarding fire hazards, including that of the Grid and the Round Mountain Substation, be considered as part of the special use permit. Although the DEIR makes connecting to the PG&E grid a primary Project objective the County as lead agency is taking no responsibility in ensuring that doing so is safe. The County **assumes** that the US Bankruptcy Court, CPUC, CAISO or somebody else

P26-44

Comment Letter P26

has made everything safe. The County knows that the Project connects to the PG&E maintained Round Mountain substation via PG&E's 230kV transmission line and that per the CPUC the substation has unsafe thermal overload and voltage regulation issues that affect all interconnections, including the 230kV line used by the Project. It is also known that it will take PG&E years to harden their Grid, as evidenced by the recent PSPS event and 14 days of PSPS last October. The ultimate responsibility for PG&E and the Grid does lie with others but the County needs include that information in this DEIR for consideration as it is part of the existing environment and has a direct impact on the fire safety of developing this project and its impact to the environment. This DEIR needs to take into account all known Fire Hazard data including available plans and timelines for the hardening of PG&E's grid and they need a written answer from the CPUC regarding the impacts of connecting the highly variable power of this project to the Round Mountain substation. Just like the impact of this project on aerial firefighting operations, this DEIR, **assumes** that by providing the Project's Turbine locations to Cal Fire via a GIS file, they have mitigated their impacts. Once again, instead of just assuming, this DEIR needs to include a definitive analysis of the before and after effects of the proposed 72 679 foot tall obstructions on aerial firefighting operations. Assuming the answers without the hard data is easy but irresponsible. It's easy to assume the answers you want so you get the outcome you want. Any development that adds to the wildfire threat or the ability to fight them, no matter how small, should not be allowed in this or similar areas at this time. The hard data will show this project increases the wildfire threat and the threat to our health safety and welfare and that the only viable alternative at this time is a "no Project" alternative.

P26-45

P26-46

Shasta County Fire Safety Standards, Western Shasta Community Wildfire Protection Plan, and Shasta County Multi-Jurisdictional Hazard Mitigation Plan: All of the listed plans are good but did not prevent the Carr, Hirtz, Delta fire or others from occurring and devastating large portions of Shasta County. Some of these plans have little application to the specific project area. There is no Firewise Community for this area and one was just recently 2019 stood up in Burney but nothing exists for Montgomery Creek, Big Bend, Wengler, Round Mountain, Moose Camp and outlying areas. There is no specific fire plan for the area no is there a specific evacuation plan. How do these listed plans lessen the danger for this area?

P26-47

SB901 Wildfires This Project does not comply with the requirements of SB901 Section 4290 or the spirit of the law. SB901 was recently passed because the state legislature recognized the need for better management of our undeveloped forest and wildlands. The Senate Bill requires that undeveloped ridgelines be preserved and that No industrial developments occur on them in order to further prevent the spread of wildfires within the State. Although, this portion of the law does not become effective until July 1, 2021 the intent and spirit of the law should be adhered to, since it is to prevent wildfires and benefit the health, safety and welfare of those residing in the State. The Project is not likely to even begin construction until after 1 July, 2021 therefore, knowingly approving this project now would be in direct violation of this law. This DEIR needs to address this Senate Bill and answer why it is being ignored for the purposes of developing this Project. Until the issue of SB901 is addressed, this DEIR is incomplete and does not provide the public or decision maker with sufficient information to make an informed decision.

P26-48

SB901 Chapter 626 (2018), Section 4290 (2018)

(b) The board shall, on and after July 1, 2021, periodically update regulations for fuel breaks and greenbelts near communities to provide greater fire safety for the perimeters to

Comment Letter P26

all residential, commercial, and industrial building construction within state responsibility areas and lands classified and designated as very high fire hazard severity zones, as defined in subdivision (i) of Section 51177 of the Government Code, after July 1, 2021. These regulations shall include measures to preserve undeveloped ridgelines to reduce fire risk and improve fire protection. The board shall, by regulation, define "ridgeline" for purposes of this subdivision.

P26-48 cont.

3.16.2 Significance Criteria:

The project is both near an SRA and located in very high fire hazard severity zones. So, the significance criteria listed would apply to this project.

a) Substantially impair an adopted emergency response plan or emergency evacuation plan; Where is substantially defined? What is the criteria for "substantially"? This also appears subjective. Any impairment of an emergency response plan would be substantial for this area with limited ingress and egress. An additional area of significance not explicitly called out here is the impact on aerial wildfire assault. The large tankers especially will simply not be able to fly where they once did. Much of the land near the project will be inaccessible to the large tankers and some helicopter operations, including rescue operations.

P26-49

b) Due to slope, prevailing winds and other factors, exacerbate wildfire risks.... The project would absolutely meet this criteria as well. Prevailing winds is why they are attempting to develop here. Slopes and other factors that increase the fire risk are part of our forested mountainous environment along with heavy fuel loads within and near the project area; therefore this project's activities would also contribute to a significant increase in wildfire risk exacerbating an already dangerous situation. One of the factors unique to Wind Turbines that would add to the wildfire risk is the warming of surface temperatures in the vicinity of the turbines. The environment near the turbines can be 5-10 degrees higher than would exist if the Turbines were not installed. These higher temperatures along with the increase in turbulence and airflow/mixing caused by the turbines also adds to the increase risk of wildfires and exacerbates and already dangerous situation.

P26-50

c) This project, per the developer and this DEIR, would require the installation and maintenance of tens of miles of new roads and significant widening of old roads. It will install fuel breaks, emergency water sources (dip tanks) by virtue of the landowner's efforts because of their recognition of the extreme fire hazard of the area, tens of miles of new power lines. It would also add several towers and additional 230 kV lines for the purpose of connecting to PG&E's power grid. Adding power to PG&E's unsafe grid and feeding it to the Round Safe substation which has overvoltage and voltage regulation issues also exacerbates an already dangerous situation.

P26-51

d) This DEIR appears to lack the expertise analysis to determine the full impact on slope instability, flooding and other issues related to runoff pre wildfire because there is no apparent input from the Army Corps of Engineers regarding some of the water issues such as that related to Section 404 of the Clean Water Act. This data needs to be included in this DEIR so that a full and accurate assessment can be made. The post wildfire effects would definitely be significant for many in the area and slope instability

P26-52

Comment Letter P26

would definitely be a cause for concern as well as the likely changes to stream flow and such should there be the typical post wildfire erosion and of slide effects here.

This Project only needs to meet one of these significance criteria to be deemed to have a Significant Impact on the area but it will meet all of them. There is no feasible way to mitigate this environmental impact area to anything less than significant.

P26-52 cont.

3.16.3 Direct and Indirect Effects

3.16.3.1 Direct and Indirect Effects of The Project

a) **Impacts 3.16-1:** Substantially impair an adopted emergency response plan or emergency evacuation plan.
As correctly pointed out there is no specifically designated evacuation routes described in the Community Wildfire Protection Plan or the Shasta County General Plan and that is part of the problem for this area. The fact that there is no cohesive specifically developed emergency plan for this area only makes the local situation more unsafe because of the lack of preparedness. Significant developments should not be allowed in this or similar areas until such a plan exists and even then only if there is a significant reduction in the fire hazard severity zone ratings designated by Cal Fire. The DEIR also correctly points out that SR 299 is the only significant way in or out and it is nothing more than a two lane road. Any activity that impedes the traffic flow on SR 299 poses a serious risk to the local community. The DEIR also correctly state that this important access and evacuation route bisects the Project. This would mean that there is twice the probability that a fire started within the project site could block SR 299. If the fire started on the North side of SR 299 the winds could easily blow it south towards Montgomery creek and impact SR 299. If the fire starts on the South side or SR 299 the winds could blow North and impact SR 299. If the project were on only one side of SR 299 then SR 299 could only be impacted by winds blowing in one direction although because of the way SR 299 is situated relative to the project winds blowing in a westerly direction could also overtake SR 299 and block evacuations routes.

P26-53

The three access roads identified in the Transportation Section 3.14 are all on the Northern end of the Project and not far from each other. How has the County concluded that this would be adequate egress/ingress, even if it's just through the project site? What is adequate? How was it determined? Is there a vehicle per minute rate or some other standard or this a subjective opinion?

The access roads identified simply allows project personnel to escape or firefighting personnel to enter the project sight. Although, entering the project site on these roads to fight the fire without the normal availability of aerial firefighting resources, should the ground crews get in trouble due to a fast moving fire, is likely to be a deathtrap for them. In general these roads will be gated and locked as are the Hatchet Ridge roads. What is a nearby resident to do? Wait at the locked gate hoping somebody will show up to unlock it while a fire is raging around them? These roads would do little to allow people to escape a fire like the Fountain Fire or more recent Camp/Carr fires. These additional roads in an area likely to be on fire does nothing to improve ingress/egress for the communities in the

Comment Letter P26

vicinity of the project. Hwy 299 is still the only significant way in and out. Who would want to head into the project area during a fire other than firefighting personnel? One would want to escape the area not drive further into the backcountry.

This section speaks of the addition of more and more roads and some these roads simply for firefighting within the project site. What does that tell us? It tells us that the developer is very concerned about the increased likelihood of this project starting a fire and because of the impediment to what would normally be an aerial assault on the fire, they need numerous roads in an attempt to mitigate the increased threat of this development. These additional roads add to the threat of a wildfire during construction and use and increase runoff and erosion of lands within the area. Additionally their construction releases large amounts of carbon from soil disturbances and the clearing of trees. This project is a disaster waiting to happen compared to a "no project" alternative or baseline conditions. Under normal forest practices the project area would be seldom traversed as the trees are not at a harvestable growth yet. There may be some clearing or release activities but these as for short periods of time during the early growth phase which likely would have already been conducted by this time and then they are not actively encroached upon for decades at a time. Normal forest operations pose a very little risk of adding to the fire threat for this area unlike what this project proposes.

The project might as well close the roads during construction and decommissioning transportation events. There will be periods with one way traffic control for the super wide loads. These one-way closure events will cause significant traffic congestion with traffic backed-up for miles at times. As mentioned in this paragraph the significant traffic congestion and impediment of emergency vehicle response times or even their ability to access the area. This would be catastrophic during a wildfire escape event. This would result in a very significant impact. Not potentially significant but definitely significant impact. We have seen the impact of limited ingress and egress on communities such as ours in the recent Camp fire. The camp fire have significant difficulties evacuating the community of Paradise, which is similar to our area, and they had several more routes in and out of the area than we do. We are much more limited here near the Project site.

P26-53 cont.

Mitigation Method 3.16-1a:

It is a ridiculous conclusion to suggest that the measures listed in Mitigation Measure 3.14-3 would ensure that the Project's use of oversized vehicles during construction and decommissioning would not cause significant adverse impacts on emergency access to or near the Project Site. Simply giving advance notices to emergency services and Caltrans does not mitigate the effects of the impacts of the significant use of oversized vehicles and single lane traffic controls and lane closures. We have experienced the effects of these types of traffic impacts during the Hatchet Ridge Wind development and they are definitely an impediment to traffic flow and emergency vehicle response. We have seen similar impacts due to normal Caltrans road work and/or collision and other emergency vehicle incidences on SR 299 that have backed up traffic for miles making it difficult for emergency vehicles to reach those in need, even if it is just a slower rate of travel for the emergency vehicles it is having an impact. If a fire were to break out during the congestion that will occur due to this project we would see a catastrophic loss of life and property. SR 299 is simply a mountainous two lane road, not really much of a Highway. During the Delta fire in 2018 traffic was rerouted from Hwy 5 to SR 299

P26-54

Comment Letter P26

and that created a huge amount of traffic including many large semi-trucks and other commercial vehicles. Should a similar event occur during construction, operation or decommissioning the results would be gridlock that would reach into Redding and other nearby communities. During the Delta fire reroute an accident occurred about 15 miles east of Redding. My wife and I sat in traffic in Bella Vista for 2 ½ hours trying to get home in the Montgomery Creek area. Because of the topography traversed by SR 299 through mountainous canyons it will not always be possible to keep shoulders clear for emergency vehicles and even in the cases where it were possible it will significantly slow their rate of travel and increase the response time which can easily be a matter of life and death for those in need.

This mitigation speaks about the lack of an emergency response plan and how they are outside the jurisdiction of the 2018 Shasta Trinity Unit Strategic Fire Plan and as such they don't impact the non-existent or inapplicable plan. What the applicant points out in this case is the evermore dangerous situation of the lack of a coherent and well developed emergency response plan for the intermountain area. This is even more of a reason why this project should not be allowed in this area. In addition to this area being one of the highest fire Hazard Zones in the State we do not have the necessary fire safety and evacuation plans in place to better protect the residents and those traveling through or vacationing in the area. Just because this project may not violate or impair a non-existent plan does not mean it's safe or that the impacts are somehow mitigated. It is very apparent that ingress/egress is limited in this area. It is very apparent that the fire risk for this area is very high. It is very apparent that needed resources are some distance away and would take a significant amount of time to arrive at the scene of a fire even in the best of circumstances. It is very apparent that it would be problematic to try to get people out of the area while trying to get emergency vehicles in during a major event even under the best of circumstances. A lack of plan makes the effects of this project on the wildfire threat un-mitigatable NOT less than significant.

P26-54 cont.

Mitigation 3.16-1b:

In addition to ground vehicle impacts this project will have an effect on emergency air response both firefighting and rescue and hospital transport operations due to the turbines themselves and the obstacles they create for air operations. The DEIR suggests in this section that firefighting operations are likely to have enough space even with the proposed Project to continue aerial firefighting operations within the Project Site. How was this concluded? Where is the expert assessment and guarantee that this is true? This mitigation suggest that by simply providing a GIS file to Cal Fire it mitigates the effect on aerial firefighting operations because Cal Fire would be able to conduct a dynamic risk assessment before attempting to use aerial methods in this area. The fact that Cal Fire would have the information necessary to perform the dynamic risk assessment does not mitigate the impact to air operations. That assessment alone does not reduce the impacts on the ability to fight fires from the air. It may help quantify the impact and it would help to keep the pilots and crew out of harm's way by hopefully avoiding the array of new giant obstacles but it does not reduce the impact. The DEIR is correct to identify the hatchet Ridge Turbines as existing obstacles which just makes the cumulative impact of adding these additional nearly 250 foot taller obstacles unacceptable and their impact un-mitigatable. These new Obstacles will be the tallest structures in Shasta County and most of the State. Instead of the 44 Hatchet Ridge Wind Turbines this area would have 116 turbines spread out in a non-linear pattern over 10's of thousands of acres. The turbines are not in long rows that might be easier for aircraft to avoid but are in small linear segments scattered about the area at various orientations.

P26-55

Comment Letter P26

In addition to the obstacle nature and limitations caused by the turbines, met towers, and additional power lines you have the wake problem caused by the spinning turbines during windy conditions that would also impact turbulence in the area surrounding the turbines, especially should communications be lost with the turbines control systems as might happen during a wildfire event and they spin out of control. You would also have the very real problem of the turbines throwing debris through the air, some of it flaming should they catch on fire that could also harm the aerial firefighting crafts and crew and/or spread flaming debris throughout the surrounding forests.

This DEIR is incomplete because it has not provided that GIS file of probable turbine locations to Cal Fire so that they can quantify the impact on aerial firefighting operations. Where is that assessment from Ca Fire? How can this DEIR claim that this impact is mitigated without the hard evidence from Cal Fire? This conclusion is subjective and nothing more than a non-experts opinion promulgated in the hopes of moving this project forward for approval and falsely minimizing the true extent of the problem these structures would create to aerial firefighting operations. How much of the area will be inaccessible to aerial firefighting operations should this project be developed and what is the criteria for determining how much of an impact is significant or not. Any amount of impediment to aerial firefighting operations in this hazardous area when life and property are threatened, is very very significant. The placement of the Turbines is not in long linear lines that could possibly be more easily avoided but are scattered about in short linear segments that will just make avoiding them all the more difficult. Cal Fire should provide a comparison of before (no-project baseline) and after full 72 turbines placed throughout the Project Site assessment. They should provide a clear quantification of their reduced ability to conduct aerial firefighting operations. There should also be an expert assessment provided for emergency aerial response impacts. Just this year a Huey Helicopter had to be used during the Cedar Creek fire in California to recue dozens of persons from the raging fire. Will that even be possible should a similar event occur in our area?

P26-55 cont.

Impact 3.16-2: (page 3.16-16)

"The Project is not intended for and would not be used for human occupation; therefore, no occupants would be exposed to increased risks associated with wildfire." This is a ridiculous statement and is obviously written do imply a less significant impact than what is actually the case for this project. Nothing is even mentioned in the Project description or elsewhere about occupants so why mention this ridiculous statement now except to try to influence the reader by lulling them into a belief that all is well.

Further bias in this DEIR is evident in the inaccurate use of "could" instead of "would." There is no doubt or question that by adding industrial vehicle traffic, construction activities such as blasting, welding, grinding, grading, hot engine and equipment components, etc. will add an increased potential for fire ignitions as compared to baseline forest management activities which are few and far between. All of the uses of the word "could" should be correctly replaced with "would." Whether they can be mitigated to any significant extent can be discussed in mitigations but do not use "could" when the increase risk "would" definitely exist.

P26-56

Mitigation Measure 3.16-2a:

How can implementing and practicing common sense fire safety practices and maintaining defensible space, while always a good thing, eliminate the risk or even reduce the risk to less

Comment Letter P26

than significant as compared to baseline operations? Under normal or baseline forest management practices the area may have brief periods of activity with decades of inactivity in between. The forest largely sits undisturbed by human activity for years.

Because the area is at such a high risk of life threatening wildfires any increase in the threat of one being started from any additional activity is a significant impact. It's like working in a fuel farm or pumping gas where even the addition of a little spark becomes a significant impact. It's why certain activities in a benign non-fire hazardous environment are not very significant but those same activities in a high fire prone environment can be very significant. Because of our existing hazardous conditions this mitigation cannot reduce the impact to less than significant.

(pg. 3.16-17) The implementation of a Project-specific Fire Prevention Plan would not mitigate this impact of increased wildfire threat. There are numerous fire prevention plans throughout PG&E's service territory and yet many fires have been caused by their systems alone. There are various other preexisting plans as pointed out under the portion that identify the regulatory environment as related to fire prevention and yet we have had many many fires and the probability of new ones occurring increases year by year. Over 2.5 Million acres have burned in California this year alone despite all of the fire prevention plan. There are numerous periods outside of the Red Flag warning that are a nearly as dangerous. Most of the year especially during the fire season is too dangerous for these types of operations in this area. The DEIR suggest that because you have a few tools on hand you've eliminated the threat to less than significant. The onboard firefighting tools are meant to be used after a fire has started and the probability of a couple of persons with some hand tools stopping a fire from spreading especially if there is any kind of wind blowing is highly unlikely. Many of the persons in this area have some basic firefighting knowledge and yet fire get away from them even at baseline levels. Adding any additional threat to this area is like trying to balance a pin on a razors edge. Any additional risk is significant because of the existing fire hazard conditions. Where vehicles are involved many such fires would occur after the vehicle had passed and would not be immediately noticeable, it would likely quickly grow beyond the control of an individual or small group to contain before they had time to react.

P26-56 cont.

The clearances described in this mitigation would be insufficient to mitigate the threat of a wildfire should it occur due to a fire in the nacelle or should the blades catch fire during a lightning strike or many other possibilities of a fire start during the O&M phase of this Project. If a fire starts in the Wind Turbine nacelle and/or a blade catches fire, a 95 foot diameter circle around the wind turbine, which is less 50 feet out from the center of the base of the turbine, will be insufficient to contain the flaming debris. The low growing vegetation surrounding the turbines would quickly catch fire and spread into the nearby forests especially with the winds blowing as they do. The local Project personnel would not be entering this flaming debris zone and should be hundreds of feet from the Turbine for their own safety. The same would be true for our own firefighting personnel. It would also not be possible while the turbine was spinning and throwing debris for any kind of close aerial support. Significant fore fighting operations would have to wait until the area was safe or the fire had spread well beyond the flying debris zone. There are numerous video examples of burning wind turbines and the debris field. The turbines at 679 feet tall can easily spew flaming debris hundreds of feet out from the base of the turbine and the potential harm from falling debris, flaming or not is too dangerous for any type of close firefighting operations as you might see in a more familiar structure fire or even forest fire. The DEIR mentions the potential for lightning strikes to the extremely tall turbines as a source

for their catching fire. This is going to be extremely problematic during the frequent dry lighting events that we experience during the fire season here in this area. There were thousands of lightning strikes this year (2020) that resulted in hundreds of fires and burning well over 2.5 million acres of forest with significant loss of life and property. We do not need anything in this area that increases the probability of a lighting caused fire. The lightning grounding systems for these turbines will likely be problematic because of the low conductivity of the soil. Much of the soil in the area has been identified as a sandy loam which doesn't conduct electricity well. This lack of conductivity means that special grounding systems would have to be installed and maintained. I have not seen any mention of this concern with this document which in itself is a concern since it would be critical to minimizing damage due to lightning strikes. Even with a good electrical grounding systems the blades are often damaged internally from lightning strikes and eventually fail, causing stress and sources of overload and friction on other components of the turbines which as mentioned in this section leads to fires within the turbines. The mitigations listed in this section do nothing to change the basic physics of the design and operation of this project in this area which would still add a significantly increased risk of fire as compared to baseline conditions. The addition of more transmission lines also adds to the increased risk even with the regular maintenance as compared to the baseline conditions where the new lines are nonexistent. We've seen the results of poorly maintained lines as evidenced by the numerous fires caused by PG&E's electrical grid and the ongoing PSPS events as they try to catch up on a 12-14 year backlog of maintenance. The Project eventually connects to PG&E's still unsafe systems which will also just add to an already existing unsafe condition. PG&E conducts PSPS events specifically because it recognizes that its systems are not fully maintained yet and until they are deemed safe they will continue to implement the drastic measure of PSPS events. How can the County assume that just because there is a standard that should be followed it will be and that the existing grid that this project will connect to is safe to do so? The efforts listed in this section will not significantly reduce the threat of a wildfire. Wildfire that spread from a flaming turbine was observed in Southeastern Washington at an Avangrid wind development earlier this year. Parts of the flaming blade were thrown many feet from the turbine and caught the low growth shrubs on fire which spread to encompass several hundred acres before being extinguished. Had the same event occurred in the forested area planned for this Project the outcome would have been much worse because of the general fuel load and other environmental conditions. The height of Avangrid's turbine which caught fire in Washington was 591 feet and they had similar clearing around the turbine as described as mitigation for this Project. So, it is easy to see that these mitigation efforts would be ineffective especially when the wind was blowing which is too be expected in this area.

P26-56 cont.

(pg. 3.16-18) In addition to the increased fire risk due to the turbines themselves which will not be mitigated as discussed above there is the additional risk caused by the construction, O&M and demolition activities. As mentioned in this section the Project would introduce new electrical energy facilities and activities that could result in sparks or flames that could result in a wildfire

(pg. 3.16-19)

That could easily spread beyond the project site. These facts show that this project would create an un-mitigatable increased threat of a wildfire for this and surrounding areas.

Mitigation Measure 3.16-2a calls for a Fire Protection Plan which is well and good but does not mitigate the threat of wildfire. As mentioned in this section successful implementation of these

Comment Letter P26

mitigations would require the developer and their contractor to promptly report fires, caused by construction activities, to the fire department with jurisdiction for the area and to try to suppress the fire when it is safe to do so. These statements regarding successful implementation are a confirmation of the increased likelihood of a construction caused fire. They also correctly recognize the limited ability of the small crews and equipment operators' ability to safely and successfully suppress fires even when they are present soon after ignition. Many of us in this area have experienced how easily fires soon rage out of control even with the appropriate tools, and water on hand when even a little breeze is blowing. The measures outlined in 3.16-2a are common sense steps to take but they do not prevent or guarantee that a fire won't be started during construction, operation or maintenance activities. Even a little spark on a windy day will quickly grow out of control. We've seen it with the Carr fire amongst many others.

P26-56 cont.

Mitigation Measure 3.16-2b calls for a fire suppression system for each turbine. While this is possibly of some use, it is known that fire suppression systems used in other structures such as homes and commercial building do not guarantee that the fire will be extinguished and are more likely to slow the fire and perhaps provide notification to operators than to actually extinguish the fire. They may also help in providing more time for workers to vacate the Turbine just as other detection and alarm schemes do for homes and industrial complexes. But once again should the fire escape the confines of the nacelles they are almost guaranteed to catch the nearby vegetation on fire even with the 15 foot gravel ring around the base because of the sheer height of the turbine and its nacelle and the frequent winds present at those heights. Turbine fires in the nacelles are known to occur within the industry, even with fire suppression. In many instances the fire suppression system must be disabled while workers are present in the Turbine/Nacelle especially in the case of Co2 type suppression system so workers performing hot work could still easily catch the equipment on fire while the system is disabled in their presence. The DEIR should specifically describe the fire suppression system to be used so that a more thorough assessment of its effectiveness could be performed. Component #1 listed in the DEIR Mitigation Measure 3.16-2b on page 3.16-21 mentions a fire detection and warning system. What type of system is it? How does it detect? Where does it detect? How does it warn? Who does it warn? What is the protocol after detection and warning? What is the response time for those notified? What is the firefighting objective and methods should the nacelle and/or blades catch fire? Is it the job of any firefighting crew to simply try to control the spread as flaming debris falls to the ground? How close can they get to the burning turbines when the nacelles and/or blades are on fire? Many manufacturers of large Industrial Wind Turbiens recommend that workers wear protective gear and limit any time spent when within 1200-1500 feet of a Turbine. This firefighting operational distance needs to be specified so it can be evaluated relative to whether this mitigation is at all effective. The DEIR erroneously determined that this mitigation is effective with no specifics or data to support that conclusion.

P26-57

Component #2 of Mitigation Measure 3.16-2b is also too vague to determine its effectiveness. What does "automatic switch-off" mean? Does it mean the turbine is locked and prevented from turning? Does it mean it's disconnected from the generating components in the nacelle and if so how does that work in a direct drive unit? Do the blades still spin but no electricity is generated? What does "complete disconnection from the power supply system" mean? Where is the disconnect made? Is it at the 230kV PG&E lines, the collector lines, or someplace internal to the turbine? And how does any of this reduce the threat of a fire? Where is the system description and data to support the conclusion? There is not enough information in this DEIR to evaluate this

Comment Letter P26

component. Additionally, a fire suppression systems will do nothing for the blades should they ignite due to lightning or other causes. The burning blades will most definitely spread to nearby vegetation and soon grow beyond the project boundaries.

Component #4 of Mitigation Method 3.16-2b speaks of a grounding system and lightning measurement system. There needs to be a more complete description of this component. The DEIR is incomplete without that description and the data that shows its effectiveness, given the many known issues for this area. Without this necessary information it is impossible to conclude that mitigation method is effective at all. Of course the Turbines will include a grounding system but will it be sufficient and regularly maintained. With the already identified low conductivity soils of the area, specially designed grounding systems will be required. The grounding system will also require regular maintenance and measurement of its effectiveness to ensure that it is working as designed. The problem still remains though that even with a well-designed and maintained grounding system, lightning strikes cause structural damage to the blades and other components that lead to more catastrophic failures over time. It is also known that the Turbines own electric field attracts lighting as has been recorded on video and published in Scientific Journals. Lightning strikes are the number one cause of Turbine fires even with grounding systems installed and operational. What is the lightning measurement system and what is it measuring? How is proposed to be used? Even if the turbines shut down during a lightning storm they are still likely to be struck simply because of their extreme height and conductive components which will in turn likely lead to fire and/or internal damage to the turbine itself which could lead to a future failures such as a structural blade failure. Once again there is not enough information to fully evaluate this component. We cannot afford to take on any additional unnecessary fire risk in this area. The SCADA system mentioned could itself be damaged during lightning strikes or other fire related malfunctions and not be able to provide the system operator needed information to determine the health of the turbine. Onsite visual inspection by an employee could take a significant amount of time to investigate the loss of communications because of the fact that his project would have components separated by possibly tens of miles as it is spread over nearly 50 square miles of land. This investigative delay would be catastrophic should a fire also be present. The DEIR only mentions “current-limiting switchgear” once on page 3.16-22 but does not describe how what it is and how it would be used in this mitigation measure. What is this current-limiting switchgear? How will it reduce the risk of a fire? If a fire has started in the nacelle or blades how would this switchgear help? What about cases where there is not an excess of current but an excess of resistance and a buildup of heat that causes a fire or component failure? Would this switch gear help in an overheating high resistive load such as is seen at aluminum-copper connections over time? Mitigation Measure 3.16-2b does not mitigate the risk of fire to anything less than extremely significant. The risk of fire in this area is just too great. The only viable risk mitigation method is a “No Project” alternative.

P26-57 cont.

Mitigation Measures 3.16-2c is the minimum that should be performed under any circumstance, even in a non-hazardless fire zone. It is would be expected for a project of this size, with the numerous sources of high voltage electrical components that there would be a coordinated emergency response plan. It should have clear indications of the risks and sources of high voltage storage, transmission and generation so those fighting the fire do not come to harm. It should outline the sources of flammable materials such as the transformer oils and any fuel storage for vehicles, grease and other flammable lubricants and chemicals that might be a source

P26-58

Comment Letter P26

of contaminate or spillage to the environment. This does not mitigate the threat of a fire but does help to keep our firefighters a little safer.

It is egregious to conclude that Mitigation Methods 3.16-2a,b,c would reduce the threat to less than significant when all it takes is one little spark in these High Fire Hazard Severity Zones, especially on a windy day, to cause a catastrophic wildfire. Almost all of the mitigation efforts described thus far are about reacting to a fire versus preventing one from starting in the first place. Once a fire starts in this area it will quickly spread beyond the boundaries of this project. In most instances the fire is likely to break out when there are no personnel immediately available or near sight of ignition. During the O&M phase of the project, the 72 turbines would be spread out across nearly 50 square miles of land, with only 12 fulltime employees available to maintain them so maybe 4-6 would be on site at any one time. A fire is much more likely to breakout with them being unaware until it is too late. Even with the proposed detection system, it would be some time before anybody would be there to respond. It could easily take up to 20-30 minutes for a crew to be there especially if the resources were involved elsewhere as we've seen this year with the extreme demand on resources. We can speculate, since this DEIR has not done the necessary analysis, that any quick aerial assault would likely be hampered if not impossible due to the obstruction caused by the turbines and associated infrastructure.

P26-58 cont.

Impact 3.16-3 page 3.16-22

How could this DEIR possibly conclude that the Project infrastructure would cause a less than significant impact? And how could it do so in this paragraph. This paragraph should define the environmental Impact as Potentially Significant at this point. It isn't until the mitigations are presented should a conclusion be made regarding be made. This statement would appear to be prejudicial on the part of the authors of this document. How could the adding of 33 miles of new roads, significant widening of existing roads with some over 80 feet wide, the miles of additional overhead and underground transmission lines, communication lines, hundreds of acres of vegetative clearances and the addition of emergency water sources possibly have a less than significant impact? CEQA ask this question because it is known that adding this infrastructure where it doesn't currently exists, adds significantly to the environmental impact of the project, especially where wildfire is a concern. The authors of this DEIR want us to believe that by adding the very things (infrastructure) that the CEQA recognizes as exacerbating fire risk, they are somehow reducing the fire risk, this is ludicrous when compared to existing conditions and use of the Project site. Under pre-project forestry operations the project site is seldom accessed and even the existing roads are seldom used except for occasional forestry operations such as thinning, that can be separated by many years of little to no activity. How was this conclusion determined when compared to a "no project" alternative or pre-project conditions? The simple act of constructing roads where none existed before adds significantly to the fire risk even if the vehicle operators carry fire suppression equipment. The recent fires in California are a testimony of how quickly fires get out of control even with persons on-site at the time of ignition such as in the Carr fire or soon after as demonstrated by many of the fires throughout the State this year. The recent Zogg and Berry Creek fires quickly crew out of control even with firefighting personnel on the ground, because of warm windy conditions and an ample amount of fuel. As already commented on in Mitigation Measure 3.16-2a the transportation aspects are good practices but they do not reduce the risk to less than significant. Any amount of additional risk is Significant and unacceptable considering the new normal of extreme fire conditions for our area

P26-59

Comment Letter P26

including the project area. This is a windy area so any amount of additional ignition sources is an extremely significant threat.

The electrical grid is a common source of fire starts especially throughout PG&E's service territories. Adding an overhead electrical collector system adds significantly to the fire threat for this area. PG&E has the same governing guidelines for operation and maintenance of it electrical distribution system and yet well over a 1000 fires a year are caused by their infrastructure throughout the state. Even with the sited clearances, lightning strikes, tree falls, component failures and many other issues cause these systems to fail. Again, PG&E's systems are a testimony of how they fail and how developers and system operators cannot be relied upon to always maintain their systems as they should. I observed a 34.5kV line snap out of its holding mount on top of a pole because of the weight of snow on a line that ran through my property just last winter. These systems do fail. Even high winds can cause them to fail and or arc as they sway in the wind. Transformer failures that cause arcing which could catch low growing vegetation within the cleared areas could quickly spread to the nearby forests and soon be out of control. Earth movement for any reason near any part of the collector system could cause a line or pole to fail and ignite a wildfire. Who would monitor the maintenance of this system? Would it be the developer? How would the maintainer of this system be held accountable for proper maintenance? Would it be through the court system and liability litigation as has happened to PG&E several times in the last decade? Would it only be after the damage was done, the lives destroyed or lost? Compared to baseline conditions this collector system would add significantly to the risk of a wildfire.

P26-59 cont.

Further analysis of the fire prevention and suppression components of the Project are needed as related to vegetative clearances and water storage. This is the section governing the prevention of wildfire and the exacerbation of wildfire risk due to this Project. The DEIR touts these clearances and water sources as mitigation measures for wildfires, therefore they should be analyzed more thoroughly in this section. How often are the vegetative clearance maintenance operations to be performed? If it's not on a schedule what is the criteria for performing a clearance operation? How often are the clearances inspected? Who conducts the inspections? If it's the developer monitoring their own project who holds them responsible and what are the consequences of failing to maintain the defined clearances and/or water sources. Where would these water sources be located? What would be the source of the water and is it sufficient to maintain the emergency water supply especially in drought years? Are water rights or impacts on the water rights of others downstream or other community supplies involved or impacted, especially in drought years? How would the water be accessed? What volume of water would be available? How would it be maintained? If the water is meant to be accessed by aircraft how would it be done? Has a definitive evaluation of the use of these emergency water sources been looked at by the potential user such as Cal Fire for sufficiency and usefulness? We know that the low growing vegetation touted as a wildfire risk mitigation is also a source of very fast burning and fast moving fuel source for wildfires, especially if there is any kind of wind present. Just as in the Carr fire that caught some dry grass along the roadside on fire, it can quickly spread to other nearby ladder fuels and grow out of control before sufficient resource can be applied to stop the fire. To simply state that no further analysis of wildfire risk mitigation related to these area is insufficient and shows that this DEIR is incomplete as written.

Impact 3.16-4: The DEIR correctly states the unless mitigated the project would expose people and/or structures to significant risks, including adverse water quality effects or downslope or

P26-60

Comment Letter P26

downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. It is somewhat nonsensical that it further states the Project does not propose and would not require the construction of any housing and therefore would not expose persons to those risks as a result of any new housing. The description of this project has nothing to do with housing. The question posed in CEQA does not refer to housing so why mention it here? Could it be to lull the reader into believing that there is very little risk to people of property? This statement regarding no housing being built should not even be mentioned as it is clearly covered in the Project description.

Post-fire conditions are likely to carry increased levels of sediment, organic debris, and chemicals as identified but what appears to be lacking is the recognition of possible contamination due to onsite fuel sources/storage, storage batteries, transformer oils, and other toxic chemicals stored or used in vegetative clearing and the possible burning of thousands of pounds on resins and plastics used in the blades, electrical conductors coverings, etc. None of these sources of toxic chemical contamination would be present in pre-project forest conditions. All of the pre-fire pollution prevention scheme and best management practices sited would have little benefit after the project site and nearby areas were ravaged by a wildfire. Soils and waters, including groundwater could be significantly impacted due to the 1000s of gallons/pounds of potential contaminants that are not clearly part of a storm water prevention plan. Much of the pre-fire drainage is aided by the existing pre-fire landscape which would be significantly altered by a devastating wildfire. This DEIR hasn't even defined the precise location of the turbines and associate infrastructure and their relative placement to water sources and potential groundwater impacts so how could it possibly conclude that this would be less than significant with mitigations. How was this conclusion regarding the sufficiency of pre-fire methods made? Who was the authoritative source of evaluation regarding the plan and its possible implementation pre or post fire, especially with the placement of the turbines clearly still not defined? Where is the analysis by the Army Corp of Engineers regarding the Clean Water Act and possible contamination of water sources including the groundwater? By what authority does this DEIR conclude that it can be self-determined whether the Army Corps of Engineer certification is required or not? This section and its conclusion appear to be based on somebody's unscientific opinion without any authoritative responsible agency source.

Even if the fire mitigation methods could reduce the risk of wildfires to less than significant which they do not, none of those mitigations reduce the post-fire impacts. This portion of the CEQA isn't asking if the project will cause a wildfire or exacerbate an existing risk of wildfire. It is asking whether the Project would expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. The answer to this question is simply yes it would as compared to pre-Project conditions. A wildfire in this area, even if caused by an outside source, would result in post-fire slope instability as stated in the DEIR itself: "Additionally, as discussed in Section 3.9, Geology and Soils, under Impact 3.9-3, there are steep slopes and soil types within the Project Site where landslides could occur. In the event that a fire were to be ignited on the Project Site and were to spread outside of the Project Site, if significant amounts of vegetation were burned, the resultant change in drainage and soil stability could result in landsliding in downstream or downslope areas. "A detailed fire prevention plan does not mitigate this post-fire conditions. Therefore this risk is clearly very significant even with the suggested mitigations.

P26-60 cont.

Comment Letter P26

3.16.3.2 PG&E Interconnection Infrastructure:

Adding the additional 4-6 power poles and associated high voltage transmission lines will definitely exacerbate the existing fire risk and other environmental impacts in the area as compared to pre-project conditions. The next paragraph speaks about how it is "anticipated" that PG&E's Fire Prevention Plan would be applied to the PG&E interconnection facilities: How can there be any suggested application of this Fire Prevention Plan to the problem of the increased fire risk if it's only anticipated? Why isn't it known? Anticipated is simply a guess or a hope. Why not just say it is hoped that PG&E's Fire Prevention Plan would be applied. This assertion needs to be stated as fact or not stated at all. A definitive statement from PG&E should be gathered here and the facts should be stated not best guesses. Furthermore, all of the features and plans for monitoring of fires or risk reduction are already part of PG&E's efforts for the existing lines without the addition of those needed by this project. This project would just add additional sources of ignition through the additional infrastructure. This project does not add anything to PG&E's current fire prevention efforts; therefore, the application of PG&E's fire prevention Plan does not reduce the risk compared to baseline, pre-project conditions. Additionally, PG&E is years away from hardening it's lines and complying with all of the rules and regulations it is supposed to comply with, as made evident by the recent Bankruptcy proceedings. PG&E was found to be liable and criminally negligent in the Camp Fire and in other litigations throughout the State. PG&E is currently under investigation for last year's Kinkaid Fire in which one of its 230 kV lines sparked and caused a wildfire and it occurred during a PSPS event in that area. PG&E can't be used as proof of safe operations until their infrastructure is proven to be safe and in full compliance with all of the regulations that this document is siting, which by their own admission could take up to 14 years to complete.

P26-61

3.16.3.3. Direct and Indirect Effects of Alternatives

The alternatives listed in this DEIR aren't really alternatives as required by CEQA. Simply moving a few turbines around or reducing a few but increasing the size/capacity of others to make up the difference is not truly an alternative. This CEQA defines the Project objectives to narrowly in a way that is prejudicial towards its approval and not truly functional or characteristic of the project as required and are so narrowly defined that they likely open the County up to litigations. The only proper alternative listed is the No Project alternative. It is clear from the discussion of Alternatives 1&2 that wildfire is an ongoing concern even with the suggested mitigations. When discussing the reduction of the number of turbines the DEIR recognizes that a slight reduction in wildfire risk would occur. This recognition of a reduction could only be true if it is also true that the full suite of turbines and Project infrastructure increased the risk of wildfires in the first place. The same affirmation of the increased risk of wildfires due to this project also occurs when acknowledging that further setbacks from homes provides additional protection to the nearby home owners,. Once again this is only true if the Project and its turbines pose an increased risk of wildfires. Therefore given the increased risk of wildfires due to this project as acknowledged by this DEIR the only responsible alternative is the No Project Alternative. The no project alternative does not have a significant adverse impact on the environment and does not increase the risk of wildfires therefore given the facts that Shasta County does not need the electrical Power generated by this project and the fact that PG&E also

P26-62

Comment Letter P26

does not need the power there is no overriding considerations that would warrant any other conclusion than that of the No-Project alternative.

P26-62 cont.

3.16.4 Cumulative Analysis

As suggested the Hatchet Ridge Wind Project already adds significant risk of Turbine and Wind Project related fire starts as compared to pre development conditions. This Project would just add to the risk of wildfire due to the many additional sources of ignition in all phases of its existence. It would also add to the many other environmental impacts caused by the Hatchet Ridge Project for this general area and beyond due to its cumulative global effects on birds, bats, and the probable spread of any wildfire to beyond the Project site.

As mentioned earlier this DEIR falsely claims that the project would result in less-than-significant impact regarding the interference with adopted emergency response and/or evacuation plans.

As pointed out earlier there is no specifically designated evacuation routes described in the Community Wildfire Protection Plan or the Shasta County General Plan and that is part of the problem for this area. The fact that there is no cohesive specifically developed emergency plan for this area only makes the local situation more unsafe because of the lack of preparedness. Significant developments should not be allowed in this or similar areas until such a plan exists, and even then, only if there is a significant reduction in the fire hazard severity zone ratings designated by Cal Fire. The DEIR pointed out that SR 299 is the only significant way in or out and it is nothing more than a two lane road. Any activity that impedes the traffic flow on SR 299 poses a serious risk to the local community. The DEIR stated that this important access and evacuation route bisects the Project. This would mean that there is twice the probability that a fire started within the project site could block SR 299. If the fire started on the North side of SR 299 the winds could easily blow it south towards Montgomery creek and impact SR 299. If the fire starts on the South side or SR 299 the winds could blow North and impact SR 299. If the project were on only one side of SR 299 then SR 299 could only be impacted by winds blowing in one direction, although because of the way SR 299 is situated relative to the project, winds blowing in a westerly direction could also overtake SR 299 and block evacuations routes.

P26-63

The three access roads identified in the Transportation Section 3.14 are all on the Northern end of the Project and not far from each other. How has the County concluded that this would be adequate egress/ingress, even if it's just through the project site? What is adequate? How was it determined? Is there a vehicle per minute rate or some other standard or this a subjective opinion? If the fire starts on the Project site how the ability to traverse it does reduce the impacts to the limited ingress and egress? Persons it the area will be trying to get away from the fire/project site not traverse it or heads towards it.

The access roads identified simply allows project personnel to escape or firefighting personnel to enter the project sight. In general these roads will be gated and locked as are the Hatchet Ridge roads. What is a nearby resident to do? Wait at the locked gate hoping somebody will show up to unlock it while a fire is raging around them? These roads would do little to allow people to escape a fire like the Fountain Fire or more recent Camp/Carr/Zogg or Berry Creek fires. These

P26-64

Comment Letter P26

additional roads in an area likely to be on fire does nothing to improve ingress/egress for the communities in the vicinity of the project. Hwy 299 is still the only significant way in and out. Who would want to head into the project area during a fire other than firefighting personnel? One would want to escape the area not drive further into the backcountry.

The addition of more and more roads with some these roads simply for firefighting within the project site does not reduce the wildfire risk to less than significant and instead add to the risk of a fire as compare to pre-project conditions. What does the need to add additional roads for firefighting tell us? It tells us that the developer is very concerned about the increased likelihood of this project starting a fire and because of the impediment to what would normally be an aerial assault on the fire, they need numerous roads in an attempt to mitigate the increased threat of this development. These additional roads add to the threat of a wildfire during construction and use and increase runoff and erosion of lands within the area. Additionally, their construction releases large amounts of carbon from soil disturbances and the clearing of trees. This project is a disaster waiting to happen compared to a "no project" alternative or baseline conditions. Under normal forest practices the project area would be seldom traversed as the trees are not at a harvestable growth yet. There may be some clearing or release activities but these as for short periods of time during the early growth phase which likely would have already been conducted by this time and then they are not actively encroached upon for decades at a time. Normal forest operations pose a very little risk of adding to the fire threat for this area unlike what this project proposes.

The project might as well close SR 299 during construction and decommissioning transportation events. There will be periods with one way traffic control for the super wide loads. These one-way closure events will cause significant traffic congestion with traffic backed-up for miles at times. As mentioned previously in this DEIR these transportation events would cause very significant traffic congestion and impediment of emergency vehicle response times or even their ability to access the area. This would be catastrophic during a wildfire evacuation event. This would result in a very significant impact to the area and beyond as the uncontrolled fire rages beyond project boundaries. We have seen the impact of limited ingress and egress on communities such as ours in the recent Camp Fire. There were significant difficulties evacuating the community of Paradise and surrounding areas during the Camp Fire. The town of Paradise and its surrounding areas are similar to this area, except that they had several more routes in and out of the area than we do and yet 85 persons lost their life in that tragic fire. This area and the residents living here are much more limited than those of Paradise to escape a wildfire because there is literally only one viable way in or out and that is SR 299.

P26-64 cont.

Also as discussed earlier, it is ridiculous to conclude that the measures listed in Mitigation Measure 3.14-3 would ensure that the Project's use of oversized vehicles during construction and decommissioning would not cause significant adverse impacts on emergency access to or near the Project Site. Simply giving advance notices to emergency services and Caltrans does not mitigate the effects of the impacts of the significant use of oversized vehicles and single lane traffic controls and lane closures. We have experienced the effects of these types of traffic impacts during the Hatchet Ridge Wind development and they are definitely an impediment to traffic flow and emergency vehicle response. We have seen similar impacts due to normal Caltrans road work and/or collision and other emergency vehicle incidences on SR 299 that have backed up traffic for miles making it difficult for emergency vehicles to reach those in need, even if it is just a slower rate of travel for the emergency vehicles it is having an impact. If a fire

Comment Letter P26

were to break out during the congestion that will occur due to this project we would see a catastrophic loss of life and property. We have seen this effect just last year during the Delta fire which closed Hwy 5 with significant traffic congestion and no way for large trucks and other traffic to turn around. Several vehicles and commercial trucks were lost due to the fire raging across the Highway as it was clogged with traffic. People had to literally abandon their vehicles and run for their lives to escape the flames. This could easily happen on SR 299 due to this project or during this project's impediment of normal traffic flow. SR 299 is simply a mountainous two lane road, not really much of a Highway. Also during the Delta fire in 2018 traffic was rerouted from Hwy 5 to SR 299 and that created a huge amount of traffic including many large semi-trucks and other commercial vehicles. Should a similar event occur during construction, operation or decommissioning the results would be gridlock that would reach into Redding and other nearby communities. During the Delta fire reroute an accident occurred about 15 miles east of Redding. My wife and I sat in traffic in Bella Vista for 2 ½ hours trying to get home in the Montgomery Creek area. Because of the topography traversed by SR 299 through mountainous canyons it will not always be possible to keep shoulders clear for emergency vehicles and even in the cases where it were possible it will significantly slow their rate of travel and increase the response time which can easily be a matter of life and death for those in need.

P26-64 cont.

The DEIR also spoke about the lack of an emergency response plan and how this Project would fall outside the jurisdiction of the 2018 Shasta Trinity Unit Strategic Fire Plan and as such they don't impact the non-existent or inapplicable plan. What the applicant points out again is the evermore dangerous situation of the lack of a coherent and well developed emergency response plan for the intermountain area. This is even more of a reason why this project should not be allowed in this area. In addition to this area being one of the highest fire Hazard Zones in the State, we do not have the necessary fire safety and evacuation plans in place to better protect the residents and those traveling through or vacationing in the area. Just because this project may not violate or impair a non-existent plan does not mean it's safe or that the impacts are somehow mitigated. It is very apparent that ingress/egress is limited in this area. It is also very apparent that the fire risk for this area is very high. It is very apparent that needed resources are some distance away and would take a significant amount of time to arrive to the scene of a fire even in the best of circumstances. It is very apparent that it would be problematic to try to get people out of the area while trying to get emergency vehicles in during a major event even under the best of circumstances. A lack of plan makes the effects of this project on the wildfire threat un-mitigatable NOT less-than-significant.

P26-65

In addition to ground vehicle impacts this project will have an effect on emergency air response both firefighting and rescue and hospital transport operations due to the turbines themselves and the obstacles they create for air operations. The DEIR suggests in this section that firefighting operations are **likely (best guess? Maybe yes? Maybe no? Totally unacceptable)** to have enough space even with the proposed Project to continue aerial firefighting operations within the Project Site. How was this concluded? Where is the expert assessment and guarantee that this is true? This mitigation suggest that by simply providing a GIS file to Cal Fire it mitigates the effect on aerial firefighting operations because Cal Fire would be able to conduct a dynamic risk assessment before attempting to use aerial methods in this area. The fact that Cal Fire would have the information necessary to perform the dynamic risk assessment does not mitigate the impact to air operations. That assessment alone does not reduce the impacts on the ability to fight

P26-66

Comment Letter P26

fires from the air. It may help quantify the impact and it would help to keep the pilots and crew out of harm's way by hopefully avoiding the array of new giant obstacles but, it does not reduce the impact. The DEIR is correct to identify the hatchet Ridge Turbines as existing obstacles which just makes the cumulative impact of adding these additional nearly 250 foot taller obstacles unacceptable and their impact un-mitigatable. These new Obstacles will be the tallest structures in Shasta County and most of the State. Instead of the 44 Hatchet Ridge Wind Turbines this area would have 116 turbines spread out in a non-linear pattern over 10's of thousands of acres. The turbines are not in long rows that might be easier for aircraft to avoid but are in small linear segments scattered about the area at various orientations. As best as can be determined without a stable project description and clearly defined turbine locations. In addition to the obstacle nature and limitations caused by the turbines, met towers, and additional power lines you have the wake problem caused by the spinning turbines during windy conditions that would also significantly increase turbulence in the area surrounding the turbines, especially should communications be lost with the turbines control systems as might happen during a wildfire event and they spin out of control. You would also have the very real problem of the turbines throwing debris through the air, some of it flaming should they catch on fire that could also harm firefighting aircrafts and crew and/or spread flaming debris throughout the surrounding forests and harm or impede ground firefighting and evacuation operations.

This DEIR is incomplete because it has not provided that GIS file of turbine locations to Cal Fire so that they can quantify the impact on aerial firefighting operations. Where is that assessment from Ca Fire? How can this DEIR claim that this impact is mitigated or less-than-significant without the hard evidence from Cal Fire? This conclusion is subjective and nothing more than a non-experts opinion promulgated in the hopes of moving this project forward for approval and falsely minimizing the true extent of the problem these structures would create to aerial firefighting operations. How much of the area will be inaccessible to aerial firefighting operations should this project be developed and what is the criteria for determining how much of an impact is significant or not. Because of the very high fire risk for this area any amount of impediment to aerial firefighting operations when life and property are threatened, is very very significant and unacceptable. Because the placement of the Turbines is not in long linear lines that could possibly be more easily avoided but, are scattered about in short linear segments that will just make avoiding them all the more difficult, Cal Fire should provide a comparison of before (no-project baseline) and after full 72 turbines placed throughout the Project Site assessment. They should provide a clear quantification of their reduced ability to conduct aerial firefighting operations. There should also be an expert assessment provided for emergency aerial response impacts. Just this year a Huey Helicopter had to be used during the Creek fire in California to recue dozens of persons from the raging fire. Will that even be possible should a similar event occur in our area?

P26-66 cont.

Additionally, in the case of the Huey Helicopter rescue, it was often being guided by Air Force drone operators who flew above the operations and were able to direct the Huey through dense smoke as the drones were able to see through the smoke and use GPS coordinates to help the pilots in extremely low visibility situations. A study need to be done that quantifies the impact that the turbines will have on GPS solutions for anyone in or near the project site. GPS is very susceptible to interference, blockage and multi-path effects from signals reflecting off of surfaces such as buildings, towers, etc. It is likely that the GPS solutions of persons within the project site or nearby, will experience such interfaces and multipath effects at various times throughout

Comment Letter P26

the day depending on their position and the position of the satellites used in the position solution relative to the towers and blades that are likely to interfere. This interference could be problematic for anyone calling in a situation to first responders and attempting to give the GPS coordinates of the situation to them. It could also be a problem for anyone trying to navigate to a particular location, even if the location is accurate, because there could be interference as they try to locate the situation using GPS. This situation may also impact aerial operations depending on how much they may rely on GPS for obstacle avoidance and other operations.

P26-66 cont.

As discussed earlier Mitigation Measure 3.16-2 a, b &c do not mitigate the fire risk due to this project. They falsely jump to conclusions based on assumptions not backed up with definitive data such as that for aerial firefighting operations or based on inexperienced conjecture. So much of these mitigation efforts are about reacting or detecting to a fire after it has started with the assumption that it would be quickly extinguished by a few persons with a shovel or extinguishers or a nacelle fire suppression system. But it does not sufficiently account for aerial impacts, it does not sufficiently consider the few personnel on-site at various times and even when present how quickly fires can spread in these areas with even just a moderate wind present. It erroneously concludes that the lightning suppression and detection system will guarantee that the risk due to lightning strikes have been mitigated. It falsely points to having a fire prevention plan and emergency response plan as a mitigating the start of a wildfire. As pointed out earlier these plans or similar ones have been present if various forms by both the nearby responsible agency such as Cal Fire or PG&E, etc. and yet the risk of wildfire is as high as ever and we are constantly being reminded to do everything we can to reduce the threat. Adding this project ot this area adds many thousands of points of ignition to this area. It adds infrastructure to PG&E's systems that have already been proven to be unsafe even with a valid viable Fire Prevention Plan. It adds to PG&E's infrastructure to be maintained that they have not completed the reduction of decades of backlogged maintenance on. It adds erratic power to an unstable grid and exacerbates an unsafe condition at the Round Mountain substation that has documented thermal overload and unsafe voltage regulation issues on its 500kV lines as well as the very 230kV lines this project plans to tie into and the other lower voltage transmission lines that promulgate out from the Round Mountain's interconnections to the rest of the grid. This project miles of additional roads which have the potential to cause fires both during construction as well as use. This project adds miles of overhead and underground transmission collector lines that are additional possible points of wildfire ignition. Miles and miles of roads and transmission lines all of which must be regularly maintained and inspected to kept in good operating order and all of which adds to the risk and increased probability of an out of control wildfire being caused by this project. We here in California have witnessed and or experienced many fires caused by the electrical infrastructure even in cases where vegetative clearing was carried out. Unless you pave the mountain top you are not likely to reduce the risk significantly should a spark fall amongst the low growing vegetation touted as a preventative measure. This low growing vegetation may reduce the risk of a line being struck by a tree but they burn and spread quickly should the newly added lines arc or break for other reasons or should they not be properly maintained and a tree actually cause damage or some other of the many possible causes of arcing occur such as a transformer arc. The cleared vegetation would quickly spread into the nearby forest, sometimes in just a matter of a few minutes or seconds even should the wind be blowing. It would likely be well beyond the ability of any on-site personnel to extinguish and would instead require them to immediate evacuate the area after notifying authorities which could easily take tens of minutes for anyone to be onsite. The project talks about having onsite water

P26-67

source for firefighting but it only mentions one dip tank which depending on its location and the overall unknown impact on aerial firefighting operations may or may not be useful. Because of the terrain and heavy weight of the large water tankers it could take them a significant amount of time to arrive on the scene quite probably too long to easily get it under control without the aid of aerial firefighting operations which are as discussed likely to be very significantly impeded in or near the Project area. And all of these various unmitigated risk are compounded when considering the already existing Hatchet Ridge Project and the already existing needed Round Mountain Substation safety upgrades and the already exiting need for PG&E to catch-up and complete years of backlogged maintenance and grid upgrades. This project will unequivocally add to the cumulative risk of wildfires in this area. The only responsible thing to do it to correctly recognize this unavoidable increased risk and recommend the no-project alternative.

P26-67 cont.

One again this DEIR makes the ridiculous assertion that because the Project would not include any housing or structures it would not expose people to any increased risk associated with flooding, landslides, or post-fire slope instability. And yet in the sited Section 3.16-3 the DEIR does recognize that for nearby communities such as Round Mountain, Montgomery Creek, etc. there could and likely would be such an impact should a wildfire scorch the area if not for some type of mitigation. The DEIR incorrectly conclude that there would be no impact on drainage patterns before or after a wildfire. Considering the tens of miles of roads and other infrastructure vegetative clearing and large construction staging areas and turbine pads, etc. there would have to be significant changes in the drainage patterns as compared to pre-project baseline conditions. Some of the planned roads being over 80 feet wide including cleared shoulders. There will likely be stream crossing and culverts installed, which are also additional points of flow changes in a post fire situation as they become blocked by increased debris and disrupting pre-fire flow conditions. Additionally, in a post fire situation without the existing forest vegetation which is part of the pre-fire drainage plan there would be additional changes that would impact water quality for those downslope as well as the possibility or landslides and other post fire slope-instability issues that would affect the downstream communities. This DEIR is incorrect in its assumption that there would be a less-than-significant impact. This statement is made without any thorough analysis or expert input from respective agencies. This area should be part of the Army Corp of Engineer Section 404 analysis and the required Clean Water Act assessment of this project. This area and its conclusions should be vetted by the appropriate agencies.

P26-68

For further consideration of relative issues discussed in this DEIR comments made to the Shasta County Board of Supervisors related to the increased fire threat due to this Project are included below:

Board of Supervisors Public Comments for 21 April 2020

Fountain Wind Project Fire Threat

ConnectGEN has produced a video that touts the supposed benefit of the Fountain Wind Project for fire risk reduction in the project area. The information they provide is misleading at best. One of the benefits they claim is that the land owner would be installing dip tanks for helicopter fire protection. They also speak to the increased roads as having the benefit of providing fire breaks. However they fail to mention several important points.

P26-69

Comment Letter P26

1. The land owner is installing dip tanks because they can't get crop insurance on their newly purchased forest crop due to the extreme fire hazard for the area and the lack of current salvage value for the trees as well as the fact that the Wind Turbine project itself would actually increase the fire risk during all phases of operation. The nearby Hatchet Ridge Project had a fire during its construction phase that could easily occur in like manner for the Fountain Wind Project.
2. Helicopters will not drop water or retardants on the turbines because of the multi-million dollar costs of the turbine and will instead attempt to extinguish the fire on the ground. Which is highly dangerous for firefighting assets especially in windy conditions. Also, the water would likely have little impact on turbine fires that involve the hundreds of gallons of lubricants and transformer oils as well as the resins and composites used in the blades and other plastic like flammable materials of the Turbines. The dip tanks also begs the question as to where the land owner is acquiring the water for the dip tanks, do they have water rights to divert it locally, where would they be installing them, and are they permitted?
   A wind Turbine owned by Avangrid started a brush fire in eastern Washington just last year that burned several hundred acres in a non-forested easily accessible area before it was contained.
3. Grading, blasting, lightning, more transmission lines, mechanical failure and more, are all additional ignition sources in the proposed project area. Lightning is the number one cause of turbine fires. The project area is subject to a large number of dry lightning events during the fire season which frequently cause fires. Wind Turbines attract lightning, especially the tall ones. As noted in the initial environmental study a good grounding system is problematic in the project area due to the soil type which just increases the risk.

P26-69 cont.

P26-70

Please do the right thing and protect our County's residents' Health, Safety and Welfare and deny the special use permit for the Fountain Wind Project.

Board of Supervisors Public Comments for 5 May 2020

Fountain Wind Project Additional Fire Threats

As you are aware the project is to be located in a populated, extremely high Fire Hazard area. Already in just the last several months we have had at least three local fires. Two in Montgomery Creek and a recent Lightning strike on Round Mountain. We cannot afford any additional fire risks in this area.

When wind turbines catch fire it isn't always possible to disconnect them electrically or to stop them from spinning. The spinning turbines are a hazard to firefighting personnel on the ground and in the air. It is recommended that firefighting personnel stay back at least 500 meters from a 300-400 foot tall turbine. That's over a ½ mile diameter circle around the turbine which affords ample opportunity for spot fires to start from flying flaming debris and creates additional risk for those who may enter the debris zone, and also increases the risk of the fire spreading beyond the turbine and project area, destroying property and lives. There is also the very real danger of transformer oils, gear lubricants and toxic plastic cable coverings as well as toxic gasses due to onboard lead-acid or lithium battery systems. Besides energy storage, large industrial capacity

P26-71

Comment Letter P26

batteries are often used as a way to regulate the power produced through a simultaneous charging/discharging then inverting scheme. These large scale batteries and energy storage systems pose an additional firefighting risk from electrical shock and toxic gases. Many of these fires can't be fought with water and require large CO2 systems which are not always readily available, especially in our rural setting.

P26-71 cont.

Lightning strikes are the number one cause of turbine fires. Wind turbines attract lighting not just due to their size but also because of the strong electric fields associated with them. A good grounding system is required to forestall catastrophic strikes but even minor strikes cause damage that can accumulate and eventually cause major component failure, such as blades and control systems. As the County's Environmental Initial Study identified much of the soil in the project area is a sandy loam which is problematic for grounding systems and often require complex systems that require periodic maintenance. Shasta County, including the project area experience frequent dry lightning events often accompanied by strong winds which is just another reason why these turbines should not be installed in a high fire hazard forested and populated area.

P26-72

Please do the right thing and protect our County's residents' Health, Safety and Welfare and deny the special use permit for the Fountain Wind Project.

Board of Supervisors Public Comments for 30 June 2020

Wind Shear and Turbine Fires

Statistical data from 2000 through September 2018 shows that there are nearly 20 wind turbine (WT) fires per year as reported by the Caithness Wind Information Forum (CWIF). The actual number of fires is likely 10 times higher according to studies done by the Imperial College of London and Renewable UK. Examples of Wind Facility caused fires are: The View Fire, in 2012, which burned 367 acres in Riverside County, California. In 2013, two workers died on top of a burning WT at the Piet de Wit Wind Farm. The Juniper Fire, in 2019, burned nearly 500 acres in Southeast Washington. The Rhodes Ranch 3 Fire near Abilene, Texas, in 2019. And an 8400 acre fire in Australia in 2017. Fortunately none of these were in forested areas, like the 200,000 acre fire in Australia that led to a ban of all WT developments in their forests. Developers have no legal fire detection, suppression or reporting requirements. Shasta County also has no specific zoning requirements, other than those applied to electric generation facilities, which doesn't address many of the particulars associated with these types of developments. As WTs age the risk of fire increases due to wear and accumulated damages from lightning, wind shear stresses and collisions with birds. The nearby Hatchet Ridge WTs are already 12 years old. Adding up to another 100 WTs in this area just increases the risk, especially as they continue to age.

Mountainous terrain such as ours increases the risk of lightning strikes, which is the number one cause of WT fires. Forested lands also cause an increase in wind turbulence and wind shear effects that are problematic for WT placement and design. It leads to increased stresses on the blades and other components, which in turn leads to premature failures and fires. This is one of the reasons why WTs are not normally located in this type of terrain. The increased turbulence and wind shear from these additional WTs will make it nearly impossible to conduct aerial

P26-73

Comment Letter P26

firefighting operations in this area. Not to mention the need to avoid the 500-650 ft. tall obstructions with 150-200 ft. long rotating blades. This project will put firefighters, and residents, at risk and could easily lead to the next Carr or Camp fire like incident. This is simply the wrong place for this development and this DEIR should reflect the significant and unavoidable risk to property and lives.

P26-73 cont.

Related Links to the Significance of the Wildfire Threat:

http://www.caithnesswindfarms.co.uk/AccidentStatistics.htm

https://www.abcofire.com/wind-turbine-fires/

https://www.imperial.ac.uk/news/153886/fires-major-cause-wind-farm-failure/

https://www.ediweekly.com/overheated-bearings-gearboxes-among-causes-wind-turbine-fires/

http://www.iafss.org/publications/fss/11/983/view/fss_11-983.pdf

https://www.windpowerengineering.com/business-news-projects/fire-prevention-protection-wind-turbines-offshore/

https://rules.dnvgl.com/docs/pdf/DNVGL/SE/2015-03/DNVGL-SE-0077.pdf

https://ifpmag.mdmpublishing.com/fire-safety-in-wind-turbines-there-is-more-to-know/An Overview of Wind Turbine Fires, Fire Trace International, Halma Company

P26-74

BOS Public Comments, 15 Sept 2020

Shasta County General Plan 5.4 Fire Safety & Sheriff Protection

The Shasta County General Plan Element 5.4 Fire Safety and Sheriff Protection, objective FS-1, requires that developments be discourage or prevented in High Fire Hazard zones, and related Policy FS-b requires that all known fire hazard information be reported as part of every Use Permit. Contrary to this requirement the County is considering approval of a major Wind Turbine development in some of the Highest Fire Hazard zones in the State. They are also choosing to ignore the unsafe condition of PG&E's electrical grid and the Round Mountain Substation because those issues are somebody else's responsibility. FS-b requires that all available information regarding fire hazards, including that of the Grid and the Round Mountain Substation, be considered as part of the special use permit.

Although the DEIR makes connecting to the PG&E grid a primary Project objective the County takes no responsibility in ensuring that doing so is safe. The County **assumes** that the US Bankruptcy Court, CPUC, CAISO or somebody else has made everything safe. The County knows that the Project connects to the PG&E maintained Round Mountain substation via PG&E's 230kV transmission line and that per the CPUC the substation has unsafe thermal overload and voltage regulation issues that affect all interconnections, including the 230kV line used by the project. It is also known that it will take PG&E years to harden their Grid, as evidenced by the recent PSPS event and 14 days of PSPS last October. The ultimate responsibility for PG&E and the Grid does lie with others but the County needs to take into account all known Fire Hazard data including available plans and timelines for the hardening of PG&E's grid and they need a written answer from the CPUC regarding the impacts of connecting the highly variable power of this project to the Round Mountain substation. Just like

P26-75

Comment Letter P26

the impact of this project on aerial firefighting operations, according to the DEIR, the County **assumes** that by providing the Turbine locations to Cal Fire they have mitigated their impacts. Once again, instead of just assuming, they should get a definitive analysis of the before and after effects of the proposed 72 679 foot tall obstructions on aerial firefighting operations.

Assuming the answers without the hard data is easy but irresponsible. It's easy to assume the answers you want so you get the outcome you want. Any development that adds to the wildfire threat or the ability to fight them, no matter how small, should not be allowed in this or similar areas at this time. The hard data will show this project increases the wildfire threat and the threat to our health safety and welfare and that the only viable alternative at this time is a "no Project" alternative.

P26-75 con t.

Board of Supervisors Public Comments for 21 July 2020

230 kV Interconnection

According to discussions with ConnectGen the Fountain Wind Project's connection to PG&E's 230 kV high voltage power line is independent of the issues at the Round Mountain substation, but this is blatantly false. Connecting the highly variable power from Fountain Wind will exacerbate an already unsafe and unreliable situation at the substation and at other interconnected portions of the grid. According to the 2018-2019 California ISO Transmission Plan, page 81, the Round Mountain 500/230 kV buses frequently experiences over voltage conditions during non-peak operations. It further states that the voltage varies significantly on a daily basis due to solar generation and that the hourly fluctuations are expected to increase in the future with more solar integration and the expansion of the Energy Imbalance Market. Adding the additional highly variable power of wind energy into these interconnected electrical busses will just add to the existing problem. The Transmission Plan further states on page 82, that "Having high voltage on 500 kV system will result in high voltages on 230 kV and to some degree the 115 kV and 60/70 kV lower voltage networks." High voltages have been regularly observed across PG&E's system and pose ongoing challenges to system operators. Real-time voltages have ranged between 488 kV and 558 kV which is outside acceptable limits, especially on the high side.

P26-76

The solution outlined in the Transmission Plan is to install a 500 million-volt-amp-reactive (Mvar) device that can both absorb and supply power, at the Round Mountain substation. This solution was determined without considering the additional highly variable power of Fountain Wind which will detrimentally affect supply and demand on the 230 kV bus and correspondingly on the 500 kV bus and ultimately reduce the solutions effectiveness. The interconnection of the 230kV and 500 kV busses is further demonstrated by the CAISO solicitation for Round Mountain Dynamic Reactive support in which they outlined two acceptable implementations of the 500 Mvar solution. Alternative solution 2, allows the bidder to install two +/- 250 Mvar systems on the 230 kV buses at both Round Mountain and the connected Table Mountain substations. For ConnectGen to say that the issues at the Round Mountain Substation are irrelevant because they would connect to PG&E's 230 kV transmission lines just prior to the substation and not directly to it, demonstrates a real lack of understanding or a deliberate attempt to mislead the public.

Because the Round Mountain Substation is not operating at acceptable standards, and won't be until at least 2025, the special use permit should be denied when it comes before you for a vote.

Comment Letter P26

Thank you for your time and attention.

Ref: a) California ISO 2018-2019 Transmission Plan, March 29, 2019

b) Round Mountain 500 kV Area Dynamic Reactive Support Description and Functional Specifications for Competitive Solicitation, May 14 2019

P26-77

Further Impacts on Aerial Firefighting:

This is an excellent article that directly relates to the false assumption made in this DEIR that by simply providing Cal Fire the GIS file of turbine locations they have eliminated or reduce the impact on aerial firefighting to less than significant:

1. **Australian Industrial Wind Turbine Awareness Group, 14th January 2013 Media Release, "Communities Burned by Turbines**"

   The past weeks extreme weather conditions and high fire dangers across the nation, especially eastern Australia, have once again heightened awareness of the dangers and difficulties of fighting fires in close proximity of industrial wind energy developments.

   Lake Bonney Wind Farm SA

   Over the last week aerial water bombing has been critical in containing fires in many areas of proposed wind turbine developments. If the wind turbine developments had already been in existence aerial water bombing would not have been able to be utilized and fire would likely have continued to spread out of control, destroying life, more homes, property and livestock.

   As stated by the NSW Rural Fire Service: "Aircraft are one of the most essential tools of the Rural Fire Service. http://www.rfs.nsw.gov.au/dsp_content.cfm?cat_id=1120

   P26-78

   Aircraft support firefighting efforts not only by water bombing, but by supporting back burning and hazard reduction operations, reconnaissance flights, air attack supervision and conducting medical evacuations.

   Fires can strike quickly and be incredibly dangerous.

   Aggressive initial attack is the key strategic principal that most fire authorities now pursue. The utilizing of fire fighting aircraft in this initial attack is an important strategic approach as they have the capacity to react quickly and decisively to fires in most terrains, which also assists ground crews in containing fires.

   Aerial bombing

   Whilst each wind turbine development and situation would have varying operating implications, it is very clear that wind turbine developments impose significant threats to the ability to safely operate aircraft in the vicinity of the turbines, especially under the extreme conditions associated with bush fires in Australia.

   The pilots operating the water bombing aircraft are highly qualified and will always consider the degree of risk associated with infrastructure, and the conditions in which they are flying. They will always put the safety of themselves and their aircraft first.

Comment Letter P26

Heavily laden fire or spray aircraft have imposed limits on their maneuvering ability and must be operated very conservatively. Along with the increased risk of accidents and collisions given the height of the turbines, turbulence and visibility due to smoke and the known interference wind turbines produce on hampering radio reception, no professional pilot would take the risk of flying within what they deem a safe distance of the development, as it would be a threat to legal aviation activities.

Essentially fires that burn near industrial wind turbine developments can only be fought by ground crews and aerial support when the fire has travelled a safe distance from the turbines. That may include having to let the fires burn through turbine clusters, increasing the ferocity of the fire and making its containment on the downwind side of the cluster all the more difficult and dangerous.

A sad fact is that we know that aerial fire bombing is essential to fight fires in our harsh climate and landscape and can prevent the loss of life, home, property and livestock and yet some pilots who perform aerial fire bombing have privately told concerned rural residents that they are not allowed to speak out about the increased risk wind turbines pose.

Aerial fire fighting clearly will be constrained because of pilot safety issues and pilots who are not bound by their contractual or employment constraints from speaking out have said so. David Anderson, the pilot quoted in the following recent news report from South Australia's Yorke Peninsula, where locals are concerned about the impact the CERES Project will have on the safety of families and homes within this large wind development, has made this point clearly. (David Anderson actually OWNS & is Chief

pilot for Australian Helicopters, who are contracted to fly the MedVac rescue helicopters, so is well placed to give a professional opinion in this matter) Link to story: http://au.news.yahoo.com/latest/a/-/latest/15786582/bushfire-fears-over-wind-turbines/

P26-78 cont.

Until now the fire authorities have asserted publically that wind turbines would pose no greater risk than any other elevated hazard such as power lines. However, in a letter dated 9th January 2013 the South Australian CFS Chief Greg Nettleton wrote that “in some circumstances aircraft will not be utilized because risks caused by vertical obstructions exceed safe operating conditions.” In specific relation to the proposed Ceres Development, he writes that the CFS would “adopt a position that it is unlikely water bombing aircraft would operate in the immediate vicinity of the wind turbine farm if the risk exceeds safe operating conditions (and we) would consider the wind turbines’ effect on safe aircraft operations when combating a fire in or adjacent to the wind turbine farm.

David Pearce, Manager of the South Australian CFS Aviation Service, has stated that “visibility in the vicinity of a fire is generally poor due to the smoke” and that any obstacle in the airspace where we’re running aircraft is a problem for aircraft obviously.”

The Aerial Agricultural Association of Australia state in their Windfarm Policy “Windfarms and their preconstruction wind monitoring towers are a direct threat to aviation safety.”

Comment Letter P26

Hart Aviation in their Assessment for the Crudine Ridge Wind Farm for Wind Prospect state: “Helicopter or fixed wing aircraft operations within the confines of any wind farm and below the top of the wind turbines are potentially hazardous and not recommended.”

Government planning authorities are approving inappropriate industrial wind turbine developments in some of the most fire prone areas in the world where there is an inability to use effective fire fighting procedures. The lack of aerial support in amongst turbine clusters are putting ground crews that may follow wind turbine access trails normally along ridge lines at extreme risk.

Wind developers state that the roads that are built throughout wind turbines projects allow greater access for vehicles in the event of fires. The grim reality is that these roads would **become death traps** for fire fighters given they would not receive aerial support due to the obstruction posed by the turbines for pilots.

Wind energy developments are continuing to be built in fire prone areas with a total disregard for extra fire protection requirements that should be in place due to the increased fire risks from wind energy developments

Each turbine is a potential incendiary device, with up to 800 litres of highly flammable gear box oil in the nacelle. Fire can start from turbine operation or lightning strike to the turbine. Turbines are continuing to operate on days of high fire danger (when other potential sources of fire ignition must cease operating e.g. harvester, grain trucks, etc). Burning spinning turbines have the potential to spread burning flying debris over a wide area increasing the danger to life and property and spreading of fire. Rural fire brigades are not equipped to extinguish fires in 150m high burning turbines and must wait for the turbine to collapse before they can safely extinguish the fire.

In November 2010 a turbine at Starfish Hill, South Australia ignited. On arrival, CFS officers could do little but watch the blaze from half a kilometer away, as the situation was deemed too dangerous to approach. “There was not a damn thing you could do about it,” said Mr Crawford (Group Officer for the Southern Fleurieu CFS) of the turbine fire. When Work Safe arrived to the scene, CFS officers were told to retreat a further 500 metres away from the fire, as the blades continued to spin. “There were tips of the blades flying some distance,” said Mr. Crawford. “You could go no closer than a kilometer away. https://www.wind-watch.org/news/2010/11/20/cant-fight-the-fire/

Current fire fighting strategies are inadequate to protect people living in the vicinity of wind energy developments from raging fires in our often hostile Australian climate. It is only a matter of time before there is going to be a catastrophic fire that could have been avoided, because proper due diligence by all responsible authorities has been ignored.

Planning authorities MUST NOT site wind turbines in areas where there is a high fire danger and risk to life and property. Fire authorities MUST ensure that wind turbines DO NOT OPERATE on days of high fire danger and must put strategic policies in place for wind energy development zones, recognizing that aerial bombing is severely constrained in these areas.

P26-78 cont.

Comment Letter P26

2. Fact Sheet on the Dangerous Effects Low-Level Obstacles Pose to the Aerial Application Industry

Fact Sheet on the Dangerous Effects Low-Level Obstacles Pose to the Aerial Application Industry

Low-level obstacles on or near agricultural cropland throughout the U.S. is an area of concern to the aerial application industry. The number of telecommunications, wind energy and other towers erected in agricultural regions throughout the country has increased significantly over the past several years and the demand for these towers will only continue as wind energy development and communication needs are projected to grow considerably across the country. These vertical obstacles are a major safety concern to aerial applicators and can significantly hamper their access to cropland, in turn detrimentally affecting agricultural production.

Safety is NAAA's and the aerial application industry's primary concern with wind energy turbines, meteorological evaluation towers (METs), real time kinematic (RTK) towers, "flying" wind turbines, and other obstructions because in many cases they are not properly marked, or lit nor do they display other cautionary devices in or near agricultural areas where aerial applicators are spraying. Sadly, since 2003, 9.5 percent of aerial application fatalities were the result of collisions with towers and 12.2 percent were the result of collisions with wires. Wire accidents are included in these statistics since the wind developments must install wires to connect the output of the turbines to the electrical power grid. These collisions are almost always fatal. Wind energy towers pose the greatest safety and accessibility threats to agricultural aviators not only because of their size, but also because they are expected to become more widespread in the coming years. These towers are often clustered closely together, creating ominous obstacles for pilots.

Without sensible placement and proper marking of towers and all obstacles in agricultural areas, farmers may be at risk of losing important aerial application services performed on their cropland. Towers erected directly in the flight path of aerial applicators' landing strips and/or hampering the accessibility of treatable cropland could literally shut down aerial application operations and/or create a hazardous environment for applicators. This would detrimentally affect, in some instances, the only method farmers have available to them when the time comes to apply seeds, fertilizers and crop protection chemicals, necessary to foster crop growth. Aircraft help in treating wet fields when crop foliage is too dense to allow ground rigs to enter and it also results in no soil compaction. An aircraft is by far the most rapid form of application.

NAAA is concerned that as the demand for communication, wind energy and other towers increases—as projected—farmers will enter into leasing agreements with tower construction companies to erect these obstacles on their land without taking into account the safety and agricultural production issues of the aerial applicator. In 2010, NAAA launched a special towers section of its website, www.agaviation.org/towers.htm, which provides tools to educate the public on the dangers unmarked obstacles pose to pilots of low-flying aircraft; and addresses the safety and accessibility concerns associated with wind turbines. The tools illustrate how poor tower marking and improper wind turbine siting put pilots' lives and farmers' livelihood at risk.

Meteorological Evaluation Towers (METs): The FAA attempted to address this issue on marking when it released an Advisory Circular providing recommended guidance in 2011 for marking MET towers (towers used to assess the viability of wind farms) less than 200 feet above ground level (AGL) in remote and rural areas. These towers have the ability to be erected in a matter of hours, without notice being given to pilots, and are frequently unmarked and unlighted as they fall just below the FAA height requirements for marking and lighting.

The Agency concurred with some of NAAA's recommendations for marking, except for those requesting lighting of the tower and the creation of a national database. NAAA has the support of the National Transportation Safety Board (NTSB) on tower marking provisions. In regards to METs the NTSB made recommendations to the FAA in 2013 to: (1) create and maintain a publicly accessible national database for the required registration or all meteorological evaluation towers; and (2) amend 14 Code of Federal Regulations Part 77 to require all meteorological evaluation towers be registered, marked, and—where feasible—lighted. The FAA responded to the NTSB recommendation by indicating that they are awaiting the results of their tower database feasibility study (discussed below) and expect to respond to their recommendations by the end of January, 2014.

Because the aforementioned FAA AC only provides guidance for marking MET towers, NAAA had also been seeking to expand the AC and pursue guidance and official laws or ordinances applicable to *all* types of obstacles and towers—guy wired and free-standing alike. However, the Agency recently responded to this request by stating that to expand marking guidance for structures other than METs is not based on safety of flight issues. The FAA considers the guidance used for METs to not be feasible or warranted for other structures under 200 feet, as other structures do not carry the same visibility concerns of skeletal METs, and additional marking guidance may cause an undue burden on the public. NAAA is extremely disappointed by this narrow sighted and unjustified perspective of low-level safety and will continue to work with the FAA to ensure safety remains a top priority. Regardless of not being able to expand the AC, still having MET marking guidelines, even though not specifically mandatory, they would, according to FAA's Office of Chief Counsel, very likely result in liability for a tower company whose tower was struck as a result of not marking the tower. Case law shows that FAA Advisory Circulars have been used to establish a standard of care that, if not followed, have established negligence and subsequently liability in a number of cases by the neglecting party. In January 2014 NAAA sent letters to the American Wind Energy Association and U.S. MET tower manufacturers nationwide indicating this fact, and we are awaiting their response. NAAA also made this information available to its members to use in sending letters to parties responsible for erecting towers in their local area.

There has been significant progress on mandating MET tower marking at the state level, with the states of Kansas, North Dakota, Idaho, Missouri, California, Montana, Nebraska, South Dakota and Wyoming, all requiring MET marking of some kind. The states Colorado, Texas, Washington and Oklahoma are making progress on enacting their own MET laws as well.

(See reverse side for more information)

P26-79

3. Links to the reality of turbine fires:

Comment Letter P26

www.turbinesonfire.org

www.windaction.org/pictures/1527

http://www.adelaidenow.com.au/burning-wind-turbine-starts-fires/story-e6freol3-1111118739534

http://www.windaction.org/pictures/1527

http://www.abc.net.au/local/stories/2009/02/04/2482542.htm

http://www.wind-watch.org/news/2010/11/20/cant-fight-the-fire/

http://www.abc.net.au/news/2013-01-08/approval-sought-for-major-wind-farm/4457230

P26-80

4. **Links to Wake Turbulence caused by wind turbines:**

www.wind-watch.org/documents/how-much-efficiency-is-lost-by-putting-hawts-near-one-another-in-a-wind-farm/

http://www.arising.com.au/aviation/windturbines/index.html

Under the section 266 of the Criminal Code – it is the duty of ...'everyone who has in their charge or under his control anything, whether living or inanimate, or who erects makes or maintains anything whatever, who in the absence of precaution or care may endanger human life, is under a legal duty to take responsible precautions against and use reasonable care to avoid such danger, and is criminally responsible for the consequences of omitting without lawful excuse to perform such duty'.

'R v Pacino: Extending the criminal Negligence?'

<http:www.murdoch.edu.au/elaw/issues/v5n1/mcfar51.html> (accessed 11 December 2007)

Contact: Patina Schneider 0405 127 189 Email: aiwtan@hotmail.com.au Star Fish Hill, Australia

P26-81

5. **Another article regarding aerial firefighting impacts:**

Western Victoria's Firestorm: Dodging Wind Turbines Biggest Battle for Airborne Firefighters, April 5, 2018 by stopthesethings

Not only do wind turbines act as the perfect bushfire-starters, their presence precludes the best and safest method of fire-fighting from controlling them: aerial water bombers won't fly within cooee of these things – experienced pilots have declared that they won't fly within 3km of a wind turbine, even without the country around them on fire. For a rundown on pilots' attitudes to flying anywhere near wind farms – see our posts here and here and here.

Starting on Saint Patrick's Day, 17 March, Western Victoria was set ablaze, with thousands of acres of farming and grazing country razed, sheds and homes destroyed and savage livestock losses.

P26-82

Comment Letter P26

Here's an account given by residents who witnessed what happened at AGL's Macarthur wind farm.

AND STILL THE TURBINES KEPT TURNING!

Saturday 17th March 2018 had been declared a Total Fire Ban day for south-west Victoria, two days ahead, such were the expected dangerous weather conditions our district had been forecast.

This gave all of the south-west district of Victoria the opportunity to prepare for the worst, particularly given the extreme dry we've experienced this summer with virtually no summer rain. The paddocks are tinder dry and any fire has the potential to burn to the coast during conditions of huge winds, high temperature and low relative humidity. As always, farmers took the usual precautions during this extremely windy Total Fire Ban day – no machinery allowed to operate in the open air, no welding, electric fences turned off etc. However, still the turbines at the Macarthur wind farm kept turning!

After all, wind turbines can catch fire, as their gearboxes can overheat, the oil can ignite and, as we've seen particularly on several occasions in South Australia, the fires are so extreme, that the authorities must implement a one kilometre exclusion zone even for firefighters. No precaution by turning off the turbines was taken by AGL to reduce the danger of fire in this district, all day long. On that horrible Saturday afternoon, it was just "business as usual" for AGL!

To our knowledge, (please AGL correct us if we are not correct) never once since 2012 when Macarthur wind farm began operation, has AGL turned the turbines off on days of Total Fire Ban.

P26-82 cont.

A glance at the Aneroid Energy website showed the turbines at Macarthur wind farm were operating at between 90% and 100 % during Saturday afternoon, 17th March 2018. the property hosting at least 80 of the 145 metre high turbines and taking everything with it, save houses and lives, in its path.

It began at 9.30 pm and was still burning at midnight, and long after, when we finally received our evacuation warnings from the CFA, two hours after the fire had gone through, such was the panic and horrendous speed of this fire.

We stood outside, on ridges or wherever we could, to get a bit of a look as to its position and direction.

What so many commented on, as we were all out there trying to defend our properties, was that still the turbines at the Macarthur wind farm kept turning**!**

The winds were at 110 km/hour and the blades were racing furiously. The entire sky to the north, east and south-east was like a huge fireball, bright red as far as the eye could see, flames licking here there and everywhere; trees alight, debris and embers flying through the air. But still there was the silhouette of the turbines of the Macarthur in the foreground, the blades still turning all night long.

At around 1.30 am families began to drive around in the arc of about 130 degrees, on the roads through and to the east and south of the Macarthur wind farm, to try and get a

Comment Letter P26

better idea of whether the danger had passed, but it was still on us. Some of us met on the road in the middle of the wind farm, with turbine blades dangerously racing furiously on all sides of us, north, south, east and west.

We all are so indebted to the courageous efforts of the volunteer fire fighters, our own Country Fire Authority. These brave fire fighters concentrated on saving lives first, then assets and it's amazing the small number of houses burnt to the ground.

Thank you to our CFA volunteers, our local fire fighters and those from other districts who raced to our aid, at a time when their own properties were also in danger.

Again, the next day, the Aneroid Energy website indicated that the Macarthur wind farm had been powering at least 90% capacity all night, whilst the entire district from north to east to south-east was razed by the worst fire which has ever ravaged this community. On the one hand, we had the unselfish and courageous behavior of the volunteer fire fighters, in true country Australian spirit, and on the other AGL continuing to generate power for handsome financial gain, by keeping the turbines turning under desperately dangerous circumstances.

AGL at this time, is still attempting to gain the respect and trust of this same community, the very community, the safety of which it showed total disregard for during these two horrific Total Fire Ban days.

If AGL wants to regain the trust and respect of our community in which they wish to operate, it needs to behave along the lines of the unwritten laws of our community. Forget about bringing in consultants Futureye to woo this community.

P26-82 cont.

AGL must turn the turbines off on days of extreme fire danger, and behave in the same respectful manner in which we all behave here in times of extreme fire danger, united in adversity.

We look out for each other, we protect each other and we care for the wellbeing of the community at times like these. AGL must not treat these communities with contempt by continuing to operate their wind farm, generating huge amounts of power and financial advantage, placing this community at further risk.

Thursday, 22nd March

This same shocking fire flared up again, very suddenly and without any warning, once again, placing the district in panic again. Many landowners were away from their own farms, helping those whose properties were badly burnt, (several families whom are also badly impacted by the acoustic emissions of the turbines here).

This time the break out was just to the north-eastern boundary of the Macarthur wind farm, possibly within little more than a kilometre from the nearest turbine.

This time there was a howling easterly wind, fanning the fire in the direction of several properties on the northern and eastern boundaries of the Macarthur wind farm. This fast-moving fire was also heading directly toward the wind farm.

Comment Letter P26

Amazingly, as once again we fought to defend our properties, absolutely frightened out of our wits after Saturday/Sunday's terrifying experience, we noticed that the turbines had been turned off.

Why weren't the turbines turned off during all those terrifying hours on the previous Saturday evening and Sunday morning when our district was ablaze? – we asked ourselves.

Why did AGL continue to operate the turbines during that ferocious fire, yet turn them off in the extreme danger of this break out on Thursday?

Later we were informed by local families, that the turbines had been turned off in order that the large helicopter quickly brought in to water bomb the fire, could quickly fill at the extremely large dam in the middle of the wind farm. Obviously, all the small dams surrounding had been pretty well drained by tankers all around the district fighting the fires on the Saturday evening.

Fortunately this helicopter and at least two other aircraft successfully extinguished what had the potential to be a larger more damaging fire than the one which had already burnt out nearly 4000 hectares on Saturday night.

But, had the turbines not been turned off for several hours, this dangerous fire would have burnt right through the entire wind farm and raced toward the coast, through Willatook, the area where AGL plan to become involved with yet another massive wind farm, taking with it at least four properties to the north of the wind farm also.

P26-82 cont.

For years wind farm developers, in response to landowner's real fears, have attempted to appease neighboring farmer's fears with their "spin" that aerial fire fighting would not be restricted due to the presence of turbines.

If this was the case here last Thursday, why were the turbines turned off for the helicopter to fly through the turbines to get water from the dam in the middle of the wind farm?

Why didn't the helicopter just fly through the myriad of turbines, as we've all been told for years previously by the wind farm developers, would be possible for fire fighting ?

For all those fearing their right to protection from fire will be severely diminished by the presence of a wind farm, don't believe a word the developers say.

Last Thursday's (we are told) forced shut down of turbines at Macarthur wind farm demonstrates without doubt, that aerial firefighting is most definitely affected by the close proximity of massive wind turbines.

As we write this piece, on the afternoon of Sunday, 25th March 2018, again our district is experiencing unbelievable gale force winds. But, once again, it's just "business as usual" for AGL. Still the turbines keep turning furiously.

This account is put together the long-time residents of Gerrigerrup, Ripponhurst and Willatook, living next to or near AGL's 140 3MW Vestas V112s; residents whose families and farming properties are far from "out of the woods" from danger of bushfire this season.

Comment Letter P26

These fires are still smoldering, particularly in rocky country, where the peat will smolder and could ignite again for many weeks until we receive a huge downpour of one or two inches of rain, as our “autumn break”.

We are telling our story because we believe our already endangered safety on Saturday night was further compromised by the turbines at the Macarthur wind farm not being turned off as a precaution. We also are of the opinion the fact the turbines had to be turned off, apparently to allow the helicopter into the dam on Moyne Falls to fill quickly to continue water bombing on Thursday, just shows that aerial fire fighting definitely is inhibited by wind turbines continuing to operate in times of wildfire.

Next time, will AGL act as the good community citizens they claim to be, and turn the turbines off on days of extremely high winds, high temperatures or low humidity, (or all three) being a dangerous cocktail for disaster?

Gerrigerrup, Ripponhurst and Willatook Residents 25 March 2018

There have been at least 4 bushfires started by wind turbines in Australia, so far:

Ten Mile Lagoon in Western Australia in the mid-1990s;

Lake Bonney, Millicent (SA) in January 2006 (see the photo above);

Cathedral Rocks Wind Farm, Port Lincoln (SA) in February 2009; and

Starfish Hill (SA) in November 2010 (see this link for more detail).

And the sloppily constructed power transmission infrastructure surrounding wind farms has triggered at least one furious blaze in

NSW: Wind Farm Neighbors Burnt Out by Bushfire Sparked by Infigen Pursue $Millions in NSW Supreme Court The savagery of an Australian bushfire is serious enough; and the threat that one of these whirling wonders might self-immolate and spark a countrywide conflagration, is real enough.

However, it’s the threat that random clusters of 140m high turbines with 60m blades pose to aerial firefighters that caught the attention of another community threatened by Victoria’s Saint Patrick’s Day bushfires.

STT has already reported on the fight to retain Cobden’s airfield, under threat from a proposal to spear turbines all around it: Fighting for Air: Communities Rally to Stop Wind Projects Wrecking Local Airports

Now, after aerial firefighters saved the day taking off from Cobden, that wholly unnecessary threat is all the more real.

St Patrick’s Day fires highlight importance of Cobden airport amid wind farm fears.

The Standard, Kate Zwagerman, 28 March 2018

P26-82 cont.

Comment Letter P26

Additional DEIR Comment References:

1. **Wind Power Found to Affect Local Climate,** Wind farms can alter the nearby rainfall and temperature, suggesting a need for more comprehensive studies of future energy systems https://www.scientificamerican.com/article/wind-power-found-to-affect-local-climate/
2. **The Dangerous Relationship between Aviation and Wind Turbines. https://to70.com/dangerous-relationship-wind-turbines-aviation/**
3. **Cal Fire: Wind Turbine Generator Caused Wildland Fire that Charred 367 Acres, August 1, 2012 By Source. https://sandiegofreepress.org/2012/08/Cal-Fire-Wind-Turbine-Generator-Caused -Wildland-Fire_That_Charred-267-Acres/#.X4=489BKJDD**
4. **Scientific America: Wind Turbines Generate "Upside-Down" Lightning [Video]** The turning blades can actually help spark lightning strikes, potentially incapacitating wind turbines By GeoffreyGiller on March 3, 2014 https://blogs.scientificamerican.com/observations/wind-turbines-generate-upside-down-lightning-video/
5.

P26-83

Letter P26: Joseph Osa

P26-1 The County is not a sponsor of the Project. Instead, as described in Draft EIR Section ES.2.1 (at page ES-1), the County is responding to an application received from the Applicant for a conditional use permit and is preparing this EIR in compliance with its obligations under CEQA. See Response T2-5 for additional details about the County's role. To emphasize, the County (including as part of this CEQA process) is responding to an application for the Project proposed by the Applicant. The County was not actively involved in the development of project objectives, selecting the proposed site, or identifying the components proposed. Instead, in addition to evaluating the environmental effects of the Project, the County is evaluating the Project's consistency with the County's General Plan and the site's zoning designation before making a decision as to whether or not to approve the Project at the proposed location. See Response T2-3 regarding project objectives. The Applicant identified the objectives for its proposed Project; the County's role in their regard is to identify among them which are "basic" and to rely on the basic objectives as a screening criterion to evaluate potential alternatives.

P26-2 Contrary to the suggestion that the County chose not to carry forward reasonable, feasible potential alternatives that were suggested by the public in the scoping comments, see Draft EIR Section 2.5.3.2 (at page 2-38), which explains: "Scoping comments suggested that the County consider a reduced-project alternative (i.e., one with fewer turbines and/or a more concentrated placement of turbines) and a modified project alternative that would relocate the proposed turbines to the south relative to the existing proposal. Alternative 1 responds to these suggestions." See also Draft EIR Section 2.5.3.3 (also at page 2-38), which explains: "Scoping comments suggested that the County consider a project alternative that would move turbines further away from Moose Camp, and expressed concerns about noise, vibration, and safety. Alternative 2 has been designed to respond to these suggestions."

Potential alternatives that did not meet one or more of the screening criteria outlined in Draft EIR Section 2.5.1, *Alternatives Development and Screening* (at page 2-27 et seq.) were not carried forward for more detailed review. See Draft EIR Section 2.5 (at page 2-27 et seq.) for additional details.

P26-3 Receipt of the January 28, 2016, analysis of the Court's decision in *North Coast Rivers Alliance v. A.G. Kawamura*[59] is acknowledged. See Final EIR Section 2.1.1, *Input Received*, which explains that CEQA does not require a detailed response to comments that are not specific to the Draft EIR or the CEQA process for this Project. See Response T2-3 regarding the purpose and objectives of the Project.

[59] Burt, 2016. *Using Project Objectives to Select a Reasonable Range of Alternatives: North Coast Rivers Alliance v. A.G. Kawamura (January 4, 2016) Third District Court of Appeal Case No. C072067*. https://www.manatt.com/insights/newsletters/real-estate-and-land-use/using-project-objectives-to-select-a-reasonable-ra. January 28, 2016.

P26-4 See Response T2-3 regarding the purpose and objectives of the Project. See Draft EIR Section 2.5.2.2 (at page 2-29 et seq.), which explains that a potential Repowering Alternative was not carried forward for more detailed consideration because (as described in Section 2.5.2.1) CEQA does not expressly require a discussion of alternative project locations. The County's decision to focus on whether an environmentally superior version of the Project exists within the Project Site is consistent with case law interpreting CEQA. Separately and independently, repowering was not carried forward because the generation capacity, location, and time in the overall lifespan of the existing facilities were insufficient to meet most of the basic objectives of the Project.

The comment correctly states that the Draft EIR did not evaluate a potential geothermal alternative. As explained in CEQA Guidelines §15126.6, CEQA does not require an EIR to discuss every possible alternative to a project, but rather that it present "a reasonable range of potentially feasible alternatives." The range discussed in Draft EIR Section 2.5, *Description of Alternatives* (at page 2-27 et seq.) permits a reasoned choice that examines on-site alternatives, off-site alternatives, repowering, alternative technologies, and alternative approaches. Acknowledging that the commenter may prefer a potential geothermal alternative, the Draft EIR is not inadequate for failing to include one among the other alternative technologies considered.

P26-5 See Response P20-15, which explains the relationship between the numbers, heights and locations of the proposed turbines. As clarified in Final EIR Table 1-1, *Comparison of Turbine Options*, the 3.0 MW, 5.7 MW, and 6.2 MW generating capacity turbines are options proposed as part of the Project. The decision not to present the different turbine options as stand-alone alternatives is consistent with CEQA, which directs that an EIR is not required to consider alternatives to components of a project, but rather should focus on alternatives to the project as a whole. *Big Rock Mesas Property Owners Association v. Board of Supervisors* (1977) 73 Cal.App.3d 218, 227 (EIR not deficient for failure specifically to describe alternatives to the amount of grading proposed for the project).

P26-6 The impacts of the alternatives evaluated in detail are analyzed on a resource-by resource basis throughout Draft EIR Chapter 3, *Environmental Analysis*. See, e.g., Draft EIR Section 3.7.3.4, *Direct and Indirect Effects of Alternatives* (at page 3.7-14 et seq.). It is not clear from the comment how fluctuations in output capacity could alter conclusions about the significance of potential impacts on the physical environment. Without additional information about the concern, the County does not have enough information to provide a more detailed response. Regarding the County's initial consideration of alternative renewable energy alternatives, including biomass, and why they were not carried forward for more detailed review, see Draft EIR Section 2.5.2.3, *Alternative Technologies* (at page 2-30 et seq.).

P26-7 The Applicant is a private energy producer as defined by Shasta County Code Section 17.02.415 and proposes to use the Project Site for private energy production as defined

by Code Section 17.02.420. As noted in Code Section 17.02.430, private energy production is considered a public utility. As discussed in the August 15, 2019 Memorandum of Paul A. Hellman, Director of Resource Management, to Leonard Moty, Chairman, and Members of the Board of Supervisors, regarding *Consistency of Large Scale Wind Energy Facilities with the General Plan and Zoning Plan*[60] public uses are allowed in all zone districts with approval of use permit. The County does not agree that findings described in Code Section 17.92.025(g) as applicable to high voltage transmission and distribution project use permit applications are applicable to public utility use permit applications for private energy production. See Response P17-5 regarding the Project's consistency with the Shasta County General Plan and Zoning Plan.

P26-8 Whether or not a "demonstrable need" for the Project exists is beyond the scope of CEQA, which requires the County, as lead agency, to evaluate the potential significant impacts of the Project as proposed. These considerations regarding need have been included in the record, where the County may consider them as part of the decision-making process.

The comment correctly suggests that the Draft EIR discloses potential significant (and significant unavoidable) environmental impacts. County decision-makers will balance the Project's relative benefits and impacts as part of the decision-making process. As explained in Draft EIR Section 1.4 (at page 1-3) and in Section 1.4.6 (at page 1-8), "CEQA Guidelines §15093 requires the County, as the lead agency, to balance the benefits of a proposed project against any significant unavoidable environmental effects it may have. If the benefits of the Project outweigh the significant unavoidable adverse impacts, then the County may adopt a statement of overriding considerations that finds the environmental consequences to be acceptable in light of the Project's benefits to the public." The County acknowledges the commenter's opinion that the environmental consequences outweigh the benefits; however, weighing benefits and costs is the duty of decisionmakers, not the EIR.

See Response P26-4 regarding why a repowering alternative was not carried forward for more detailed review. See Response T2-3 regarding project objectives and their role in screening for potential alternatives. Regarding the County's initial consideration of alternative renewable energy alternatives, including biomass/co-generation and geothermal, and why they were not carried forward for more detailed review, see Draft EIR Section 2.5.2.3, *Alternative Technologies* (at page 2-30 et seq.).

Regarding wildfire, see Response P21-7, Response P45-62, and Response P45-70. The commenter's preference that additional potential ignition sources not be added is acknowledged and has been included in the record.

60 Hellman, 2019. Memorandum of Paul A. Hellman, Director of Resource Management, to Leonard Moty, Chairman, and Members of the Board of Supervisors, regarding *Consistency of Large-Scale Wind Energy Facilities with the General Plan and Zoning Plan*. August 15, 2019.

P26-9 See Response P17-5 regarding the Project's consistency with the Shasta County General Plan and Zoning Plan.

P26-10 See Response P17-5 regarding the Project's consistency with the Shasta County General Plan and Zoning Plan. CEQA does not require a project to "support" General Plan policies, but rather an inquiry as to whether it could cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. As explained in Draft EIR Section 3.1.4.10 (at page 3.1-19), neither the Project nor an alternative would have an impact in this regard.

Wildfire impacts are analyzed in Section 3.16, *Wildfire*. The first sentences of this section acknowledge that the California Department of Forestry and Fire Protection (CAL FIRE) has assigned a "Very High Fire Hazard Severity Zone" rating throughout Shasta County, and that Round Mountain, Montgomery Creek, and Burney all are listed as communities at risk by CAL FIRE's Office of the State Fire Marshal (Draft EIR at page 3.16-1). See also the discussion of Impact 3.16-2 (Draft EIR at page 3.16-16 et seq.), which concludes that the Project would, unless mitigated, exacerbate wildfire risks, and which recommends mitigation measures to reduce the potential impact to a less-than-significant level. The information provided in this comment about the General Plan does not change the impact analysis or conclusions reached in Section 3.1.4.10 or in Section 3.16.

P26-11 See Response P26-10 regarding General Plan consistency and the Draft EIR's analysis of wildfire-related impacts.

CDF (now CAL FIRE) and the Shasta County Fire Department were consulted during the pre-scoping and scoping phases of CEQA process for this Project (see Draft EIR Appendix J, *Scoping Report*) and, as one of the responsible agencies identified in Draft Section 1.3, *Use of this Document by Agencies* (at page 1-3), received a copy of the Draft EIR for review. See Draft EIR Section 5.4, *Entities Consulted and Recipients of the Draft EIR and/or the Notice of Availability* (at page 5-3).

P26-12 See Response P17-5 regarding the Project's consistency with the Zoning Plan.

P26-13 See Response P17-5 regarding the Project's consistency with the Zoning Plan. See also Shasta County Code Section 17.84.030, which allows structures to be erected to a greater height than the limit established for the zone district in which the structure is located with approval of a use permit.

See Final EIR Section 2.1.1, above. Whether the Project should be granted a Use Permit is also beyond the scope of this EIR. Also, to correct an apparent misunderstanding, the County (and not the Applicant) prepared the Draft EIR. See Draft EIR Chapter 5, *Report Preparation*.

To correct a further potential misunderstanding, the Project would not interconnect at the Round Mountain Substation. Instead, the Project would interconnect on the Pit 1 to Cottonwood line. Anticipated upgrades at the Round Mountain Substation would occur with or without the Project.

P26-14 See Final EIR Section 2.1.1, *Input Received*, which identifies comments that request that the County undertake a Countywide planning effort specific to the siting of wind energy generation projects are beyond the scope of this Project and this EIR. The County acknowledges the commenter's disagreement with conclusions reached regarding the Project's consistency with the Shasta County General Plan and Zoning Plan. Although this disagreement does not affect the sufficiency of the EIR, the comment has been included in the record, where the County may consider it as part of the decision-making process for this Project.

The questions in this comment about the contents of the County's General Plan or Zoning Code are beyond the scope of the CEQA process for this Project. The maximum turbine height currently under consideration is 679 feet. See Response P20-15, which explains the relationship between the numbers, heights and locations of the proposed turbines, and Final EIR Table 1-1, *Comparison of Turbine Options*, regarding the maximum overall height of the proposed turbines. See Response P4-6 regarding the closest residences to the Project Site. Regarding the Project-specific decommissioning plan and financial assurances, see Response T5-4. The County does not currently require a power purchase agreement to be in place prior to approval of a use permit for proposed wind or other power generations projects..

P26-15 Habitat Conservation Plan (HCP) is a term of art that refers specifically to a formal plan undertaken pursuant to section 10(a)(1)(B) of the federal Endangered Species Act. As explained in Draft EIR Section 3.1.4.3, *Biological Resources* (at page 3.1-14), "there is no adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved habitat conservation plan covering the Project Site."

P26-16 Ongoing impacts of the Hatchet Ridge Wind Project have been described and analyzed as part of the baseline condition and the cumulative effects analysis. See, e.g., Draft EIR Section 3.1.3.1 (at page 3.1-7), which describes the Hatchet Ridge Wind Project as part of the cumulative scenario for consideration in the context of all resource areas. See also, Section 3.4.4 (at page 3.4-74 et seq.), which evaluates potential cumulative effects on avian species and other biological resources. Impact 3.4-18 (at page 3.4-75 et seq.), for example, expressly considers contributory impacts of the Hatchet Ridge Wind Project and concludes that Project could cause a cumulatively considerable (significant and unavoidable) contribution to a significant cumulative impact to avian and bat species from collisions with Project infrastructure. Opinions about whether or not flaws existed in studies prepared for the Hatchet Ridge Wind Project are not supported and are beyond the scope of the EIR for this Project. The comment does not provide substantial evidence to question the adequacy of the existing analysis.

P26-17 The County acknowledges the commenter's suggested opposition to the Project as well as the stated concerns about the potential for the Project to cause or exacerbate vector-borne diseases. The Shasta County Mosquito and Vector Control District is among the entities that received the Draft EIR and/or the Notice of Availability (see Draft EIR at page 5-4). No comments were received from the District that could inform the question. Pursuant to CEQA Guidelines §15204(c), "Reviewers should explain the basis for their comments, and should submit data or references offering facts, reasonable assumptions based on facts, or expert opinion supported by facts in support of the comments. Pursuant to Section 15064, an effect shall not be considered significant in the absence of substantial evidence." No substantial evidence was provided or discovered in the environmental review process suggesting that a potential indirect effect of the Project's potential to result in mortality to bat species would increase incidence of vector borne diseases so as to cause or exacerbate a significant impact on the physical environment pursuant to CEQA.

P26-18 The Draft EIR considers the MBTA in the analysis of potential impacts to biological resources. See, e.g., page 3.4-15 (in the contexts of sensitive biological resources and special status species) and page 3.4-32 (summarizing the MBTA). See also Response P43-7 regarding the MBTA. CEQA's inquiry regarding potential significant environmental effects is separate from and independent of other agencies' administration and enforcement of resource-specific permitting regimes. As the Court of Appeals recently confirmed, CEQA does not limit agencies' authority to impose requirements on projects pursuant to other laws. *Santa Clara Valley Water District v. San Francisco Bay Regional Water Quality Control Board* (2020) 59 Cal.App.5th 199. The purpose of CEQA is to inform decision makers and the public about the potential significant environmental impacts of proposed projects, and to reduce those environmental impacts to the extent feasible. Whether the Project results in "take" of species protected by the MBTA falls under the jurisdiction of the USFWS (see Draft EIR Section 2.6, *Permits and Approvals* at page 2-41) and is beyond the scope of the County's review pursuant to CEQA.

Questions of the Hatchet Ridge Wind Project's compliance with the MBTA is beyond the scope of the CEQA analysis for this Project.

See Response A3-7, Response A3-8 and Mitigation Measure 3.4-3b regarding the USFWS Land-Based Wind Energy Guidelines and guidance of CDFW and other relevant agencies. Reponses are provided to comments received from the American Bird Conservancy in Letter P13. See Response P26-16 regarding the analysis of cumulative impacts of the Project in combination with the incremental impacts of the Hatchet Ridge Wind Project and other projects in the cumulative scenario.

P26-19 See Response A3-7, which explains why the County has opted not to convene a TAC for this Project.

P26-20 The studies provided in Draft EIR Appendix C were prepared on behalf of the Applicant. Consistent with County practice for EIR preparation, the County and its consultant team have independently reviewed the studies and concluded that, together with other information in the record, they are suitable for reliance in the EIR. This methodology is consistent with County practice for the preparation of past and current environmental impact reports. WEST and Stantec are not identified in Draft EIR Chapter 5, *Report Preparation* (at page 5-1 et seq.) because they did not prepare the EIR.

P26-21 The comment suggests that wind turbines could adversely affect the Global Positioning System (GPS) or similar satellite-based positioning navigational systems, but does not provide any evidence to support this suggestion. GPS.gov, the official U.S. government website for information about the GPS and related topics, returns no search results that indicate potential signal interference from wind farms or turbines.[61] Furthermore, the GPS Spectrum and Interference Issues portion of GPS.gov includes no information suggesting that the U.S. Government has concerns specific to wind farms.[62] The EIR preparers made a diligent search for reliable information about wind turbine interference with GPS and have found no evidence to support such a suggestion.

As explained on the GPS Spectrum and Interference Issues website, the GPS uses radio signals in frequencies reserved for radio navigation services. Impact 3.5-2 addresses FAA regulation of turbines and potential effects on aviation navigational systems, including radio. As stated therein, although no impacts on navigational services are anticipated, the FAA will review the proposed Project, and implementation of legally required measures, if any are identified by the FAA, also would ensure that this impact would remain less than significant.

P26-22 Responses to comments received from Tribal entities and members are provided in Final EIR Section 2.3.2, above. Draft EIR Section 3.6 (at page 3.6-1) acknowledges receipt of input including that summarized in this comment. The comment accurately summarizes impact conclusions reached in the Draft EIR; however, since the issuance of the Draft EIR, the Applicant has modified the Project layout to avoid impacts to FW 11, which would avoid impacts to areas of known cultural materials. See Final EIR Section 1.2.3.1. The Project would avoid all known human burial sites; however, the Draft EIR also acknowledges that impacts to tribal cultural resources, including human burial sites, if discovered, would be a significant and unavoidable impact.

The stated preference for the No Project Alternative and the avoidance of ridges and other sacred places for development purposes as well as potential impacts on freedom of religion and cultural practices are acknowledged and have been included in the record, where the County may consider them as part of the decision-making process. See Draft EIR page 3.6-21, which acknowledges avoidance and preservation in place at

61 GPS.gov, 2021. Keyword search results obtained online from gps.gov January 8, 2021.

62 GPS.gov, 2020. GPS Spectrum and Interference Issues. Available online at https://www.gps.gov/spectrum/. Accessed January 8, 2021.

the top of the list of the mitigation approaches identified in Public Resources Code §21083.2(b). Places of traditional use have been recognized in the Draft EIR as tribal cultural resources. The Draft EIR recognizes that unless a tribal cultural resource, including locations of cultural materials such as lithic tools, can be avoided and preserved in place according to the provisions set forth by Public Resources Code §21084.3, direct and indirect impacts to tribal cultural resources would not be reduced to a less-than-significant level and the impact would remain significant and unavoidable.

The commenter's additional input regarding the Court's decision in *Madera Oversight Coalition, Inc. v. County of Madera* is acknowledged. The decision speaks for itself.

P26-23 See Response P26-8, which explains that Project benefits and consequences will be weighed by decision-makers as part of the decision-making process rather than in the EIR. As explained in Response P26-6, fluctuations in output capacity that may occur over time would not cause any new significant adverse impact, and no more severe potential significant adverse impact, than disclosed in the EIR.

Regarding the statement about abandonment, see Response T5-4, which discusses the Project-specific decommissioning plan that would be prepared and financial assurances that would be required.

See Response P21-12 regarding County oversight of compliance with mitigation monitoring and reporting requirements pursuant to a mitigation monitoring and reporting program (MMRP).

P26-24 The analysis of potential impacts relating to Energy was performed using the methodology described in Draft EIR Section 3.7.3.1 (at page 3.7-9) and environmental standards. It considers input received during scoping (Draft EIR at page 3.7-1, Appendix J, *Scoping Report*), reference materials cited in Section 3.7.5 (at page 3.716 et seq.), and the professional technical resource expertise of the preparers of the EIR (Draft EIR Chapter 5). Conclusions are based on facts and analysis, rather than opinions. The comments on the California Independent System Operator (CAISO) and PG&E are acknowledged; however, the County chooses to rely on the data, other information, and analysis documented in the Draft EIR. Comments about the current state of the electric grid are beyond the scope of the CEQA process for this Project. See Final EIR Section 2.1.1.

P26-25 The energy generated by small scale (30 MW or less) hydroelectric plants and hydroelectric generation units 40 MW or less that are operated as part of a water supply or conveyance system do qualify for the state's Renewable Portfolio Standard (RPS).[63] Larger hydroelectric plants do not qualify for the RPS. Neither the fact that small-scale

[63] California Energy Commission, 2017. Commission Guidebook: Renewables Portfolio Standard Eligibility. Ninth Ed. (rev). CEC-300-2016-006-ED9-CMF-REV. file:///C:/Users/jscott/Downloads/TN217317_20170427T142045_RPS_Eligibility_Guidebook_Ninth_Edition_Revised.pdf. January 2017.

hydroelectric plants and hydroelectric generation units qualify for the state's RPS nor the commenter's speculation about the Project's potential impacts on energy pricing and the profitability of hydropower bear on the sufficiency of the EIR. Comments about where power generated by the Project could be used once it reaches the grid are beyond the scope of the EIR. See Final EIR Section 2.1.1, *Input Received*.

P26-26 The commenter's opinions about dispatchable energy, grid reliability, the cost burdens borne by PG&E's rate-payers, the wasteful use of energy that would be associated with the Project, and preference for the development of clean natural gas to be followed by a transition to nuclear power are noted; however, they do not bear on the sufficiency of the EIR for this Project. See Final EIR Section 2.1.1, *Input Received*. Draft EIR Sections 3.10, *Greenhouse Gas Emissions* (at page 3.10-1 et seq.) and 3.7, *Energy* (at page 3.10-1 et seq.) inform decision-makers and members of the public about the Project's potential GHG and energy impacts.

P26-27 Wind Exchange, from the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy, [64] has explained that "[a]reas with annual average wind speeds around 6.5 meters per second and greater at 80-m height are generally considered to have a resource suitable for wind development" and that better wind resources are found higher aloft. The National Renewable Energy Lab (NREL) produced a statewide wind resources map in 2010 that shows the predicted mean annual wind speeds at an 80-m height[65] and a new map in 2015 that shows general wind resource potential at a 140-m height.[66] This evidence indicates (independent of site-specific MET data) that suitable wind resources are available at the Project Site. The Project Site has been in a forested condition since before NREL's 2010 map was generated and the forested condition of the surrounding environs has been considered in the Draft EIR as part of the baseline condition.

The Draft EIR's energy impact analysis evaluates the potential for the Project to result in a substantial increase in energy demand and/or wasteful consumption of energy during Project construction, operation and maintenance, and decommissioning; consistent with Public Resources Code §21100(b)(3), and CEQA Guidelines Appendix G Section VI, respectively. Wake effect is caused by wind turbines that disturb wind direction and speed downwind of the wind turbine, causing downwind wind speed to be reduced. As the flow proceeds downwind, there is a spreading of the wake and the wake recovers to the original wind direction and speed. Because wake effects do not result in consumption of energy, but instead the disturbance of wind speed and flow, which is then restored further downwind, wake effects do not cause a "substantial increase in energy demand" and are not a "wasteful consumption of energy." Wake effects are in the category of economic impacts as opposed to

64 U.S. Department of Energy WindExchange, 2021. California 80-Meter Wind Resource Map. https://windexchange.energy.gov/maps-data/12. Accessed March 10, 2021.

65 National Renewable Energy Lab (NREL), 2010. California 80-Meter Wind Resource Map. October 6, 2010.

66 NREL, 2015. California 140-Meter Potential Wind Capacity Map. https://windexchange.energy.gov/maps-data/148. February 2015.

environmental impacts. CEQA Guidelines section 15131 (a) makes clear "[e]conomic or social effects of a project shall not be treated as significant effects on the environment."

The County acknowledges receipt of the information provided regarding LiDAR and SoDAR, as well as the citations to further studies on wake effect and energy output. However, because wake effect is not a CEQA impact, this additional information does not bear in the sufficiency of the EIR.

Regarding potential impacts to the Hatchet Ridge Wind Project, see the responses provided below to comments included in Letter P39, received from Hatchet Ridge Wind, LLC. The suggestion in this comment that wake effect caused by the Fountain Wind Project on turbines within the Hatchet Ridge Wind Project that would be sufficient to cause a significant impact related to premature blade or mechanical failures or cause or exacerbate increased risk of a turbine fire within the Hatchet Ridge Wind Project site is not supported by substantial evidence. Pursuant to CEQA Guidelines §15204(c), "Pursuant to Section 15064, an effect shall not be considered significant in the absence of substantial evidence." Accordingly, the County disagrees with the commenter's conclusion that the Draft EIR is insufficient without the requested additional data.

P26-28 The Project's potential carbon sequestration-related impacts, including from tree removal, are analyzed in Draft EIR Section 3.10, *Greenhouse Gas Emissions*. See pages 3.10-12 and 3.10-12, which describe the methodology used, and the analysis of Impact 3.10-1 (at page 3.10-13 et seq.). See also Table 3.10-2, *Estimated Annual Operational Greenhouse Gas Emissions* (at page 3.10-16), which expressly considers the amortized loss of carbon sequestration over 40 years in the context of the Project. Potential impacts relating to wildfire are analyzed in Section 3.16.

P26-29 The California Energy Commission's website discloses that the "majority of wind turbines are in six regions: Altamont, East San Diego County, Pacheco, Solano, San Gorgonio, and Tehachapi."[67] It also acknowledges that "[w]ind projects extend from Imperial County in the south to Shasta County in the north." See Response P26-27 for additional information about potential wind generation capacity at the Project Site. The commenter's opinion about the proposed nameplate generating capacity is acknowledged, but does not bear on the sufficiency of the EIR.

See Response P26-8, which explains that Project benefits and consequences will be weighed by decision-makers as part of the decision-making process rather than in the EIR.

67 State of California, 2021. *California Energy Commission: Wind Energy in California*. https://www.energy.ca.gov/data-reports/california-power-generation-and-power-sources/wind-energy-california#:~:text=The%20majority%20of%20wind%20turbines,%2C%20San%20Gorgonio%2C%20and%20Tehachapi.&text=The%20cost%20of%20producing%20wind,the%20Electric%20Power%20Research%20Institute. Accessed January 10, 2021.

The County disagrees with the suggestion that the Draft EIR would be insufficient without the inclusion of a power curve estimate based on actual measured data. To the contrary, the adequacy of the EIR would be evaluated under CEQA based on whether, as a whole, it reflects a reasonable, good-faith effort at full disclosure of the potential significant environmental impacts of the Project. The County believes that the EIR, including the analysis of impacts relating to Energy, does so.

See Response T2-3 regarding project objectives. The County acknowledges that the commenter may prefer to see different objectives; however, this preference does not identify a vulnerability in the EIR.

See Response P12-7 for information about the Project's offset of GHG emissions estimated in terms of the annual energy use of homes and passenger vehicles.

P26-30 Comments about the current state of the electric grid are beyond the scope of the CEQA process for this Project. See Final EIR Section 2.1.1.

P26-31 See Response P26-30. Comments about PG&E's bankruptcy proceedings and safety record also are beyond the scope of the CEQA process for this Project. This EIR analyzes the impacts of the Project on the physical environment.

P26-32 See Response P26-13, which clarifies that the Project would not interconnect at the Round Mountain Substation.

P26-33 See Response P21-6 regarding cybersecurity considerations. The potential impacts of COVID-19 on the supply chain are beyond the scope of the CEQA process for this Project. The County acknowledges the suggestion that decision-makers deny the Project based on cybersecurity and COVID-19-related supply concerns and has included it in the record, where the County may consider it as part of the decision-making process.

P26-34 See Response P21-6 regarding cybersecurity considerations.

P26-35 Whether the Project could be completed in time for the Applicant to benefit from federal tax credits, like other economic considerations, is beyond the scope of the CEQA process for this Project. See Response T5-4 regarding financial assurances.

P26-36 The County acknowledges the stated preference for the No Project Alternative based on the Project Site's location within a "Very High Fire Hazard Severity Zone" and potential impacts relating to wildfire, and has included it in the record where it may be considered as part of the decision-making process. See Response P26-10, which addresses related concerns.

P26-37 The commenter requests that the population numbers used in Section 3.16.1.2 of the Draft EIR be updated to reflect recent data, and that the communities of Oak Run, Whitmore, Bella Vista, and Palo Cedro be included in the Land Use Planning and

Population portion of the Wildfire environmental setting discussion. The Draft EIR has been revised to include these communities and update population numbers using the most recent available data from the American Community Survey, the 2015-2019 5-Year Estimates. Although the commenter projects that the most recent population numbers would be higher than shown in the Draft EIR, data from the U.S. Census Bureau indicates a reduction in population for Montgomery Creek and Round Mountain. The revised paragraph is included below.

> "Land use in the Project Site is exclusively managed forest lands. Surrounding the Project Site, land use includes mostly managed forest lands and scattered rural communities, including Moose Camp (75 people, adjacent to the Project Site), Montgomery Creek (~~163~~ 145 people, 2 miles west of the Project Site), and Round Mountain (~~155~~ 89 people, 5 miles southwest of the Project Site). Additionally, the communities of Oak Run (8 miles southwest of the Project Site), Whitmore (8 miles southwest of the Project Site), Millville (678 people, 17.4 miles southwest of the Project Site), Palo Cedro (1,143 people, 23 miles southwest of the Project Site), and Bella Vista (2,427 people, 23 miles southwest of the Project Site) (U.S. Census Bureau, 2020) are located farther from the Project Site but potentially within the area that could be affected by wildfire affecting the Project Site.[68] Each of these communities is located within a Wildland-Urban Interface (WUI) Intermix area, defined as an area with greater than 6.18 houses per square kilometer and greater than or equal to 50 percent cover of wildland vegetation (USFS, 2015). Therefore, the Project Site is located adjacent to an area designated as a WUI Intermix. Burney, while not considered a WUI Intermix area, is the largest town in the Project vicinity with a population of just over 3,000. It is located approximately 5.5 miles east of the Project Site."

P26-38 The County acknowledges the stated opinions about the relevance of policies and plans based on when they were adopted; however, the comment identifies no newer or more appropriate adopted plans, and provides no evidence that the County's reliance on these adopted plans results in an inadequate EIR. As noted in Draft EIR Section 3.16.1.1 (at page 3.16-1), information provided in the Wildfire section is based on existing publications, including the 2018 Strategic Fire Plan and the Shasta County Community Wildfire Protection Plan, among other sources. Their relevance to the Project is underscored by the discussions of them provided in the regulatory setting. See Draft EIR Section 3.16.1.3 at page 3.16-9 (summarizing the 2018 Fire Plan) and at page 3.16-13 et seq. (summarizing applicable General Plan provisions, the Shasta County Fire Safety Standards, Western Shasta Community Wildfire Protection Plan, and Shasta County Multi-Jurisdictional Hazard Mitigation Plan). The statement in Impact 3.16-1 (at page 3.16-14) that neither the General Plan nor the Community Wildfire Protection Plan includes a formally-designated evacuation route is true, but should not be understood to mean that the plans do not apply to the Project. See

[68] U.S. Census Bureau, 2020. Table B01003 Total Population. 2015-2019 American Community Survey 5-Year Estimates, selected geographies.

Response P26-28 regarding the Draft EIR's analysis of the Project's potential impacts with respect to carbon sequestration. Further, as noted elsewhere in these responses to comments, the adequacy of the EIR would be evaluated under CEQA based on whether, as a whole, it reflects a reasonable, good-faith effort at full disclosure of the potential significant impacts of the Project. The County believes that it does so.

P26-39 General Orders of the CPUC regulate PG&E and other investor-owned utilities, but not private developers such as the Applicant. The regulatory setting for wildfire (including laws, regulations, plans and standards applicable to the Project) are set forth in Draft EIR Section 3.16.1.3 (at page 3.16-8 et seq.). Comments about grid safety are beyond the scope of the CEQA process for this Project: related concerns would exist, and be addressed or not, whether or not the Project is approved.

P26-40 The County acknowledges the commenter's disagreement regarding whether the Project would exacerbate an already unsafe and unreliable situation at the substation and elsewhere on the grid. Comments about grid safety are beyond the scope of the CEQA process for this Project: related concerns would exist, and be addressed or not, whether or not the Project is approved. The opinion stated in the comment has been included in the record where it may be considered by decision-makers separate from the CEQA process.

P26-41 See Response P26-13, which clarifies that the Project would not interconnect at the Round Mountain Substation.

P26-42 The Draft EIR is consistent in its explanations that the CPUC regulates investor-owned utilities, including PG&E, and not private developers like the Applicant. CPUC General Orders are disclosed in the Draft EIR because they govern the work that would need to be done by PG&E to interconnect the Project. See Draft EIR Section 3.1.2.4, *PG&E Infrastructure* (at page 3.1-3), which provides additional explanation. Further, within the Project Site, overlapping requirements would apply – the Applicant would be required to comply with the requirements of all applicable laws, mitigation measures, and the conditions of permit approvals including the County's use permit, CAL FIRE's timber harvest plan-related best management practices and the conditions of approval of other agencies permits that are required for the Project.

P26-43 This comment on the California Emergency Response Plan and the Camp Fire is beyond the scope of the CEQA process for this Project.

P26-44 See Response P17-5 regarding the Project's consistency with the Shasta County General Plan. The General Plan instructs that "known fire hazard information should be reported as part of every… use permit application" subject to CEQA. The County, in its review of the Applicant's use permit application materials and as part of this CEQA process, has done so. On March 22, 2021, CAL FIRE announced that it had concluded that a pine tree contacting electrical distribution lines owned and operated by PG&E located north of the community of Igo. The County acknowledges that it has filed a lawsuit against PG&E to recover damages it incurred as a result of the fire. However,

whether or not the Zogg Fire ultimately is determined to be attributable to PG&E is beyond the scope of the EIR for this Project, which focuses instead on the potential direct, indirect, and cumulative effects that would result from the construction, operation and maintenance, and decommissioning of the proposed wind energy generation project.

Consistent with the description of the PG&E portion of this Project provided in Draft EIR Section 2.4.3 (at page 2-12) and Draft EIR Section 3.1.2.4 (at page 3.1-3), the PG&E component is quite small. Further, there are no trees in the area where the PG&E poles would be located. The Shasta County Fire Department confirmed that no emergency incidents have been reported directly related the Hatchet Wind Project from the time of its commencement in 2008 through March 4, 2021 (the date the Department's response was received).[69] This input further supports conclusions reached in the Draft EIR regarding the Project's impact on emergency response services.

The County disagrees with the statement in the comment that the Draft EIR ignores the condition of the electrical grid. To the contrary, see Final EIR Section 2.1.1, *Input Received*, which explains that, while such comments are beyond the scope of the CEQA process, they may be considered by decision-makers pursuant to their consideration of the requested use permit. See Response P26-13, which clarifies that the Project would not interconnect at the Round Mountain Substation. Neither the County nor the EIR assumes that "somebody else has made everything safe." To the contrary, the Draft EIR (at page 3.1-6) states, "the area near the Project Site 'can expect future fires to be more damaging.'" See also Section 3.16.3 (at page 3.16-27), documenting the analysis of cumulative impacts relating to wildfire, which states, "Given the vulnerability of the county to large severe fires, and the presence of other projects near the Project Site that also could be sources of ignition, a significant cumulative impact exists with regard to wildfire."

P26-45 See Response P26-13, which clarifies that the Project would not interconnect at the Round Mountain Substation.

Consistent with information disclosed in the Draft EIR (see, e.g., pages ES-2 and 1-2), the CPUC has regulatory authority over PG&E, including by identifying and enforcing actions to reduce the likelihood of PG&E's involvement in wildfires.[70] As explained by the CPUC, "The State's investor-owned utilities [including PG&E] have general authority to shut off electric power to protect public safety under California law. Utilities exercise this authority during severe wildfire threat conditions as a preventative measure of last resort through Public Safety Power Shutoffs (PSPS). On December 13, 2018, the CPUC opened a new Rulemaking (R.18-12-005) to examine utilities' PSPS processes." The CPUC is a "Responsible Agency" for purposes of the

69 CAL FIRE, 2021b. Email from Aaron Williams, Communications Operator, CAL FIRE – SHU to Jimmy Zanotelli, Fire Marshal, Shasta County Fire Department. March 4, 2021.

70 CPUC, 2021. Wildfires. https://www.cpuc.ca.gov/wildfires/. Accessed March 9, 2021.

CEQA process for the Fountain Wind Project because its review and approval of PG&E's construction of the electrical connections to its infrastructure (as described in Draft EIR Section 2.4.3, *Project Substation, Switching Station and Interconnection Facilities* [at pages 2-12 and 2-13]) would be needed before the Project could proceed. Even if the County approved the Applicant's requested use permit for the Project, the CPUC's approval of the PG&E infrastructure also would be needed before the Project could proceed as proposed. The County acknowledges the commenter's concerns about PG&E and its safety record.

P26-46 See Response T3-3 regarding aerial firefighting.

P26-47 Comment acknowledged. The relevance of these fire plans to the Project does not depend on whether they prevented past fires. The comment correctly states that there are no specifically designated evacuation routes described in the Community Wildfire Protection Plan or the Shasta County General Plan. This is disclosed in the context of Impact 3.16-1 (at page 3.16-14 et seq.), which proceeds to analyze potential Project impacts on evacuation routes should evacuation of the area become necessary. With the implementation of the Traffic Management Plan required by Mitigation Measure 3.14-3, the direct and indirect effects of the Project would be less than significant. CEQA does not require the mitigation to a level below baseline conditions, but rather to a level below a threshold of significance.

P26-48 Senate Bill 901 amends Section 4290 of the Public Resources Code to direct the State Board of Forestry and Fire Protection, on and after July 1, 2021, to update certain regulations pertaining to very high fire hazard severity zones in state responsibility areas (the entire Project Site is in such an area). No such updates have yet been adopted; therefore, the potential effects of this component of Senate Bill 901 on the Project area cannot yet be known. CEQA does not direct a lead agency to speculate about future regulation in analyzing the physical environmental impacts of a proposed project. Nonetheless, the Draft EIR analyzes potential wildland fire impacts in accordance with known and existing laws, regulations, and policies, as well as existing physical conditions, consistent with the requirements of CEQA.

P26-49 In the context of Impact 3.16-1 (Draft EIR at pages 3.16-14 and 3.16-15), a "substantial" impairment would occur, thereby constituting a potential significant impact, if a blockage would result that could impede other traffic if a wildfire were to occur in the area during the construction or decommissioning periods. The analysis concludes that this could occur by virtue of the presence of oversized construction vehicles on local roads (such as SR 299, or G Line Road) in the event of an emergency, and so identifies Mitigation Measure 3.14-3 to ensure that emergency access would be maintained during construction and decommissioning and thus reduce the impact to a less-than-significant level. See Response T3-3 regarding aerial firefighting.

P26-50 Existing prevailing winds, slope, fuel loading, and temperatures are considered in the wildfire analysis as part of baseline conditions. See Draft EIR Section 3.16.1.2 (at

page 3.16-1 et seq.). Impact 3.16-2 (at page 3.16-16 et seq.) considers the potential for the Project to exacerbate fire risks compared to existing conditions. The Project would not modify slopes or prevailing winds on the Project Site; therefore, these baseline conditions would continue to be relevant during Project construction, operation, and decommissioning, and their contributions to wildfire conditions and risks are analyzed in Impact 3.16-2 in light of Project-related increases in ignition risks. The Project would only affect fuel loading to the extent that vegetation clearances would be maintained as described in Section 3.16 (see page 3.16-18). While turbines can temporarily increase surface temperatures due to the atmospheric mixing created by the turbines, the increase in temperature could be between approximately 0.02 degrees Celsius (0.36 degrees Fahrenheit) and 2.0 degrees Celsius (3.6 degrees Fahrenheit).[71] The Project could result in a minor, temporary, short term increase in localized surface temperatures and; therefore, a minor increase in the potential for ignition on the Project Site.

A known effect of wind turbines is the wake created downwind of each turbine, in which wind flow speeds are reduced because the turbine works by removing energy from wind, converting it into electric energy. Based on a diligent search for information about the potential effects of wind turbine wakes on fire risk or fire behavior, the EIR preparers have found no evidence that wind turbine wakes, which consist of slower wind speeds, may exacerbate fire hazards. The comment did not provide evidence to support the argument.

P26-51 The commenter correctly identifies that the Project would include the installation and maintenance of new roads, widening of existing roads, and installation fuel breaks. Proposed modification and upgrades to PG&E interconnection infrastructure relating to wildfire are analyzed in Draft EIR Section 3.16.3.2. As disclosed in this section, the modifications to the PG&E infrastructure could increase the risk of wildfire due to the increased risk of ignition during construction and operation of the infrastructure. However, operation and maintenance of this infrastructure would be in accordance with PG&E's Fire Prevention Plan and Wildfire Safety Plan, NERC standards, CPUC vegetation management standards, and portions of the Public Resources Code that identify clearance requirements and requirements for work in SRAs. Additionally, Mitigation Measure 3.16-2a and Mitigation Measure 3.16-2c would be applicable to the PG&E infrastructure constructed as part of this Project. Together, these requirements and mitigation measures would reduce impacts to a less than significant level. The commenter's disagreement with this conclusion is acknowledged and will be included in the record for County decision makers to consider. See also Response T5-20.

P26-52 The applicability of Section 404 of the Clean Water Act is described in Draft EIR Section 3.12.1.3. The potential for post-fire slope instability and flooding is analyzed under Impact 3.16-4. As disclosed in the section, "In the event that a fire were to be

[71] Miller M Lee, and David W. Keith. "Climatic Impacts of Wind Power". Joule 2, 2618–2632. Published December 19, 2018. Available online: https://www.cell.com/joule/fulltext/S2542-4351(18)30446-X?_returnURL=https%3A%2F%2Flinkinghub.elsevier.com%2Fretrieve%2Fpii%2FS254243511830446X%3Fshowall%3Dtrue Accessed January 10, 2020.

ignited on the Project Site and were to spread outside of the Project Site, if significant amounts of vegetation were burned, the resultant change in drainage and soil stability could result in land sliding in downstream or downslope areas." The Draft EIR concludes, "Implementation of Mitigation Measure 3.16-2a (Fire Safety), Mitigation Measure 3.16 2b (Nacelle Fire Risk Reduction), and Mitigation Measure 3.16-2c (Emergency Response Plan), would reduce the potential for the Project to result in the uncontrolled spread of wildfire and, therefore, would reduce the potential for landslides as a result of post-fire conditions to a less-than-significant level." Therefore, contrary to the suggestion in the comment, the Draft EIR does evaluate the risk for post fire flows and landslides.

P26-53 See Response P45-152 regarding emergency access. The limited ingress and egress on the Project Site is considered under Impact 3.16-1 as well as Impact 3.14-4. The commenter asks how the public could exit the Project Site given the fact that access points off of SR-299 would be locked. As described in Draft EIR Section 2.4.5.1, the Project would be located on private property where public access is currently limited. Public access would not be permitted during construction, operation, or decommissioning of the Project. Members of the public would not be permitted on the Project site and access roads on the Project site are not intended for public use; therefore, it is unclear why the commenter is raising the concern of a member of the public being caught behind a gated access road in the event of an emergency. The additional access roads that would be constructed as part of the Project would be used for emergency ingress and egress for employees, emergency responders, and/or firefighters in the event that access to and/or egress from the Project Site is required in response to an emergency within the project site or vicinity.

P26-54 See Response P45-152 regarding emergency access.

P26-55 The analysis of impacts to aerial firefighting considers the typical heights from which water and retardant drops are conducted based on information from CAL FIRE and American Helicopter Services & Aerial Firefighting Association. The conclusion that, based on the spacing between rows of turbines, aerial firefighting operations are likely to have space even with the Project to continue aerial firefighting operations within the Project Site is based on evidence provided by aerial firefighting experts in Australia, which like California experiences major wildfires.[72] That evidence included testimony that wind turbines are very visible and can be avoided, as well as that wind turbines do not increase risk due to turbulence or moving blades. CAL FIRE has not published information on this topic. The comment suggests, but provides no evidence to support its speculation that the "non-linear" layout of the proposed turbines would cause greater interference with aerial firefighting than a layout composed of longer rows. Despite the lack of evidence that the presence of wind turbines materially affects firefighting efforts, the analysis conservatively acknowledges that, due to the height of the turbines, the Project could interfere with aerial operations. Therefore, Mitigation Measure 3.16-

[72] See Commonwealth of Australia, 2015.

1b requires pre-construction coordination with CAL FIRE to provide CAL FIRE with updated mapping to facilitate aerial fire-fighting planning. The commenter's disagreement with this conclusion is acknowledged and will be included in the record for County decision makers to consider.

The commenter requests that CAL FIRE provide input on this impact and mitigation measure. Agency outreach was conducted during pre-scoping activities, with Project-specific questions submitted to CAL FIRE. On January 15, 2019, the County initiated the scoping process for the EIR. An agency-specific scoping meeting was held on Thursday January 24, 2019. CAL FIRE submitted a scoping letter on January 25, 2019, but the letter did not include information regarding aerial firefighting. The Draft EIR was available for agency review for 79 days and the Notice of the Availability was mailed to CAL FIRE (see Draft EIR Section 5.4, *Entities Consulted and Recipients of the Draft EIR and/or the Notice of Availability* at page 5-3). Proposed locations of turbines were published in the Draft EIR and CAL FIRE (or any other commenter) could have obtained GIS or Google Earth location files from the County upon request, but did not do so. CAL FIRE did not submit a formal comment on the Draft EIR. However, the Draft EIR's approach to mitigating impacts of the project on aerial firefighting was confirmed by a memorandum to the County received in January 2021 from the Chief of the Shasta County Fire Department.[73] Based on consultations with CAL FIRE Tactical Air Operations Unit, the Fire Chief acknowledges that "aerial hazards do pose a safety concern for aerial firefighters; however, they are something we must work around on a daily basis.... Whether its power lines, antenna towers, windmills, cell towers or cable/wires spanning a drainage, *the key to working in this environment is knowledge of their existence*." (Emphasis added.) Based on this input, the County has not revised its conclusion that implementation of Mitigation Measure 3.16-1b, which requires pre-construction coordination with CAL FIRE to provide CAL FIRE with updated mapping to facilitate aerial fire-fighting planning, would reduce impacts related to aerial firefighting to less than significant.

P26-56 The statement under Impact 3.16-2 that is quoted in this comment is intended to focus the nature of the analysis on the risks that exist for communities *near* the Project rather than on "project occupants" which is the term used in Appendix G of CEQA Guidelines. See Response P12-8 for more information about the environmental checklist questions included in CEQA Guidelines Appendix G. The County has used its discretion as a CEQA lead agency to use the Appendix G checklist questions to guide its CEQA analysis in this EIR. In this instance, the Draft EIR (at page 3.16-16 et seq.) responds to the specific question as well as the underlying concern: "The Project is not intended for and would not be used for human occupation; therefore, no occupants would be exposed to increased risks associated with wildfire. However, the Project Site is located near existing communities. Therefore, the following analysis focuses on the potential for Project Site preparation, construction, operation and maintenance (O&M),

[73] CAL FIRE, 2021a. Memorandum of Bret Gouvea, Chief CAL FIRE/Shasta County Fire to Paul [A. Hellman, Director, Shasta County Department of Resource Management, Planning Division]. January 2021.

and decommissioning to increase the exposure of the occupants of these communities to wildfire risks."

The commenter also requests that the word "could" be replaced with the word "would" throughout the Draft EIR. Potential environmental impacts are disclosed throughout the Draft EIR; however, in the case of the wildfire section none of the impacts discussed are guaranteed to occur. While the Project would increase the risk of a wildfire, it is not known whether or not the Project, if constructed, would ignite a fire. The commenter's suggestion to change instances of "could" to "would" is not accepted because use of "would" could imply a level of certainty of a result that CEQA does not require – the potential ("could") for a significant impact to result, as supported by substantial evidence is enough. The Draft EIR's disclosure of potential impacts is consistent with the County's responsibility as CEQA lead agency, including that its analysis not be speculative. See CEQA Guidelines Section 15064 ("Argument, speculation, unsubstantiated opinion or narrative, or evidence that is clearly inaccurate or erroneous, or evidence that is not credible, shall not constitute substantial evidence. Substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts.")

The commenter questions how measures outlined in Mitigation Measure 3.16-2a could reduce the impacts of the Project to less than significant. The commenter mentions that under baseline conditions the forest has been undisturbed by human activity for years. This statement is inaccurate. See, e.g., Draft EIR page 3.1-4, which explains that, as of June 2020, approximately 58 percent of Shasta County (including the Project Site) was zoned for private timber production and identifies six THPs on or in the immediate vicinity of the Project Site. As described in Draft EIR Section 2.2, the Project Site is operated as managed forest lands. As described in Section 3.16.1.2, the Project Site is located in an area with high existing levels of fire risk. Under existing conditions, timber operations and other uses present the risk of ignition. The Project would introduce a new risk of ignition due to the use of vehicles and equipment during construction and the possibility of accidental ignition during operations and maintenance. The mitigation measures proposed in Section 3.16.3 would reduce the wildfire risk introduced by the Project to near baseline conditions by building preventative measures and emergency response measures into Project construction and operation. These measures reduce the likelihood of the Project igniting a fire and also provide Project equipment and staff with the resources necessary to react to an on-site fire quickly in order to prevent the spread of wildfire. Therefore, after mitigation the risk introduced by the Project would not be significantly greater than the risk posed by other existing land uses such as timber harvesting. The commenter's disagreement with this conclusion is acknowledged and will be included in the record where it may be considered during the decision-making process.

The commenter states that the implementation of a Project-specific Fire Prevention Plan (FPP) would not mitigate the impact of increased wildfire threat and compares the FPP of the Project to those implemented by PG&E. CEQA does not require the County

to compare the mitigation measures and risks of the Project to other mitigation measures or projects. Mitigation Measure 3.16-2a includes many provisions including visual inspections of vehicles, equipment, and Project components; coordination with CAL FIRE to identify appropriate fire suppression equipment, water supply, and communication equipment; the establishment of fire patrols; crew training; requirements to use spark arrestors; and disabling and de-energizing procedures. Additionally, the mitigation measure requires vegetation clearances and prohibits work during Red-Flag Warning events. The County has found that these provisions would reduce the wildfire risk introduced by construction of the proposed Project to near baseline levels. The commenter's disagreement with this conclusion is acknowledged and will be included in the record where it may be considered during the decision-making process.

The commenter claims that the clearances around turbine bases of 60 to 90 feet would be insufficient to mitigate the risk of wildfires. The analysis in Impact 3.16-2 acknowledges that the vegetation clearances proposed around the base of turbines would not be sufficient on their own to eliminate or adequately reduce wildfire risks and proposes Mitigation Measures 3.16-2b and 3.16-2c to mitigate impacts during Project operation and maintenance which would require specific fire suppression technology to be included in turbines and the development of an emergency response plan which would prepare onsite staff and emergency responders to respond to specific emergency situations that could occur onsite. Implementation of these measures would reduce impacts to a less than significant level. The commenter's disagreement with this conclusion is acknowledged and will be included in the record where it may be considered during the decision-making process.

The commenter discusses the risk of lightning strikes to turbines including the risk that blades or other turbine components would be damaged from a lightning strike. Mitigation Measure 3.16-2b addresses this concern by requiring that an electrical inspection be conducted after a lightning strike to identify and address any damage to the turbine or electrical system which could result in a subsequent fire risk. Please see Responses T5-20 and P26-51 regarding the wildfire risk introduced by the upgrades to PG&E infrastructure. See Response P20-25 which addresses the potential for turbine fires. Item number four under Mitigation Measure 3.16-2b has been revised as follows to ensure that lightning grounding systems would consider site-specific conditions such as soil type.

> Additionally, turbines shall include lightning protection equipment such as grounding equipment, and a lightning measurement system. <u>Lightning grounding systems shall consider site-specific conditions such as soil type and conductivity.</u>

P26-57 CEQA does not require that mitigation measures completely eliminate all incremental risk in order to determine that an impact can be reduced to a less-than-significant level.

Mitigation Measure 3.16-2b, *Nacelle Fire Risk Reduction* (at page 3.16-21) provides sufficient detail for decision-makers and members of the public in accordance with

CEQA Guidelines §15204, "When responding to comments, lead agencies… do not need to provide all information requested by reviewers, as long as a good faith effort at full disclosure is made in the EIR." The level of detail requested in this comment is not required to determine whether the mitigation measure would, in combination with other measures, reduce potential Project impacts to less-than-significant levels. The Mitigation Measures described in Draft EIR Section 3.16 appropriately would require the Applicant and its contractors to implement fire safety measures to prevent fire and be prepared to respond immediately if a fire should ignite, and would require collaboration with area fire protection agencies to reduce the risk of wildfire ignition and spread so as to reduce the impacts caused by the Project to a less-than-significant level.

P26-58 See Response P26-56, which discusses how the Mitigation Measures proposed in Section 3.16.3 are designed to reduce potential sources of ignition and would reduce Project-related impacts. The commenter suggests that Mitigation Measure 3.16-2c requires the Emergency Response Plan to disclose locations of flammable materials and other potential sources of ignition. Mitigation Measure 3.16-2c accomplishes this with the following requirement, "The emergency response plan shall describe the likely types of potential accidents or emergencies involving fire that could occur during both construction and operation, and shall include response protocols for each scenario."

P26-59 The impact identified under Impact 3.16-3 does not rely on implementation of Mitigation Measure 3.16-2a to reach a less-than-significant conclusion. The analysis in Impact 3.16-3 provides evidence to support the significance conclusion, including adherence to vegetation clearance requirements. See Response P26-57 regarding the level of detail required. See also Response P45-62 which addresses questions regarding impacts of Project access roads and associated infrastructure.

P26-60 The statement under Impact 3.16-4 regarding housing is intended to focus the nature of the analysis on the risks that exist for communities near the Project because the Project does not propose to construct facilities that would increase the number of people in the area that could be exposed to such risks. That statement does not interfere with the County's analysis and disclosure of Project-related risks on the downstream and downslope communities identified in Impact 3.16-4. See Response P26-56, which explains that the Draft EIR responds to the specific questions identified in the CEQA Guidelines Appendix G checklist as well as to the underlying concerns.

The potential for contamination due to onsite storage and use of fuels, oils, batteries, and potentially hazardous materials is addressed in Section 3.11, *Hazards and Hazardous Materials*, and Section 3.12, *Hydrology and Water Quality*, both of which discuss the Project's need to comply with a Stormwater Pollution Prevention Plan (SWPPP) and Hazardous Materials Business Plan/Spill Prevention Control and Countermeasures Plan (HMBP/SPCC) to control hazardous materials during construction, operations and maintenance, and decommissioning.

Mitigation Measure 3.16-2b, *Nacelle Fire Risk Reduction*, requires that turbines be equipped with automatic fire extinguishing systems in the nacelle of each turbine to respond immediately to nacelle ignitions, lightning protection equipment to reduce the likelihood of lightning-caused fires, early fire detection and warning systems to immediately alert operators and responders to increased risk, and automatic switch-off and disconnection from the power supply system to reduce the risk of spreading fire and/or electrical issues outside the affected turbine. These measures would substantially reduce the risk that a turbine fire, should one occur, would result in a significant amount of burning turbine materials. As described in Impact 3.11-3 in Section 3.11, tower failure and blade throw are rare.

The proposed locations of turbines are clear in the project description. Micrositing may occur, such as the examples described in Section 1.2.3, *Changes to the Project Since Issuance of the Draft EIR*, but would not result in substantial changes to the proposed locations. As described in Section 3.12, the U.S. Army Corps of Engineers (USACE) has not yet made a jurisdictional determination confirming whether a Section 404 Nationwide Permit would be required; the County has not and does not have authority to make such a determination. The USACE's evaluation of the Project, if one is determined to be necessary, would be completed prior to issuance of a Section 404 permit. However, the County's analysis of potential impacts on surface and groundwaters is provided in Section 3.12. See Response A3-21 and Response P21-5 for additional information about jurisdictional waters. In addition, the analysis of potential impacts on federal and state jurisdictional waters and associated mitigation measures is provided in the context of Impact 3.4-16 in Draft EIR Section 3.4 (at page 3.4-64 et seq.).

P26-61 See Response T5-20, which discusses impacts related to PG&E infrastructure. Within the Project Site, overlapping requirements would apply – the requirements governing PG&E would be supplemented by requirements imposed by other applicable laws and regulations, mitigation measures, and the conditions of approval imposed by the County in the use permit and by other agencies whose approvals would be required for the Project to proceed. The word "anticipated" was used in this context (Draft EIR at page 3.16-25) because regulated parties are entitled to a rebuttable presumption that they will comply with the law. Any failure to comply would be subject to enforcement at the discretion of the agency with oversight over the requirement.

P26-62 The range of alternatives described in Draft EIR Section 2.5 (at page 2-27 et seq.) was developed consistent with the requirements of CEQA. The County acknowledges that the commenter may prefer to see additional or different alternatives; however, this opinion does not bear on the sufficiency of the EIR's alternatives. See Response T2-3 regarding project objectives as one of the four threshold criteria for identifying suitable alternatives as part of the CEQA process.

CEQA does not require potential alternatives to eliminate impacts that have been determined to be less than significant, or less than significant with mitigation

incorporated, as is the case for wildfire. See Draft EIR Section ES.6, *Overview of Project Impacts and Mitigation* (at page ES-6 et seq.) and Table ES-2, *Summary of Impacts and Mitigation Measures* (at page ES-8 et seq.). Instead, as explained in Draft EIR (at page 2-27), "The discussion of alternatives shall focus on reasonable, feasible alternatives to the proposed project or its location that are capable of avoiding or substantially lessening any significant effects of the proposed project, even if these alternatives would impede to some degree the attainment of the proposed project objectives, or would be costlier."

The commenter's preference for the No Project Alternative is acknowledged and has been included in the record, where the County may consider it as part of the decision-making process. See Response T5-2, which explains that need is not part of the CEQA screening criteria for developing a range of alternatives.

P26-63 See Responses P45-56 and P26-53 which address the Project's impacts to emergency response and evacuation. See also Draft EIR Section 3.4 which addresses impacts to biological resources. The Draft EIR acknowledges potential increase in the risk of wildland fire that would be introduced by the Project under Impact 3.16-2. The lack of ingress and egress and the lack of an existing established emergency evacuation and response plan is considered in Section 3.11, *Hazards and Hazardous Materials*, Section 3.14, *Transportation*, and Section 3.16, *Wildfire*. While the analysis in each of these sections considers whether or not the Project would conflict with or impair an emergency response plan, the analysis also acknowledges that the Project could, nonetheless, have an impact on emergency response and evacuation. The commenter's input regarding the lack of an established evacuation plan in the Project area, the limited ingress and egress in the Projects Site, the potential for emergencies during Project construction or operation to impact and the resulting vulnerability to surrounding communities is acknowledged. These conditions are considered a part of baseline conditions. See Draft EIR Section 3.1.2.1 (at page 3.1-1) for more information about the environmental baseline. Consistent with the Lead Agency's responsibility under CEQA to evaluate the potential physical changes of a Project relative to baseline conditions, the existing windfarm must be considered part of the EIR baseline conditions. Therefore, the analysis under Impact 3.16-1 considers the change to emergency evacuation and response that the Project would introduce as compared to baseline conditions. The analysis in Impact 3.16-1 discloses the impacts of the proposed Project compared to baseline conditions on page 3.16-15:

> "The Project would not require closures of public roads, which could inhibit access by emergency vehicles. However, the presence of oversized construction vehicles on local roads (such as SR 299, or G Line Road in the event of an emergency requiring use of that road to evacuate Moose Camp) could cause blockage that may impede other traffic if a wildfire were to occur in the area during the construction or decommissioning periods, resulting in a potentially significant impact.

> The implementation of Mitigation Measure 3.14-3 (provided in Section 3.14) would ensure that emergency access would be maintained during construction and decommissioning and thus would reduce this impact to less than significant."

P26-64 As required by CEQA, the County evaluated the potential significant impacts of the Project, including impacts on proposed egress/ingress. Regarding egress, see Impact 3.11-7 (at page 3.11-19), which concludes that the Project would cause a less than significant impact with mitigation incorporated regarding potential impairment of the implementation of, or physical interfere with, an adopted emergency response plan or emergency evacuation plan. Although there are no specifically designated evacuation routes described in the Community Wildfire Protection Plan or the Shasta County General Plan (as disclosed on page 3.16-14), the EIR considers potential interference with Shasta County's Emergency Operation Plan, which is the County's all-hazards plan (at page 3.11-19).

Regarding ingress, see, e.g., Section 3.14.3.2 (at page 3.14-10 et seq.), which analyzes the direct and indirect transportation effects of the Project, and concludes that the proposed use of oversized vehicles during construction and decommissioning would not cause a significant adverse impact on emergency access to or near the Project Site if oversize load permit and related requirements are complied with. The implementation of Mitigation Measure 3.11-7 would assure that emergency access would be maintained during construction and decommissioning.

To be adequate under CEQA, the EIR need not require the Project to improve ingress/egress for the communities in the vicinity of the Project Site. Rather, CEQA tasks the EIR with evaluating and disclosing the potential for the Project to result in a significant adverse effect to the physical environment. If a project could result in a potential significant effect, then CEQA requires the lad agency to identify mitigation measures that, if implemented, would avoid or reduce the significant impact if it is feasible to do so. The County has done so in this EIR. See Table ES-2 (at page ES-8). SR 299 is (and for the foreseeable future apparently would remain) the only significant way in and out. This is true regardless of whether the Project is approved.

The commenter's opinion that the comparative wildfire risk under baseline conditions, which would continue if the No Project Alternative were selected, would be reduced relative to the Project is correct.

The County acknowledges the commenter's disagreement with the Draft EIR's conclusion that the Project would cause a less than significant impact with mitigation incorporated regarding potential physical interfere with an adopted emergency response plan or emergency evacuation plan (Impact 3.11-7, at page 3.11-19).

P26-65 Emergency response planning is important in the intermountain area regardless of whether the Project is approved. The preference suggested in the comment that no incremental additional risk be approved until such planning occurs is acknowledged, but does not bear on whether the EIR is sufficient for purposes of CEQA.

P26-66 Regarding potential impacts on aerial firefighting, see Response T3-3. Regarding potential impacts on use of the Moose Camp helipad, see Response P11-2.

Mitigation Measure 3.16-1a would require pre-construction coordination with CAL FIRE, including the provision of GIS data such as that identified in this comment. Until final turbine selection and siting occurs, it is not (and cannot be) known which of the potential turbine locations identified in the Project Site would be used. Awaiting the outcome of those decisions will ensure that CAL FIRE has accurate information.

A study was done to evaluate the Project's potential to cause a significant adverse effect on communications interference. See Draft EIR Appendix D, which presents the engineering report prepared by Evans Engineering Solutions. See also Section 3.5, *Communications Interference* (at page 3.5-1 et seq.). As explained in the introduction to the section analyzing potential effects, "Communications Interference is not a topic typically addressed in the County's CEQA analyses. However, the County has elected to address potential interference with communications as a potential impact on the physical environmental impact in this EIR in light of the critical function of communications in emergency response, which is a public safety topic that is addressed under CEQA, and because interference with cell, radio, television, and other communications could adversely affect human health and the physical environment if emergency response communications were prevented, interrupted or delayed."

P26-67 This comment summarizes the commenter's earlier input. See Responses P26-37 through P26-66, which respond to these issues.

P26-68 See Response P26-60, which addresses the potential for post-fire landslides, flooding, and slope-instability issues.

P26-69 The landowner's Helicopter Dip Tank Installation project is occurring throughout its ownership in the area and is considered to be a separate project relevant to the cumulative scenario. It is evaluated as such (see Draft EIR page 3.16-27). The analysis of the proposed Project does not rely on the presence of these proposed dip tanks for Project-specific significance conclusions, nor are questions about the source of water for dip tanks relevant to this EIR. The potential for the proposed Project to increase fire risk is analyzed throughout Section 3.16. Fire suppression for turbine fires is addressed in Impact 3.16-2 and by Mitigation Measure 3.16-2b, Nacelle Fire Risk Reduction.

P26-70 See Response P26-56 regarding lightning strikes.

P26-71 The County acknowledges receipt of these "Board of Supervisors Public Comments for 5 May 2020." See Response P26-60 regarding hazardous materials and turbines fires. No large-scale storage batteries are proposed as part of this Project.

P26-72 See Response P26-56 regarding lightning strikes.

P26-73 The various causes of wildfire are acknowledged in Section 3.16, *Wildfire* (at page 3.16-1 et seq.), which expressly considers the "history of lightning strikes and fires, both natural and human-caused, in the area" as part of the analysis. See Mitigation Measure 3.16-2b, *Nacelle Fire Risk Reduction* (at page 3.16-21 et seq.), which is one of three mitigation measures that collectively would require the Applicant and its contractors to implement fire safety measures to prevent fire and be prepared to respond immediately if a fire should ignite, and would require collaboration with area fire protection agencies to reduce the risk of wildfire ignition and spread.

See Response P26-27 regarding wind shear, turbulence, and wake effect. Regarding potential impacts on aerial firefighting, see Response T3-3.

P26-74 The County acknowledges the commenter's identification these additional reference materials regarding wildfire threat. To the extent that copies readily could be accessed online, the County has obtained and considered them. To the extent that the County was not able to locate the references cited, it assumes that the commenter has provided the relevant information in the text of its letter.

P26-75 See Response P17-5 regarding the Project's consistency with the Shasta County General Plan and Zoning Plan. Comments about the current state of the electric grid are beyond the scope of the CEQA process for this Project. See Final EIR Section 2.1.1. See Response P26-13, which clarifies that the Project would not interconnect at the Round Mountain Substation. See Response P26-44 regarding the commenter's assumptions about responsibilities for safety.

P26-76 See Final EIR Section 2.1.1. See Response P26-13, which clarifies that the Project would not interconnect at the Round Mountain Substation. The County acknowledges the commenter's disagreement on this point; however, the disagreement does not bear on the sufficiency of the EIR. See Final EIR Section 2.1.1, *Input Received*.

P26-77 This reference to the California ISO's 2018-2019 Transmission Plan is acknowledged. Because the Project would not interconnect at the Round Mountain Substation (Response P26-13) the Transmission Plan is beyond the scope of the CEQA process for this Project.

P26-78 The County acknowledges receipt of the January 14, 2013 article about a wind turbine fire in Australia. See Response P26-55 regarding impacts on aerial firefighting and helicopter access and regarding CAL FIRE's involvement in the CEQA process to date.

P26-79 The County acknowledges receipt of NAAA fact sheet on aerial pesticide application. It has been included in the County's formal record for this Project, and will be available for consideration as part of decision-making process. Regarding potential impacts on the operation of private aircraft generally, see the responses provided to Letter P19, which was received from the California Pilots Association. The Draft EIR analyzed potential impacts to air navigation. See, e.g., Section 3.2, *Aesthetics* (at page 3.2-12) and Section 3.5, *Communications Interference* (at page 3.5-7). Regarding emergency

response, see Section 3.1.4.14, *Public Services* (at page 3.1-21). Regarding aerial firefighting, see Response T3-3. See also Response P11-2 regarding potential impacts to use of the Moose Camp helipad.

P26-80 The County acknowledges the commenter's identification these additional reference materials regarding turbine fires. To the extent that copies readily could be accessed online, the County has obtained and considered them. To the extent that the County was not able to locate the references cited, it assumes that the commenter has provided the relevant information in the text of its letter.

P26-81 The County acknowledges the commenter's identification these additional reference materials regarding wind shear, turbulence, and wake effect. To the extent that copies readily could be accessed online, the County has obtained and considered them. To the extent that the County was not able to locate the references cited, it assumes that the commenter has provided the relevant information in the text of its letter.

P26-82 The County acknowledges the commenter's identification these additional reference materials regarding wind farms and aerial firefighting. To the extent that copies readily could be accessed online, the County has obtained and considered them. To the extent that the County was not able to locate the references cited, it assumes that the commenter has provided the relevant information in the text of its letter.

P26-83 The County acknowledges the commenter's identification these additional reference materials regarding climate, hazards to air navigation, and fire. See Draft EIR Section 3.10, *Greenhouse Gas Emissions* (at page 3.10-1 et seq.), which considers climate change. See Response P12-28 regarding air navigation. To the extent that copies readily could be accessed online, the County has obtained and considered them. To the extent that the County was not able to locate the references cited, it assumes that the commenter has provided the relevant information in the text of its letter.