| DOCKETED | |
|---|---|
| **Docket Number:** | 23-OPT-01 |
| **Project Title:** | Fountain Wind Project |
| **TN #:** | 255609 |
| **Document Title:** | Hatchet_Ridge_BOS_Staff_Report |
| **Description:** | N/A |
| **Filer:** | Caitlin Barns |
| **Organization:** | Stantec Consulting Services, Inc. |
| **Submitter Role:** | Applicant Consultant |
| **Submission Date:** | 4/10/2024 2:39:58 PM |
| **Docketed Date:** | 4/10/2024 |

# REPORT TO SHASTA COUNTY BOARD OF SUPERVISORS

| SUBJECT | PUBLIC HEARING | BOARD MEETING DATE 11/04/2008 | AGENDA NUMBER |
|---|---|---|---|
| APPEAL OF PLANNING COMMISSION APPROVAL OF USE PERMIT 06-016 (HATCHET RIDGE WIND LLC) BURNEY AREA | | | |
| DEPARTMENT | RESOURCE MANAGEMENT PLANNING DIVISION | SUPERVISORIAL DISTRICT NO.: 3 | |
| DEPARTMENT CONTACT: | Name: Russ Mull / Title: Director | Phone Number: 225-5789 | |
| 4/5 Vote Required?<br>☐ Yes<br>✓ No | General Fund Impact?<br>✓ No General Fund Impact with the Recommended Action<br>☐ No Additional General Fund Impact from the Recommended Action<br>☐ General Fund Impact from the Recommended Action | | |

RECOMMENDATIONS:

1. That the Board of Supervisors adopt a resolution:

   a. Denying the appeals submitted by the Save Burney's Skyline group and the Pit River Tribe; and

   b. Affirming the Planning Commission's certification of the Environmental Impact Report (EIR) for the Hatchet Ridge Wind project as set forth in Planning Commission Resolution 2008-102, and based on the findings listed in the attached Board of Supervisors' resolution; and

   c. Affirming the Planning Commission's approval of Use Permit 06-016, adoption of the Findings of Fact and Statement of Overriding Considerations, and adoption of the related Mitigation Monitoring and Reporting Program, as set forth in and subject to the conditions attached to Planning Commission Resolution 2008-103, and based on the findings in the attached Board of Supervisors' resolution; and

2. That the Board of Supervisors approve and authorize the Chairman to sign the Community Benefit Agreement between Shasta County and Hatchet Ridge Wind, LLC.

SUMMARY: The Planning Commission considered Use Permit 06-016 at a duly noticed public hearing held in two sessions, both in Burney, on July 24, 2008, and October 2, 2008. After receiving approximately seven hours of testimony, the Commission closed the public hearing and subsequently certified the EIR, adopted findings, a mitigation monitoring program and a Statement of Overriding Considerations, as required by the California Environmental Quality Act (CEQA), and approved the Use Permit. Appeals of the Planning Commission's action were submitted by Douglas Gerald Smith for Save Burney's Skyline, and by Ida Riggins, Tribal Chairperson, Pit River Tribe.

PROJECT DESCRIPTION: The applicant, Hatchet Ridge Wind, LLC, proposes to construct a wind energy project that would produce approximately 100 megawatts of electricity and would require construction of 42 to 68 wind turbines on steel tubular towers with a total height including the turbine of 338 feet to 418 feet. The line of towers would stretch for about 6.5 miles along the ridge of Hatchet Mountain. The project would include transmission lines from the turbines to a new on-site substation and additional new lines from the substation to existing high-voltage transmission lines owned by Pacific Gas & Electric Company, that cross the project site. The project would also include a temporary construction office, an operations and maintenance building/control center, new access roads,

temporary staging areas, and up to four permanent meteorological masts up to 220 feet high. Construction would occur over a 6 to 12-month period.

The project site would cover about 73 acres scattered over 17 parcels totaling approximately 3,000 acres on Hatchet Mountain generally located in areas managed for commercial timber production replanted after the 1992 Fountain Fire. The site is approximately seven miles west of Burney, 34 miles northeast of Redding, and immediately north of State Highway 299 at Hatchet Mountain Pass.

General Plan and Zoning - The property is in the Timber (T) General Plan land use designation and the Timber Production (TP) zone district. Electrical generation and transmission facilities are consistent with the T General Plan land use designation and are permitted in the TP zone district subject to approval of a Use Permit.

Access and Services - Access to the site is from Bunchgrass Lookout Road, which intersects State Highway 299. The site would be served with water from an on-site well and sewage disposal from an on-site septic system.

**DISCUSSION**: This project is the first large-scale wind energy project proposed in Shasta County and may have State-wide significance within the context of the goals of the California Renewable Portfolio Standard (RPS) and other similar renewable energy programs in the State. The legislation enacting the RPS requires retail sellers of electricity to purchase 20% of their electricity from renewable sources, such as wind, by 2017. This project would generate wind power and would assist the State in meeting its legislated mandate.

**Environmental Determination** - An Environmental Impact Report (EIR) was prepared for this project. The Draft EIR (DEIR) identified and addressed the following potentially significant environmental impacts: land use, aesthetics, air quality, cultural resources, biological resources, geology and soils, hazards and hazardous materials, hydrology and water quality, transportation and traffic, utilities and service systems, along with the potential cumulative effects of the proposed project. The DEIR identified mitigation measures that would avoid or reduce most of the identified adverse impacts to a level characterized as less-than-significant under CEQA. However, not all adverse impacts could be reduced to less-than significant; therefore, the DEIR concluded that after mitigation the project would result in the following:

- Significant and unavoidable impacts: adverse effects on a scenic vista by degrading the visual character of the project area and its surroundings, potential direct mortality of greater sandhill cranes, potential direct mortality of bald eagles, potential direct mortality of special-status raptors and other avian species, and visual and auditory disruption of Pit River Tribe religious practices conducted on Hatchet Ridge from construction and operation of wind turbines.

- Beneficial impacts: positive cumulative effects on climate change, and reduction in reliance on nonrenewable resources as a source of energy production.

The Draft EIR was distributed to and reviewed by other agencies and the public during a 45-day review period. The Final EIR was prepared, including responses to all comments received on the Draft EIR, as well as revisions to the Draft EIR, and a Mitigation Monitoring and Reporting Program. Copies of all environmental documents were provided or made available to the Planning Commission, agencies and the public prior to any decision on the project.

**Planning Commission Action** - The Planning Commission received copies of all letters of support and all letters of opposition submitted, and received lengthy testimony at its July 24, 2008, and October 2, 2008, public hearing. The Commission closed the public hearing and subsequently certified the EIR, adopted a Mitigation Monitoring and Reporting Program, Findings of Fact and a Statement of Overriding Consideration, citing the specific benefits of the project and finding that the remaining unavoidable adverse environmental effects, when weighed against the benefits, are acceptable, and approved Use Permit 06-016, subject to conditions. (The Planning Commission minutes and resolutions are found at Attachments 18,19, 20 and 21).

**Appeal Issues and Responses** - Two appeals of the Planning Commission's action were filed by Douglas Gerald Smith on behalf of Save Burney's Skyline, and by Ida Riggins, Tribal Chairperson of the Pit River Tribe (Attachment 1).

The issues raised in both appeals confirm that there are divergent opinions and disagreement among the parties reviewing the environmental document. CEQA acknowledges and allows for such divergence, and still provides a process for timely and informed decision-making. CEQA sets the standard for EIR adequacy at "reasonably feasible" rather than "exhaustive," and "good faith" rather than "perfection." In light of this standard, staff has avoided arguing technical points or discrediting the appellant's concerns, and instead has responded to each appeal issue by calling attention to documentation showing how (and specifically where) the EIR, or other documents in the record, address the appeal issues in a reasonable and good faith effort at full disclosure. The responses also show that the Planning Commission took into consideration the information presented to it by the public, agencies and staff, and that their findings and decision were based on substantial evidence in the record. (Staff's responses to the appeal issues are found at Attachment 2).

**CONCLUSION**: Based on the record regarding the approval of this project including, but not limited to, the evidence before the Planning Commission, the adopted findings and Statement of Overriding Considerations, the issues raised in the appeals and the responses thereto, there is no evidence to date to show that the Planning Commission exceeded its authority, or that there was not a fair hearing before the Commission, or that the Commission abused its discretion to the prejudice of the appellant. In addition, there is no evidence to date which supports any findings or determinations which would prohibit approval of the use permit under the Shasta County Code.

**ALTERNATIVES**: The following alternatives are available:

1. Modify the findings and/or conditions of approval of the Use Permit. The Board would need to make a motion of intent, and continue the item with direction to staff to process the proposed modifications appropriately and prepare a resolution with modified findings and/or conditions of approval.

2. Grant the appeal and deny the Use Permit. The Board would need to make a motion of intent, and continue the item with direction to staff to prepare a resolution with findings for denial of the Use Permit (Note: CEQA does not apply to projects that are denied approval).

3. Refer the Environmental Impact Report, Mitigation Monitoring and Reporting Program, and Use Permit back to the Planning Commission for further consideration and report on specific issues.

4. Continue review of the appeals for additional specific information.

**OTHER DEPARTMENT/AGENCY INVOLVEMENT**: The following agencies reviewed and/or commented on the project:

Pit River Tribe
Federal Aviation Administration
US Fish and Wildlife Service
California Energy Commission
California Public Utilities Commission, Energy Division
California Department of Fish and Game
California Regional Water Quality Control Board
McArthur-Burney Falls Memorial State Park
Caltrans District 2
Department of Transportation, Division of Aeronautics
Native American Heritage Commission

**FINANCING**: If approved the project would result in increased tax revenues, but may result in additional demands for services.

RUSS MULL, R.E.H.S., A.I.C.P.
Director of Resource Management

**Copies:** Board of Supervisors (16)
Douglas Gerald Smith, 37480 Cypress Avenue, Burney, CA 96013
Ida Riggins, Pit River Tribe, 37118 Main Street, Burney, CA 96013
Nicole Hughes, RES America Developments, Inc., 700 SW Taylor Street, Suite 210, Portland, OR 97205
John Forsythe, Jones & Stokes, 2600 V Street, Sacramento, CA 95818
Christy Corzine, Jones & Stokes, 2895 Churn Creek Road, Suite D, Redding, CA 96002
Sabrina Teller, Remy, Thomas, Moose & Manley, LLP, 455 Capitol Mall, Suite 210, Sacramento, CA 95814
Joe Rodriguez, Federal Aviation Administration, Airports District Office, 831 Mitten Road, Room 210, Burlingame, CA 94010-1303
Amy L. Fesnock, US Fish and Wildlife Service, 2800 Cottage Way, Suite W-2605, Sacramento, CA 95825
Lynette Esternon-Green, California Energy Commission, 1516 9th Street, MS 45, Sacramento, CA 95814
Valerie Beck, California Public Utilities Commission, Energy Division, 4th Floor, 505 Van Ness Avenue, San Francisco, CA 94102

Bruce Webb, California Department of Fish and Game, 601 Locust Street, Redding, CA 96001
California Regional Water Quality Control Board, 415 Knollcrest Drive, Redding, CA 96002
McArthur-Burney Falls Memorial State Park, 24898 Highway 89 North, Burney, CA 96013
Marci Gonzalez, Caltrans District 2, P.O. Box 496073, Redding, CA 96049-6073
Department of Transportation, Division of Aeronautics - M.S.#40, P.O. Box 942873, Sacramento, CA 94273-0001
Native American Heritage Commission, 915 Capitol Mall, Room 364, Sacramento, CA 95814
Shasta County Library, 1100 Parkview Avenue, Redding CA 96001
Shasta County Library, Burney Branch, 37038 Siskiyou Street, Burney, CA 96013
Pacific Gas and Electric Company, 3600 Meadow View Road, Redding, CA 96002
Redding Record Searchlight, 1101 Twin View Blvd, Redding CA 96003
Intermountain News, 37095 Main Street, P.O. Box 1030, Burney, CA 96013
Mountain Echo, 43152 Highway 299E Suite B, P.O. Box 224, Fall River Mills, CA 96028
Project File

**Attachments:**

1. Appeal Documents
   - A. Appeal from Douglas Gerald Smith
   - B. Appeal from Ida Riggins, Tribal Chairperson, Pit River Tribe
2. Summary of appeal issues with Staff's responses
3. Applicant's responses to appeal issues
   - A. Letter from Sabrina Teller, attorney for the applicants, dated October 15, 2008
   - B. Letter from Nicole Hughes, dated October 16, 2008
4. Draft Board of Supervisors' resolution to deny the appeal and affirm the certification of the EIR for the Hatchet Ridge Wind project and affirm the approval of Use Permit 06-016 with conditions.
5. Community Benefit Agreement
6. Location Map
7. General Plan Map
8. Zone District Map
9. Site Plan (Figure 2-1 Representative configuration of the Proposed Hatchet Ridge Wind Project)
10. Elevation Drawing (Figure 2-3 Turbine Options for the Hatchet Ridge Wind Project)
11. Draft EIR (previously distributed)
12. Final EIR including Mitigation Monitoring and Reporting Program (previously distributed)
13. Studies from the applicant which are not included in Draft or Final EIR:
    - A. Economic Impacts of the Hatchet Ridge Wind Project by Economics Group of ENTRIX, Inc., November 5, 2007
    - B. Visual Impact Analysis by RES America Developments, Inc., May 6, 2008
    - C. Memorandum: Hatchet Ridge Wind Project, California, Kenneth P. Able, Evaluation of the Nocturnal Bird Migration Study, by David Young, WEST, Inc., June 22, 2008
14. Correspondence received after the Draft EIR comment period but before the October 2, 2008 Planning Commission hearing; and
    - A. Items received by the Planning Commission at the October 2, 2008, public hearing
15. Correspondence received since the October 2, 2008 Planning Commission hearing

16. Planning Commission staff report for the July 24, 2008 hearing (without attachments)
17. Planning Commission staff report for the October 2, 2008 hearing (without attachments)
18. Planning Commission minutes for July 24, 2008
19. Planning Commission minutes for October 2, 2008
20 Adopted Findings of Fact and Statement of Overriding Considerations
21. Planning Commission Resolution 2008-102 which certified the EIR for Hatchet Ridge Wind
22. Planning Commission Resolution 2008-103 and conditions of approval for Use Permit 06-016

Note: Due to the volume of material for this project, all attachments may not be included with all copies of this staff report. All attachments are available at:

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

In addition, many of the documents for this project and attachments for this report are available on the internet. Go to: www.co.shasta.ca.us , click on "County Departments" then "Resource Management" then go to the bottom of the page and click on "Hatchet Ridge Wind Project"

RECEIVED

OCT 07 2008

CLERK OF THE BOARD

# USE PERMIT/VARIANCE AND ZONE AMENDMENT APPEAL FORM

(CHECK AND COMPLETE APPLICABLE BLANKS)

| FOR OFFICE USE ONLY |
|---|
| Date Rec'd 10-7-08 |
| Fee $340.00 |
| Distribution _____ |
| Hearing Date 11-4-08 1:30p.m. |

1. Use Permit No. 06-016, Administrative Permit No. _____, or Zone Amendment No. _____

2. Approved X, Denied ___, Amended ___, or Revoked ___ by the Planning Commission on Oct.2,2008 (Date).

3. Filer appeals:

   a. X All of the above action

   b. ___ The following conditions of approval: _____

   c. ___ The following amendments to the permit or variance: _____

   d. ___ The following specific findings or determinations made by the Planning Commission: _____

4. Please state why you feel the above action(s) or determination(s) are wrong. Please outline the facts you believe support your position. If you need more space, please attach a separate piece of paper.

   Please refer to appeal attachment, sections 1 & 2

**NOTE: GROUNDS FOR APPEAL NOT SET FORTH ABOVE MAY NOT BE HEARD BY THE BOARD OF SUPERVISORS.**

Appellant's Signature: Douglas Gerald Smith

Name (print or type): Douglas Gerald Smith

Address: 37480 Cypress Avenue

Burney, CA 96013

Phone Number: (530) 335-4840

PROPER FEE MUST ACCOMPANY APPEAL

(Revised 5/19/99)

ATTACHMENT 1A

October 5, 2008

Shasta County Board of Supervisors
1450 Court Street, Suite 308B
Redding, CA 96001

Reference: **Appeal to Use Permit 06-016:**

- **Appeal Section One**

Dear Commissioners,

I am a member of the citizen's advocacy group Save Burney's Skyline. Since announcement of the Hatchet Ridge Wind Project on April, 2007, our group has publicly opposed this development, based on tower placement which contributes to visual impairment of the viewshed. We further contend that reputable industry data demonstrates that tower spacing is sufficiently flexible to permit installation in locations out of direct public view.

We, along with a majority of the citizens of Burney expressing opinions, believe the unique character of the Burney Basin will be irreparably damaged by erection of wind power collection turbines *at the present location*. In public meetings and private correspondence to the DRM, our members have repeatedly indicated support for the State of California's renewable energy policy, while requesting that the developers relocate the turbines.

The developers, Renewable Energy Systems America Developments, Inc., the parent company, dba Hatchet Wind Ridge LLC, stated the following in their initial application:

"Hatchet Ridge Wind LLC (HRW) is proposing to build the Hatchet Ridge Wind project. The proposed project would generate up to 102 megawatts (MW) of electricity. The project may comprise up to sixty-eight 1.5-MW wind turbines (i.e., a 102-MW facility utilizing relatively small turbines) or as few as forty-two 2.4-MW wind turbines (i.e., a 100.8-MW facility utilizing relatively large turbines). Because the applicant has selected it as the preferred option, this analysis considers an array of forty-four 2.3-MW wind turbines, constituting a project with a generating capacity of 101.2 MW."

"HRW has requested flexibility in the precise spacing and number of turbines in the turbine corridor, as well as in the location of the corridor within the leased area. Final selection of turbine type, siting, spacing, and clear areas would be determined in accordance with industry standards and safety measures." [1]

In this portion of the appeal, we request that the inter-tower spacing parameters shown on the topographic map, 06-Fig 2-1.pdf, be changed. The following documents from knowledgeable sources reliably demonstrate that this change can be accomplished with minimal change to project efficiency.

## Wind Turbine Power History

Commercial level wind power generation in the United States was inaugurated in the Altamont Pass region of Eastern Alameda County, California. The earliest prototype test fixtures began generating electricity there in the 1981. Today, that wind farm has earned praise and substantial distain as the number of towers grew to nearly 5,000. [2]

"The National Renewable Energy Laboratory (NREL) produced a report in 2003 that estimated that somewhat more than 1,000 birds were being killed annually by the wind turbines in the Pass. One-half of the birds killed are raptors. This is significantly more than that estimated by studies in the 1990s. However, the study also estimated that only 24 golden eagles (*Aquila chrysaetos*) are killed annually, about one-half of that estimated earlier. The golden eagle is a protected species. Most of the raptors killed are red-tailed hawks (*Buteo jamaicensis*).

A September 2005 decision by the Alameda County Board of Supervisors passed a plan currently being implemented, to protect birds in the Altamont Pass, requiring that half the turbines be shut down each year in November and December, and the other half shut down in January and February. In addition, the 100-200 oldest and most dangerous turbines will be removed, and the entire project must be repowered, with newer, larger turbines replacing the smaller turbines." [3]

## Turbine interactions with wind flow

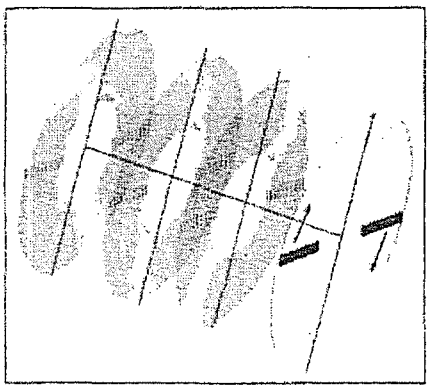
It is easier to visualize turbulence and wake effect if you think of a boat coursing through smooth water. Initially, as the boat begins to move forward due to propulsion, the sharp edge of the bow causes the surface of the water to part symmetrically, forming two diverging crests along the hull.

As the speed of the vessel increases this water channel widens and multiple ripples appear relatively parallel to the original wave crest. This is an indication of wake interference. The subsequent waves are forming at a rate where each additional wave partially impacts the original wave, now known as a wake.

Finally, if sufficient propulsion is applied, the bow of the boat will rise above the water surface and a condition known as 'on plane' will exist. Now, lower hull contact with the water decreases dramatically and the static load of boat, motor and occupants is offset and balanced by the energy released through the propulsion system. Unfortunately, for nearby boaters the wake effect has multiplied the disruptive forces by orders of magnitude. Most maritime communities establish 'no wake zones' near docks and narrow channels to limit the potential damage to persons and property.

In air flow a similar interaction occurs when the movement of wind is impaired by a stationary object. This is a highly simplified explanation. Wind acting on a familiar pine tree demonstrates that the tree tip is most affected, as it offers the least resistance to movement. At the upper trunk level scarcely any movement can be detected by a ground-based observer. At the base of the tree no discernable mechanical change can be seen.

"The aerodynamics of a wind turbine rotor is characterized by an exchange between momentum from the incoming flow and rotor blade loads. Wind turbines operate in an unsteady environment due to for example wind gusts, atmospheric turbulence, wind shear and misalignment of the rotor to the incoming wind, named yaw misalignment. The wind turbine rotor blades hence experience constantly changing flow conditions. The resulting rotor aerodynamics is of an unsteady, three-dimensional nature, displaying rotational effects." [4]



Shaded areas indicate greatest turbulence.

"As a general rule, wind generators are practical where the average wind speed is 10 mph (16 km/h or 4.5 m/s) or greater. Usually sites are pre-selected on basis of a wind atlas, and validated with wind measurements. Obviously, meteorology plays an important part in determining possible locations for wind parks, though it has great accuracy limitations.

Meteorological wind data is not usually sufficient for accurate siting of a large wind power project. An 'ideal' location would have a near constant flow of non-turbulent wind throughout the year and would not suffer too many sudden powerful bursts of wind. An important turbine siting factor is access to local demand or transmission capacity.

The wind blows faster at higher altitudes because of the reduced influence of drag of the surface (sea or land) and the reduced viscosity of the air. The increase in velocity with altitude is most dramatic near the surface and is affected by topography, surface roughness, and upwind obstacles such as trees or buildings. Typically, the increase of wind speeds with increasing height follows a logarithmic profile that can be reasonably approximated by the wind profile power law, using an exponent of 1/7th, which predicts that wind speed rises proportionally to the seventh root of altitude. Doubling the altitude of a turbine, then, increases the expected wind speeds by 10% and the expected power by 34% (calculation: increase in power = (2.0) ^(3/7) – 1 = 34%).

"Wind farms or wind parks often have many turbines installed. Since each turbine extracts some of the energy of the wind, it is important to provide adequate spacing between turbines to avoid excess energy loss. Where land area is sufficient, turbines are spaced three to five rotor diameters apart perpendicular to the prevailing wind, and *five to ten* rotor diameters apart in the direction of the prevailing wind, to minimize efficiency loss. The wind park effect loss can be as low as 2% of the combined nameplate rating of the turbines." [5] (Italics are mine)

## Land Area Required

"Once a wind power project is selected for development, land area requirements are determined in greater detail. The primary objective of a wind project design is to locate the wind turbines in the best wind sites to maximize energy production. The developer uses tailored design tools and software to optimally place wind turbines at eligible sites.

Wind turbines are typically arranged in single or multiple rows, depending on the size and shape of the landform. A single row is most often found on ridgelines and hilltops where the amount of well-exposed land is very limited. Broader and flatter land features can accommodate multiple rows of turbines. In both cases, *rows are laid out to be as perpendicular as possible to the prevailing wind direction(s).* (Italics are mine)

The distance between wind turbines (between turbine rows and between turbines within a row) is commonly described in terms of rotor diameters. For example, if a project design is described as having 3 by 10 spacing, it means that the turbines are generally spaced 3 rotor diameters apart within rows, and the rows are spaced 10 rotor diameters apart (see Figure 2). For a project using wind turbines with a 70-m (230 ft) rotor diameter, this would mean spacing the turbines 210 m (690 ft) apart within a row, and 700 m (2,300 ft) apart between rows.

The interference of one wind turbine on the wind experienced by a downwind turbine is called the "wake effect" or "array effect". Turbines that are closely spaced will experience higher wake-effect-induced energy losses. Because wide spacing between wind turbines generally maximizes energy production but increases land and infrastructure requirements (i.e., cabling, roads), cost considerations must be analyzed before finalizing turbine locations.

The distance between rows in complex terrain is typically dictated by the terrain characteristics (i.e., turbines will be placed on ridgelines in hilly terrain to take advantage of the better wind exposure, and the layout will be dictated by the orientation of the ridgelines). On relatively flat terrain, turbine rows are ideally spaced depending on the in-row spacing between turbines. The objective is to optimize the balance between the higher wake effects and lower costs associated with tighter spacing." [6]

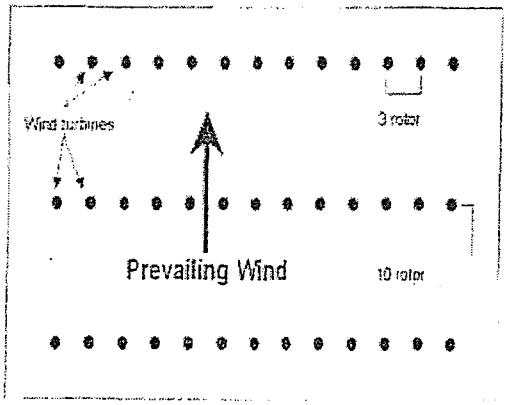



Figure 2. Illustration of Turbine Spacing (example: 3 x 10 spacing)

Table 1. Example Turbine Spacing

| Project Location | Land Use and Type | Turbine Layout | Turbine Spacing (rotor diameters) |
|---|---|---|---|
| Madison, NY | farmed hilltop | circular row of 7 turbines along hill rim | 4 diameters between turbines |
| Wethersfield, NY | open farmland, north-south ridgeline | single north-south row of 10 turbines perpendicular to prevailing wind direction | 3 diameters between turbines |
| Fenner, NY | mixed farmland and woodlots on broad hill | variable layout of 20 turbines | generally 5 to 7 diameters between turbines |
| Meyersdale, PA | ridgetop, farmland | single northeast-southwest row of 20 turbines | 3 diameters between turbines |
| Searsburg, VT | forested ridgeline | single northeast-southwest row of 11 turbines on ridge | variable (1.5 to 3.5 diameters) between turbines |

Sources: Turbine Verification Program by the U.S. Department of Energy and the Electric Power Research Institute; AWS Truewind, LLC.

Citations 7&8

Department of Energy, Wake Analysis - Abstract

"Wind data collected at nine meteorological towers at the Goodnoe Hills MOD-2 wind turbine site were analyzed to characterize the wind flow over the site both in the absence and presence of wind turbine wakes.

Free-flow characteristics examined were the variability of wind speed and turbulence intensity across the site as a function of wind direction and surface roughness.

The nine towers' data revealed that scattered areas of trees upwind of the site caused pronounced variations in the wind flow over the site.

Wind turbine wake characteristics analyzed included the average velocity deficits, wake turbulence, wake width, wake trajectory, vertical profile of the wake, and the stratification of wake properties as a function of the ambient wind speed and turbulence intensity.

The wind turbine rotor disk spanned a height of 15 m to 107 m. The nine towers' data permitted a detailed analysis of the wake behavior at a height of 32 m at various downwind distances from 2 to 10 rotor diameters (D).

The relationship between velocity deficit and downwind distance was surprisingly linear, with average maximum deficits ranging from 34% at 2 D to 7% at 10 D. Largest deficits were at low wind speeds and low turbulence intensities.

Average wake widths were 2.8 D at a downwind distance of 10 D. Implications for turbine spacing are that, for a wind farm with a 10-D row separation, array losses would be significantly greater for a 2-D than a 3-D spacing because of incremental effects caused by overlapping wakes.

Other interesting wake properties observed were the wake turbulence, the vertical variation of deficits, and the trajectory of the wake." [9]

Wind Acceleration over Ridgelines

WIND ENERGY RESOURCE MODELING AND MEASUREMENT PROJECT
DRAFT MAP COMPARISON REPORT
TASK 3: FOCUS AREA MAPPING

"The overall goal of this project is to improve the accuracy of wind resource estimates in promising areas of the State of California by addressing three key issues: the resolution of the original mesoscale and microscale model runs; the structure and modeling of the boundary layer; and measurements from tall towers and sodar. This report summarizes progress to date on Task 3: Focus Area Mapping, which seeks to address the first of the three issues.

## 2.5 Area I: Northern Valley

Area I was selected for study because it offers an interesting case study of mountain-valley interactions in northern California. Although the predicted wind speed in the region is generally low, except on the high peaks (especially Shasta Mountain, in the southeast corner), the predicted wind power density is moderately good (300-400 W/m sq. ) in places, particularly on the west side of the Shasta Valley and the northwest slope of Shasta Mountain. The contrast between the wind power and wind speed patterns is indicative of a highly variable wind resource. At certain times of day and certain times of year, the winds in these areas may be very strong, whereas they are probably moderate or weak at most other times. The likely mechanism for the strong winds is a mountain-valley circulation created by differential heating of the valley and mountain slopes. In a typical scenario, the valley is warmed by the sun much more than the mountain slopes are. The warm valley air rises, and the cold mountain air rushes down to take its place. "[10]

An aerodynamic phenomenon occurs when the warmed valley air reaches an elevated slope. The dynamics of air flow change as the wind pushes against the mountain. Compression effects cause the air mass to create funneling similar to an ocean wave traveling to shore. The following quotation was excerpted from observations of this effect in the Franklin Mountains of Texas.

"According to Whiteman (2000), the downslope flows experienced on the east side of the Franklin Mountains are a classic textbook example of a terrain-forced flow. By definition, terrain-forced flows are produced when large-scale winds are modified or channeled by the underlying complex terrain. Moderate to strong cross-barrier winds are necessary to produce terrain-forced flows, which occur most frequently in areas of cyclogenesis, or where low pressure systems, or jet streams are commonly found.

A flow approaching a mountain barrier will most likely go over the barrier rather than around it if the barrier is long, if the cross-barrier wind component is strong, and if the flow is unstable, near- neutral, or only weakly stable. These conditions are frequently met in the United States because the long, north-south oriented mountain ranges lie perpendicular to the prevailing westerly winds and the jet stream. Mountain barriers orientated perpendicular to the flow cause the highest accelerations across the barrier and frequently generate lee waves downwind of the obstacle as well as downslope windstorms."[11]

With current generation wind turbines, power generation begins at wind velocities of 6-8 MPH and full power output is reached at wind speeds of 28-50 MPH. These numbers represent an industry-wide average for turbines certified for power outputs between 1.5 and 5.0 Megawatts.

Wind industry terminology uses the term 'capacity factor' to indicate what fractional amount of nameplate power a turbine will produce in a given location. Figures for the three major wind power plants in California indicate that average wind generation will be de-rated to twenty percent (20%). This is a historical record collected over nearly forty years of operation.

At the October 2nd public hearing of the Planning Commission in Burney, CA, Mr. George Hardy, representing Babcock and Brown, stated the capacity factor determined for Hatchet Ridge is thirty five percent (35%). This means that the ridgeline acceleration described above places this location well above other California wind power sites in generation potential. Only west Texas wind plants have previously been reported to have achieved this high a factor.

Mr. Hardy also indicated a change in the generation capacity of each turbine. The selected Mitsubishi 2.4 Megawatt turbine is equipped with a standard 92 meter (301.8 feet diameter) rotor assembly. Optionally, they can provide a 95 meter (312 foot diameter) assembly. Using Mr. Hardy's projection of eight rotor diameter spacing between adjacent towers, and assuming the largest available rotor is used, inter-tower space calculates as 2496 feet.

The eight rotor diameter spacing dimension is considered optimum by most wind turbine manufactures and wind industry associations. However, not all terrain will support this value and spacing of more or less than optimum will be required. To restate the recommendation of spacing, both extensive field measurements and many decades of sophisticated computer simulation have been used to reach this value. The influences of wake turbulence are minimized and the output power capability is significantly enhanced, according to industry sources.

While optimum spacing is technically desirable, sub-optimum spacing is used in a wide variety of U.S. wind power facilities. Some changes were dictated by terrain while others were the result of government jurisdictional ruling.

Section One - Appeal Summary Statement

In my introduction I included the project summary statement contained in the Draft EIR. The applicant asks the commissioners:

"HRW has requested flexibility in the precise spacing and number of turbines in the turbine corridor, as well as in the location of the corridor within the leased area. Final selection of turbine type, siting, spacing, and clear areas would be determined in accordance with industry standards and safety measures."

1) Industry standards provide for flexibility too. The documentation has shown that wake induced turbulence detracts from optimal power generation; however spacing dimensions vary from five to ten rotor diameters in all examples of single row configuration.

2) The applicant has stated that the capacity factor for the Hatchet Ridge Wind Project is 35%. This is significantly greater than reported for other California wind plants. Consequently, there is greater latitude in tower placement as each turbine will potentially produce more power.

3) The principal objection voiced by opponents to HRW construction was detailed in Ch_3-01, "Environmental analysis: Aesthetics and Visual Resources." It states:

**"Impact AES-2: Adverse effects on a scenic vista by degrading the visual character of the project area and its surroundings (significant and unavoidable)**

As described in Chapter 2, *Project Description*, the proposed project involves installing wind turbines along the ridgeline of Hatchet Mountain. It would introduce large, vertical, artificial structures with revolving turbine blades into the viewshed and would change the ridgeline from one that is predominantly natural to one with distinct artificial features that would be highly visible to Burney residents and businesses, roadway travelers, and recreationists in or on the outskirts of Burney."

We, the appellants, believe that it is in the best interests of the Shasta County Planning Commission to preserve the special character of the Hatchet Mountain area. Future generations of tourists, property buyers and travelers will continue to see the natural wonders of northern California as they cross the Hatchet Mountain Pass. You will be remembered for your conservation.

If the Department of Resource Management modifies the use permit to require re-spacing the turbine towers to a location out of public view, the developers will gain a clearly superior wind plant location and Shasta County will benefit from future years of unmarred scenic beauty.

# List of Citations
# Appeal to Use Permit 06-106
# Section One

1_ Shasta County Department of Resource Management Executive Summary, Draft Environmental Impact Report, for the Hatchet Ridge Wind Project. pgs i,ii

2_ http://en.wikipedia.org/wiki/Altamont_Pass_Wind_Farm

3_http://www.eoearth.org/article/Altamont_Pass,_California

4_ Delft University of Technology, The Netherlands:
http://www.lr.tudelft.nl/live/pagina.jsp?id=ba654ade-b381-4487-941c-0bc0605fe5ed&lang=en

5_ World of Wind Energy.com - Wind Turbine sitting.mht

6_Wind Power Project Site; Identification and Land Requirements. October 2005, NYS Energy Research & Development Authority, 17 Columbia Circle, Albany, NY 12203-6399, www.nyserda.org
Prepared by: Global Energy Concepts & AWS Truewind, LLC

7, 8 Ibid.

9_Elliot, D.L.; Barnard, J.C. (Pacific Northwest Lab., Richland, WA (USA)), Journal of Solar Energy Science and Engineering); Vol/Issue: 45:5

10_ Draft Map Comparison Report, Task 3: Focus Area Mapping, Contract No. 500-03-06
Submitted by: TrueWind Solutions, LLC (now AWS TrueWind, LLC), Albany, New York

11_ Reynolds, James A. & MacBlain, Val J., The Franklin Mountains of the El Paso, Texas Region and an Associated Locally Produced Terrain-Forced Flow,

http://www.srh.noaa.gov/epz/papers/elp01-1.html

## ➢ Appeal Section Two

This portion of the appeal itemizes the issues upon which we are in disagreement with the Planning Commission's approval of a use permit for Project 16-016 on 2 October 2008.

Let me preface this by saying we understand and support the need for non-fossil fuel based renewable energy, but there are substantial problems with the project in the form in which it was approved. The approval of the project in its present form was substantively wrong, is in violation of applicable requirements, and should be withdrawn in consideration of, and pending satisfactory resolution of, the items listed below:

### Negative Visual Impact

The EIR cites "significant unavoidable negative visual impact" from the project. The Planning Commission voided this finding with their Statement of Overriding Considerations. In so doing, the Commission acted improperly, and gave grossly insufficient weight to the extraordinary negative visual impact the project would have on the Burney Basin. They also failed to consider two feasible mitigation alternatives: Relocating the project and/or changing the turbine spacing. The latter was addressed in Section One of this document.

The project is in violation of Public Resources Code section 21100(c) and 14 California Code of Regulations sections 15126(e) and 15126.4, which require that EIR's contain adequate evaluations of measures to mitigate adverse environmental impacts. In addition, 14 California Code of Regulations section 15092(b) provides that a public agency shall not approve or carry out a project which has one or more significant environmental effects unless it has "eliminated or substantially lessened all significant effects on the environment where feasible." The feasible alternatives which could achieve these results have been ignored entirely.

Quality of life is not a concern which anyone has a right to simply dismiss; indeed the applicable codes forbid it. Please remember: *Gone forever.*

### Alternative Sites

There is a CEQA requirement to assess "alternatives to the project". In Section 4.5.1 of the draft EIR, "Alternative Site", this issue was addressed by the developer by evaluating a slightly more remote and less visible location within the boundaries of the land they have leased. Power generation suffered at this lower elevation, and the so-called "alternative site" was rejected.

This was an insufficient and incomplete effort, and does not comply with the applicable standards cited above. The developer's Power Point exhibits included a color contour wind intensity map of the area, and all of the many other ridges to the west were bright red, i.e., had high winds similar to Hatchet Ridge. These sites, all out of sight of Burney Basin, were never considered.

While we understand that information of the depth gathered at Hatchet Ridge is not available for these other sites, it is absurd that the County is allowing the most critical issue of all, where to build these enormous towers, to be entirely constrained by the developer's premature commitment to the Hatchet Ridge site.

If this restraint is accepted, it means in effect that any site, once leased or purchased, becomes by that act defined as a proper site for whatever use a developer may have in mind. This backwards logic renders the entire planning review process irrelevant. Signed building permits might as well be included in the envelope with title to the property.

## Setting a Bad Precedent

This is the first wind project in Shasta County. It will not be the last, massive proliferation being the rule in this industry. Indeed, wind farms at Pondosa and Burney Mountain are said to be already under consideration, and there is an active project at Eagle Lake.

If the County accepts the project on Hatchet Ridge, a site which, with the exception of Burney Mountain, would without question have the greatest negative impact on the highest number of people out here in the east County, the precedent set would be disastrous. We would in effect be saying there is no such thing as an unacceptable wind farm site in Shasta County.

Setting the bar this low, with utter disregard for our quality of life, will guarantee worse things to come. The County needs to be a far more proactive partner in this project, to make sure the benefits do not come at too great a cost to the people who live here. Please refer to the attached "Wind Generator and Wind Generating Facility Ordinance for Trempealeau County"[1] for an example of a well considered and thorough approach to wind farm regulation. The people of Shasta County deserve no less from their County government.

## Project Reclamation

If the project becomes inactive, and the developer cannot fund site reclamation, the present agreement gives the County first priority in claiming the project assets to offset reclamation costs. However, County Counsel advised at the 2 October meeting that there would be a period when the County would not have first claim under this agreement. This is not an acceptable risk on so huge a project. The potential liability for reclamation is too great. This burden belongs on the developer, not the people of Shasta County.

## Lack of Reclamation Bond

No reclamation bond is being required from the developer for this huge project. Industry standards would typically call for a 10% bond. It is far too great a risk for the County to proceed with the project without such a bond. No risk at all should attach to the citizens of the County for this project.

## Developer Insolvency

Babcock and Brown are having very serious financial difficulties. Their stock has undergone a precipitous decline recently, plunging from $37 a share to pennies a share. Considering the fragile state of the economy under which this immense project is being attempted, the County needs to revisit the scope and depth of its due diligence regarding the developer's ability to see this through. A more proactive look into B&B, and bonding or some other measures designed to assure complete and proper performance on their part, are clearly called for under the circumstances.

## Community Support

The developer has cited "widespread community support" as a reason for building the project here. This is a highly debatable statement. Over 600 signatures have been collected on a petition opposing the project as presently located. We are unaware of any like expression of support. Two community hearings have been held due to the high interest the project has generated. To anyone who attended both meetings it is clear that "interest" is not "enthusiasm" in this case. The wishes of those who are being told they are going to be living with this project ought not to be disregarded, as they have been so far.

## Changes to Conditions of Approval without Public Notice

The original Planning Commission meeting, held on July 24, 2008, had a Request for Continuance, before the meeting.

"The applicant has expressed concerns about the recommended conditions of approval regarding decommissioning of the project (Condition 31) and a tourism and recreation program fund (Condition 33), and has requested that the public hearing on this item be continued to a date uncertain in order to study these issues and review them further with staff."

- In addition to Conditions 31 and 33:

    1) Various words, sentences and paragraphs were changed, corrected, removed and/or added to the other Conditions.

    2) A complete new Condition was added – Condition 31, "Monitoring and Reporting", with no opportunity for discussion.

- Condition 31, "Decommissioning" was changed to Condition 32. Changes were made from the original Condition, but not explained or communicated. This Condition completely ignores specific requirements for liability insurance and performance bonds.

- Condition 33, "Tourism and Recreation Program Fund", was changed to Condition 34, "Community Benefit Agreement." This new/replaced Condition completely changed the meaning and intent of the original Condition by eliminating funding, documentation of the amount of electricity produced and responsibility for the management and distribution of those funds. An announcement was made as to the amounts to be executed and funded, but comments were not clear, precise or open for comments. The information was not available in documented form and not formally approved by the developer.

- Other verbal comments were made by the presenters of the meeting with no formal documentation available for review and/or discussion.

## Failure to acknowledge group and community Project opposition

- Save Burney's Skyline provided the Planning Commission with copies of advertisements which the group ran in The Intermountain News on five separate dates. No acknowledgement was given.

- Save Burney's Skyline provided a petition containing well over six hundred signatures opposing the Hatchet Ridge Wind Project to the Commission recording secretary at the July 24th public hearing. No mention of receipt or acknowledgement of substantial opposition was communicated to the public.

## Inadequate Project Description

Public Resources Code sections 21151 and 21065 and 14 California Code of Regulations, section 15378(a) requires that EIR's fully disclosed and analyze projects, meaning "the whole of an action."

The Project description in the EIR is incomplete and misleading by failing to describe the equipment, and installation methods:

- Turbine designation and manufacturer
- Total tower height, tower placement, tower foundation type, diameter and depth
- Requirement for blasting
- Road construction materials and methods
- Water supply and septic field(s)
- Security fencing and gates

The applicant has made it impossible for the public to understand or verify potential Project impacts such as air quality emissions, odors, dust, noise levels or site access during construction and operation, as well as the estimates used to prepare the EIR.

Project descriptive sections on hydrology, geology and seismology do not properly address potential hazards and conditions such as "wind turbine syndrome", ground tremors, disturbance of water tables or increased potential for landslides and enhanced chance for seismically related events.

The CEQA initial study checklist indicates that there are 35 potentially significant impacts out of 86 items listed. Both the developer and the Planning Commission have not fully explored nor communicated the means that will be taken to mitigate or minimize these impacts.

In closing, we, the members of Save Burney's Skyline wish to emphasize that there are clearly alternatives to the devastation that will result from blanketing Hatchet Ridge with these huge turbines, and it is equally clear that, in violation of the applicable requirements, these alternatives have been ignored. If a compromise that satisfactorily addresses the matters raised in this appeal cannot be reached, the project must be rejected by the Board.

Thank you for considering our appeal. We hope the Board will give these matters the consideration they deserve and act accordingly, for the good of the citizens of the County.

For Save Burney's Skyline,

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Cc: William A. Jeffers, Attorney at Law
Jessica Jim, Pit River Tribe
Dylan Darling, Redding Record-Searchlight

# Appendix 1

## Wind Generator and Wind Generating Facility Ordinance for Trempealeau County, WI

## 11-28-07

# Chapter 21

**21.01 Title: Wind Generator and Wind Generating Facility Ordinance for Trempealeau County**

**21.02 Purpose:** This chapter of County ordinances provides a regulatory framework for the construction and operation of Wind Energy Facilities in Trempealeau County, subject to reasonable restrictions, which will preserve the public health and safety.

**21.03 Definitions:** As used in this Chapter, the following terms have the meanings indicated:

**Affected Property:** Property impacted by personal or Commercial Wind Turbine.

**Applicant:** The person or entity filing an application under this Ordinance.

**Commercial Wind Turbine:** A wind energy conversion system which converts wind energy into electricity through the use of a wind driven turbine generator when the total height exceeds 150 feet or the nameplate capacity exceeds 100 kilowatts. Such wind turbine includes the turbine, blade, tower, base and pad transformer, if any.

**Committee:** The Zoning and Planning Committee of the County Board or any successor committee established by the Board for the oversight and supervision of Trempealeau County Zoning.

**County:** Trempealeau County, Wisconsin.

**DNR:** Department of Natural Resources

**DOT:** Department of Transportation

**FAA:** Federal Aviation Administration.

**Farmstead:** A farmstead is a place of employment and includes all buildings and structures on a farm that are used primarily for agricultural purposes such as housing animals, or storing supplies, production, or machinery.

**Hobbyist Wind Turbine:** A wind energy conversion system which converts wind energy into electricity through the use of a wind driven turbine generator when the total height is less than 50 feet and a prop diameter of 12 feet or less.

**Hub Height:** The distance measured from ground level to the center of the turbine hub.

**MET Tower:** A meteorological tower used for the measurement of wind speed.

**Owner/Operator:** The person or entity responsible for the day-to-day operation and maintenance of a wind turbine or Wind Energy Facility.

**Personal Wind Turbine:** A wind energy conversion system which converts wind energy into electricity through the use of a wind driven turbine generator when the Total Height is 150 feet or less.

**Total Height:** The distance measured from ground level to the blade of a wind turbine extended at its highest point.

**Shadow Flicker:** The moving shadows or shaded areas which are cast by rotating turbine blades.

**Wind Energy Facility:** An electricity generating facility consisting of one or more Wind Turbines under common ownership or operating control, and includes substations, MET Towers, cables/wires and other buildings accessory to such facility, whose main purpose is to supply electricity to off-site customer(s).

**Wind Energy Facility Siting Permit or Wind Turbine Permit:** A construction and operating permit granted in accordance with the provisions of this Ordinance.

**21.04 Regulatory Framework**

(1) Zoning

(a) Wind Energy Facilities and commercial wind turbines may only be constructed as Conditional Uses in areas that are zoned Exclusive Agriculture, Exclusive Agriculture – 2 and Primary Agriculture.

(b) Personal Wind Turbines may be constructed as a conditional use in areas that are zoned Exclusive Agriculture, Exclusive Agriculture – 2, Primary Agriculture and Rural Residential. They are limited to one wind turbine per contiguous parcels under common ownership.

(c) Hobbyist Wind Turbines may be constructed as a permitted use in areas that are zoned Exclusive Agriculture, Exclusive Agriculture – 2, Primary Agriculture and Rural Residential.

**21.05 Applicability**

(1) The requirements of this Ordinance shall apply to all wind turbines for which a permit was not issued prior to the effective date of this Ordinance. Wind turbines for which a required permit has been properly issued, or for which a permit was not required, prior to the effective date of this Ordinance shall not be required to meet the requirements of this Ordinance. However, any such pre-existing wind turbine which does not provide energy for a continuous period of twelve (12) months shall meet the requirements of this Ordinance prior to recommencing production of energy. No modification or alteration to an existing wind turbine shall be allowed without full compliance with this Ordinance.

**21.06 General Requirements for Wind Energy Facilities**

(1) Wind Turbines shall be painted a non-reflective, non-obtrusive color which shall be pre-approved through the conditional use process.

(2) At Wind Energy Facility sites, the design of the buildings and related structures shall, to the extent reasonably possible, use materials, colors, textures, screening and landscaping that will blend the Wind Energy Facility to the natural setting and then existing environment.

(3) Wind Energy Facilities shall not be artificially lighted, except to the extent required by the FAA or other applicable authority.

(4) Wind Turbines shall not be used for displaying any advertising except for reasonable identification of the manufacturer or operator of the Wind Energy Facility. Any such identification shall not appear on the blades or other moving parts or exceed six square feet per Wind Turbine.

(5) Electrical controls and control wiring and power-lines shall be wireless or not above ground except where wind farm collector wiring is brought together for connection to the transmission or distribution network, adjacent to that network.

(6) Routes of public travel to be used during the construction phase shall be documented by the Owner/Operator, and reviewed and approved by the Trempealeau County Highway Department, Town Chairman and Trempealeau County Zoning prior to construction. At the Committee's request a qualified independent third party, agreed to by the applicable entity(s), and paid for by the applicant, shall be hired to pre-inspect the roadways to be used during construction and an appropriate bond amount set. The public travel route will be re-inspected 30 days after project completion; any and all repairs will be completed within 90 days of end of construction project paid by the developer. The bond can be used by Trempealeau County for any degradation or damage caused by heavy machinery associated with the construction and demolition phases of a Wind Energy Facility.

(7) An appropriate continuous renewal bond amount will be set for each Wind Turbine for decommissioning should the Owner/Operator fail to comply with the Ordinance requirements or the Wind Turbine does not operate for a period of twelve (12) consecutive months.

(8) A signed statement by the landowner acknowledging that the landowner is financially responsible if the owner/operator fails to reclaim the site as required and that any removal and reclamation costs incurred by the county will become a lien on the property and may be collected from the landowner in the same manner as property taxes.

(9) Proof of continuous liability insurance in the minimum amount of five million dollars ($5,000,000.00) per occurrence shall be submitted to Trempealeau County indicating coverage for potential damages or injury to landowners, occupants, or other third parties.

(10) There shall be a timeline set prior to the construction phase of the project with a starting and ending date when the construction project will be completed.

(11) Evidence of compliance with FAA, DNR, DOT, United States Fish and Wildlife Service requirements and Signal Interference and Microwave Frequency Interference requirements must be submitted by the Applicant to Trempealeau County.

(12) A map shall be provided showing a proposed grid of any future Wind Energy Facilities being developed by the applicant to be located in Trempealeau County and surrounding counties.

(13) A document for each Wind Turbine including an accompanying diagram or maps showing the shadow flicker projection for a calendar year, in relation to affected property, roads and residences shall be submitted with the permit application.

(14) Access to a Facility and construction area shall be constructed and maintained following a detailed Erosion Control Plan in a manner designed to control erosion and provide maneuverability for service and emergency response vehicles.

(15) If a Wind Turbine foundation is proposed in a bedrock area, a baseline of all wells and certified public drinking sources in a 1/2 mile radius shall be established and permanent remedies shall be the responsibility of the developer if contamination occurs.

*(16)* If an area where Wind Turbines are planned is identified by the Fish and Wildlife Service to house a significant population of Bald or Golden Eagles a monopole tubular type tower shall be used instead of Lattice type towers

(17) Setbacks: The following setbacks and separation requirements shall apply to Commercial Wind Turbines.

(a) Public Roads: Each Wind Turbine shall be set back from the nearest public road and its right of way a distance no less than two (2) times its Total Height.

(b) Railroads: Each Wind Turbine shall be set back from all railroads and their right of way a distance of no less than two (2) times its Total Height.

(c) Wind Turbine spacing: Each Wind Turbine shall have a separation distance from other Wind Turbines equal to one and two-tenths (1.2) times the total height of the tallest Wind Turbine.

(d) Communication and electrical lines: Each Wind Turbine shall be set back from the nearest above-ground public electric power line or telephone line a distance no less than two (2) times its Total Height.

(e) Inhabited structures: Each Wind Turbine shall be set back from the nearest structure used as a residence, school, hospital, church, place of employment or public library, a distance no less than one (1) mile, unless mitigation has taken place and agreed by owner/operator and affected property owners involved and recorded in the Trempealeau County Register of Deeds office which describes the benefited and burdened properties and which advises all subsequent owners of the burdened property.

(f) Property lines: Each Wind Turbine shall be set back from the nearest property line a distance no less than one-half (1/2) mile, unless mitigation has taken place and agreed by owner/operator and affected property owners involved, and recorded in the Trempealeau County Register of Deeds office which describes the benefited and burdened properties and which advises all subsequent owners of the burdened property.

(g) From any wetland, water body, environmental significant or scenic area, each Wind Turbine total height shall have a minimum setback of two (2) times its total height or one thousand (1,000) feet which ever is greater.

(h) From any historical, cultural and archeological resource area, each Wind Turbine shall have a minimum setback of two (2) times its Total Height or one thousand (1,000) feet which ever is greater.

*(i)* Any new proposed residences, schools, hospitals, churches, public libraries, or place of employment, shall apply for a conditional use permit if they are to be located in the required set back area stated in section 17 (e) Inhabited structures.

(j) Unless owned by the applicant, no parcel of real estate shall be subject to shadow flicker from a Wind Turbine unless mitigation has taken place and agreed by the owner/operator and affected property owners involved and recorded in the Trempealeau County Register of Deeds office which describes the benefited and burdened properties and which advises all subsequent owners of the burdened property that shadow flicker may exist at times on or at the burdened property.

(k) There shall be a two (2) mile Setback from any recognized U.S. Fish and Wildlife Refuge located in Trempealeau County.

(18) Noise: Audible Sound (Audible Noise) emitted during the operation of any Wind Energy Facility or individual Wind Turbine (includes Commercial Wind Turbines, Personal Wind Turbines and Hobbyist Wind Turbines) is limited to the standards set forth in this provision. Testing procedures are provided in Appendix A of this Ordinance.

a) Audible Noise due to Wind Energy Facility or Wind Turbine operations shall not exceed the lesser of five (5) decibels (dBA) increase over the existing background noise level $(L_{90})$ or exceed forty (40) decibels (dBA) for any period of time, when measured at any structure used as a residence, school, hospital, church, place of employment, or public library existing on the date of approval of any Wind Energy Facility Siting Permit or Wind Turbine permit. All measurements shall be taken using procedures meeting American National Standard Institute Standards including: ANSI S12.18-1994 (R 2004) American National Standard Procedures for Outdoor Measurement of Sound Pressure Level, and (ANSI) S12.9-Parts 1-5:

Part 1: American National Standard Quantities and Procedures for Description and Measurement of Environmental Sound
Part 2: Measurement of Long-Term, Wide-Area Sound
Part 3: Short-Term Measurements with an Observer Present
Part 4: Noise Assessment and Prediction of Long-Term Community Response
Part 5: Sound Level Descriptors for Determination of Compatible Land Use

Measurements must be taken with qualified acoustical testing instruments meeting ANSI Type 1 standards, and Class 1 filters. The windscreen recommended by the instrument's manufacturer must be used and measurements conducted only when wind speeds are ten (10) miles per hour (mph) or less. The microphone must be located at a height of one and two-tenths (1.2) to one and one-half (1.5) meters from the ground.

b) In the event Audible Noise due to Wind Energy Facility or Wind Turbine operations contains a steady Pure Tone, including, but not limited to, a whine, screech, or hum, the standards for audible noise set forth in subparagraph (a) of this subsection shall be reduced by five (5) dBA. A Pure Tone is defined to exist when the one-third (1/3) octave band sound pressure level in the band, including the tone, exceeds the arithmetic average of the sound pressure levels on the two (2) contiguous one-third (1/3) octave bands by five (5) dBA for center frequencies of five hundred (500) Hz and above, and eight (8) dBA for center frequencies between one hundred sixty (160) Hz and four hundred (400) Hz, or by fifteen (15) dBA for center frequencies less than or equal to one hundred twenty-five (125) Hz.

c) In the event the Audible Noise due to Wind Energy Facility or Wind Turbine operations contains Repetitive Impulsive Sounds, the permitted sound pressure level for Audible Noise in 19(a) shall be reduced by five (5) dBA.

d) In the event the Audible Noise due to Wind Energy Facility or Wind Turbine operations contains both a Pure Tone and Repetitive Impulsive Sounds, the permitted sound pressure level for Audible Noise in 19(a) shall be reduced by seven (7) dBA.

e) No low frequency sound or infrasound due to Wind Energy Facilities or Wind Turbine Operations shall be created which causes the sound pressure level at any existing residence, school, hospital, church, place of employment, or public library within a one (1) mile radius from any Wind Turbine to exceed the following limits:

TABLE 19.e.1

| Band No. | 1/3 Octave Band Center Frequency (HZ) | Limits for 1/3 Octave Bands | Limits for 1/1 Octave Bands |
|---|---|---|---|
| 1 | 1.25 and below | 65 | |
| 2 | 1.6 | 65 | |
| 3 | 2 | 65 | 70 |
| 4 | 2.5 | 65 | |
| 5 | 3.15 | 65 | |
| 6 | 4 | 65 | 70 |
| 7 | 5 | 65 | |
| 8 | 6.3 | 65 | |
| 9 | 8 | 65 | 70 |

| | | | |
|---|---|---|---|
| 10 | 10 | 65 | |
| 11 | 12.5 | 61 | |
| 12 | 16 | 61 | 65 |
| 13 | 20 | 61 | |
| 14 | 25 | 60 | |
| 15 | 31.5 | 58 | 63 |
| 16 | 40 | 58 | |
| 17 | 50 | 58 | |
| 18 | 63 | 55 | 61 |
| 19 | 80 | 53 | |
| 20 | 100 | 52 | |
| 21 | 125 | 50 | 55 |

f) A Wind Energy Facility or Wind Turbine operation that emits sound or causes structural or human body vibration with strong low-frequency content where the time-average C-weighted sound level exceeds the A-weighted sound level by at least 20 dB when measured inside a structure and adversely affects the subjective habitability or use of any existing residence, school, hospital, church, place of employment, or public library or other sensitive noise receptor shall be deemed unsafe and shall be shut down immediately. Exceeding any of the limits in Table 19.e.1 shall also be evidence that the Wind Energy Facility or Wind Turbine operation is unsafe and shall be shut down immediately.

g) Prior to approval, developers of a Commercial Wind Turbine operation or Commercial Wind Energy Facility shall submit a Pre-construction Background Noise Survey with measurements for each residence, school, hospital, church, place of employment, or public library within one (1) mile of the proposed development. The Background Noise Survey shall be conducted in accordance with the procedures provided in Appendix A of this Ordinance, showing background sound levels ($L_{90}$) and 1/1 or 1/3 octave band sound pressure levels ($L_{90}$) during the quietest periods of the day and night over a reasonable period of time (not less than 10 minutes of sampling). The Pre-construction Background Noise Survey shall be conducted at the Applicant's expense by an independent noise consultant contractor acceptable to the Trempealeau County Zoning Department.

h) Prior to approval, developers of a Commercial Wind Energy Facility or Commercial Wind Turbine operation shall provide additional information regarding the make and model of the turbines, Sound Power Levels (Lw) for each octave band from the Blade Passage Frequency up through 10,000 Hz, and a Sound Impact Study with results reported on a contour map projection showing the predicted sound pressure levels in each of those octave bands for all areas up to one (1) mile from any Commercial Wind Turbine or Commercial Wind Energy Facility for the wind speed and direction that would result in the worst case Wind Energy Facility sound emissions. The Sound Impact Study may be made by a computer modeling, but shall include a description of the assumptions made in the model's construction and algorithms. If the model does not consider the effects of

wind direction, geography of the terrain, and the effects of reinforcement from coherent sounds or tones from the turbines, these shall be identified and other means shall be used to adjust the model's output to account for these factors. The Sound Impact Study results shall be displayed as a contour map of the predicted levels, but shall also include a data table showing the predicted levels at any existing residence, school, hospital, church, public library, or place of employment within the model's boundaries. The predicted values shall include dBA values and shall also include the non-weighted octave band levels in the data tables. The Sound Impact Study shall be conducted at the Applicant's expense by an independent noise consultant contractor acceptable to the Trempealeau County Zoning Department.

i) Operators of a Commercial Wind Energy Facility or Commercial Wind Turbine operation shall submit a Post-construction Sound and Vibration Measurement Study conducted for each Commercial Wind Turbine or Commercial Wind Energy Facility according to the procedures provided in Appendix A of this Ordinance within twelve (12) months of the date that the project is fully operational to demonstrate compliance with the noise limitations in Section 19(a). The study shall be conducted at the wind energy facility owner/operator's expense by a noise consultant contractor acceptable to the Trempealeau County Zoning Department.

j) The Committee may impose a noise setback that exceeds the other setbacks set out in this Ordinance or require waivers from affected property owners and persons in legal possession acceptable to the Committee if it deems that greater setbacks are necessary to protect the public health and safety, or if the proposed wind energy facility is anticipated to exceed the levels set forth in Section 19(a) at any existing residence, school, hospital, church, place of employment, or public library.

k) Any noise level falling between two (2) whole decibels shall be deemed the higher of the two.

l) If the noise levels resulting from the Commercial Wind Turbine or Commercial Wind Energy Facility exceed the criteria listed above, a waiver to said levels may be granted by the Committee provided that express written consent from all affected property owners and persons in legal possession has been obtained stating that they are aware of the noise limitations imposed by this Ordinance, and that consent is granted to allow noise levels to exceed the maximum limits otherwise allowed. If the applicant wishes the waiver to apply to succeeding owners of the property, either a permanent noise impact easement or easement for the life of the wind turbine shall be recorded in the Trempealeau County Register of Deeds' office which describes the benefited and burdened properties and which advises all subsequent owners of the burdened property that noise levels in excess of those permitted by this Ordinance may exist at the burdened property.

m) A Noise Study may be conducted at the expense of a Commercial Wind Energy Facility or a Wind Turbine (Commercial, Personal or Hobbyist) Owner/Operator by an independent noise consultant contractor acceptable to the Trempealeau County Zoning Department if two (2) or more complaints are received and documented at a particular site. The study shall be conducted according to the procedures provided in Appendix A of this Ordinance for any sites where the complaints were documented. The Operator shall reimburse the County for the Noise Study expense within ten (10) days of billing. Failing to reimburse may be a basis for revoking a permit.

(19) Minimum Ground Clearance: The blade tip of a Commercial Wind Turbine shall, at its lowest point, have ground clearance of no less than seventy-five (75) feet. The blade tip of a personal and hobbyist Wind Turbine shall, at its lowest point, have ground clearance of no less than fifteen (15) feet.

(20) Signal Interference and Microwave Frequency Interference: The owner/operator shall minimize any interference with electromagnetic communications, such as radio, telephone or television signals caused by any Wind Energy Facility or Turbine. (If the applicant is a public utility, s. PSC 113.0707 also applies).

(a) A one thousand (1,000) feet microwave communication corridor between turbines must be maintained if the turbine facility is located between transmission towers.

(b) Communication tower – Wind turbine setback shall be at least one (1) mile to prevent signal interference.

(c) Emergency communication towers will be located on a Geographical Information System (GIS) map so turbine facilities can be properly planned to avoid conflict with Trempealeau County Emergency Services.

21.07 Setbacks: The following setbacks and separation requirements shall apply to Hobbyist and Personal Wind Turbines.

(a) Public Roads: Each Wind Turbine shall be set back from the nearest public road and its right of way a distance no less than two (2) times its Total Height.

(b) Railroads: Each Wind Turbine shall be set back from all railroads and their right of way a distance of no less than two (2) times its Total Height.

(c) Wind Turbine spacing: Each Wind Turbine shall have a separation distance from other Wind Turbines equal to one and two-tenths (1.2) times the total height of the tallest wind turbine.

(d) Communication and electrical lines: Each Wind Turbine shall be set back from the nearest above-ground public electric power line or telephone line a distance no less than two (2) times its Total Height.

(e) Property lines: Each Wind Turbine shall be set back from the nearest property line a distance no less than three (3) times its Total Height, unless mitigation has taken place and agreed by owner/operator and affected property owners involved and recorded in the Trempealeau County Register of Deeds office which describes the benefited and burdened properties and which advises all subsequent owners of the burdened property.

**21.08 Miscellaneous Safety Requirements** for Commercial and Personal Wind Turbines

(1) All wiring between Wind Turbines and the Wind Energy Facility substation shall be underground.

(a) All neutral grounding connectors from Commercial Wind Turbines shall be insulated from the earth and shall be sized to accommodate at least twice the peak load of the highest phase conductor, to absolutely prevent transient ground currents, in order to comply with the **National Electric Safety Code** and the **IEEE Standard 519-1992, approved by the American National Standards Institute,** as follows:

Grounding of both the electrical transmission lines and the supply lines to the internal electrical systems of the turbines themselves, shall comply with **Rule 92D, Current in Ground Conductors:** "Ground connector shall be so arranged that under normal circumstances, there will be no objectionable flow of current over the grounding conductor."

**Rule 215B:** [It is not permissible] "to use the earth as a part of a supply circuit."

Under no circumstances shall any Wind Turbine be connected directly to the grid; connection must be made through a substation or transformer properly grounded and filtered to keep harmonic distortion within recommended limits.

Bare, concentric neutrals are specifically prohibited in buried lines between turbines and in underground transmission lines to substations.

(2) Wind Turbine towers shall not be climbable up to fifteen (15) feet above ground level.

(3) All access doors to Wind Turbine towers and electrical equipment shall be lockable and locked when unattended.

(4) Appropriate warning signage shall be placed on Wind Turbine towers, electrical equipment, and Wind Energy Facility entrances.

***21.09 Fee Schedule***

(1) The permit application is required for a Hobbyist Wind Turbine. No fee or bond amount is required.

(2) The Conditional Use Permit application fee for a Personal Wind Turbine shall be two hundred twenty-five dollars ($225.00). No bond amount is required.

(3) For a Wind Energy Facility the application fee is five hundred dollars ($500.00) per turbine. The amount of the bond required will be based on the number of turbines and the estimated cost to remove the Wind Turbine, including to a point three (3) feet below grade.

### *21.10 Validity*

Should any section, clause or provision of this chapter be declared by the courts to be invalid, the same shall not affect the validity of the chapter as a whole or any part thereof, other than the part so declared.

## Chapter 21 - Appendix A

**Trempealeau County Measurement Protocol for Sound and Vibration Assessment of Proposed and Existing Wind Energy Conversion Systems**

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## Introduction

The potential sound and vibration impact associated with the operation of wind powered electric generators, including Wind Energy Facilities and Wind Turbine operations, is a primary concern for citizens living near proposed Wind Energy Conversion Systems ("WECS"). This is especially true of projects located near homes, residential neighborhoods, schools, hospitals, churches, places of employment and public libraries. Determining the likely sound and vibration impacts is a highly technical undertaking and requires a serious effort in order to collect reliable and meaningful data for both the public and decision makers.

This protocol is based in part on criteria published in the Standard Guide for Selection of Environmental Noise Measurements and Criteria.[1] and the Public Service Commission of Wisconsin publication Measurement Protocol for Sound and Vibration Assessment of Proposed and Existing Electric Power Plants (February 2002).[2] The purpose is to first establish a consistent and scientifically sound procedure for estimating existing ambient (background) sound and vibration levels in a project area, and second to determine the likely impact that operation of a new wind energy conversion system project will have on the existing sound and vibration environment.

The characteristics of the proposed WECS project and the features of the surrounding environment will influence the design of the sound and vibration study. Site layout, types of wind energy conversion units ("WECU") selected and the existence of the significant local sound and vibration sources and sensitive receptors shall be taken into consideration when designing a sound and vibration study. An independent, qualified consultant shall be required to conduct the sound and vibration study.

Note: Trempealeau County Zoning Department Administration shall be consulted prior to conducting any sound and vibration measurements. These guidelines may be modified (with express written approval of the County Zoning Department) to accommodate unique site characteristics. Consult with Zoning Department staff assigned to the project for guidance on study design before beginning any sound and vibration study. During consultation, good quality maps or diagrams of the site are necessary. Maps and diagrams shall show the proposed project area layout and boundaries[5], and identify important landscape features as well as significant local sound and vibration sources and sensitive receptors including, but not limited to, a residence, school, hospital, church, place of employment, or public library.

## Measurement of the Existing Sound and Vibration Environment

An assessment of the proposed WECS project area's existing sound and vibration environment is necessary to predict the likely impact resulting from a proposed project. The following guidelines shall be used in developing a reasonable estimate of an area's existing sound and vibration environment. All testing shall be performed by an independent acoustical testing engineer approved by the Trempealeau County Zoning Department. All measurements shall be conducted with industry certified testing equipment.[4] All test results shall be reported to the Trempealeau County Zoning Department.

### *Sites with No Existing Wind Energy Conversion Units*

Sound level measurements shall be taken as follows:

1 At all properties within the proposed WECS project boundaries[5]

2 At all properties within a one mile radius of the proposed WECS project boundaries[5].

3 One test must be performed during each season of the year.
   a. Spring (March 15 – May 15)
   b. Summer (June 1 – September 1)
   c. Fall (September 15- November 15)
   d. Winter (December 1- March 1)

4 All measurement points (MPs) shall be located in consultation with the property owner(s) and such that no significant obstruction (building, trees, etc.) blocks sound and vibration from the site.

5 Duration of measurements shall be a minimum of ten continuous minutes for each criterion (See Item 9 below) at each location.

6 One set of measurements shall be taken during each of the following four periods:
   a. Morning (6 - 8 a.m.)
   b. Midday (12 noon – 2 p.m.)
   c. Evening (6 – 8 p.m.)
   d. Night (10 p.m. – 12 midnight)

7. Sound level measurements must be made on a weekday of a non-holiday week.

8 Measurements must be taken at 6 feet above the ground and at least 15 feet from any reflective surface[3].

9. For each MP and for each measurement period, provide each of the following measurement criteria:
   a. Unweighted octave-band analysis ($16^2$, 31.5, 63, 125, 250, 500, 1K, 2K, 4K, and 8K Hz)
   b. $L_{ave}$, $L_{10}$, $L_{50}$, $^{and}$ $L_{90}$, in dBA
   c. $L_{ave}$, $L_{10}$, $L_{50}$, $^{and}$ $L_{90}$, in dBC
   d. A narrative description of any intermittent sounds registered during each measurement
   e. Wind speed at time of measurement
   f. Wind direction at time of measurement
   g. Description of the weather conditions during the measurement

10. Provide a map and/or diagram clearly showing:
    a. The layout of the project area, including topography, the project boundary lines[5], and property lines
    b. The locations of the MPs
    c. The minimum and maximum distance between any MPs
    d. The location of significant local sound and vibration sources
    e. The distance between all MPs and significant local sound and vibration sources
    f. The location of all sensitive receptors including but not limited to, a residence, school, hospital, church, place of employment, or public library.

*Sites with Existing Wind Energy Conversion Units*

Two complete sets of sound level measurements must be taken as defined below:

One set of measurements with the wind generator(s) off.

One set of measurements with the wind generator(s) running.

Sound level measurements shall be taken as follows:

1 At all properties within the proposed WECS project boundaries[5]

2 At all properties within a one mile radius of the proposed WECS project boundaries[5].

3 One test must be performed during each season of the year.
    a. Spring (March 15 – May 15)
    b. Summer (June 1 – September 1)
    c. Fall (September 15- November 15)
    d. Winter (December 1- March 1)

4 All measurement points (MPs) shall be located in consultation with the property owner(s) and such that no significant obstruction (building, trees, etc.) blocks sound and vibration from the site.

5 Duration of measurements shall be a minimum of ten continuous minutes for each criterion (See Item 9 below) at each location.

6 One set of measurements shall be taken during each of the following four periods:
    a. Morning (6 - 8 a.m.)
    b. Midday (12 noon – 2 p.m.)
    c. Evening (6 – 8 p.m.)
    d. Night (10 p.m. – 12 midnight)

7. Sound level measurements must be made on a weekday of a non-holiday week.

8 Measurements must be taken at 6 feet above the ground and at least 15 feet from any reflective surface[3].

9. For each MP and for each measurement period, provide each of the following measurement criteria:
    a. Unweighted octave-band analysis ($16^2$, 31.5, 63, 125, 250, 500, 1K, 2K, 4K, and 8K Hz)
    b. $L_{ave}$, $L_{10}$, $L_{50}$, $^{and}$ $L_{90}$, in dBA
    c. $L_{ave}$, $L_{10}$, $L_{50}$, $^{and}$ $L_{90}$, in dBC
    d. A narrative description of any intermittent sounds registered during each measurement

e. Wind speed at time of measurement
f. Wind direction at time of measurement
g. Description of the weather conditions during the measurement

10. Provide a map and/or diagram clearly showing:
    a. The layout of the project area, including topography, the project boundary lines[5], and property lines
    b. The locations of the MPs
    c. The minimum and maximum distance between any MPs
    d. The location of significant local sound and vibration sources
    e. The distance between all MPs and significant local sound and vibration sources
    f. The location of all sensitive receptors including but not limited to, a residence, school, hospital, church, place of employment, or public library.

## *Sound Level Estimate for Proposed Wind Energy Conversion System*

In order to estimate the sound and vibration impact of the proposed WECS project on the existing environment an estimate of the sound and vibration produced by the proposed WECU(s) must be provided.

1 The manufacturer's sound level characteristics for the proposed WECU(s) operating at full load. Include an unweighted octave-band ($16^4$, 31.5, 63, 125, 250, 500, 1K, 2K, 4K, and 8K Hz) analysis for the WECU(s) at full operation for distances of 500, 1000, 1500, 2000, 2500 feet from the WECU(s).

2 Estimate the sound levels for the proposed WECU(s) in dBA and dBC at distances of 500, 1000, 1500, 2000, 2500 feet from the WECU(s). For projects with multiple WECU's, the combined sound level impact for all WECU's operating at full load must be estimated.

3 Provide a contour map of the expected sound level from the new WECU(s), using 5dBA increments created by the proposed WECU(s) extending out to a distance of at least 5,280 feet (one mile).

4 Determine the impact of the new sound and vibration source on the existing environment. For each MP used in the ambient study (note the sensitive receptor MPs):
    a. Report expected changes to existing sound levels for $L_{ave}$, $L_{10}$, $L_{50}$, $^{and}L_{90}$, in dBA
    b. Report expected changes to existing sound levels for $L_{ave}$, $L_{10}$, $L_{50}$, $^{and}L_{90}$, in dBC
    c. Report all assumptions made in arriving at the estimate of impact and any conclusions reached regarding the potential effects on people living near the project area.

5. Include an estimate of the number of hours of operation expected from the proposed WECU(s) and under what conditions the WECU(s) would be expected to run.

## Post-Construction Measurements

1. Within twelve months of the date when the project is fully operational, and within two weeks of the anniversary date of the Pre-construction ambient noise measurements, repeat the existing sound and vibration environment measurements taken before the project approval. Post-construction sound level measurements shall be taken both with all WECU running and generating power, and with all WECU off.
2. Report post-construction measurements to the Trempealeau County Zoning Department (available for public review) using the same format as used for the Pre-approval sound and vibration studies.

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[1] Standard Guide for Selection of Environmental Noise Measurements and Criteria (Designation E 1686-96). July 1996. American Society for Testing and Measurements.

[2] Measurement Protocol for Sound and Vibration Assessment of Proposed and Existing Electric Power Plants. February 2002. Public Service Commission of Wisconsin.

[3] Environmental Noise Guidelines: Wind Farms. (ISBN 1 876562 43 9). February 2003. Environment Protection Authority, Adelaide SA.

[4] The Trempealeau County Zoning staff acknowledges that few sound level meters are capable of measurement of the 16 Hz center frequency octave band. However, because noise complaints from the public most likely involve low frequency noise associate with proposed WECS, we encourage applicants to pursue the collection of this important background noise data. If obtaining the 16 Hz data presents a problem contact Trempealeau County Zoning staff prior to collection of any field ambient measurement data.

[5] Project Boundary: A continuous line encompassing all WECU's and related equipment associated with the WECS project.

RECEIVED

OCT 07 2008

CLERK OF THE BOARD

# PERMIT/VARIANCE AND ZONE AMENDMENT APPEAL FORM

(CHECK AND COMPLETE APPLICABLE BLANKS)

FOR OFFICE USE ONLY
Date Rec'd 10-7-08
Fee $340.00
Distribution
Hearing Date 11-4-08 1:30p.m.

1. Use Permit No. 06-016, Administrative Permit No. _____, or Zone Amendment No. _____

2. Approved ___, Denied ___, Amended ___, or Revoked ___ by the Planning Commission on 10/2/2008 (Date).

3. Filer appeals:

a. xx All of the above action

b. ___ The following conditions of approval: _____

c. ___ The following amendments to the permit or variance: _____

d. ___ The following specific findings or determinations made by the Planning Commission:

4. Please state why you feel the above action(s) or determination(s) are wrong. Please outline the facts you believe support your position. If you need more space, please attach a separate piece of paper.

See Attached

**NOTE: GROUNDS FOR APPEAL NOT SET FORTH ABOVE MAY NOT BE HEARD BY THE BOARD OF SUPERVISORS.**

Appellant's Signature: Ida Riggins

Name (print or type): Ida Riggins 10-7-08
TRIBAL CHAIRPERSON

Address: 37118 MAIN STREET
BURNEY, CA 96013

Phone Number: (530) 335-3140

(Revised 5/19/99)

ATTACHMENT 1B

**Pit River Tribal Appeal of Approval of Use Permit #06-016**

The Pit River Tribe appeals the Shasta County Planning Commission approval of the Hatchet Ridge Wind Project Use Permit #06-016 as approved on October 2, 2008 in Burney. The Shasta County Planning Commission decision to approve Use Permit #06-016 is arbitrary and capricious. The Hatchet Ridge Cultural Resources Inventory has not yet been completed, rendering the action to approve the Hatchet Ridge Wind Project premature and a without careful and detailed analysis.

The Pit River Tribe will be irreparably and irreversibly harmed from the loss of cultural, historical, and religious resources located on the 3,000 acre Hatchet Ridge project site. Hatchet Ridge-Bunchgrass Mountain is eligible for listing in the California Register of Historical Resources considered significant under CEQA.

The Pit River Tribe has used the Hatchet Ridge area for thousands of years, predating the formation of the United States. Hatchet Ridge contains "power places" where spiritual practices have taken place since time immemorial to the present day. An important and ancient trail runs along the top of the ridge top, connecting the Pit River to Goose Valley. This trail connects Pit River lineages, familial history, and sacred space with the greater interconnected environment. This is a major foot route where people traditionally carried family members along for burial, and may have been buried trailside in the certain cases such as inclement weather.

Several endangered species live, breed, and migrate through the Hatchet Ridge area. Birds traditionally important to the Pit River culture, such as eagles, ospreys, ducks, and geese cross the ridge and may be killed by the wind turbine blades. Sound quality issues would also affect the serenity and isolation of the ridge, which could disrupt bird and animal patterns, as well as human experiences in the area. Migration routes of birds and other animals, such as deer may be disrupted.

Hatchet Ridge remains an important trail and is used to reach remote areas during vision quests. Vision quests are part of an important religious covenant that traditional people engage in, such quests continue among young men today. Hatchet Ridge continues to be used by Pit River Tribal members to gather basketry materials, medicines, and huckleberries. The visual impact of wind turbines on the ridge destroys the integrity of this sacred area.

The proposed project would bring no local benefits to the community or the Pit River Tribe. The Hatchet Ridge Wind Project is not a temporary development but will permanently disrupt the sacred landscape which is unique to the Hatchet Ridge area. The project footprint will have long-lasting impacts which will likely grow into further development projects, thus forever changing the cultural, religious, and social values of Hatchet Ridge.

**Appeal Issues and Responses**
**Hatchet Ridge Wind Project**

**Appeal by Douglas Gerald Smith for Save Burney's Skyline (SBS)**

**SBS Issue 1** **"...our group has publicly opposed this development, based on tower placement which contributes to visual impairment of the viewshed. We further contend that reputable industry data demonstrates that tower spacing is sufficiently flexible to permit locations out of direct public view."**

Response: The appellant has provided general information from a variety of sources on wind power history, turbine interactions with wind flow, land area requirements for wind farms, wake analysis, and wind acceleration over ridge lines, and suggests that based on this information there is enough flexibility regarding turbine placement that the turbines associated specifically with this project could be relocated "out of direct public view." However, the appeal lacks project- or site-specific data to support this position or to discredit the analyses in the Environmental Impact Report (EIR) and other documents in the record, that acknowledge there is some flexibility regarding placement, albeit limited, but that moving the turbines enough to eliminate visual impacts from Burney would be technically and economically infeasible.

(See Final EIR Appendix A, Letter to Bill Walker from Nicole S. Hughes, RE: Technical Information and Recommended Responses to Comments Suggesting Moving Turbines to Address Visual Impacts, dated February 11, 2008; Final EIR Appendix A, Shasta County, California Zone of Visual Influence Assessment; and Draft EIR Appendix E, Licensed Microwave Search & Worst Case Fresnel Zone).

**SBS Issue 2** **Negative visual impact**

Response: The Planning Commission did not "void" the finding of significant unavoidable negative visual impact as suggested in the appeal. On the contrary, the Commission acknowledged the project's negative visual impact in the Findings of Fact, and because it made this finding (among others), the Commission adopted a Statement of Overriding Consideration as provided by the California Environmental Quality Act, before approving the project.

(See Attachment 20, Findings Of Fact Section XI, Impacts that Remain Significant and Unavoidable After Implementation of Mitigation Measures and Statement of Overriding Consideration; Draft EIR, Subsection D, Aesthetics and Visual Resources, AES 2, which identifies "Adverse effects on a scenic vista by degrading the visual character of the project area and its surroundings.").

**SBS Issue 3** **Alternative sites**

Response: The EIR addressed the reloca tion alternative for the project in Section 4.5.1 Alternative Site, and in Appendix F Preliminary Alternatives Screening Report. Based on industry and State accepted data, the Draft EIR states "There appear to be

very few sites in Shasta County that could support a wind farm; Hatchet Ridge is one of those sites." The Draft EIR also indicated that the potential for alternative locations was highly speculative because of the lack of potential sites within the County's jurisdiction and the lack of meteorological data for potential sites. It also states that it would be difficult to find sites that would not affect Native American tribes, and that would have the requisite proximity to electrical transmission lines. (See draft EIR Section 4.5)

Potential relocation of turbines was also addressed in the Final EIR in response to comments GP 4-2 and GP 15-3 in reference to the report titled *Shasta County, California Zone of Visual Assessment*, found in the Final EIR Appendix A.

**SBS Issue 4** **Setting a Bad Precedent**

Response: The County has not received any applications for other wind farms at Pondosa or Burney Mountain, or elsewhere in the County. However, any future wind projects, regardless of location, will be subject to project-specific and site-specific environmental review, and will be evaluated on their own merits.

**SBS Issue 5** **Project Reclamation and Lack of Reclamation Bond**

Response: The County has made reasonable provisions to assure site reclamation. There are other means besides bonds to assure site reclamation. The use of salvage value is recognized in the wind turbine industry as a means of providing financial assurance for decommissioning and site reclamation. Condition of approval 32 commits the permittee to assign salvage rights to the County giving the County first priority in claiming project assets should the permittee default in its obligation to remove equipment and restore the site; however, if the County does not have first priority, the County will still be able to pursue enforcement of site reclamation. The value of the machinery and equipment on site is through operation of the turbines or removal as salvage. Therefore, if another party with a superior claim takes possession of the assets, they will be obligated to operate the project or remove the equipment in compliance with the approved Use Permit. If that party removes the turbines for salvage, it would accomplish one of the goals of reclamation. If the Permittee fails to reclaim the site, the property owner would still be responsible for foundation removal and site restoration under the existing conditions of Use Permit approval. (See conditions of approval 32 (d)).

**SBS Issue 6** **Developer Insolvency**

Response: The Planning Commission reviews land use projects on the basis of County planning objectives, policies and ordinances, and with regard to potential environmental impacts and appropriate mitigation measures. The County does not perform financial checks of the applicants or developers. As described in SBS Issue 5 above, mechanisms to ensure decommissioning and reclamation of this project site will be required to be in place prior to issuance of building and other permits for project construction.

**SBS Issue 7** **Community Support**

Response: The Planning Commission held a duly noticed public hearing in Burney on July 24, 2008, and October 2, 2008, and took public testimony for a total of approximately 7 hours. All communications received by the Planning Division and addressed to the Planning Commission from the public and from governmental agencies, including letters, e-mails, and petitions. were presented to the Commission prior to, or at the public hearing, and prior to the Commission's decision to approve the project. The Commission was aware of the nature and extent of concerns by members of the community who supported, were neutral, or opposed the project.

**SBS Issue 8** **Changes to Conditions of Approval without Public Notice**

Response: As the appellants have stated, the staff report for the July 24, 2008 meeting recommended that the Planning Commission continue the public hearing at the applicant's request because of concerns about certain proposed conditions of approval, so the applicant could "study these issues and review them further with staff." No condition is final until it is adopted by the approving agency, and this recommendation would imply that these conditions could be subject to change.

Public notices were sent to property owners and residents of the Burney area at least ten days prior to the October 2, 2008 public hearing. The notice advised that the application, environmental documents, staff reports (including the revised conditions), and all reference documents were available for review at the Department of Resource Management.

**SBS Issue 9** **Failure to Acknowledge Group and Community Project Opposition**

Response: As noted above in response to Issue 7, the Planning Commission held a public hearing on two occasions, took public testimony, and all communications from the public were presented to the Commission prior to its decision.

**SBS Issue 10** **Inadequate Project Description**

Response: The project description for the Environmental Impact Report is comprehensive and includes all aspects of the project which have the potential for adverse environmental effects. The specific appeal points are addressed below.

a. The power rating of the turbines is in the project description. The turbine manufacturer has no bearing on the project's potential environmental effects.

b. The Draft EIR describes the tower height in Chapter 2, Project Description, 2.1 Introduction. Tower placement is described in Section 2.2 Background and Project Overview, and graphically shown on Figure 2-1. The foundation type, diameter and depth are described in Section 2.6.1 Wind Turbine Generators, graphically shown in Figure 2-4, and analyzed in Impact GEO-1 through Impact GEO-6.

c. The developer indicates that "Based upon our initial geotechnical analysis, it seems unlikely that explosives will be needed to prepare turbine footings." However, if geotechnical analysis indicates the underlying rock cannot be penetrated using machinery, "loosening of the rock layer with explosives may be necessary. This is a standard construction methodology which is used in road..., building..., bridge construction, etc... The use of explosives would not result in any impacts outside or in addition to what has been evaluated in the EIR... and included in mitigation measures GEO-1, GEO-2, and GEO-3."

d. The Draft EIR describes road materials and construction methods in Draft EIR Section 2.6.5 Roads and Access, and Section 2.6.7 Drainage Facilities, and analyzes the potential impacts in Impact GEO-1 and Impact HYD-1.

e. The Draft EIR describes water supply and septic field(s) in Section 2.6.7 Water and Wastewater Service, and analyzes the potential impacts in Impact HYD-4 and Impact HYD-7.

f. The Draft EIR describes security fencing and gates in Section 2.8.2 Security.

g. Air quality emissions are described and analyzed in the Draft EIR Section 3.3 Air Quality.

h. Odors were not analyzed in the EIR. The Initial Study did not identify odors as a potentially significant impact of the project.

i. Dust is described and analyzed in the Draft EIR Section 3.3 Air Quality.

j. Noise levels are described and analyzed in the Draft EIR Section 3.10 Noise.

k. Site access during construction and operation is described and analyzed in the Draft EIR Section 3.12 Transportation/Traffic, specifically Impact TRA-1, Impact TRA-2 and Impact TRA-5.

l. According to Wikipedia, "Wind Turbine Syndrome" is the term for a clinical condition coined by Dr. Nina Pierpont which, according to her research, may affect some people living in close proximity to industrial wind turbines due to low-frequency vibrations. According to Pierpont's research, this syndrome occurs within the first 1.5 miles from the turbines and may affect sleep, anxiety, concentration and learning, among others. At this time it appears that Pierpoint's research has not gained general acceptance in the scientific community. Nevertheless, the Hatchet Ridge Wind Draft EIR, Impact NOI-1, indicates that the nearest residences are located between 1.5 and 2 miles from the project site. Therefore, it appears unlikely that residents in the project vicinity would be affected.

m. Ground tremors are described and analyzed in the Draft EIR Section 3.6 Geology and Soils, specifically Impact GEO-3 and GEO-4.

n. Disturbance of water tables is described and analyzed in the Draft EIR Section 3.8 Hydrology and Water Quality, specifically in Impact HYD-4.

o. Increased potential for landslides is described and analyzed in the Draft EIR Section3.6 Geology and Soils, specifically in Impact GEO-2

p. Seismically related events are described and analyzed in the Draft EIR Section 3.6 Geology and Soils, specifically Impact GEO-3 and GEO-4.

**SBS Issue 11** **"The CEQA initial study checklist indicates that there are 35 potentially significant impacts out of 86 items listed. Both the developer and the Planning Commission have not fully explored nor communicated the means that will be taken to mitigate or minimize these impacts."**

Response: All 86 items are addressed in the Draft EIR, the Final EIR, the Mitigation Monitoring and Reporting Plan, the Findings of Fact, and the Statement of Overriding Considerations, including discussion of the measures, methods, timing and parties responsible to mitigate or minimize the identified impacts. All mitigation measures have also been incorporated into the conditions of approval.

**SBS Issue 12** **"... there are clearly alternatives to the devastation that will result from blanketing Hatchet Ridge with these huge turbines, and it is equally clear that, in violation of the applicable requirements, these alternatives have been ignored."**

Response: A primary purpose of an EIR is to identify ways to mitigate or avoid significant impacts to the environment. Toward that end, an EIR must consider a "range of reasonable alternatives," and include a brief description of the lead agency's rationale for selecting the alternatives to be discussed and for rejecting other potentially feasible alternatives from further consideration. The Guidelines are clear that an EIR need not consider "every conceivable alternative."

The record for the Hatchet Ridge Wind project, shows that the Draft and Final EIR, Mitigation Monitoring and Reporting Plan, Findings of Fact, and Statement of Overriding Considerations, along with the adopted conditions of approval, addressed the impacts of the project, including discussion of a reasonable range of feasible alternatives and the agency's rationale for including or rejecting various alternatives, in compliance with all applicable requirements of CEQA. (See Draft EIR Section 4.5).

**Appeal by the Ida Riggins, Tribal Chairperson, Pit River Tribe (PRT)**

**PRT Issue 1** **"The Shasta County Planning Commission decision to approve Use Permit #06-016 is arbitrary and capricious."**

Response: Arbitrary and capricious may be defined as an absence of a rational connection between the facts found and the choice made. Actions by a governmental agency may be considered arbitrary and capricious when that agency takes an action without making findings linking its action to the evidence in the record. In approving this project, the Planning Commission adopted procedural findings, CEQA Findings of Fact and a Statement of Overriding Considerations which explained the Commission's examination of the evidence concerning the project and the Commission's reasons for approving the project (See Attachments 20, 21, and 22).

**PRT Issue 2** **"The Hatchet Ridge Cultural Resources Inventory has not been completed, rendering the action to approve the Hatchet Ridge Wind Project premature and without a careful and detailed analysis."**

Response: The Draft EIR includes information and analysis regarding cultural resources in Section 3.5, Cultural Resources, as well as in Appendix D, Consultations with the Pit River Tribe. The level of information and analysis in the Draft EIR is adequate for approval of the project. Mitigation Measure CUL -1 requires preparation of a detailed recordation of Hatchet Ridge-Bunchgrass Mountain, however, the applicant would not be required to implement this mitigation until after project approval, but prior to project construction.

**PRT Issue 3** **Description of Pit River Tribe use of the site.**

Response: Information regarding traditional use of Hatchet Ridge by the Pit River Tribe, obtained largely from interviews of tribal members, is included in the Draft EIR.

**PRT Issue 4** **Effect of the project on endangered species and "Birds traditionally important to the Pit River culture ..."**

Response: The Draft EIR included data and analysis of the potential impacts of the project to birds in Section 3.4 Biological Resources. Bird studies were conducted and analyzed, and mitigation measures incorporated to reduce the adverse impacts of the project on birds. In approving the project, the Planning Commission adopted specific mitigation measures along with a Mitigation Monitoring and Reporting Program. However, the Commission also recognized that there may be significant and unavoidable impacts to some bird species and, therefore, adopted a Statement of Overriding Considerations. Impacts to other animals, including deer, were determined to be less than significant.

**PRT Issue 5** **Use of site for religious purposes, gathering of basketry materials, medicines and huckleberries.**

Response: The site is private land owned by Sierra Pacific Industries or Fruit Growers Supply Company. Access and use of the property is subject to permission from the property owners. The project will not change access rights to the site.

The EIR acknowledges significant and unavoidable "visual and auditory disruption of Pit River Tribe religious practices conducted on Hatchet Ridge caused by construction and operation of wind turbines." In approving the project, the Planning Commission made a Statement of Overriding Considerations, which explained its reasons for approving the project in spite of the expected significant and unavoidable impacts.

**PRT Issue 6** **No benefits to the community or the Pit River tribe.**

Response: The Statement of Overriding Considerations identifies several benefits to the community at large, including members of the Pit River Tribe. Among the benefits are the following:

- The project will provide new full-time jobs during construction of the project.
- The project will provide economic benefits to the County and its residents by increased spending in the community as a result of construction.
- The project will increase spending on goods and services in the community by project operators.

**PRT Issue 7** **Permanent disruption of sacred landscape**

Response: As noted above in the response to Issue 5, The EIR acknowledges significant and unavoidable "visual and auditory disruption of Pit River Tribe religious practices conducted on Hatchet Ridge caused by construction and operation of wind turbines." In approving the project, the Planning Commission made a Statement of Overriding Considerations, which explained its reasons for approving the project in spite of the expected significant and unavoidable impacts.

**PRT Issue 8** **"...long lasting impacts which will likely grow into further development projects, thus forever changing the cultural religious and social values of Hatchet Ridge.**

Response: No evidence is presented either by the appellant or in Draft EIR Section 4.2, Growth Inducing Impacts, of any potential growth inducing impacts of the project.

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**Via email**
October 15, 2008

Mr. Bill Walker
Senior Planner
Shasta County
Department of Resource Management
1855 Placer Street
Redding, CA 96001

Re: Hatchet Ridge Wind Project; Applicants' responses to Save Burney's Skyline's appeal of Planning Commission's approval of project

Dear Bill:

On behalf of RES Americas Development, Inc. and Babcock & Brown (the "applicants"), I am providing our responses to the points raised in the appeal filed by Save Burney's Skyline on October 7, 2008. Please do not hesitate to contact me if you have any questions regarding these responses.

## Turbine Relocation and Spacing

**The appellant requests that the Dept of Resource Management modify the CUP "to require re-spacing the turbine towers to a location out of public view" and claim that by doing so, "the developers will gain a clearly superior wind plant location." (Save Burney's Skyline Appeal, p. 8.)**

**The appellant further asserts that the County failed to consider feasible alternatives or mitigation measures aimed at reducing the significant aesthetic impact of the wind project. (Save Burney's Skyline Appeal, p. 10.)**

Response:
The applicants previously provided the County with substantial, expert evidence explaining why relocation of the turbine towers to a location off the ridge where the turbines are no longer visible from the town of Burney is practically and economically infeasible.

The Draft EIR explained that alternative locations were initially considered but rejected as infeasible and therefore were not carried forward for further analysis in the EIR. The Final EIR responded to comments submitted on the Draft EIR regarding the feasibility of alternative locations for the project.

In a letter dated February 11, 2008, Nicole Hughes of RES America Developments, Inc. (included in Appendix A of the Final EIR) explained the several factors that constrain the placement of wind turbines generally, and specifically on the proposed project site. These factors include: (i) existing wind resource (wind speed); (ii) existing project boundaries; (iii) setbacks from neighboring landowners; (iv) proximity toexisting transmission lines; (v) existing microwave paths; (v) minimum spacing between wind turbines; and (vi) constructability of the land. Combined, all of these factors provide virtually no flexibility for maintaining the minimum economically feasible project size in an alternative location.

As Nicole Hughes explained in her February 11, 2008, letter:

> minimum turbine spacing is *required* by turbine manufacturers in order to secure a turbine warranty. For the Hatchet Ridge Wind Project, turbine manufacturers require minimum spacing of 2.5 – 3.0 times the turbine rotor diameter (238 – 285 meters; 779 –935 feet) for turbines within the same row and approximately 7.5 times the turbine rotor diameter (713 meters; 2335 feet; .44 miles) between turbine rows. These constraints provide virtually no flexibility for maintaining Project size and the associated economies of scale. Relocation of turbines will disrupt the current Project layout, reduce overall Project size and severely harm Project economics.

(Feb. 11, 2008 letter from Nicole Hughes to Bill Walker, pp. 2-3.)

It is not true that the County ignored its obligation to consider alternatives that could reduce or avoid significant impacts of the project. To the contrary, in addition to the evidence contained in the EIR regarding the feasibility of such alternatives, the County requested more detailed analysis from the applicants regarding the feasibility of moving the project to a location where it could not be viewed from the town of Burney. In response to this request, RES's partner, Babcock & Brown, commissioned an assessment by a qualified meteorologist of the wind energy production capability of a westward site where the turbines could not be seen from Burney. (See April 24, 2008 Zone of Visual

Influence (ZVI) Assessment, by Patrick Pyle, Appendix A, Final EIR.) This assessment demonstrates that building a viable wind project on a westward site from which no turbines could be seen is both technically and economically infeasible.

At the public hearings conducted by the Planning Commission, some project opponents suggested that the ZVI Assessment presented a slanted analysis by examining only the viability of locating a wind project on the area marked in green and yellow on the accompanying wind resource map (last page of ZVI Assessment). Commenters suggested that the analysis ignored other areas marked as equally windy (red/orange) as the proposed project area in order to artificially reject the less windy (green/yellow) locations. It should be reiterated that the purpose of the ZVI Assessment was to determine what the value of the wind resource would be if the project were located to the nearest area where the turbines would not be visible from the town of Burney. The alternate project location depicted on the wind resource map in the ZVI Assessment shows the nearest area that the goal of project invisibility would be achieved. The other, windier areas on the map, shown in red and orange, would either still be visible from the town or else are too far away from existing transmission lines or constrained by other factors such as constructability, land ownership, or a lack of ability to construct in otherwise off-limit areas such as Forest Service Land and/or Bunchgrass Mountain. For example, the roughly circular red patch in the northwest quadrant of the wind resource map is Bunchgrass Mountain, which would not be a feasible location for the wind project for a host of reasons, not the least of which is the fact that it is partially on U.S. Forest Service land, does not have the geographic capacity to place enough adequately spaced turbines to produce the desired energy output, and is significantly farther away from existing transmission lines than the proposed project site is. A wind project on this location would also likely be visible from Burney, though a full ZVI analysis was not conducted due to the other infeasibility reasons previously listed.

**County Precedent**

**The appellant implies that if this project is approved, the precedent it would set would result in the County being unable to deny or impose conditions on any other future wind projects. (Save Burney's Skyline Appeal, p. 11.)**

Response:
The applicants expect that the County will conduct itself in full compliance with CEQA and all other applicable laws in processing any future applications for wind power projects, as it has done thus far for this project. The County has held itself and the applicants to strict standards to ensure a fair and neutral evaluation of the project's merits and environmental impacts. The applicants were allowed no private contact with or control over the County's environmental consulting firm, Jones & Stokes, other than the

necessary input into the project description. The applicants were not allowed to review or suggest revisions to the County's administrative draft CEQA documents prior to their public release. The applicants have submitted additional documentation throughout the process, sometimes unsolicited, sometimes at the request of the County, some of which the County has rejected, and other information the County has adopted as it has seen fit. The applicants have no reason to believe that the County would not conduct equally fair and neutral reviews of any future wind project proposals according to the same standards and judge each project on its own merits and site-specific considerations.

Indeed, if any "precedent" is set by this project, it would be one in which an applicant is expected to work closely with the affected stakeholders to identify local needs and to maximize the economic and environmental benefits of the project to the local and county-wide community, which these applicants have done. Approving this project would not mean that the County would be obligated to approve any others, or that it would ignore its obligations to comply with state law and its own application processing policies.

**Project Reclamation and Bonds and Developer Fiscal Health**

In response to the appellant's first comment that the County Counsel advised there was a potential period in which the County would not have first priority under the provisional reclamation assignment or "step in" rights, the applicants are unsure of what "gap" County Counsel was referring to in the October 2, 2008 Planning Commission hearing. The applicants do not read the salvage assignment agreement in such a way that any "gap" exists. The reality is that if the project owner walked away from the project because it could not fund reclamation costs and a lender or another party stepped in, they would assume all the obligations of the planning conditions and either refurbish the site to bring it back into operation or reclaim the site for its salvage value. And, if the project owner walked away under this scenario, the County would still have its "step in" rights if the new party or lender walked away.

In response to the appellant's second comment regarding lack of an up-front reclamation bond, it is apparent that the appellant has not read the conditions of approval correctly. In fact, Condition No. 32 requires the owner to have the project's reclamation cost versus reclamation value independently assessed prior to the issuance of a building permit and then every five years thereafter. If any of the independent assessments indicate that the reclamation value is or soon will be less than the reclamation cost, the owner is required to post a reclamation bond, cash or other assurance mechanism for the difference. The appellant has either ignored or missed this requirement in reading the conditions of approval. The appellant's demand, if granted by the County, would impose a needless and significant financial burden on the project much earlier than the project's value indicates is necessary, if ever. Under Condition No. 32, there is simply no possibility that the County will ever be on the hook for reclamation efforts if the project owner abandons the project.

In response to the appellant's comments about Babcock & Brown's financial difficulties, it is true that Babcock's stock has suffered a significant decline recently. That being said and even in this difficult financial environment, the company made $175 million dollars in the first six months of 2008 (audited financials) and it has a very profitable and valuable North American Energy and Infrastructure organization. In any event, even if Babcock & Brown were to go out of the wind business, given California's general shortage of new generation facilities and particularly acute shortage of renewable energy plants, there is no shortage of other qualified utility-scale wind energy facility operators who would love the opportunity to step in and operate such a valuable project.

Community Support

**The appellant asserts that the County staff or Planning Commission failed to acknowledge the existence of any opposition to the project, as evidenced by a petition and ads running in the local paper.**

Response:
The appellant claims to have gathered over 600 signatures on a petition opposing the project. The applicants have not seen this petition and cannot confirm whether it was submitted into the record at the July 24, 2008 hearing as the appellant asserts. The applicants know of only one petition circulated in opposition to the project, which was signed by about 360 people. After some follow-up investigation, it was clear that several people who signed the petition were not aware that they were signing a petition in opposition to the project.

The appellants have not previously mentioned this petition in the three documented votes in the community, all of which were favorable to the proposed project. On January 14, 2008 members of the Burney Chamber of Commerce voted in a regularly scheduled meeting to support the Hatchet Ridge Wind Project on the basis of economic benefits (Mt. Echo, volume 32, No. 4, January 22, 2008). The Intermountain News sponsored an on-line poll where results were mixed, but of the 183 people who responded, only forty-eight voted against the project (Intermountain News, March 26, 2008). A final vote was sponsored again by the Chamber of Commerce in September 2008. Of the 115 ballots mailed out to Burney Chamber of Commerce members, in which the question asked was, "As a Chamber member, do you support the Hatchet Ridge Wind Project?", the results were: 50 yes votes, 21 no votes, 1 yes vote with qualifications, and 7 no votes with qualifications. In addition to these votes, the County has received numerous additional letters and emails both in support of and opposed to the proposed project, as indicated in the staff reports for the Planning Commission's July 24, 2008 and October 2, 2008 public hearings.

Finally, at the last Planning Commission hearing on the project on October 2nd, the number of people speaking in support of the project outnumbered the project opponents. While the Board's determinations pursuant to the California Environmental Quality Act should be made based on substantial evidence in the County's administrative record, not simply the popularity of the project, the Chamber votes and turnout at Planning Commission meetings nonetheless are clear evidence that the project enjoys much broader community support than the appellant suggests in its appeal. As the Board of Supervisors considers the appeal, the applicants urge the Board to carefully review the substantial evidence in the record supporting the EIR's conclusions and staff's recommendations, as CEQA instructs.

**Project Description**

**The appellant asserts the project description of the EIR is inadequate for failing to describe the turbine designation and manufacturer, the total tower height, placement, and foundations, blasting requirements, road construction materials and methods, water supply and septic requirements, and security fencing and gates. (Save Burney Skyline Appeal, p. 13.)**

Response:
The Draft EIR's project description states that the turbines could range in number and size from up to sixty-eight 1.5 MW turbines to as few as forty-two 2.4 MW turbines. (Draft EIR, p. 2-1.) In their comments on the Draft EIR, the applicants informed the County that they had decided to construct just forty-three 2.4 MW turbines on the project site. (Final EIR, p. 2-122.) The size of 2.4 MW turbines is clearly disclosed in the Draft EIR in Figure 2-3. It is not necessary to identify the manufacturer in order to adequately assess the environmental impacts of the project. Furthermore, the other components of the project design that the appellant asserts was lacking from the project description were in fact provided in the EIR. (See Draft EIR, pp. 2-4 to 2-12.)

**EIR's Assessment of Geology, Hydrology and Seismic Impacts**

**Appellant asserts the EIR fails to adequately evaluate potential hazards associated with "wind turbine syndrome", ground tremors, disturbance of water tables, increased potential for landslides and enhanced chance of seismic related events. (Save Burney Skyline Appeal, p. 14.)**

Response:
The EIR contains adequate discussions of the potential hazards and geological/seismic impacts associated with the wind project. (See pages 3.7-1 to 3.8-12 (Hazards and Hydrology chapters) of the Draft EIR.) Those discussions concluded there were no significant, unmitigable impacts in these areas. Furthermore, the EIR concluded that compliance with existing laws and regulations would result in less than significant

impacts. The appellant provides no evidence or details supporting the allegations of ground tremors, disturbance of water tables, increased landslides or enhanced seismic events.

Regarding "wind turbine syndrome", the appellant provides no specific information regarding this alleged condition. But a search of available information online indicates that it is a "condition" that apparently has not yet been verified by qualified, credible scientific research. The assertions of the existence of the "syndrome" arise largely from the research of a single person, Dr. Nina Pierpont, a pediatrician in New York, whose research involved a sample set of just 10 families and has not been peer-reviewed or published in any credible scientific journals. The basic assertion of Dr. Pierpont is that living in close proximity to the noise produced by operating turbines can cause a host of medical ailments, including migraines. Even if Dr. Pierpont's research were considered valid and credible by her peers, this project would not expose any residents to such risks because the nearest sensitive receptors are approximately 1.5 miles away. The EIR concluded that noise levels associated with the operation of the project would fall below the ambient noise levels and would generally be undetectable at these locations. (Draft EIR, p. 3.10-12.)

**Conclusion**

As the applicants explained at the July 24, 2008 Planning Commission hearing, if it were feasible to move the project westward as suggested and still have a viable wind project, they would have willingly and gladly done so in order to avoid the significant aesthetic impact identified in the EIR prepared for the County. The applicants recognize that if it were able to reduce or avoid this impact, the majority of the project's opponents would disappear and many more likely would actively support the project.

However, as the expert analysis the applicants provided to the County demonstrates, such a move is simply not feasible because it would not result in a constructable and financeable wind project.

The evidence in the County's record and the County's own EIR demonstrates that the environmental review conducted for the project has been exhaustive and thoughtful. The applicants respectfully request that Save Burney's Skyline's appeal be denied and the CUP be issued as proposed.

* * * * * * *

Sincerely,

Sabrina Teller

Sabrina V. Teller

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October 16, 2008

Bill Walker
Shasta County
Department of Resources Management
1855 Placer Street, Suite 103
Redding, CA 96001-1759

RE: RES' response to the appeal filed by Ida Riggins

Dear Mr. Walker,

RES America Developments, Inc. (RES) would like to respond to the Pit River Tribe's October 7, 2008, appeal of the Hatchet Ridge conditional use permit. We would like to express our disappointment with the decision by the tribe to appeal the project, as we have reached out to them on numerous occasions over the last year and a half and have made earnest, good faith efforts to ensure their concerns are addressed in both the conditional use permit itself and the construction process. Many of our efforts were previously documented for the County in our comments on the Draft EIR for the project. (See Final EIR, pp. 2-160—2-172.) The following is a chronology and brief descriptions of our outreach efforts to-date. Copies of all correspondence and a phone log documenting outreach efforts are attached to this letter.

*May 30, 2007 – Letter to Jessica Jim requesting a meeting with the tribe to discuss the proposed project and hear any concerns the tribe might have. No response was received.*

*June 19, 2007 – Phone message left with Jessica Jim regarding arranging a meeting. No response was received.*

*July 5, 2007 – Letter to Jessica Jim (cc: Sharon Elmore, Bill Walker) requesting a meeting with the tribe to discuss the proposed project and hear any concerns the tribe might have. No response was received.*

*July 10, 2007 – Phone message left for Jessica Jim regarding arranging a meeting. No response was received.*

*September 10, 2007 – Spoke with Sharon Elmore about setting up a meeting with the tribe the week of September 27, 2007.*

*September 10, 2007 – Sent Sharon Elmore an e-mail message with contact info for Shasta County and Jones and Stokes per her request. No response was received.*

*September 14, 2007 – Left message with Sharon Elmore about setting up a meeting with the tribe. No response received.*

*September 17, 2007 – Sent Sharon Elmore an e-mail message requesting a meeting with the tribe. No response received.*

*September 20, 2007 – Spoke with Sharon Elmore and several members of tribal council via conference call regarding some of the tribe's concerns about the proposed project. Requested a meeting with the tribe the week of September 27, 2007.*

*September 21, 2007 – Left message with Sharon Elmore about setting up a meeting with the tribe the week of September 27, 2007. No response received.*

*November 13, 2007 – Sent e-mail message to Sharon Elmore letting her know the draft EIR would be coming out soon and copies would be available at the Chamber of Commerce. Requested a meeting with the tribe. No response received.*

*January 8, 2008 – Letter to Jessica Jim (cc: Sharon Elmore, Bill Walker) requesting a meeting with the tribe to discuss the content of the published draft EIR. No response received.*

*March 12, 2008 – Meeting with tribal council in Burney. Nicole Hughes and Scott Piscitello represented RES. RES addressed the tribe's questions about the project. The members of tribal council were not familiar with the EIR; no one present in the room had read the document at the time of the meeting. The tribe raised concerns about the cultural resources study. RES explained that Shasta County prepared the studies and any questions or concerns should be raised with the county. The tribe was interested in preparing an agreement for monitoring of the construction project, should the project be approved. RES said they would also be interested in this agreement and would work with the tribe to ensure their cultural resources concerns were addressed properly throughout the construction process.*

*June 16, 2008 – RES was notified that the tribe had hired a lawyer, Michelle LaPena, to help the tribe in regards to the Hatchet Ridge Project.*

*June 30, 2008 – RES received a copy of a letter from the tribe faxed to Bill Walker at Shasta County with recommended changes to the draft conditions of approval. Bill Walker suggested RES meet with the tribe's lawyer to discuss.*

*July 10, 2008 – Sabrina Teller (Remy, Thomas, Moose and Manley) contacted Michelle LaPena on behalf of RES to set up a meeting to discuss the tribe's requested changes to the conditional use permit conditions.*

*July 17, 2007 - Meeting with Michelle LaPena in Sacramento, CA (at Remy, Thomas, Moose and Manley offices). Attendees included Nicole Hughes for RES, Sabrina Teller, counsel for RES, and Michelle LaPena. We discussed the tribe's requested changes to the conditional use permit conditions. RES explained that we were happy to work with*

*the county to ensure the requested changes to the CUP regarding a confidentiality agreement, donation of any birds killed by the project to the tribe, and the treatment of cultural resources identified during construction. The only requests RES could not agree to related to the tribe's request for special access to the private property owned by SPI. RES leases lands from SPI and has no authority to make changes to SPI's access policy. RES reminded the tribe that SPI has an open access policy and this would not change as a result of our project being approved. We followed up with Ms. LaPena by sharing with her a copy of SPI's access policy. Ms. LaPena agreed to provide RES a draft cultural resources monitoring policy and draft confidentiality agreement. She also agreed to help us set up a pre-project field visit.*

*July 18, 2008 – Phone discussion with Michelle LaPena to discuss the status of the confidentiality agreement, monitoring plan and site visit.*

*September 8, 2008 – Letter to Michelle LaPena requesting she send RES the draft confidentiality agreement, a draft cultural resources monitoring plan, and for assistance in facilitating the pre-construction site visit.*

*September 15, 2008 – Received E-mail message from Michelle LaPena proposing a date for the site visit, stating that a draft cultural resources monitoring plan was being reviewed by tribal council, and identifying Shelly Tilley as the appropriate person to conduct an ethnographic study.*

*September 23, 2008 – E-mail message to Michelle LaPena requesting update on status of draft documents and to confirm September 30, 2008 for the field visit.*

*September 24, 2008 – Received E-mail message from Michelle LaPena stating that the draft documents were still in review by tribal council and confirming September 30, 2008 for the site visit.*

*September 30, 2008 – Pre-project site visit with members of the Pit River Tribal Council and Shelly Tilley. Nicole Hughes from RES was present. Nicole answered questions about the project and identified major proposed construction areas for the members of the tribal council. Ms. Tilley questioned the representative tribal members as to what the tribe wanted to address in the ethnographic study and who she should contact as she began the study. Ms. Hughes requested that the tribal council process the draft monitoring agreement and confidentiality agreement as soon as possible.*

As you can see from this list, RES has made numerous attempts over the last year and a half to reach out to, and work cooperatively with, the tribe to ensure that their concerns are addressed throughout the CUP approval and construction processes. Until recently, most of our efforts received no response from the tribe. We finally were able to meet with the tribe's lawyer, Michelle LaPena, on July 17, 2008, where we discussed the tribe's requested changes to the draft conditions of approval. We accepted most of these changes, with the exception of a request to allow the tribe special access rights to the land. We assumed, apparently incorrectly, that this meeting and our subsequent acceptance of most of the tribe's requested conditions represented an agreement, at least in principle, that even if the tribe would still prefer the project not be approved, at least the tribe was satisfied with the proposed mitigation and monitoring

program and the conditions of approval: At our meeting with Ms. LaPena there was no mention of the tribe's intention to appeal the project, nor was there any mention of the other concerns which were listed in the appeal letter. To us, the appeal represents evidence that our good faith efforts to work with the tribe have not been returned in kind.

The appeal letter alleges that irreparable harm will be endured by the Pit River Tribe as a result of the project. Included in this discussion are alleged impacts to cultural resources, "power places," animal and plant resources, and religious and social values. The EIR already disclosed that some of those impacts would be significant and proposed mitigation which is intended to reduce or eliminate these impacts, as required by CEQA. RES has already engaged the tribe and begun to fulfill some of the requirements of the County's draft mitigation and monitoring program and conditions of approval. An ethnographic study has commenced, which will be conducted by the ethnographer chosen by the tribe. The purpose of the ethnographic study is to document the important religious and cultural values on Hatchet Ridge using photo documentation and other ethnographic research. We hope the County sees our immediate and pre-project-approval attention to these mitigation measures as yet another example of our continued good faith efforts to work with the tribe. At the Planning Commission hearing, Jessica Jim (former tribal chairwoman) accused RES of lying when we spoke of the initiation of this study. I have enclosed the first progress report from the ethnographer as further proof that the study has been initiated.

In the appeal form submitted by the tribe, Ida Riggins states that a cultural resources inventory has not been completed for the project. A review of the Draft and Final EIR proves that this claim is inaccurate. Section 3.5 (Cultural Resources) of the Draft EIR prepared by Jones and Stokes states that a record search to gather information about previously documented resources was conducted on July 19, 2005. An additional record search for a 2-mile radius around the proposed project area was conducted on April 3, 2007. Jones and Stokes hired Shelly Tilley to conduct an ethnographic study related to the project area. Ms. Tilley met with seven Pit River Tribe members on May 24 and June 27, 2007. The results of these discussions are included in Appendix D of the Draft EIR. Finally, a field inventory was conducted on May 3, 4, and 24, 2007. A 300-foot-wide corridor was walked along the proposed turbine string and road corridor. Jones and Stokes described three isolated artifacts that were identified during the site visit; these include two partial dart points and an Olympia beer can.

Ms. Riggins further states in her appeal that "several endangered species live, breed, and migrate through the Hatchet Ridge area." In fact, only two endangered species were identified travelling through the Hatchet Ridge project area; these include 15 bald eagle sightings over a one-year period and one flight of approximately 30 Sandhill cranes. The EIR further states that the Hatchet Ridge project area has neither appropriate breeding nor nesting habitat for either of these species. Nonetheless, the EIR concluded that the potential impact to these species was significant and unavoidable. For this reason, RES, in collaboration with the California Department of Fish and Game and the Wintu Audubon Society, prepared a comprehensive mitigation plan which includes up-front compensation for the potential losses of bald eagle and Sandhill crane, as well as additional mitigation measures to be followed should the following thresholds of mortality be exceeded for each species: Bald eagle -1 fatality per year; Sandhill crane - 1 fatality per year.

The EIR also states that the proposed project is not within a major migratory pathway, either for diurnal or nocturnal migrants. The project does not contain appropriate stop-over or nesting habitat for waterfowl; therefore, the tribe's assertion that waterfowl are at risk is unfounded. In fact, of all the birds identified over a one-year period at Hatchet Ridge, only one percent of those observed were identified as

waterfowl. According to the Draft and Final EIR, impacts to waterfowl are not considered a significant impact. Finally, in response to the concern that deer may be disrupted, impacts to deer were also concluded to be less than significant in the Draft and Final EIR.

Ms. Riggins further states in her appeal that "Hatchet Ridge remains an important trail and is used to reach remote areas during vision quests. Vision quests are part of an important religious covenant that traditional people engage in, such quests continue among young men today." In our conversations with the landowners, Sierra Pacific Industries and Fruit Growers Supply Company, who manage the land for timber production, neither entity has documented use of the site for the purposes suggested by the tribe. Sierra Pacific Industries and Fruit Growers have been granted several timber harvest permits by Shasta County during the time in which they have managed the lands. The tribe has never once commented on a timber harvest plan or suggested that significant cultural resources exist within the proposed timber units, which are within and surrounding the proposed project area. Additionally, in our September 30, 2008 field visit, where six male members of the tribe, several of whom were members of tribal council, accompanied Nicole Hughes along the entire length of Hatchet Ridge, it was clear from their questions and comments about the site that the members of the tribe present that day had never been to the area before.

The tribe argues that Hatchet Ridge is an important resource gathering area where tribal members gather "basketry materials, medicines, and huckleberries." Sierra Pacific Industries has a strict policy against resource extraction on their lands without a permit. If the tribe is collecting these materials, they are doing so illegally. Additionally, the Draft EIR lists all the vegetation species that are present at Hatchet Ridge; huckleberry is not listed because it is not present anywhere on the ridge. Finally, it is important to note that the EIR concluded impacts to Pit River basketry material and religious practices (Impact CUL-3) were less than significant.

While we do not dispute the tribe's assertions that Hatchet Ridge was used historically or prehistorically for the purposes suggested in the appeal, considering the current status of the land as private timber harvest lands with long-standing restrictions on third-party resource extraction, we highly doubt that the area is still actively used by the tribe in the manner stated in the tribe's appeal. The tribe has on several occasions made requests of RES to provide the tribe special access rights to the land. We suspect that these are merely attempts to gain some special access rights to the lands or claim ownership of the resources within the project area, which we assume would be strongly disputed by the landowners.

Finally, the tribe argues that the proposed project would bring no local benefits to the community or the Pit River Tribe. RES has demonstrated in several ways how the project will provide substantial economic benefits to the local area and specifically to the community of Burney. We assume that the Pit River Tribe considers itself and its members to be part of the local community and uses some of the services which will benefit from the proposed project. Benefits to the local area include jobs, which the members of the Pit River Tribe will have equal access to, assuming they have the appropriate skills needed; indirect and induced economic benefits, which translate to increased economic development opportunities in the community at large; tax revenues, which we assume the tribal members as taxpayers and users of County services will benefit from; and finally, Babcock and Brown has committed funds to two local non-profit groups which serve the Burney area and in turn provide benefits to members of the Pit River Tribe as citizens of Burney.

In light of the foregoing facts and evidence, RES respectfully requests that the Board of Supervisors deny the Pit River Tribe's appeal and approve the conditional use permit for the Hatchet Ridge Wind project.

Sincerely,

Nicole Hughes

Enclosures

cc: Michelle LaPena

**RESOLUTION NO.**

**A RESOLUTION OF THE BOARD OF SUPERVISORS OF THE COUNTY OF SHASTA DENYING THE APPEALS BY DOUGLAS GERALD SMITH FOR SAVE BURNEY'S SKYLINE, AND IDA RIGGINS, TRIBAL CHAIRPERSON, PIT RIVER TRIBE AND AFFIRMING THE PLANNING COMMISSION'S CERTIFICATION OF AN ENVIRONMENTAL IMPACT REPORT, ADOPTION OF A MITIGATION, MONITORING AND REPORTING PROGRAM, AND APPROVAL OF USE PERMIT 06-016, FILED BY HATCHET RIDGE WIND, LLC**

WHEREAS, the Board of Supervisors of the County of Shasta has considered the appeal of the Planning Commission certification of the Environmental Impact Report for this project, adoption of the Mitigation Monitoring and Reporting Program, and approval of the Use Permit 06-016, filed by Hatchet Ridge Wind LLC, for a wind farm, in accordance with Shasta County Code Section 17.92.030; and

WHEREAS, said Use Permit was referred to various affected public and private agencies, County Departments, and referral agencies for review and comments; and

WHEREAS, an Environmental Impact Report and Mitigation Monitoring and Reporting Program were prepared for this project in accordance with the requirements of the California Environmental Quality Act; and

WHEREAS, the Planning Commission held a duly noticed public hearing on this application, in two sessions, on July 24, 2008, and October 2, 2008, at which approximately seven hours of public testimony was heard by the Commission; and

WHEREAS, the Planning Commission reviewed, considered, and certified the Environmental Impact Report (EIR) for the Hatchet Ridge Wind project (Use Permit 06-016) and adopted the related Mitigation Monitoring and Reporting Program; and

WHEREAS, the Planning Commission made Findings of Fact and a Statement of Overriding Considerations prior to approving the Use Permit; and

WHEREAS, the Planning Commission made specific findings and approved Use Permit 06-016 subject to conditions; and

WHEREAS, the Planning Commission's certification of the Environmental Impact Report (EIR) for the Hatchet Ridge Wind project, adoption of the related Mitigation Monitoring and Reporting Program, and approval of the Use Permit were appealed by Douglas Gerald Smith for Save Burney's Skyline, and by Ida Riggins, Tribal Chairperson, Pit River Tribe, for reasons stated in their respective letters received on October 6 and 7, 2008, and reiterated in the Staff Report for the November 4, 2008, Board of Supervisors' hearing; and

WHEREAS, the Board of Supervisors held a duly noticed public hearing on this appeal on November 4, 2008; and

WHEREAS, the Board of Supervisors has reviewed and considered the action of the Planning Commission and has considered the appeal.

NOW, THEREFORE, BE IT RESOLVED that the Board of Supervisors of the County of Shasta hereby denies the appeal and:

A. 1. Finds that the Planning Commission did not exceed its authority, and that there was a fair hearing before the Commission, and that the Commission did not abuse its discretion to the prejudice of the appellants; and

2. Finds that there is no evidence before Board which supports any findings or determinations which prohibit approval under Shasta County Code Section 17.92.020(F).

B. Affirms the Planning Commission's certification of the Environmental Impact Report (EIR) for the Hatchet Ridge Wind project, and the Planning Commission's adoption of the related Mitigation Monitoring and Reporting Program as specifically set forth in Planning Commission Resolution 2008-102; and

C. Affirms the Planning Commission's approval of Use Permit 06-016, based on the Findings of Fact and a Statement of Overriding Considerations, Use Permit findings and procedural findings listed in, and subject to the conditions attached to, Planning Commission Resolution 2008-103.

DULY PASSED this day of _____, by the following vote:

AYES:
NOES:
ABSENT:
ABSTAIN:
RECUSE:

_____
LINDA HARTMAN , Chairman
Board of Supervisors, County of Shasta
State of California

ATTEST:

LAWRENCE G. LEES
Clerk of the Board of Supervisors

By:_____
Deputy

# Community Benefit Agreement

## (Hatchet Ridge Wind Project)

This Community Benefit Agreement ("**CBA**" or "**Agreement**") is entered into by and between **HATCHET RIDGE WIND, LLC**, a Delaware limited liability company ("**Developer**"), and the **COUNTY OF SHASTA**, a political subdivision of the state ("**County**").

### Section 1. Purpose

The purpose of this CBA for the Hatchet Ridge Wind Project (the "**Project**") is to provide for a concerted and coordinated effort between the County and the Developer to maximize the benefits of the Project to the Shasta County community.

### Section 2. Community Benefit Funds

a. Initial Payment. Prior to the issuance of the first building permit for the Project, Developer shall pay an initial amount of One Million dollars ($1,000,000.00) payable to the County Department of Resource Management with the funds deposited in a separate interest bearing account established by the Auditor-Controller. The payment shall be submitted to the Director of Resource Management. If the funds specified in this Section 4 have not been paid in full to the Resource Management Department, the County shall not issue a building permit to Developer.

b. Additional Annual Payments. In addition to the Initial Payment, Developer shall pay One Hundred Thousand dollars ($100,000) for a community benefit to the Department of Resource Management every year for twenty years commencing exactly one year after the submittal of the Initial Payment ("**Annual Payments**"). Each Annual Payment shall be submitted to the Director of Resource Management. Failure of Developer to submit each of the Annual Payments shall constitute a substantial breach of this CBA. The remittance of each Annual Payment shall be considered an independent duty. If any such breach occurs, County shall be entitled to pursue any available remedy at law or in equity.

c. Expenditure. The Board of Supervisors shall have the sole authority to expend both the Initial Payment and the Annual Payments and shall use its best efforts to ensure that the funds are used for purposes that will benefit the community of Burney, which surrounds the Project.

### Section 3. Term

This CBA shall become effective on the date of mutual execution of this CBA and shall terminate upon the Board's authorization to expend the funds.

**Section 4. Voluntary Payment**

a. The Developer has volunteered to pay the community benefit funds and to such payment being a condition of approval of the Project. As a result, this Agreement is entered into by the parties willingly and voluntarily and Developer waives the right to challenge the amount and/or timing of the payment of the community benefit funds to the County.

b. The Mitigation Fee Act (California Government Code sections 66000-66025) shall not apply to the funds provided to the County pursuant to this Agreement.

**Section 5. Miscellaneous**

a. Advice of Legal Counsel. Each party acknowledges that it has reviewed this Agreement with its own legal counsel, and based upon the advice of that counsel, freely entered into this Agreement.

b. Attorneys Fees and Costs. If any action at law or in equity, including an action for declaratory relief or any arbitration, is brought to enforce or interpret provisions of this Agreement, the prevailing party shall be entitled to reasonable attorneys' fees and costs, which may be set by the Court in the same action or in a separate action brought for that purpose, in addition to any other relief to which such party may be entitled.

c. Authority of Signatories. The individuals executing this CBA represent and warrant that they have the authority to sign on behalf of their respective parties.

d. Binding on Successors. This CBA shall be binding upon and inure to the benefit of Developer, Developer's successors, and successors to any successors of Developer.

e. Controlling Law. This CBA shall be enforced in accordance with the laws of the state of California and the United States. If any provision of this CBA is held by a court of law to be in conflict with law, the applicable law shall prevail over the terms of this CBA, and the conflicting provisions of this CBA shall not be enforceable.

f. Correspondence. All correspondence shall be in writing and shall be addressed to the affected parties at the addresses set forth below. A party may change its address by giving notice in compliance with this section. The addresses of the parties are:

If to Developer:

George W. Hardie, III
Babcock & Brown
5307 E. Mockingbird Lane, Suite 710
Dallas, Texas 75206
Telephone: (214) 368-9920
Facsimile: (214) 368-9929

With a copy to:

Counsel for Developer:
Sabrina V. Teller
Remy, Thomas, Moose and Manley, LLP
455 Capitol Mall, Suite 210
Sacramento, CA 95819
Telephone: (916) 443-2745
Facsimile: (916) 443-9017

If to County:

Director of Resource Management
1855 Placer Street, Suite 200
Redding, CA 90061
Telephone: (530) 225-5789
Facsimile: (530) 225-5807

With a copy to:

County Counsel
Shasta County
1450 Court Street, Suite 332
Redding, CA 96001-1675
Telephone: (530) 225-5711
Facsimile: (530) 225-5817

g. Counterparts. This CBA may be executed in two or more counterparts, each of which may be deemed an original, but all of which shall constitute one and the same document.

h. Entire Agreement. The CBA contains the entire agreement between the parties and supersedes any prior agreements, discussions, or commitments, written or oral, between the parties to this Agreement.

i. Further Assurances. The parties hereto agree to take such actions and execute such additional documents as are reasonably necessary to carry out the provisions of this CBA.

j. Modification. This CBA may not be altered, amended or modified except by an instrument in writing signed by the parties to this CBA.

k. Severability. If any term, provision, covenant or condition of this CBA is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remainder of the provisions shall continue in full force and effect.

l. Venue. Venue for all legal proceedings shall be in the Superior Court of California, County of Shasta.

m. Waiver. A waiver by any party of any breach of any term, covenant or condition herein contained or a waiver of any right or remedy of such party available hereunder at law or in equity shall not be deemed to be a waiver of any subsequent breach of the same or any other term, covenant or condition herein contained or of any continued or subsequent right to the same right or remedy. No party shall be deemed to have made any such waiver unless it is in writing and signed by the party so waiving.

**[SIGNATURES ON FOLLOWING PAGE]**

Dated: _____

**COUNTY:**

By: _____
LINDA HARTMAN, CHAIRMAN
Board of Supervisors
County of Shasta
State of California

ATTEST:

LAWRENCE G. LEES

Clerk of the Board of Supervisors

By: _____
Deputy

Approved as to form:

RISK MANAGEMENT APPROVAL

By: _____

MICHAEL A. RALSTON
Interim County Counsel

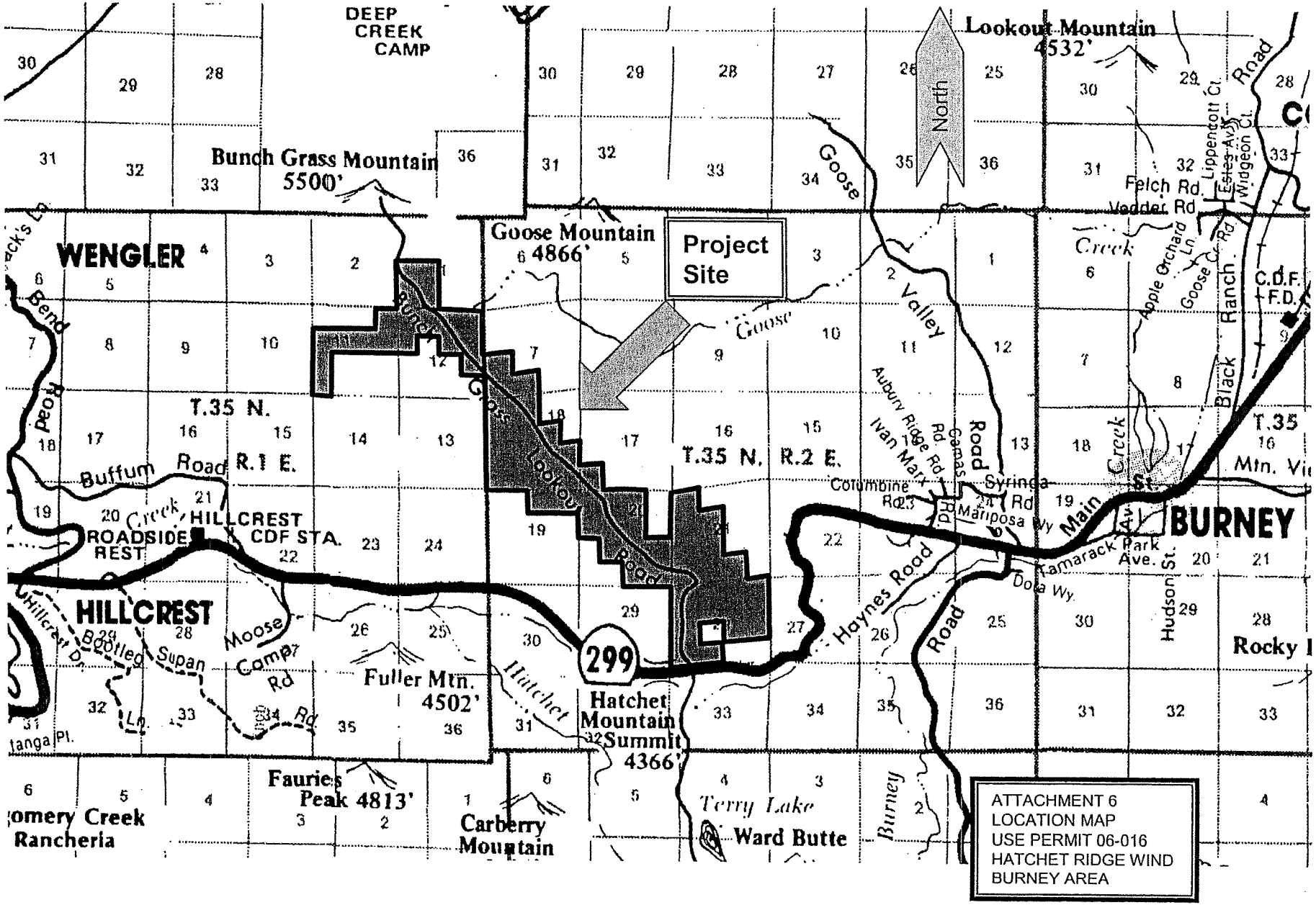
By: _____

Dated: _____

**DEVELOPER:**

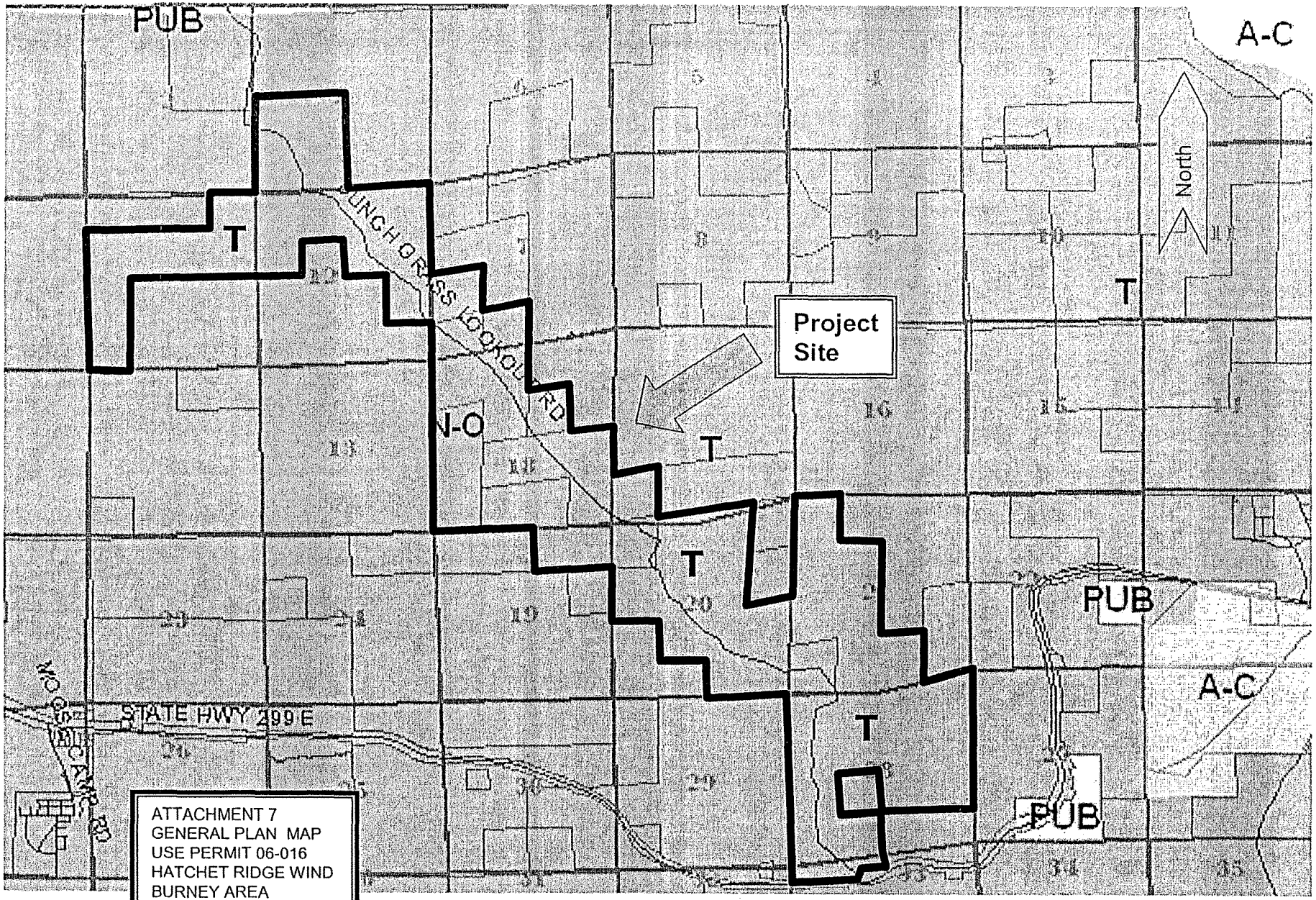
HATCHET RIDGE WIND, LLC

By: _____
Name: _____
Title: _____

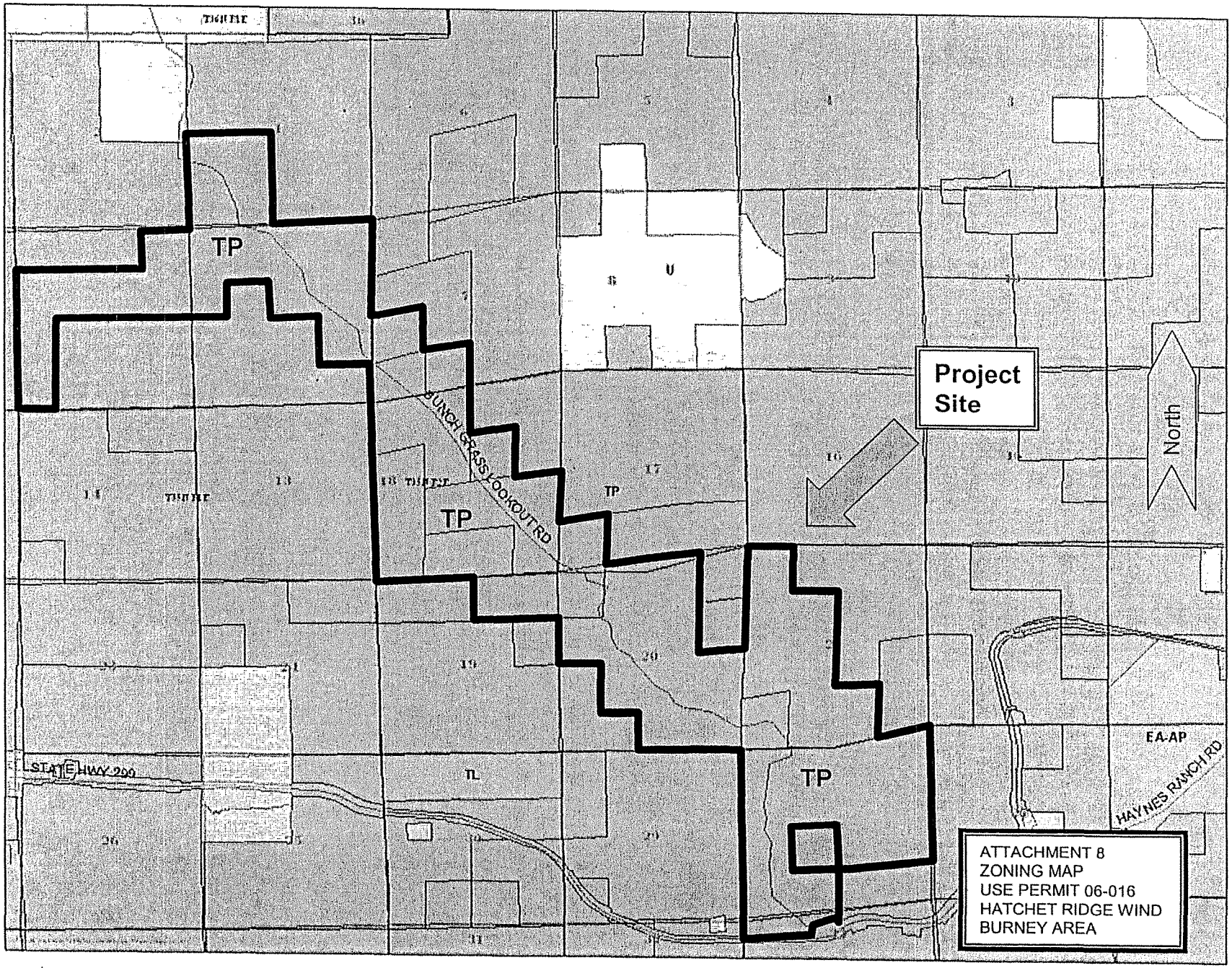



ATTACHMENT 6
LOCATION MAP
USE PERMIT 06-016
HATCHET RIDGE WIND
BURNEY AREA

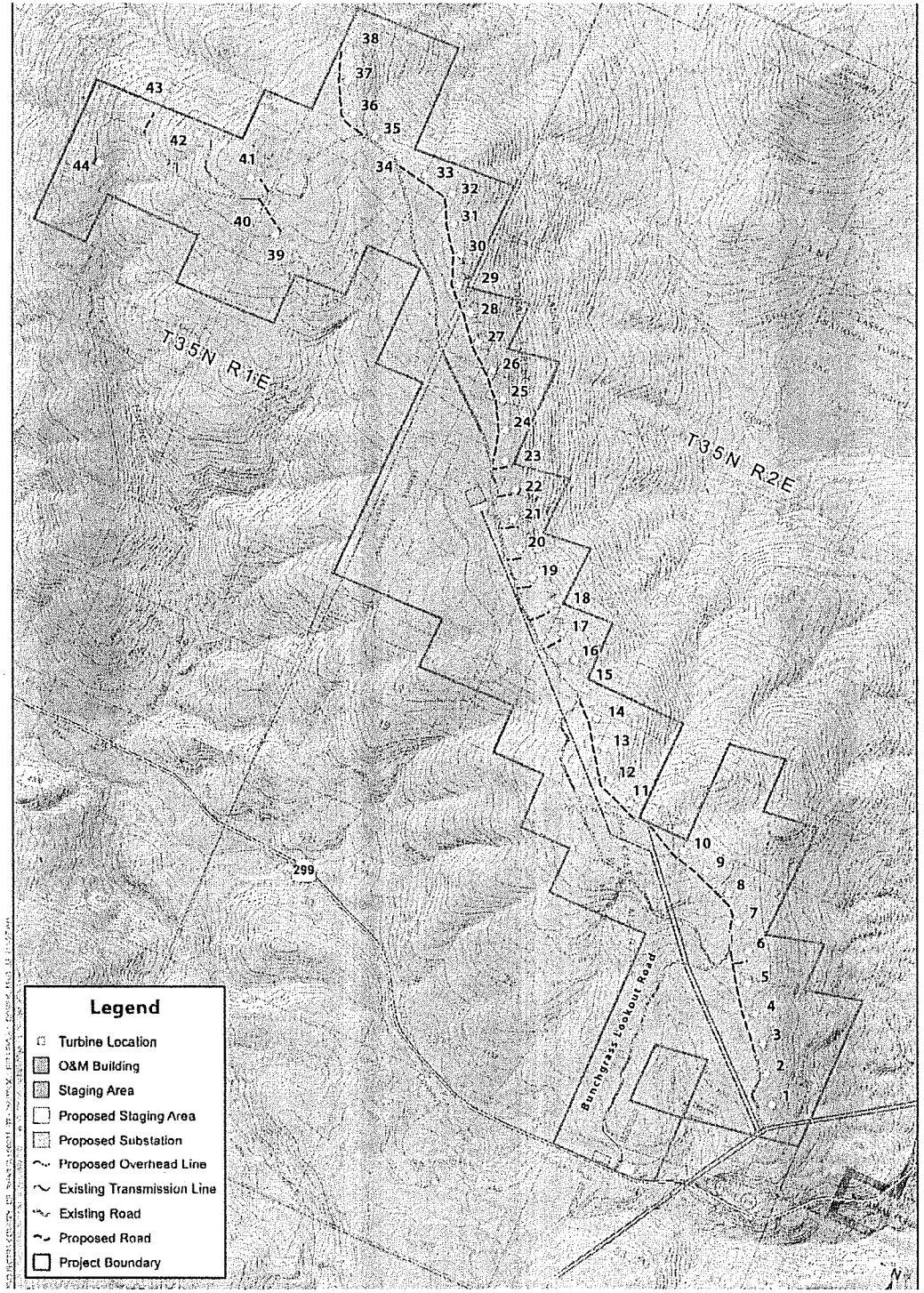
ATTACHMENT 6




ATTACHMENT 7

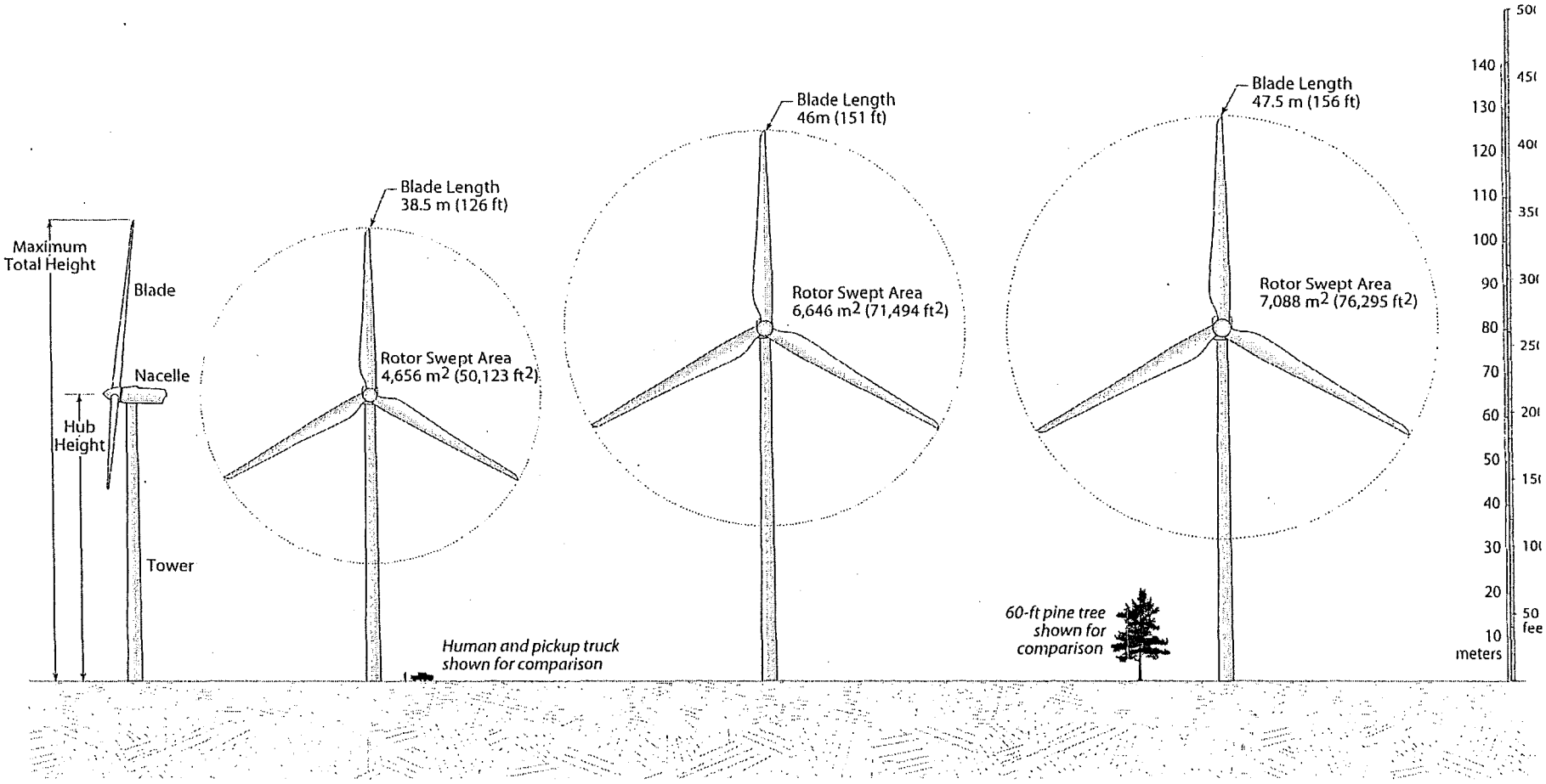



ATTACHMENT 8




ATTACHMENT 9
SITE PLAN
USE PERMIT 06-016
HATCHET RIDGE WIND
BURNEY AREA

ATTACHMENT 9




| Generic Turbine Profile | 1.5 MW Turbine | 2.3 MW Turbine | 2.4 MW Turbine |
|---|---|---|---|
| | Hub height: 65 m (213 ft) | Hub height: 80 m (262.5 ft) | Hub height: 80 m (262.5 ft) |
| | Max height: 103 m (338 ft) | Max height: 126 m (413 ft) | Max height: 127.5 m (418 ft) |

ATTACHMENT 10
ELEVATION DRAWING
USE PERMIT 06-016
HATCHET RIDGE WIND
BURNEY AREA

Jones & Stokes

**Figure 2**
**Turbine Options for the Hatchet Ridge Wind Proje**

ATTACHMENT 10

# ATTACHMENT 11

## Draft Environmental Impact Report (Previously Distributed)

Note: Due to the volume of material for this project, all attachments may not be included with all copies of this staff report. All attachments are available at:

1. Department of Resource Management - Planning Division, 1855 Placer Street, Suite 103, Redding, CA 96001

In addition, many of the documents for this project and attachments for this report are available on the internet. Go to: www.co.shasta.ca.us , click on "County Departments" then "Resource Management" then go to the bottom of the page and click on "Hatchet Ridge Wind Project"

# ATTACHMENT 12

## Final Environmental Impact Report Including Mitigation Monitoring & Reporting Program (Previously Distributed)

Note: Due to the volume of material for this project, all attachments may not be included with all copies of this staff report. All attachments are available at:

1. Department of Resource Management - Planning Division, 1855 Placer Street, Suite 103, Redding, CA 96001

In addition, many of the documents for this project and attachments for this report are available on the internet. Go to: www.co.shasta.ca.us , click on "County Departments" then "Resource Management" then go to the bottom of the page and click on "Hatchet Ridge Wind Project"

# ATTACHMENT 13

Studies from the applicant which are not included in Draft or Final EIR:

A. Economic Impacts of the Hatchet Ridge Wind Project by Economics Group of ENTRIX, Inc., November 5, 2007

B. Visual Impact Analysis by RES America Developments, Inc., May 6, 2008

C. Memorandum: Hatchet Ridge Wind Project, California, Kenneth P. Able, Evaluation of the Nocturnal Bird Migration Study, by David Young, WEST, Inc., June 22, 2008

Note: Due to the volume of material for this project, all attachments may not be included with all copies of this staff report. All attachments are available at:

1. Department of Resource Management - Planning Division, 1855 Placer Street, Suite 103, Redding, CA 96001

In addition, many of the documents for this project and attachments for this report are available on the internet. Go to: www.co.shasta.ca.us , click on "County Departments" then "Resource Management" then go to the bottom of the page and click on "Hatchet Ridge Wind Project"

# ATTACHMENT 14

Correspondence received after the Draft EIR comment period but before the October 2, 2008 Planning Commission hearing

Note: Due to the volume of material for this project, all attachments may not be included with all copies of this staff report. All attachments are available at:

1. Department of Resource Management - Planning Division, 1855 Placer Street, Suite 103, Redding, CA 96001

In addition, many of the documents for this project and attachments for this report are available on the internet. Go to: www.co.shasta.ca.us , click on "County Departments" then "Resource Management" then go to the bottom of the page and click on "Hatchet Ridge Wind Project"

# ATTACHMENT 14A

Items received by the Planning Commission at the October 2, 2008, public hearing

Note: Due to the volume of material for this project, all attachments may not be included with all copies of this staff report. All attachments are available at:

1. Department of Resource Management - Planning Division, 1855 Placer Street, Suite 103, Redding, CA 96001

In addition, many of the documents for this project and attachments for this report are available on the internet. Go to: www.co.shasta.ca.us , click on "County Departments" then "Resource Management" then go to the bottom of the page and click on "Hatchet Ridge Wind Project"

# ATTACHMENT 15

## Correspondence received since the October 2, 2008 Planning Commission hearing

Note: Due to the volume of material for this project, all attachments may not be included with all copies of this staff report. All attachments are available at:

1. Department of Resource Management - Planning Division, 1855 Placer Street, Suite 103, Redding, CA 96001

In addition, many of the documents for this project and attachments for this report are available on the internet. Go to: www.co.shasta.ca.us , click on "County Departments" then "Resource Management" then go to the bottom of the page and click on "Hatchet Ridge Wind Project"

# REPORT TO THE SHASTA COUNTY PLANNING COMMISSION

| PROJECT IDENTIFICATION: REGULAR AGENDA | MEETING DATE | AGENDA ITEM # |
|---|---|---|
| USE PERMIT 06-016 (HATCHET RIDGE WIND, LLC) BURNEY AREA | 07/24/2008 | R1 |

RECOMMENDATIONS: That the Planning Commission conduct a public hearing and:

1. Receive the staff report on the Hatchet Ridge Wind project Environmental Impact Report (EIR) and Use Permit; and
2. Receive comments from the applicant and the public on the EIR and the merits of the project; and
3. Continue the public hearing to a date uncertain.

**Request for Continuance**

The applicant has expressed concerns about the recommended conditions of approval regarding decommissioning of the project (Condition 31) and a tourism and recreation program fund (Condition 33), and has requested that the public hearing on this item be continued to a date uncertain in order to study these issues and review them further with staff.

PROJECT SUMMARY: The project site would cover a total of 73 acres scattered over 17 parcels totaling approximately 3,000 acres on Hatchet Mountain. The site is approximately 7 miles due west of Burney, and 34 miles northeast of Redding, and immediately north of State Highway 299 at Hatchet Mountain Pass.

The applicant, Hatchet Ridge Wind, LLC, proposes to construct a wind energy project. The area actually covered by the project would be an approximately 73-acre portion of the 17 parcels. The project would produce approximately 100 megawatts of electricity and would require construction of 42 to 68 wind turbines on steel tubular towers from about 213 feet to 263 feet tall. The total height of each tower with its attached wind turbine could reach from about 338 feet to about 418 feet high. The line of towers would stretch for about 6.5 miles northeasterly along the ridge of Hatchet Mountain. The project would include transmission lines from the turbines to a new substation and additional lines to interconnect with existing high-voltage transmission lines that cross the project site which are owned by Pacific Gas & Electric Company. The project would also include a temporary construction office, an operations and maintenance building/control center, new access roads, temporary staging areas, and up to four permanent meteorological masts up to 220 feet high. The project would be constructed over a 6 to 12-month period. In general, the towers would be constructed in areas managed for commercial timber production which were replanted after the 1992 Fountain Fire.

BACKGROUND: General Plan and Zoning - The property is in the Timber (T) General Plan land use designation and the Timber Production (TP) zone district. Electrical generation and transmission facilities are consistent with the T General Plan land use designation and are permitted in the TP zone district subject to approval of a Use Permit.

Access and Services - Access to the site is from Bunchgrass Lookout Road, which intersects State Highway 299. The site would be served with water from an on-site well and sewage disposal from an on-site septic system.

Project Analysis - The project is described and analyzed extensively in the Hatchet Ridge Wind Project Draft Environmental Impact Report.

This project is the first large-scale wind energy project proposed in Shasta County and may have State-wide significance within the context of the goals of the California Renewable Portfolio Standard (RPS) and other similar renewable energy programs in the State. The legislation enacting RPS requires retail sellers of electricity to purchase 20% of their electricity from renewable sources, such as wind, by 2017. This project would generate wind power and would assist the State in meeting its legislated mandate.

The recommended conditions of approval for this project include: a requirement for an emergency response plan; notification of tower collapse, blade throw, etc.; a decommissioning plan including a financial assurance to cover costs of dismantling and removal of equipment and costs of site restoration; reimbursement of County administrative costs for Use Permit compliance and mitigation monitoring; and program funding to offset the aesthetic impacts to the Burney area (See the recommended conditions of approval attached).

**Environmental Determination** - An Environmental Impact Report (EIR) was prepared for this project, which discussed potentially significant environmental impacts and appropriate mitigation measures in the following areas: land use, aesthetics, air quality, cultural resources, biological resources, geology and soils, hazards and hazardous materials, hydrology and water quality, transportation and traffic, and utilities and service systems, along with the associated potential cumulative effects of the proposed project.

The EIR also identified the following: Significant and unavoidable impacts: adverse effects on a scenic vista by degrading the visual character of the project area and its surroundings, potential direct mortality of greater sandhill cranes, potential direct mortality of bald eagles, potential direct mortality of special-status raptors and other avian species, and visual and auditory disruption of Pit River Tribe religious practices conducted on Hatchet Ridge caused by construction and operation of wind turbines.

Beneficial impacts would include positive cumulative effects on climate change, and reduction in reliance on nonrenewable resources as a source of energy production.

ISSUES: The issues regarding this project are directly related to the significant and unavoidable impacts identified in the EIR:

**Adverse effects on a scenic vista**

This issue is reviewed in Section 3.1, Aesthetics and Visual Resources, of the Draft EIR. Concerns have been expressed by members of the Burney community about the potential significant adverse visual affects of this project on the community, including scenic views from Burney and the highway coming to and from the community, tourism and recreation industries, residential property values, and quality of life. Some community members are simply opposed to the project. Others have recommended that to reduce or eliminate these impacts, the turbines be moved to the west of the proposed locations so that the turbines would not be visible from Burney (See attached letters).

The applicant has submitted information which they believe demonstrates that the proposed location of the wind turbines is the optimum location for wind energy on the site, and to relocate the turbines to anywhere else would significantly reduce the wind energy available for electrical generation, and would make the project economically infeasible. This information includes two visual impact analyses prepared by the applicant.

The applicant's visual impact analysis dated April 24, 2008, concludes: "... moving the turbines sufficiently off the ridgelines as to make them invisible in Burney renders the Project economically and technically unfeasible" (See *Shasta County, California Zone of Visual Influence Assessment* dated April 24, 2008, in Appendix A of the Final EIR).

**Potential direct mortality of greater sandhill cranes, bald eagles, special-status raptors and other avian species**

This issue is reviewed in Section 3.4, Biological Resources, of the Draft EIR. Comments received from the California Department of Fish and Game (DFG) and the Wintu Audubon Society (Audubon) and from the community expressed great concern about the potential adverse impact of this project on various species of birds. The applicants had lengthy meetings with DFG and Audubon to reach agreement on mitigation measures and an ongoing monitoring program. This agreement is reflected in the revisions to Mitigation Measure BIO 6, as found in the Final EIR and the Mitigation Monitoring and Reporting Program. Mitigation measures include purchase of off-site habitat. The monitoring program includes the formation of a technical advisory committee to oversee an adaptive management program. This program will select and implement additional mitigation measures as necessary based on the results of the monitoring data.

**Visual and auditory disruption of Pit River Tribe religious practices**

This issue is analyzed in Section 3.5, Cultural Resources, of the Draft EIR. Because of the potential impacts of this project on the Pit River Tribe religious practices, and also because of the Tribe's concerns about the project's effects on natural resources including birds, the Tribe opposes this project. However, if the Commission chooses to approve this project, the Tribe has asked for additional conditions of approval to address its concerns (Please see the attached letter).

**Comments from the Community of Burney**

The Planning Division has received a number of letters from people in the community of Burney and surrounding areas expressing concerns about, and/or opposition to, the project. Letters received during the Draft EIR comment period are included, and responded to, in the Final EIR. Letters received since the close of the comment period on the Draft EIR are attached to this staff report.

ALTERNATIVES: The following alternatives are available:

1. Return the EIR to staff with recommendations for revisions.
2. Adopt a resolution of intent to approve the Use Permit, and return the project to staff to prepare findings and conditions for consideration.
3. Adopt a resolution of intent to deny the Use Permit. The Commission would direct Staff to prepare findings that the use is inconsistent with the General Plan and zone district, and/or that the establishment, operation, and maintenance of the subject use, under the circumstances of the particular case, would be detrimental to the health, safety, peace, morals, comfort, and general welfare of persons residing or working in the neighborhood or be detrimental or injurious to property or improvements in the neighborhood or to the general welfare of the County.

**CONCLUSION**: Staff recommends that the Planning Commission continue the public hearing for the project to afford the applicant more time to review the recommended conditions regarding decommissioning and the tourism and recreation program fund.

RICHARD W. SIMON
Assistant Director of Resource Management

Staff Author: Bill Walker, Senior Planner
wmw/dd/District 3

Copies: Nicole Hughes, RES America Developments, Inc., 700 SW Taylor Street, Suite 210, Portland, OR 97205
John Forsythe, Jones & Stokes, 2600 V Street, Sacramento, CA 95818
Christy Corzine, Jones & Stokes, 2895 Churn Creek Road, Suite D, Redding, CA 96002
Sabrina Teller, Remy, Thomas, Moose & Manley, LLP, 455 Capitol Mall, Suite 210, Sacramento, CA 95814
Jessica Jim, Pit River Tribe, 37118 Main Street, Burney, CA 96013
Joe Rodriguez, Federal Aviation Administration, Airports District Office, 831 Mitten Road, Room 210, Burlingame, CA 94010-1303
Amy L. Fesnock, US Fish and Wildlife Service, 2800 Cottage Way, Suite W-2605, Sacramento, CA 95825
Lynette Esternon-Green, California Energy Commission, 1516 9th Street, MS 45, Sacramento, CA 95814
Valerie Beck, California Public Utilities Commission, Energy Division, 4th Floor, 505 Van Ness Avenue, San Francisco, CA 94102
Bruce Webb, California Department of Fish and Game, 601 Locust Street, Redding, CA 96001
California Regional Water Quality Control Board, 415 Knollcrest Drive, Redding, CA 96002
McArthur-Burney Falls Memorial State Park, 24898 Highway 89 North, Burney, CA 96013
Marci Gonzalez, Caltrans District 2, P.O. Box 496073, Redding, CA 96049-6073
Department of Transportation, Division of Aeronautics - M.S.#40, P.O. Box 942873, Sacramento, CA 94273-0001
Native American Heritage Commission, 915 Capitol Mall, Room 364, Sacramento, CA 95814
Shasta County Library, 1100 Parkview Avenue, Redding CA 96001
Shasta County Library, Burney Branch, 37038 Siskiyou Street, Burney, CA 96013
Pacific Gas and Electric Company, 3600 Meadow View Road, Redding, CA 96002
Redding Record Searchlight, 1101 Twin View Blvd, Redding CA 96003
Intermountain News, 37095 Main Street, P.O. Box 1030, Burney, CA 96013
Mountain Echo, 43152 Highway 299E Suite B, P.O. Box 224, Fall River Mills, CA 96028
Project File

Attach:
1. Location Map
2. General Plan Map
3. Zone District Map

4. Site Plan (Figure 2-1 Representative configuration of the Proposed Hatchet Ridge Wind Project)
5. Elevation Drawing (Figure 2-3 Turbine Options for the Hatchet Ridge Wind Project)
6. * Draft EIR (previously distributed)
7. * Final EIR including Mitigation Monitoring and Reporting Program (previously distributed)
8. * Studies from the applicant which are not included in Draft or Final EIR:
   A. *Economic Impacts of the Hatchet Ridge Wind Project* by Economics Group of ENTRIX, Inc., November 5, 2007
   B. *Visual Impact Analysis* by RES America Developments, Inc., May 6, 2008
   C. Memorandum: *Hatchet Ridge Wind Project, California, Kenneth P. Able, Evaluation of the Nocturnal Bird Migration Study*, by David Young, WEST, Inc., June 22, 2008
9. * Correspondence from Agencies received after the Draft EIR comment permit and therefore not included in the Final EIR, including a letter from the Pit River Tribe
10. * Correspondence from the Public received after the Draft EIR comment permit and therefore not included in the Final EIR
11. Recommended Use Permit Conditions

* Attachments marked with an asterisk are available at:

- Department of Resource Management - Planning Division, 1855 Placer Street, Suite 103, Redding, CA 96001; or
- On the internet at: www.co.shasta.ca.us click "County Departments" then "Resource Management" then "Hatchet Ridge Wind Project"

# REPORT TO THE SHASTA COUNTY PLANNING COMMISSION

| PROJECT IDENTIFICATION: REGULAR AGENDA | MEETING DATE | AGENDA ITEM # |
|---|---|---|
| USE PERMIT 06-016 (HATCHET RIDGE WIND, LLC) BURNEY AREA | 10/02/2008 | R1 |

**RECOMMENDATIONS**: That the Planning Commission conduct a public hearing and:

1. Review and certify the Environmental Impact Report (EIR) for the Hatchet Ridge Wind project based on the findings listed in the attached resolution; and
2. Adopt the Findings of Fact, Statement of Overriding Considerations and Mitigation Monitoring and Reporting Program in accordance with the California Environmental Quality Act, and approve Use Permit 06-016, based on the use permit findings, Findings of Fact, Statement of Overriding Considerations, and other information comprising the record, subject to the conditions listed in the attached resolution.

**CONTINUANCE**: The hearing on this item was continued from the July 24, 2008, Planning Commission meeting. The applicant had expressed concerns about the recommended conditions of approval regarding decommissioning of the project and a tourism and recreation program fund, and requested that the public hearing on this item be continued to a date uncertain in order to study these issues and review them further with staff.

Staff has worked with the applicant, the Department of Fish and Game, and the Wintu Audubon Society to prepare draft Use Permit conditions of approval, which include revised conditions for decommissioning, monitoring and reporting, and a community benefit agreement, as well as minor changes and corrections to other conditions including restrictions on markings and exterior lighting. The draft conditions have been re-numbered as needed to accommodate these changes.

This report includes the Findings of Fact, Statement of Overriding Considerations and Mitigation Monitoring and Reporting Program referred to in the recommendation section above (see Attachments 12 and 7, respectively), which must be adopted in the event that the Planning Commission decides to approve this project.

**PROJECT SUMMARY**: The project site would cover a total of 73 acres scattered over 17 parcels totaling approximately 3,000 acres on Hatchet Mountain. The site is approximately 7 miles due west of Burney, and 34 miles northeast of Redding, and immediately north of State Highway 299 at Hatchet Mountain Pass.

The applicant, Hatchet Ridge Wind, LLC, proposes to construct a wind energy project. The area actually covered by the project would be an approximately 73-acre portion of the 17 parcels. The project would produce approximately 100 megawatts of electricity and would require construction of 42 to 68 wind turbines on steel tubular towers from about 213 feet to 263 feet tall. The total height of each tower with its attached wind turbine could reach from about 338 feet to about 418 feet high. The line of towers would stretch for about 6.5 miles northeasterly along the ridge of Hatchet Mountain. The project would include transmission lines from the turbines to a new substation and additional lines to interconnect with existing high-voltage transmission lines that cross the project site which are owned by Pacific Gas & Electric Company. The project would also include a temporary construction office, an operations and maintenance building/control center, new access roads, temporary staging areas, and up to four permanent meteorological masts up to 220 feet high. The project would be constructed over a 6 to 12-month period. In general, the towers would be constructed in areas managed for commercial timber production which were replanted after the 1992 Fountain Fire.

**BACKGROUND**: General Plan and Zoning - The property is in the Timber (T) General Plan land use designation and the Timber Production (TP) zone district. Electrical generation and transmission facilities are consistent with the T General Plan land use designation and are permitted in the TP zone district subject to approval of a Use Permit.

Access and Services - Access to the site is from Bunchgrass Lookout Road, which intersects State Highway 299. The site would be served with water from an on-site well and sewage disposal from an on-site septic system.

Project Analysis - The project is described and analyzed extensively in the Hatchet Ridge Wind Project Draft Environmental Impact Report.

This project is the first large-scale wind energy project proposed in Shasta County and may have State-wide significance within the context of the goals of the California Renewable Portfolio Standard (RPS) and other similar renewable energy programs in the State. The legislation enacting RPS requires retail sellers of electricity to purchase 20% of their electricity from renewable sources, such as wind, by 2017. This project would generate wind power and would assist the State in meeting its legislated mandate.

The recommended conditions of approval for this project incorporate directly or by reference all adopted mitigation measures described in the Final EIR (which includes the Draft EIR, Final EIR and Mitigation Monitoring and Reporting Program), and also include: a requirement for an emergency response plan; notification of tower collapse, blade throw, etc.; a decommissioning plan including a financial assurance to cover costs of dismantling and removal of equipment and costs of site restoration; reimbursement of County costs for Use Permit administration and mitigation monitoring and a community benefit agreement (see the recommended conditions of approval).

**Environmental Determination** - An Environmental Impact Report was prepared for this project. The Draft Environmental Impact Report (DEIR) discussed the following potentially significant environmental impacts: land use, aesthetics, air quality, cultural resources, biological resources, geology and soils, hazards and hazardous materials, hydrology and water quality, transportation and traffic, and utilities and service systems, along with the associated potential cumulative effects of the proposed project. The DEIR concluded that the project would have the following impacts:

- Significant and unavoidable impacts would include adverse effects on a scenic vista by degrading the visual character of the project area and its surroundings, potential direct mortality of greater sandhill cranes, potential direct mortality of bald eagles, potential direct mortality of special-status raptors and other avian species, and visual and auditory disruption of Pit River Tribe religious practices conducted on Hatchet Ridge caused by construction and operation of wind turbines.

- Beneficial impacts would include cumulative effects on climate change, and reduction in reliance on nonrenewable resources as a source of energy production.

**Decision to Certify the EIR**

CEQA Guidelines Section 15151, Standards for Adequacy of an EIR, states:

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

Staff recommends that the Planning Commission certify the EIR based on these standards of adequacy.

**Mitigation Monitoring and Reporting Program**

In order to ensure that the mitigation measures and project revisions identified in the EIR are implemented, CEQA requires that a County adopt a program for monitoring or reporting on measures it has imposed to mitigate or avoid significant environmental effects. Chapter 4 of the Final EIR contains the Mitigation Monitoring and Reporting Program for the proposed project.

NOTE: There is an error in mitigation measure MM BIO-6 as it appears in the Mitigation Monitoring and Reporting Program on pages 5 through 7 of Table 4-1 of the Final EIR. The text of the mitigation measure (MM BIO-6) under the heading *Description* (which precedes the section titled "Mitigation Measures Decision Framework for BIO-6") should be the same as the text on pages 3-3 through 3-7 of Chapter 3, "Revisions to the EIR," of the Final EIR. The requirements appearing under the other headings in Table 4-1 for MM BIO-6 (i.e., *Timing*, *Monitoring Responsibility*, and *Verification*) are correct as presented in the Table.

**Statement of Overriding Considerations**

As noted above, the EIR concludes that some of the potential impacts cannot be mitigated and are considered significant and unavoidable. CEQA Guidelines Section 15093(a) states:

> *"CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered 'acceptable.' When the lead agency approves a project which will result in the occurrence of significant effects which are identified in the final EIR but are not avoided or substantially lessened, the agency shall state in writing the specific reasons to support its action based on the final EIR and/or other information in the record. The statement of overriding considerations shall be supported by substantial evidence in the record (see Section 15093(b) of the CEQA Guidelines). If an agency makes a statement of overriding considerations, the statement should be included in the record of the project approval ..."*

The EIR consultant and staff have prepared findings of fact and a statement of overriding considerations should the Planning Commission choose to approve the project (see attachment 12).

**ISSUES:** The issues regarding this project are directly related to the significant and unavoidable impacts identified in the EIR.

**Adverse effects on a scenic vista**

This issue is reviewed in Section 3.1, Aesthetics and Visual Resources, of the Draft EIR. Concerns have been expressed by members of the Burney community about the potential significant adverse visual affects of this project on the community, including scenic views from Burney and the highway coming to and from the community, tourism and recreation industries, residential property values, and quality of life. Some community members are simply opposed to the project. Others have recommended that to reduce or eliminate these impacts, the turbines be moved to the west of the proposed locations so that the turbines would not be visible from Burney (see attached letters).

The applicant has submitted information which they believe demonstrates that the proposed location of the wind turbines is the optimum location for wind energy on the site, and to relocate the turbines as proposed (or to anywhere else) would significantly reduce the wind energy available for electrical generation, making the project economically infeasible. This information includes two visual impact analyses provided by the applicant, one of which concludes: "... moving the turbines sufficiently off the ridgelines as to make them invisible in Burney renders the Project economically and technically unfeasible" (see *Shasta County, California Zone of Visual Influence Assessment* dated April 24, 2008, in Appendix A of the Final EIR).

**Potential direct mortality of greater sandhill cranes, bald eagles, special-status raptors and other avian species**

This issue is reviewed in Section 3.4, Biological Resources, of the Draft EIR. Comments received from the California Department of Fish and Game (DFG) and the Wintu Audubon Society (Audubon) and from the community expressed great concern about the potential adverse impact of this project on various species of birds. The applicants had lengthy meetings with DFG and Audubon to reach agreement on mitigation measures and an ongoing monitoring program. This agreement is reflected in the revisions to Mitigation Measure BIO 6, as found in the Final EIR and the Mitigation Monitoring and Reporting Program. Mitigation measures include purchase of off-site habitat. The monitoring program includes the formation of a technical advisory committee to oversee an adaptive management program. This program will select and implement additional mitigation measures as necessary based on the results of the monitoring data.

**Visual and auditory disruption of Pit River Tribe religious practices**

This issue is analyzed in Section 3.5, Cultural Resources, of the Draft EIR. Because of the potential impacts of this project on the Pit River Tribe religious practices, and also because of the Tribe's concerns about the project's effects on natural resources including birds, the Tribe opposes this project. However, if the Commission chooses to approve this project, the Tribe has asked for additional conditions of approval to address its concerns (Please see the attached letter).

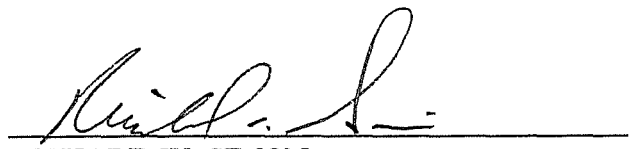
**Comments from the Community**

The Planning Division has received a number of letters from people in the community of Burney and surrounding areas both in support and opposition to the project. Letters received during the Draft EIR comment period are included and responded to in the Final EIR. Letters received since the close of the comment period on the Draft EIR and after the July 24, 2008 Planning Commission meeting are attached to this staff report.

**ALTERNATIVES**: The following alternatives are available:

1. Elect not to certify the EIR and return it to staff with recommendations for revisions.
2. Modify the conditions of approval of the Use Permit.
3. Adopt a resolution of intent to approve a revised project, and direct staff to prepare revised findings and conditions for consideration.
4. Continue the public hearing to request additional specific information.
5. Deny the Use Permit. The Commission would need to make findings that the proposed use is inconsistent with the General Plan and zone district, and/or that the establishment, operation, and maintenance of the subject use, under the circumstances of the particular case, would be detrimental to the health, safety, peace, morals, comfort, and general welfare of persons residing or working in the neighborhood or be detrimental or injurious to property or improvements in the neighborhood or to the general welfare of the County.

**CONCLUSION**: Based on the information supplied by the applicant, data available to Planning staff, the Environmental Impact Report, the proposed Findings of Fact and Statement of Overriding Considerations, correspondence received from the applicant, agencies and the public, and other information contained in the project record, along with the recommended conditions of approval, staff is of the opinion that the project is consistent with the General Plan by promoting the use and development of renewable energy in a manner consistent with the zoning standards for the area, and that the establishment, operation, and maintenance of the subject use, under the circumstances of the particular case, would not be detrimental to the health, safety, peace, morals, comfort, and general welfare of persons residing or working in the neighborhood or be detrimental or injurious to property or improvements in the neighborhood or to the general welfare of the County.



RICHARD W. SIMON
Assistant Director of Resource Management

Staff Author: Bill Walker, Senior Planner
wmw/dd/District 3

Copies: Nicole Hughes, RES America Developments, Inc., 700 SW Taylor Street, Suite 210, Portland, OR 97205
John Forsythe, Jones & Stokes, 2600 V Street, Sacramento, CA 95818
Christy Corzine, Jones & Stokes, 2895 Churn Creek Road, Suite D, Redding, CA 96002
Sabrina Teller, Remy, Thomas, Moose & Manley, LLP, 455 Capitol Mall, Suite 210, Sacramento, CA 95814
Jessica Jim, Pit River Tribe, 37118 Main Street, Burney, CA 96013
Joe Rodriguez, Federal Aviation Administration, Airports District Office, 831 Mitten Road, Room 210, Burlingame, CA 94010-1303
Amy L. Fesnock, US Fish and Wildlife Service, 2800 Cottage Way, Suite W-2605, Sacramento, CA 95825
Lynette Esternon-Green, California Energy Commission, 1516 9th Street, MS 45, Sacramento, CA 95814
Valerie Beck, California Public Utilities Commission, Energy Division, 4th Floor, 505 Van Ness Avenue, San Francisco, CA 94102
Bruce Webb, California Department of Fish and Game, 601 Locust Street, Redding, CA 96001
California Regional Water Quality Control Board, 415 Knollcrest Drive, Redding, CA 96002
McArthur-Burney Falls Memorial State Park, 24898 Highway 89 North, Burney, CA 96013
Marci Gonzalez, Caltrans District 2, P.O. Box 496073, Redding, CA 96049-6073
Department of Transportation, Division of Aeronautics - M.S.#40, P.O. Box 942873, Sacramento, CA 94273-0001
Native American Heritage Commission, 915 Capitol Mall, Room 364, Sacramento, CA 95814
Shasta County Library, 1100 Parkview Avenue, Redding CA 96001
Shasta County Library, Burney Branch, 37038 Siskiyou Street, Burney, CA 96013
Pacific Gas and Electric Company, 3600 Meadow View Road, Redding, CA 96002
Redding Record Searchlight, 1101 Twin View Blvd, Redding CA 96003
Intermountain News, 37095 Main Street, P.O. Box 1030, Burney, CA 96013
Mountain Echo, 43152 Highway 299E Suite B, P.O. Box 224, Fall River Mills, CA 96028
Project File

Attach:

1. Location Map
2. General Plan Map
3. Zone District Map
4. Site Plan (Figure 2-1 Representative configuration of the Proposed Hatchet Ridge Wind Project)
5. Elevation Drawing (Figure 2-3 Turbine Options for the Hatchet Ridge Wind Project)
6. * Draft EIR (previously distributed)
7. * Final EIR including Mitigation Monitoring and Reporting Program (previously distributed)
8. * Studies from the applicant which are not included in Draft or Final EIR: (previously distributed)
   A. *Economic Impacts of the Hatchet Ridge Wind Project* by Economics Group of ENTRIX, Inc., November 5, 2007
   B. *Visual Impact Analysis* by RES America Developments, Inc., May 6, 2008
   C. Memorandum: *Hatchet Ridge Wind Project, California, Kenneth P. Able, Evaluation of the Nocturnal Bird Migration Study*, by David Young, WEST, Inc., June 22, 2008
9. * Correspondence from Agencies received after the Draft EIR comment period and therefore

not included in the Final EIR, including a letter from the Pit River Tribe (previously distributed)

10. * Correspondence from the Public received after the Draft EIR comment period and therefore not included in the Final EIR (previously distributed)
11. Correspondence from the Public received since the July 24, 2008 Planning Commission hearing.
12. Draft Findings of Fact and Statement of Overriding Considerations
13. Draft EIR Certification Resolution
14. Draft Use Permit Resolution
15. Revised Draft Use Permit Conditions

* Attachments marked with an asterisk are available at:

- Department of Resource Management - Planning Division, 1855 Placer Street, Suite 103, Redding, CA 96001; or
- On the internet at: www.co.shasta.ca.us click "County Departments" then "Resource Management" then "Hatchet Ridge Wind Project"

# SHASTA COUNTY
# PLANNING COMMISSION

MINUTES — **Special Meeting**

Date: July 24, 2008
Time: 7:00 p.m.
Place: Mountain View High School
Burney, CA

**Flag Salute**

ROLL CALL

**Commissioners Present:**

| | |
|---|---|
| Dave Rutledge | District 1 |
| Roy Ramsey | District 4 |
| John Wilson | District 2 |
| John Cornelius | District 3 |
| Shirley Easley | District 5 |

**Staff Present:** Richard Simon, Assistant Director of Resource Management
Bill Walker, Senior Planner
Mike Ralston, County Counsel
Al Cathey, Public Works/Subdivision Engineer
Jim Diehl, Shasta County Fire Department
Dawn Duckett, Staff Services Manager, Recording Secretary

**Note:** **All unanimous actions reflect a 5-0 vote.**

Key: California Environmental Quality Act (CEQA): Mitigated Negative Declaration (MND), Negative Declaration (ND), Categorically Exempt (CE), General Exemption from CEQA (GE); Not Subject to CEQA (N/A).

**CONFLICT OF INTEREST DECLARATIONS:** None.

**PUBLIC HEARING:**

**R1:** <u>Use Permit 06-016 (Hatchet Ridge Wind)</u>: The applicant, Hatchet Ridge Wind, LLC, proposes to construct a wind energy project on 73 acres scattered over 17 parcels totaling approximately 3,000 acres on Hatchet Mountain. The site is approximately seven miles due west of Burney, and 34 miles northeast of Redding, and immediately north of State Highway 299 at Hatchet Mountain Pass.

The project would produce approximately 100 megawatts of electricity and would require construction of 42 to 68 wind turbines on steel tubular towers from about 213 feet to 263 feet tall. The total height of each tower with its attached wind turbine could reach from about 338 feet to about 418 feet high. The line of towers would stretch for about 6.5 miles northeasterly along the ridge of Hatchet Mountain.



ATTACHMENT 18

The project would include transmission lines from the turbines to a new substation and additional lines to interconnect with existing high-voltage transmission lines that cross the project site which are owned by Pacific Gas and Electric Company. The project would also include a temporary construction office, an operations and maintenance building/control center, new access roads, temporary staging areas, and up to four permanent meteorological masts up to 220 feet high. The project would be constructed over a 6 to 12-month period. In general, the towers would be constructed in areas managed for commercial timber production which were replanted after the 1992 Fountain Fire. Staff Planner: Walker. District 3.

Senior Planner Bill Walker presented the staff report and John Forsythe, from Jones & Stokes Associates (Environmental Impact Report (EIR) consultant) gave a presentation describing the EIR process for the project. The public hearing was opened and speaking in favor of the project were:

| *Speaker's Name* | *Comment/Issue/Concern* |
|---|---|
| Nicole Hughes | Ms. Hughes, representing RES (the applicant) described the site selection process and the benefits of wind energy. |
| George Hardie | Mr. Hardie (Babcock & Brown) described the economic benefits of wind energy. |
| David Young | Mr. Young (West, Inc.) discussed the biological studies performed at the site and wildlife impact mitigation measures. |
| Perry Thompson | Mr. Thompson (Hat Creek Construction) voiced support for the project discussing the use of fossil fuels and economic benefits of renewable energy sources. |
| Richard Taylor | Mr. Taylor discussed the benefits of renewable energy as well as the economic benefits to local infrastructure and education systems. |
| Terry Hufft | Mr. Hufft stated that the wind project would generate interest in the area. |
| Rob Moseman | Mr. Moseman (Shasta Constructors) discussed renewable energy, global warming, and agreed that the wind project would generate interest in the Burney area. |
| Eric Sargent | Mr. Sargent (Construction Workers' Union) agreed with the previous speakers and stated that the project would provide jobs for unemployed construction workers. |

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| Phil George | Mr. George (Stimpel Wiebelhaus) discussed global warming and stated that wind energy emits no pollution into the environment. He also opined that the local wildlife would accommodate the project and that the project would generate interest in the Burney area. |
| Dan Brown | Mr. Brown discussed dependency on foreign oil and possible mitigation measures to reduce impacts to birds. |
| Pam Giacomini | Mrs. Giacomini (Burney Chamber of Commerce) stated that the Chamber of Commerce had in January 2008, voted to support the project. |
| Marian Marglen | Ms. Marglen discussed fossil fuels and tourism in the Burney area. |
| Henry Giacomini | Mr. Giacomini voiced support for the project and discussed renewable energy and the economic benefits of wind projects. |

Speaking in opposition to the project were:

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| David Larson | Mr. Larson read aloud a written statement opposing the project and asked the Commission to examine a to-scale model of a wind turbine located in the rear of the meeting room. He noted that hundreds of people have signed a petition against the project and he cited General Plan policies against the project. Mr. Larson recommended moving the turbines further west. |
| Karen Scholls | Ms. Scholls stated that Mallory Lane was not included in the street analysis performed by Jones and Stokes. She also discussed visual impacts, bird fatalities, re-siting the project, bonds for de-construction, and inquired about noise and the duration of benefits such as employment opportunities. Ms. Scholls asked that the project be denied unless the turbines were relocated. |
| Frank Germano | Mr. Germano stated that the project is not economically feasible and discussed visual impacts. |
| Joe Studenicka | Mr. Studenicka stated that the project is not conducive to the surrounding area and its scenic vistas. He requested that the next public hearing also be held in Burney and stated that the $.05 per kilowatt hour fee was insufficient and the funds collected should be used exclusively to benefit the Burney area. |
| Ken Archuleta | Mr. Archuleta discussed alternative locations for the turbines, quality of life and questioned the validity of the number of new jobs versus salaries as stated by the applicant. |
| Andrew Urlie | Mr. Urlie agreed with the previous speakers and discussed quality of life, views, and alternative locations. |

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| Lynn Dorroh | Ms. Dorroh discussed concerns regarding noise, quality of life, and the siting of the turbines. She questioned the economic benefits stated in the EIR. |
| Lola Harris | Ms. Harris discussed the location of the turbines and impacts to views. She requested that all future public hearings for the project be held in Burney and said that the use of any fees collected should be governed by the residents of Burney. |
| Joanne Germano | Ms. Germano voiced general opposition to the project and stated that proponents of the project had financial interests. |
| Jill Young | Ms. Young agreed with the previous speakers and discussed visual impacts, nighttime views (blinking lights), and stated that the economic endowments to the community were not sufficient. |
| Claudia Yerion | Ms. Yerion (Wintu Audubon Society) read aloud a written statement which discussed concerns regarding siting of the turbines and effects on birds and wildlife. |
| Bob Murray | Mr. Murray stated that wind is an unreliable source of energy and discussed the location of the turbines. |
| Jerry Smith | Mr. Smith read aloud several internet news articles regarding various subjects including, wind energy overloading electrical grids, bird strikes, and the share values of Babcock and Brown's stock. |
| Melinda Kirby | Ms. Kirby opined that proponents have a financial interest in the project. |
| Jean Boggs | Ms. Boggs agreed with previous speakers and discussed impacts to views and siting of the turbines. |
| Carl Heier | Mr. Heier (Save Burney Skyline Committee) distributed revised photo simulations to the Commission. |
| Carolyn Heier | Mrs. Heier (on behalf of Richard Morris) read aloud a written statement discussing impacts to views and siting of the turbines. |
| Bob Nelson | Mr. Nelson discussed the failure rate of wind turbines, declining share value of Babcock and Brown's stock, and adequate bonding for decommissioning the structures. |
| Mike Foley | Mr. Foley discussed civics and County liability if the project were approved as proposed. He also said that the community would support the project if the turbines were moved behind the ridge. |

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| Scott Brule | Mr. Brule (Scott's Guaranteed Glass) discussed the intent of proponents of the projects, impacts to views, bonding for decommissioning, and stated that Burney residents should have input on spending any recreation fees collected from the project. |
| Kathy Urlie | Ms. Urlie discussed economics and stated that there was no guarantee that jobs generated by the project would be local residents nor was there a guarantee that the tax revenue would benefit the Burney area. She also discussed impacts to birds and alternative siting and suggested that approval of the project be referred to the Board of Supervisors. Ms. Urlie also requested that future public hearings for the project be held in Burney. |
| Kathy Newton | Ms. Newton discussed impacts to scenic vistas and noise. |
| Chuck Sardoch | Mr. Sardoch discussed noise, impacts on birds and views and recommended smaller windmills. |
| David Wilson | Mr. Wilson agreed with previous speakers and discussed impacts to real estate values. |
| Wayne Rodman | Mr. Rodman contested earlier testimony that the Chamber of Commerce supported the project and discussed impacts on views and siting of the turbines. |
| Ann Wilburn | Ms. Wilburn discussed significant and unavoidable impacts and suggested that the Planning Commission meet with the Pit River Tribe to hear the Tribe's concerns. |
| Dennis Young | Mr. Young discussed impacts to views and objected to the height of the turbines. |
| Bob Murray | Mr. Murray provided additional discussion regarding the siting of the turbines. |
| Jerry Smith | Mr. Smith discussed the validity of the applicant's assertion that there was Chamber of Commerce and community support for the project. Mr. Smith also discussed an on-line survey. |
| Joe Studenicka | Mr. Studenicka discussed the Burney Basin versus existing wind energy projects in other areas, in particular, Dayton, Washington. |
| Vince Meglio | Mr. Meglio discussed significant and unavoidable impacts. |

Sabrina Teller, attorney for the applicant, made rebuttal remarks stating that: 1) the applicant had no influence in the preparation of the EIR; 2) mitigation would be triggered by the death of one bird and the mitigation measures placed on the project for birds are the most comprehensive in the state; 3) the scope of the project was reduced from 64 to 43

turbines; 4) the project can not be moved off of the ridge and remain feasible; 5) the project is not visible from Burney Falls or Lake Britton; 6) red lights will only be located on turbines at the end of each row; and 7) residents in the nearest homes to the project site will not hear any noise from the site. Ms. Teller also discussed tourism benefits from existing wind projects and reasons why alternative sites for the turbines were not viable.

There being no other speakers for or against the project, the public hearing was closed.

**ACTION:** By motion made, seconded (Cornelius/Easley), and carried unanimously, the Commission continued Use Permit 06-016 to a date uncertain.

**ADJOURNMENT:** The Planning Commission adjourned at 11:10 p.m.

**Submitted by:**

**Dawn Duckett, Staff Services Manager**
**Recording Secretary**

# SHASTA COUNTY
# PLANNING COMMISSION

MINUTES — **Special Meeting**

Date: October 2, 2008
Time: 4:00 p.m.
Place: Mt. Burney Theatre
Burney, CA

**Flag Salute**

**ROLL CALL**

**Commissioners Present:**

| | |
|---|---|
| Dave Rutledge | District 1 |
| Roy Ramsey | District 4 |
| John Wilson | District 2 |
| John Cornelius | District 3 |
| Shirley Easley | District 5 |

**Staff Present:** Richard Simon, Assistant Director of Resource Management
Bill Walker, Senior Planner
Rubin Cruse, Senior Deputy County Counsel
Al Cathey, Public Works/Subdivision Engineer
Dawn Duckett, Staff Services Manager, Recording Secretary

**Note:** **All unanimous actions reflect a 5-0 vote.**

Key: California Environmental Quality Act (CEQA): Mitigated Negative Declaration (MND), Negative Declaration (ND), Categorically Exempt (CE), General Exemption from CEQA (GE); Not Subject to CEQA (N/A).

**CONFLICT OF INTEREST DECLARATIONS:** None.

**OPEN TIME:** Virginia Mercado from the Pit River Tribe requested that all land use projects be referred to the Tribe for review.

**PUBLIC HEARING:**

**R1:** Use Permit 06-016 (Hatchet Ridge Wind): The project site would cover a total of 73 acres scattered over 17 parcels totaling approximately 3,000 acres on Hatchet Mountain. The site is approximately 7 miles due west of Burney, and 34 miles northeast of Redding, and immediately north of State Highway 299 at Hatchet Mountain Pass.

The applicant, Hatchet Ridge Wind, LLC, proposes to construct a wind energy project. The area actually covered by the project would be an approximately 73-acre portion of the 17 parcels. The project would produce approximately 100 megawatts of electricity and would require construction of 42 to 68 wind turbines on steel tubular towers from about 213 feet to 263 feet tall. The total height of each tower with its attached wind turbine could reach



**DRAFT**

from about 338 feet to about 418 feet high. The line of towers would stretch for about 6.5 miles northeasterly along the ridge of Hatchet Mountain. The project would include transmission lines from the turbines to a new substation and additional lines to interconnect with existing high-voltage transmission lines that cross the project site which are owned by Pacific Gas & Electric Company. The project would also include a temporary construction office, an operations and maintenance building/control center, new access roads, temporary staging areas, and up to four permanent meteorological masts up to 220 feet high. The project would be constructed over a 6 to 12-month period. In general, the towers would be constructed in areas managed for commercial timber production which were replanted after the 1992 Fountain Fire.

Chairman Rutledge displayed several Power Point slides describing the process for the public hearing. He advised that a time limit had been set of five minutes per speaker and that if an individual speaker desired to speak beyond the time limit, they may return to the end of the speaker's line to finish their testimony. Chairman Rutledge asked that all speakers focus their comments on information not already presented to the Planning Commission at the July 24, 2008, public hearing.

Senior Planner Bill Walker presented the staff report. A memorandum was distributed to the Commission containing several letters received by the Planning Division after the staff reports were circulated. Among the letters was a request from the California Department of Fish and Game to revise Condition 31(b) as well as a request from the applicant's attorney to revise Conditions 12 and 34. (NOTE: It was later clarified by Richard Simon, Assistant Director of Resource Management that staff's recommendation was to approve the project without any modifications to the conditions).

Richard Simon, Assistant Director of Resource Management provided a summary of the resolution to the issues that led to continuance of the July 24, 2008, Planning Commission meeting and read aloud an excerpt from a letter from Babcock and Brown confirming the applicant's commitment to execute a Community Benefit Agreement with Shasta County.

The public hearing was opened and speaking in favor of the project were:

| *Speaker's Name* | *Comment/Issue/Concern* |
|---|---|
| George Hardie | Mr. Hardie (Babcock & Brown) stated that he would like to make rebuttal statements after all other testimony had been taken. |
| Dennis Miller | Mr. Miller stated that more people would be present to speak in favor of the project if the meeting had started after 5:00 p.m. He said that he supports the project because of the endowments for schools, employment opportunities, and increased standard of living. |
| Terry Hufft | Mr. Hufft voiced general support for the project and reducing greenhouse gases. |

| | |
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| Ron Epperson | Mr. Epperson discussed the need for clean power, stated that property values would not be affected, and asked for approval of the project. |
| Bill Charlton | Mr. Charlton stated that the project would benefit local schools and was good for the local economy. |
| Gwen Lakey | Ms. Lakey voiced general support for the project. |
| Perry Thompson | Mr. Thompson (Hat Creek Construction) discussed the economic benefits of the project and reducing reliance on fossil fuels. |
| Larry Dodds | Mr. Dodds voiced general support for the project and agreed with the previous speakers. |
| Ed Wade | Mr. Wade stated that wind power will help to offset the high cost of other sources of power and discussed employment opportunities that will arise as a result of the project. |
| Kathy Lakey | Ms. Lakey voiced general support and discussed the need for jobs in the area. |
| Vikki DeBraga | Ms. DeBraga voiced general support for the project. |
| Ed Cleckler | Mr. Cleckler asked if the wind project could supply the town of Burney with power if all other sources had failed. |
| Margaret Branam | Ms. Branam discussed reliance on fossil fuels and stated that the wind turbines would not interfere with the community. |
| Alice Thompson | Ms. Thompson opined that windmills have a good aesthetic and discussed the benefits to local schools. |
| Bob Moore | Mr. Moore stated that the good aspects of the project outweigh the bad and discussed the need for clean energy. |
| Patricia Williams | Ms. Williams opined that windmills have a good aesthetic and asked for assurances that the endowments for schools will take place. |
| Shari Smith | Ms. Smith opined that windmills are aesthetically pleasing and discussed the need for new sources of energy. |
| Mike Kerns | Mr. Kerns voiced general support for the project. |
| Bob Thompson | Mr. Thompson (Hat Creek Construction)voiced general support for the project and clean power. |
| Jim Hamlin | Mr. Hamlin voiced general support for the project. |

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| Bruce Gavedin | Mr. Gavedin discussed reliance on foreign fossil fuels and said that he hoped there could be a resolution that respected the Indian community. |

Speaking in neutral position to the project were:

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| Rex Vaughn | Mr. Vaughn asked the Commission for clarification on how the project would benefit the tribal community and asked for assurances that the applicant would honor promises made to the community. |
| Tony Klein | Mr. Klein expressed concern that the financial benefits of the project should be allocated to the town of Burney. |
| Fred Ryness | Mr. Ryness asked if the EIR addressed the project's effect on the local climate and discussed the benefits of co-generation power plants. |
| Jeanne Yount | Ms. Yount discussed air quality and asked if the windmills would help to remove smoke from the air during the winter months. |
| Jenny Arseneau | Ms. Arseneau stated that she was in support of the project but wanted assurances that the mitigation measures will be enforced by the County. |
| Bruce Webb | Mr. Webb (California Department of Fish and Game) asked that Condition 31(b) be modified as requested in his letter that was attached to the memorandum distributed to the Commission. |

Speaking in opposition to the project were:

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| Ken Archuleta | Mr. Archuleta stated that he agreed with renewable energy but that the issue with this project is the location and related visual impacts. He discussed proliferation and said that approval of this project would set a precedent for future wind projects. |
| Virginia Mercado | Ms. Mercado (Pit River Tribe) discussed negative effects on the climate, desecration of tribal lands, aesthetics, and questioned whether new jobs would be filled by local people. |
| Paul Harbick | Mr. Harbick (RABA bus driver) discussed noise, aesthetics, and negative impacts to wildlife. |
| Sharon Elmora | Ms. Elmora discussed the loss of salmon, health concerns of tribal members, dust, and negative impacts to weather and wildlife. |

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| Jack Potter | Mr. Potter told the Commission that he was given his name "Blue Jay Wind" by his grandfather on Hatchet Mountain and that it is a sacred area to the tribe. He said that the project will interfere with religious practices on the mountain. |
| Jessica Jim | Ms. Jim (Pit River Tribe) said that no impacts to cultural resources were identified in the EIR and that Hatchet Mountain and Medicine Lake were sacred places. She discussed aesthetics and stated that 10 new jobs for the area was insufficient. Ms. Jim asked that a copy of the letter read by Richard Simon be forwarded to the tribe and that the project be denied. |
| Florence Moren-Buckskin | Ms. Moren-Buckskin voiced general opposition to the project. |
| Jessica Jim | Ms. Jim made additional comments in opposition to the project and stated that the tribe was not involved with the EIR process. |

**RECESS:** The Planning Commission took a recess at 6:02 p.m.

**RECONVENE:** The Planning Commission reconvened at 6:27 p.m.

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| Frank Germano | Mr. Germano voiced opposition to the proposed location of the windmills and asked if the EIR had addressed alternative sites. He also discussed the financial benefits versus the changes to the community as a result of the project. Mr. Germano also stated that the developer rather than the County should pay for the EIR and discussed co-generation power plants as an alternative. |
| Gerry Smith | Mr. Smith discussed the benefits of nuclear energy versus wind energy and noted that RES had sold the project to Babcock and Brown. He voiced concern regarding Babcock and Brown's declining stock share value. Mr. Smith suggested inter-spacing the turbines to conceal them from view and submitted a publication regarding turbine spacing methods for the Commission's review. |
| Darlene Machon | Ms. Machon discussed negative impacts to birds and other wildlife and questioned the community benefits versus the impacts to sacred lands. |
| Bob Nelson | Mr. Nelson discussed the declining financial condition and share value of Babcock and Brown's stock, and stated that the County should require financial assurances and/or bonds for decommissioning the structures. |
| Vince Meglio | Mr. Meglio agreed with Mr. Nelson's statements and stated that the project would not result in a reduction to dependency on foreign energy. He asked that the Commission deny the project. |

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| Jean Boggs | Mr. Boggs discussed negative visual impacts, traffic on Highway 299, and asked that the Commission consider the wishes of the Native Americans. |
| Bill Watson | Mr. Watson asked the Commission to consider the loss of wildness that will result from the project. |
| Ron Gray | Mr. Gray discussed the loss of trees and negative effects to wildlife. He asked if blasting would take place during construction of the project and whether there would be effects on nearby wells. |
| Donni Rouse | Ms. Rouse discussed the loss of sweet grass and other vegetation used by the Indians. She asked for clarification regarding the benefits to schools and the effects on local tourism. |
| Frank Germano | Mr. Germano made additional comments regarding co-generation power plants and asked if portions of Highway 299 were designated as a Scenic Highway. |
| Tom Hoskins | Mr. Hoskins discussed maintenance of wind turbines and stated that the wind generator in Benecia California was torn down after only four years. He asked that the Tribe's wishes be respected. |
| Ernie West | Mr. West stated that nuclear power plants produce more energy than wind and opined that wind energy will soon be obsolete. He also stated that the new jobs resulting from the project will most likely not be offered to local people. |
| Bill George | Mr. George objected to the location of the turbines. |
| Andrew Urlie | Mr. Urlie objected to the location of the turbines, discussed negative visual impacts, and suggested approval subject to re-siting the project. |
| John Lindler | Mr. Lindler opined that the project does not fit the community and discussed negative visual impacts. |
| Ann Wilburn | Ms. Wilburn asked for clarification regarding time periods for decommissioning and stated that visual impacts can not be measured. |
| Kathy Newton | Ms. Newton discussed negative visual impacts as well as impacts to wildlife, the loss of trees and lighting. |

Nicole Hughes, from RES made rebuttal remarks stating that RES has made a good-faith effort to involve the Tribe in the process and has had recent positive contact with the Tribe's attorney. Ms. Hughes went on to say that an ethnographic study had been commenced and that the study will benefit the Tribe.

George Hardie, from Babcock and Brown also made rebuttal remarks discussing the firm's financial status and detailing their current investments as well as current projects. He stated that construction for the project will not be started until financial commitments such as the education endowments, have been met. Mr. Hardie also discussed reclamation stating that every five years analysis will be performed to determine the cost for decommissioning the project.

Scott Piscatello, from RES clarified the relationship between RES and Babcock and Brown stating that RES had sold the rights to the project to Babcock and Brown and RES will construct the project.

Jessica Jim objected to Nicole Hughes' statement regarding the "good-faith" effort by RES to involve Tribe members in the process.

Richard Simon asked George Hardie to respond to the following technical questions which were asked by members of the public during the public hearing:

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| Question: | Can the facilities feed the town of Burney if all other power is out? |
| Answer: | The facility will generate approximately 103 megawatts that could serve 800-1,000 homes and would connect directly to PG&E. |
| Question: | Will there be any downdraft effects on the weather associated with the project? |
| Answer: | There are no studies indicating any such effects. |
| Question: | Will the windmills clear smoke from the air during the winter months? |
| Answer: | No. |
| Question: | Will there be any blasting during construction of the project? |
| Answer: | The applicant is not aware of the need for blasting. |

There being no other speakers for or against the project, the public hearing was closed. Richard Simon responded to questions from the Commission stating that the applicant had paid for the EIR through a third-party agreement with the County. In response to the question of whether or not CEQA requires that alternative sites be identified for a project, Mr. Simon explained that several alternatives to the project are listed in the EIR and that studies were performed to analyze alternative sites for the project, non of which were deemed feasible. Mr. Simon also stated that in regards to the requests for revisions to the conditions, staff's recommendation is to approve the project with the conditions as written.

Rubin Cruse, Senior Deputy County Counsel, noted that as currently structured, the County's right to salvage title might not be perfected until after the project ceased operations.

**ACTION:** By motion made, seconded (Cornelius/Ramsey), and carried unanimously, by Resolution 2008-102, the Commission certified the Environmental Impact Report (EIR) for the Hatchet Ridge Wind project, and adopt the related Mitigation Monitoring and Reporting Program, based on the findings listed in the Resolution; and by Resolution 2008-103, adopted the Findings of Fact and Statement of Overriding Considerations, and based on those findings, overriding considerations, and the other information in the record, approved Use Permit 06-016, subject to the conditions listed in the Resolution.

**ADJOURNMENT:** The Planning Commission adjourned at 7:58 p.m.

**Submitted by:**

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**Dawn Duckett, Staff Services Manager**
**Recording Secretary**

# Findings of Fact and Statement of Overriding Considerations

## Contents

# I. Overview and Introduction

These Findings and Statement of Overriding Considerations are made with respect to the Hatchet Ridge Wind Project (proposed project) and state the findings of the Planning Commission of the County of Shasta (Commission) relating to the potentially significant environmental effects of the proposed project to be developed in accordance with the relevant project approvals. The following Findings, Statement of Overriding Considerations, and Mitigation Monitoring and Reporting Program (MMRP) are hereby adopted by the Commission of the County as required by the California Environmental Quality Act (CEQA), Public Resources Code Sections 21081, 21081.5 and 21081.6, and Title 14 California Code of Regulations (State CEQA Guidelines) Sections 15091 through 15093.

Pursuant to Public Resources Code Section 21081 and State CEQA Guidelines Section 15091, no public agency shall approve or carry out a project for which a certified Environmental Impact Report (EIR) identifies one or more significant environmental effects of the project, unless the public agency makes one or more written findings for each of those significant effects, accompanied by a brief explanation of the rationale for each finding. The possible findings, which must be supported by substantial evidence in the record, are listed below.

- Changes or alternatives have been required in, or incorporated into, the project that avoid or substantially lessen the significant environmental effect as identified in the final EIR (hereinafter, **Finding 1**).
- Such changes or alternatives are within the responsibility and jurisdiction of another public agency. Such changes have been adopted by such other agency or can and should be adopted by such other agency (hereinafter, **Finding 2**).
- Specific economic, legal, social, technological, or other considerations, including provision of employment opportunities for highly trained workers, make infeasible the measures or project alternatives identified in the final EIR (hereinafter, **Finding 3**).

For those significant impacts that cannot be mitigated to a level below "significant," the public agency is required to find that specific overriding economic, legal, social, technological, or other benefits of the project outweigh the significant impacts on the environment.

# II. Project Description

Hatchet Ridge Wind LLC (HRW), an affiliate of RES Americas Inc. (RES) and Renewable Energy Systems LTD, filed a Conditional Use Permit application with the County on June 6, 2006, to construct and operate a wind energy project in eastern Shasta County. The proposed project site is located on private land owned by Sierra Pacific Industries and the Fruit Growers Supply Company.

HRW has a long-term lease agreement with Sierra Pacific Industries and is negotiating a long-term lease with Fruit Growers Supply Company for the parcels where the proposed project would be developed.

HRW undertook a comprehensive analysis to select an appropriate site for the proposed project. This analysis considered several key factors: suitable conditions to generate quantities of wind energy to support the project's needs; proximity to existing transmission with capacity available to convey renewable power to purchasing utilities; consistency with existing land uses; and lack of major environmental constraints. In the development of this analysis, HRW conducted a year-long monitoring program to confirm velocity of wind speed and frequency and direction of prevailing winds, as well as a year-long monitoring program to establish a baseline for analyzing potential impacts on avian and bat species. Following selection of the desired site, HRW initiated the permitting process for the proposed project.

The proposed project would construct up to 68 three-bladed wind turbines along a 6.5-mile turbine string corridor on Hatchet Ridge. Each wind turbine would be installed on a tubular steel tower up to 262 feet (80 meters) tall. Each turbine/tower combination would have a maximum height of approximately 420 feet (128 meters), measured from the ground to the turbine blade tip at its highest point. The final permanent combined project footprint of the Hatchet Ridge Wind Energy project would encompass approximately 75.6 acres.

The proposed project would be constructed in one or more phases and would include construction of an interconnection with an existing Pacific Gas and Electric Company (PG&E) transmission line that crosses the leased property; the interconnection switching station would be owned by PG&E. This line is part of the PG&E system grid and is controlled by the California Independent System Operator Corporation, a not-for-profit public benefit corporation that operates the state's wholesale power grid. Electricity would be delivered to the energy market in California through utilities, municipalities, and cooperatives.

# III. Project Approvals

All of the following actions are referred to collectively as the *project approvals*. The project approvals constitute the *proposed project* for purposes of CEQA and State CEQA Guidelines Section 15378 and these determinations of the Planning Commission.

The following approvals apply to the proposed project.

1. Shasta County—Conditional Use Permit.

2. Department of Resource Management Environmental Health Division—septic system permit.

3. Shasta County Building Division—building permit, grading permit.

4. California Department of Forestry & Fire Protection—timberland conversion permit.

5. California Department of Transportation Division of Aeronautics—permit required according to PUC Section 21656.

6. California Energy Commission—None

7. California Public Utilities Commission—potential purchasers of electricity generated by the project may choose to seek an order indicating Commission approval of such purchase and other related actions.

8. California Regional Water Quality Control Board—NPDES Construction Stormwater Permit, CWA Section 401 Water Quality Certification.

9. Federal Energy Regulatory Commission—approval to be an Electric Wholesale Generator and to sell electricity at market-based rates.

10. Federal Aviation Administration—notice of proposed construction.

# IV. Project Objectives

The project objectives are listed below.

1. Develop a wind power project in close proximity to existing transmission line with available capacity to receive power generated by the project.

2. Develop a wind power project in a location that will have minimal impacts on birds, bats, vegetation, and other environmental resources.

3. Utilize a wind resource area previously identified by the California Energy Commission as a potential site.

4. Meet regional energy needs in an efficient and environmentally sound manner.

5. Assist California in meeting its legislated Renewable Energy Portfolio standards for the generation of renewable energy in the state; these standards require investor-owned utilities to purchase 20% of their power from renewable sources by 2017.

6. Offset the need for additional electricity generated from fossil fuels (which, unlike wind power, emit air pollutants), thereby assisting the state in meeting its air quality goals and reducing greenhouse gases.

7. Develop a wind project that will produce up to 102 MW of electricity.

8. Develop an economically feasible wind energy project that will support commercially available financing.

# V. Record of Proceedings

For purposes of CEQA and these Findings, the Record of Proceedings for the project consists at a minimum of the documents listed below.

- The Notice of Preparation (NOP) and all other public notices issued by the County in conjunction with the proposed project.
- The Hatchet Ridge Wind Project Draft EIR (December 2007) and Final EIR (June 2008) and all documents cited or referred to therein.
- All comments submitted by agencies or members of the public during the 45-day public comment period on the Draft EIR.
- All comments and correspondence submitted to the County with respect to the proposed project, in addition to timely comments on the Draft EIR.
- The Mitigation Monitoring and Reporting Plan (MMRP) for the proposed project.
- All findings and resolutions adopted by County decision makers in connection with the proposed project, and all documents cited or referred to therein.
- All reports, studies, memoranda, staff reports, maps, exhibits, illustrations, diagrams, or other planning materials relating to the proposed project prepared by the County or by consultants to the County, the Applicant, or responsible or trustee agencies and submitted to the County, with respect to the County's compliance with the requirements of CEQA and with respect to the County's actions on the proposed project.
- All documents submitted to the County by other public agencies or members of the public in connection with the proposed project, up through the close of the public hearing on July 24, 2008.
- Minutes, as available, of all public meetings and public hearings held by the County in connection with the proposed project.
- Any documentary or other evidence submitted to the County at such information sessions, public meetings, and public hearings.
- Project-related studies submitted by the applicant.
- Correspondence received after the closure of the Draft EIR review period.
- Any other materials required to be in the record of proceedings by Public Resources Code Section 21167.6, subdivision (e).
- The custodian of the documents comprising the record of proceedings is the County Department of Resource Management, Planning Division, whose office is located at 1855 Placer Street, Suite 103, Redding, CA 96001.

The Commission has relied on all the documents listed above in reaching its decision on the Hatchet Ridge Wind Project.

# VI. Procedural Background

- An Initial Study has been conducted by the Shasta County Department of Resource Management, Planning Division, to evaluate the potential for significant adverse environmental effects.
- Based on the findings of the Initial Study, the Shasta County Environmental Review Officer determined that an Environmental Impact Report (EIR) was required to evaluate the potential impacts of the proposed project.
- Shasta County contracted with Jones & Stokes of Redding, California, which prepared a Draft EIR (State Clearinghouse Number 2007042078).
- A scoping meeting for the EIR was held on Wednesday, April 25, 2007, at the Burney Veterans of Foreign Wars Hall, Burney, California.
- A Notice of Completion and a Notice of Availability were sent to responsible and trustee agencies and various other federal, state and county agencies.
- A Notice of Availability was published in the Record Searchlight and the Intermountain News newspapers and was sent to persons who have expressed interest in the project, and to property owners within a minimum of 300 feet of the proposed project site, as shown on the current Tax Assessor's rolls.
- The period for comments on the Draft EIR was from December 13, 2007 through January 28, 2008.
- Comments were received from various agencies, groups and individuals.
- All comments received on the Draft EIR have been reviewed and responded to in the Final EIR.

# VII. Certification of the EIR

In adopting these findings, in accordance with CEQA the County has considered the environmental effects as shown in the FEIR prior to approving the project. These findings represent the independent judgment and analysis of the County.

# VIII. Changes to the DEIR

In the course of responding to comments received during the public review and comment period on the DEIR, certain portions of the DEIR have been modified and some new information has been added. The changes made to the DEIR do not result in the existence of:

1. A significant new environmental impact that would result from the Project or an adopted Mitigation Measure;

2. A substantial increase in the severity of an environmental impact that is not reduced to a level of less-than-significant by adopted Mitigation Measures;

3. A feasible Project alternative or Mitigation Measure not adopted that is considerably different from others analyzed in the DEIR that would clearly lessen the significant environmental impacts of the Project; or

4. Information that indicates that the public was deprived of a meaningful opportunity to review and comment on the DEIR.

The County finds that the amplifications and clarifications made to the DEIR do not collectively or individually constitute significant new information within the meaning of Public Resources Code section 21092.1 and CEQA Guidelines section 15088.5.

# IX. Evidentiary Basis for Findings

These findings are based upon substantial evidence in the entire record before the County as described in Section III.

The references to the DEIR and to the FEIR set forth in these findings are for ease of reference and are not intended to provide an exhaustive list of the evidence relied upon for these findings.

# X. Findings Regarding Mitigation Measures

**1. Mitigations Adopted.**

Except as otherwise noted, the Mitigation Measures herein referenced are those identified in the FEIR.

**2. Effect of Mitigations.**

Except as otherwise stated in these findings, in accordance with CEQA Guidelines sections 15091, 15092, and 15093, the County finds that the environmental effects of the Project:

- Will not be significant; or
- Will be mitigated to a less-than-significant level by the Mitigation Measures adopted by the County; or
- Can and should be mitigated to a less-than-significant level by the Mitigation Measures within the jurisdiction of another public agency; or
- Will remain significant after mitigation, but specific economic, legal, social, technological, or other considerations outweigh the unavoidable adverse environmental effects.

The County finds that the Mitigation Measures incorporated into and imposed upon the Project will not have new significant environmental impacts that were not already analyzed in the DEIR.

# XI. Findings of Fact

Findings of fact are presented in the following sections.

- A. General Findings
- B. Impacts Declared to be Less-than-Significant
- C. Impacts Declared to be Less-than-Significant with Implementation of Mitigation Measures
- D. Impacts that Remain Significant and Unavoidable after Implementation of Mitigation Measures
- E. Findings Regarding Growth-Inducing Impacts
- F. Findings with Respect to Cumulative Impacts
- G. Findings with Respect to Alternatives

## A. General Findings

The Commission agrees with the characterization of the Final EIR with respect to all impacts identified as *less-than-significant* or as having *no impact*, and finds that those effects have been described accurately and are less than significant or have no impact as so described in the Draft and Final EIR.

## B. Impacts Declared to be Less-than-Significant

Analysis of the project resource areas found the following impacts are *less-than-significant*. See the Draft EIR for a complete description of each impact, as indicated below.

- **Impact AES-1: Temporary visual changes as a result of construction** (See Section 3.1.2 page 3.1-11 of DEIR.)
- **Impact AES-3: Potential Damage to Scenic Resources Along a Scenic Highway** (See Section 3.1.2 page 3.1-12 of DEIR)
- **Impact AG-1: Temporary (136 acres) and permanent (73 acres) conversion of timberland to developed uses** (See Section 3.2.2 page 3.2-9 of DEIR)
- **Impact AIR-2: Elevated health risk from exposure of nearby sensitive receptors to construction-related diesel particulate matter** (See Section 3.3.2 page 3.3-14 of DEIR)
- **Impact AIR-3: Generation of emissions of reactive organic gases and oxides of nitrogen in excess of SCAQMD thresholds** (See Section 3.3.2 page 3.3-14 of DEIR)

- **Impact AIR-4: Increase in greenhouse gas contaminant emissions** (See Section 3.3.2 page 3.3-14 of DEIR)
- **Impact BIO-3: Temporary disturbance of up to 135 acres and permanent loss of up to 73 acres of habitat for special-status wildlife species** (See Section 3.4.2 page 3.4-18 of DEIR)
- **Impact BIO-4: Permanent loss of potential nesting habitat for northern goshawk, Cooper's hawk, sharp-shinned hawk, and long-eared owl** (See Section 3.4.2 page 3.4-18 of DEIR)
- **Impact BIO-7: Potential loss of up to 75 acres of deer fawning habitat** (See Section 3.4.2 page 3.4-19 of DEIR)
- **Impact BIO-10: Potential direct mortality of spotted owls** (See Section 3.4.2 page 3.4-22 of DEIR)
- **Impact BIO-12: Potential direct mortality of special-status and common bat species** (See Section 3.4.2 page 3.4-24 of DEIR)
- **Impact BIO-13: Potential interference with avian and bat migration corridors** (See Section 3.4.2 page 3.4-24 of DEIR)
- **Impact BIO-14: Potential displacement of special-status and common wildlife species from the project area** (See Section 3.4.2 page 3.4-24 of DEIR)
- **Impact CUL-3: Restriction of traditional Pit River Tribe basketry material collection and religious practices during construction and operation** (See Section 3.5.2 page 3.5-13 of DEIR)
- **Impact GEO-1: Potential to cause accelerated runoff, erosion, and sedimentation from grading activities** (See Section 3.6.2 page 3.6-9 of DEIR)
- **Impact GEO-3: Potential exposure of people or structures to surface rupture of a known earthquake fault** (See Section 3.6.2 page 3.6-11 of DEIR)
- **Impact GEO-4: Potential exposure of people or structures to strong seismic ground shaking or liquefaction hazards** (See Section 3.6.2 page 3.6-11 of DEIR)
- **Impact GEO-5: Potential structural damage as a result of development on expansive soils** (See Section 3.6.2 page 3.6-11 of DEIR)
- **Impact GEO-7: Exposure of people or structures to volcanic hazards** (See Section 3.6.2 page 3.6-12 of DEIR)
- **Impact HAZ-5: Accidents involving the general public (other than turbine failure)** (See Section 3.7.2 page 3.7-18 of DEIR)
- **Impact HYD-2: Potential to alter the existing drainage pattern or contribute to existing local or regional flooding** (See Section 3.8.2 page 3.8-9 of DEIR)
- **Impact HYD-3: Potential to expose people or structures to flood hazards** (See Section 3.8.2 page 3.8-10 of DEIR)

- **Impact HYD-4: Depletion of groundwater supplies** (See Section 3.8.2 page 3.8-10 of DEIR)
- **Impact HYD-5: Potential water quality impacts from project operations** (See Section 3.8.2 page 3.8-11 of DEIR)
- **Impact HYD-6: Potential hazards from seiche, tsunami, or mudflow** (See Section 3.8.2 page 3.8-11 of DEIR)
- **Impact LUP-1: Temporary (136 acres) and permanent (73 acres) conversion of timberland to developed land uses** (See Section 3.9.2 page 3.9-8 of DEIR)
- **Impact NOI-1: Potential for construction-related noise from the project to exceed thresholds** (See Section 3.10.2 page 3.10-9 of DEIR)
- **Impact NOI-2: Potential for exposure of existing residences to operational noise** (See Section 3.10.2 page 3.10-11 of DEIR)
- **Impact NOI-3: Potential for construction-related and operational noise to affect wildlife** (See Section 3.10.2 page 3.10-12 of DEIR)
- **Impact PS-1: Increased demand for law enforcement** (See Section 3.11.2 page 3.11-4 of DEIR)
- **Impact PS-2: Increased demand for fire and emergency medical services** (See Section 3.11.2 page 3.11-5 of DEIR)
- **Impact TRA-1: Increase in area traffic volumes and degradation of LOS due to construction-generated traffic** (See Section 3.12.2 page 3.12-10 of DEIR)
- **Impact TRA-4: Inadequate parking supply to meet parking demand for construction equipment and construction workers** (See Section 3.12.2 page 3.12-11 of DEIR)
- **Impact TRA-5: Increase in area traffic volumes and degradation of LOS due to traffic generated by the proposed project** (See Section 3.12.2 page 3.12-11 of DEIR)
- **Impact USS-1: Need to construct and upgrade stormwater drainage facilities** (See Section 3.13.2 page 3.13.10 of DEIR)
- **Impact USS-2: Increased demand for water** (See Section 3.13.2 page 3.13.11 of DEIR)
- **Impact USS-3: Generation of solid waste during construction and operation of the proposed project** (See Section 3.13.2 page 3.13.11 of DEIR)
- **Impact USS-4: Need to construct new telecommunications infrastructure** (See Section 3.13.2 page 3.13.12 of DEIR)

# C. Impacts Declared to be Less-than-Significant with Implementation of Mitigation Measures

The Final EIR identifies the following significant adverse impacts associated with the proposed project and mitigation measures adopted to reduce these significant impacts to a less-than-significant level. The impacts and mitigation measures (MMs) identified below are presented in summary form. For a detailed description of impacts and mitigation measures, see the appropriate text in the Draft and/or Final EIR. Except as expressly otherwise stated in certain cases below, all mitigation measures proposed in the Final EIR shall be implemented. **Section and chapter numbers referenced below refer to the Draft or Final EIR where the impact analysis and mitigation measure discussions appear in full detail.**

## Aesthetics and Visual Resources (Draft EIR Section 3.1; Final EIR Chapter 3)

### Impact AES-4: Permanent changes in light and glare

**Mitigation Measure. MM AES-1.Use rapid-discharge flashing red safety lighting**

Implementation. This mitigation measure will be included in the conditions of approval for the project.

Finding 1. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding.MM AES-1 requires the project proponent to light turbines in accordance with FAA recommendations and avoid the use of a single incandescent light for aviation warning. To comply with FAA regulations, a rapid-discharge flashing red light will be used rather than a single incandescent light.

Implementing this mitigation measure will reduce Impact AES-4 to a less-than-significant level.

## Air Quality (Draft EIR Section 3.3, Final EIR Chapter 3)

### Impact AIR-1: Temporary increase in construction-related emissions

**Mitigation Measures. MM AIR-1. Implement SCAQMD required standard measures; MM AIR-2. Implement additional measures to reduce construction emissions**

Implementation. These mitigation measures will be included in the conditions of approval for the project.

Finding 1. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. Construction of the proposed project could result in the temporary generation of air pollutant emissions of ROG, NOX, CO, and PM10, which would result in existing violations of ambient air quality standards in the area. Emissions would originate from mobile and stationary construction equipment exhaust, employee vehicle exhaust, dust from clearing and grading the project site, exposed soil eroded by wind, and ROG from architectural coatings and asphalt paving. MM AIR-1 and MMAIR-2 will significantly reduce the levels of temporary air pollutant emissions by limiting and controlling fugitive dust and soil erosion in compliance with SCAQMD standard control measures, minimizing idling of construction equipment and vehicle operations, and using alternative fuel sources to power construction equipment and vehicles.

Implementing MM AIR-1 and MM AIR-2 will reduce Impact AIR-1 to a less-than-significant level.

## Biological Resources (Draft EIR Section 3.4, Final EIR Chapter 3)

### Impact BIO-1: Removal and disturbance of special-status plants.

**Mitigation Measures.MM BIO-1. Avoid Butte County morning glory; MM BIO-2. Minimize impacts on Butte County morning glory.**

Implementation. These mitigation measures will be included in the conditions of approval for the project.

Finding 1. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. The project area contains habitat for special-status plants. Long-stoloned sedge and yellow triteleia have been documented in the project area; however, these species are designated as "not very endangered in California" by the California Native Plant Society (CNPS); consequently, impacts on these species are typically considered significant only if the populations are locally significant in accordance with CNPS assessment criteria. As stated on page 3.4-15 of the Draft EIR, because the occurrences of these species in the project area do not appear to meet any of these criteria, they should not be considered locally significant. Impacts on these two species are considered less than significant; no mitigation is required.

The project area also contains Butte County morning glory habitat, a species considered "rare and endangered in California" by CNPS.

Project facilities that would be constructed in occupied habitat comprise six wind turbines, access roads, and electrical collection facilities (underground lines), resulting in the permanent loss of 11 acres of Butte County morning glory habitat and the temporary disturbance of approximately 15 acres. Although the permanent loss represents less than 10% of the overall habitat available in the area, construction with heavy equipment could result in the introduction of nonnative invasive species or change the hydrology or other important characteristics of the area that over time may ultimately make the area unsuitable for the species and eliminate it from the area.

Implementation of MM BIO-1 and MM BIO-2 would avoid and minimize the disturbance to Butte County morning glory habitat to less-than-significant levels, as summarized below.

- The project applicant will redesign the location of the proposed facilities to avoid habitat for Butte County morning glory; if this avoidance measure is not possible, the applicant will:
  - minimize impacts on Butte County Morning glory by locating facilities in unoccupied patches of the population, or in areas that support the lowest densities of plants;
  - for habitat that is temporarily disturbed during construction (approximately 15 acres), confine the work area to the minimum amount necessary to complete the work; and
  - implement invasive species control measures during construction and implement monitoring for a period of 3 years following construction.

### Impact BIO-2: Potential loss or disturbance of wetlands and/or riparian habitat.

#### Mitigation Measure. MM BIO-3. Avoid and minimize disturbance of waters of the United States, including wetlands

Implementation. This mitigation measure will be included in the conditions of approval for the project.

Finding 1. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. Construction of the proposed project could result in the temporary and/or permanent placement of fill material into waters of the United States, including wetlands, or in disturbance of waters of the United States during construction or improvement of access roads, culvert replacement, establishment of staging areas through the transport of sediment and runoff of contaminants. To avoid impacts on waters of the United States, MM BIO-3 requires the project applicant to implement the measures listed below.

- Redesign or modify the project to avoid direct and indirect impacts on wetlands and streams, if feasible.
- Avoid all wetlands and other waters of the United States by installing orange construction barrier fencing (and sedimentation fencing in some cases) between the construction site and the wetland/other waters areas.
- Avoid construction activities in saturated or ponded wetlands and streams during the wet season to the maximum extent possible. Where such activities are unavoidable, protective practices, such as use of padding or vehicles with balloon tires, will be employed.
- If deemed necessary by USACE during the Section 404 permit process, use geotexile cushions and other materials (e.g., timber pads, prefabricated equipment pads, geotextile fabric) in saturated conditions to minimize damage to the substrate and vegetation.
- Stabilize exposed slopes and stream banks immediately upon completion of construction activities. Other waters of the United States will be restored in a manner that encourages vegetation to reestablish to preproject conditions and contours to reduce the effects of erosion on the drainage system.
- Restrict any instream construction within the ordinary high water mark to the low-flow period of May through October.
- Complete all activities promptly to minimize their duration and resulting impacts.
- Prohibit equipment access or staging in or within 250 feet of wetlands and other waters of the United States along existing access roads. Confine access to existing roads.
- Keep all protective measures in place until all construction activities have been completed near the resource; remove such measures immediately following construction activities.
- Locate all turbines and project infrastructure (roads, substations, and other facilities) away from wetlands and drainages. Establish a setback as described below.
- Construct project components using the setback recommendations established in USACE and California Department of Fish and Game guidance: a 100-foot setback from wetlands and streams and a 250-foot setback from wetlands, streams, and ephemeral pools that provide habitat for special-status species.
- Retain a qualified wetland biologist to identify and flag the boundaries of wetlands prior to construction as "exclusion areas"; construction crews will follow the recommended setbacks.
- Appurtenant project facilities (e.g., underground cables) will be sited at least 250 feet from identified wetland resources.
- Ground disturbance during construction will be sited at least 100 feet from the boundaries of delineated wetlands to the extent feasible to minimize secondary effects on the resources.

- All fueling and storage areas will be located at least 250 feet from intermittent streams and wetlands to prevent spills of fuel or other hazardous materials from entering receiving waters.
    - Develop a spill prevention and containment plan and maintain appropriate equipment on site to prevent adverse impacts on wetlands that could result from an inadvertent spill.

Implementation of MM BIO-3 will reduce Impact BIO-2 to a less-than-significant level.

**Impact BIO-5: Potential direct mortality of eggs and nestlings and/or loss of reproductive potential for nesting northern goshawk, Cooper's hawk, sharp-shinned hawk, long-eared owl, and yellow warbler**

**Mitigation Measures. MM BIO-4. Conduct vegetation removal activities during the non-breeding season; MM BIO-5. Conduct preconstruction surveys for nesting birds and avoid active nest sites**

Implementation. This mitigation measure will be included in the conditions of approval for the project.

Finding 1. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. Construction of the proposed project could result in the direct mortality of eggs and nestlings of nesting northern goshawk, Cooper's hawk, sharp-shinned hawk, long-eared owl, and yellow warbler through removal of eggs and nest sites during vegetation removal and clearing and grading activities. To avoid and minimize impacts on these special-status nesting bird species, the project applicant will implement MM BIO-4 and MM BIO-5. These measures require the project applicant to employ the practices listed below.

- Limit all initial ground-disturbing and vegetation removal activities to the non-breeding season (i.e., August 15–March 1).
    - If vegetation removal activities during the breeding season cannot be avoided, nest sites of special-status raptors will be avoided and no vegetation removal activities will occur within a 0.25-mile radius of the nest until the young have fledged or the nest has failed, and no vegetation removal activities will be conducted within 100 feet of the nests until the young have fledged or the nest has failed, as determined by a qualified biologist.

Implementation of MM BIO-4 and BIO-5 will reduce these impacts to a less-than-significant level.

**Impact BIO-6: Potential direct mortality and/or loss of habitat for Cascades frog, willow flycatcher, yellow warbler, and other wetland and riparian dependent species.**

**Mitigation Measure. MM BIO-3. Avoid and minimize disturbance of water of the United States, including wetlands**

Implementation. This mitigation measure will be included in the conditions of approval for the project.

Finding 1. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. Construction activities associated with the proposed project has the potential to result in direct mortality, disturbance, and loss of habitat for Cascades frog, willow flycatcher, yellow warbler, and other wetland and riparian dependent species through placement of fill, vegetation removal, ground disturbance, and noise disturbance in or near wetland or riparian habitats. To avoid impacts on these and other wetland and riparian dependent species, MM BIO-3 requires the project applicant to implement the measures listed below.

- Redesign or modify the project to avoid direct and indirect impacts on wetlands and streams, if feasible.
- Avoid all wetlands and other waters of the United States by installing orange construction barrier fencing (and sedimentation fencing in some cases) between the construction site and the wetland/other waters areas.
- Avoid construction activities in saturated or ponded wetlands and streams during the wet season to the maximum extent possible. Where such activities are unavoidable, protective practices, such as use of padding or vehicles with balloon tires, will be employed.
- If deemed necessary by USACE during the Section 404 permit process, use geotexile cushions and other materials (e.g., timber pads, prefabricated equipment pads, geotextile fabric) in saturated conditions to minimize damage to the substrate and vegetation.
- Stabilize exposed slopes and stream banks immediately upon completion of construction activities. Other waters of the United States will be restored in a manner that encourages vegetation to reestablish to preproject conditions and contours to reduce the effects of erosion on the drainage system.
- Restrict any instream construction within the ordinary high water mark to the low-flow period of May through October.
- Complete all activities promptly to minimize their duration and resulting impacts.
- Prohibit equipment access or staging in or within 250 feet of wetlands and other waters of the United States along existing access roads. Confine access to existing roads.

- Keep all protective measures in place until all construction activities have been completed near the resource; remove such measures immediately following construction activities.
- Locate all turbines and project infrastructure (roads, substations, and other facilities) away from wetlands and drainages. Establish a setback as described below.
- Construct project components using the setback recommendations established in USACE and California Department of Fish and Game guidance: a 100-foot setback from wetlands and streams and a 250-foot setback from wetlands, streams, and ephemeral pools that provide habitat for special-status species.
- Retain a qualified wetland biologist to identify and flag the boundaries of wetlands prior to construction as "exclusion areas"; construction crews will follow the recommended setbacks.
- Appurtenant project facilities (e.g., underground cables) will be sited at least 250 feet from identified wetland resources.
- Ground disturbance during construction will be sited at least 100 feet from the boundaries of delineated wetlands to the extent feasible to minimize secondary effects on the resources.
- All fueling and storage areas will be located at least 250 feet from intermittent streams and wetlands to prevent spills of fuel or other hazardous materials from entering receiving waters.
    - Develop a spill prevention and containment plan and maintain appropriate equipment on site to prevent adverse impacts on wetlands that could result from an inadvertent spill.

Implementation of MM BIO-3 will reduce Impact BIO-6 to a less-than-significant level.

## Cultural Resources (Draft EIR Section 3.5)

### Impact CUL-2. Inadvertent change to or destruction of buried or otherwise obscured archaeological resources and human remains resulting from ground-disturbing construction activities

**Mitigation Measures. MM CUL-3a. Stop work if archaeological materials are discovered during construction; MM CUL-3b. Stop work if human remains are discovered during construction**

Implementation. These mitigation measures will be included in the conditions of approval for the project.

Finding 1. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. Construction and staging activities associated with the proposed project have the potential to disturb buried or otherwise obscured, as-yet-undiscovered archaeological resources (such as chipped or ground stone, historic debris, building foundations, or non-human bone) and human remains. To avoid and minimize these impacts, MM CUL-3a and MMCUL-3b requires that the project applicant implement the following measures.

- If archaeological materials are inadvertently discovered during ground-disturbing activities, the construction contractor will stop work in that area and within 100 feet of the find until a qualified archaeologist can assess the significance of the find and develop appropriate treatment measures (e.g., development of avoidance strategies or data recovery programs such as excavation or detailed documentation) in coordination with the Tribe and other parties as appropriate.
- If human remains of Native American origin are discovered during ground-disturbing activities, the County must comply with state laws relating to the disposition of Native American burials, which fall within the jurisdiction of the NAHC (PRC 5097). If human remains are discovered or recognized in any location other than a dedicated cemetery, the County will not allow further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
    - the Shasta County coroner has been informed and has determined that no investigation of the cause of death is required; and
    - if the remains are of Native American origin,
    - the descendants from the deceased Native Americans have made a recommendation to the landowner or the person responsible for the excavation work for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC 5097.98; or
    - the NAHC was unable to identify a descendant or the descendant failed to make a recommendation within 48 hours after being notified by the NAHC.

Implementing MM CUL-3a and MM CUL-3b will reduce Impact CUL-2 to a less-than-significant level.

## Geology and Soils (Draft EIR Section 3.6)

### Impact GEO-2: Location of structures on a geologic unit or soil that would become unstable as a result of the project

**Mitigation Measures. MM GEO-1: Implement recommendations of site-specific geotechnical investigation prepared by state-licensed personnel; MM GEO-2. Ensure**

**that the site-specific geotechnical investigation addresses landslide risks**

Implementation. These mitigation measures will be included in the conditions of approval for the project.

Finding 1. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. The project area is known to be susceptible to landsliding, particularly because the proposed project would be constructed on steep slopes. Improper construction activities such as excavation and fill placement to create building pads to support turbine foundations could exacerbate any existing slope instability, or could cause previously stable slopes to become unstable. A large earthquake on a nearby fault could cause ground shaking in the project area, potentially resulting in seismically induced landsliding, which in turn could increase the risk of structural loss, injury, or death. This impact is considered to be significant, but will be mitigated by MM GEO-1 and MM GEO-2, which require the project applicant to implement the measures listed below.

- Retain appropriately qualified state-licensed professionals (G.E. and C.E.G.) to conduct site-specific geotechnical and engineering geologic investigations consistent with all currently applicable standards of professional geotechnical engineering and engineering geologic practice to provide a geologic basis for the development of appropriate project design. Investigations will address bedrock and Quaternary geology; geologic structure, including primary and secondary seismic hazards as defined by the State of California; soils; slope stability; previous history of excavation and fill placement; earthwork recommendations; and any other topics identified by Shasta County Department of Resource Management, the design engineer(s), the geotechnical engineer, or the engineering geologist as relevant to be presented to the Shasta County Department of Resource Management in the form of a geotechnical and engineering geology report (soils report). The report will include design and/or construction requirements to address any geologic conditions or hazards identified as posing substantial risk to life, safety, or property (including the project), as well as recommendations to ensure that project construction and operation do not exacerbate any existing geologic hazards. The applicant will be responsible for ensuring that project design and construction adheres to all recommendations of the report.
    - The applicant will ensure that the site-specific geotechnical report evaluates landslide risks, including seismically induced landsliding, in the project area and, where appropriate, identifies mitigation to address these hazards that is consistent with the current standard of care for geotechnical engineering and engineering geology, and all applicable building codes and standards. The applicant will be responsible for ensuring that all recommendations of the site-specific geotechnical report are implemented.

Implementing MM GEO-1 and MM GEO-2 will reduce Impact GEO-2 to a less-than-significant level.

### Impact GEO-6: Location of structures on a ridge prone to ridgetop shattering

#### Mitigation Measure: MM GEO-3. Ensure that site-specific geotechnical investigation addresses ridgetop shattering risks

Implementation. This mitigation measure will be included in the conditions of approval for the project.

Finding 1. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. The project area is located along a bedrock ridgeline in an area with the potential for moderate ground shaking and may be at risk of ridgetop shattering in the event of an earthquake of sufficient magnitude. The level of earthquake-induced surface disruption could result in substantial damage to project facilities further resulting in a significant impact. MM GEO-3 mitigates this potential impact by requiring the project applicant to ensure that the site-specific geotechnical report prepared for the project includes an evaluation of the potential for ridgetop shattering to affect project facilities and, if appropriate, identifies mitigation to address these hazards. The project applicant will ensure that any mitigation is consistent with the current standard of care for geotechnical engineering and engineering geology, and all applicable building codes and standards. The applicant will be responsible for ensuring that all recommendations of the site-specific geotechnical report are implemented.

Implementing MM GEO-3 will reduce Impact GEO-6 to a less-than-significant level.

## Hazards and Hazardous Materials (Draft EIR Section 3.7; Final EIR Appendix D)

### Impact HAZ-1: Creation of a hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials

#### Mitigation Measures. MM HAZ-1. Prepare a hazardous materials business plan/spill prevention control and countermeasures plan; MM GEO-1. Implement recommendations of site-specific geotechnical investigation prepared by state-licensed personnel

Implementation. These mitigation measures will be included in the conditions of approval for the project.

Finding 1. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. If transformer oil, fuel, and carburetor materials were handled improperly or if associated storage containers leaked, workers or the public could be exposed to hazardous materials. The accidental releases of small quantities of fuel, lubricants, or other substances used during construction could contaminate soils and degrade the quality of surface water and groundwater, resulting in a public safety hazard. To mitigation this potentially significant impact, MM HAZ-1 requires the project applicant to prepare a Hazardous Materials Business Plan/Spill Prevention Control and Countermeasures Plan (SPCCP) in accordance with the California Health and Safety Code and California Code of Regulations and as part of compliance with the NPDES General Construction Permit. An SPCCP will be required from the contractor during construction and from the operator during operations. The SPCCP will outline procedures for adequate containment and control of accidental spills, outline the availability and locations of adequate spill response equipment and absorbents, and specify that personnel would be properly trained in how to control and clean up any spills. The County will review and approve the SPCCP prior to approval of a grading permit, and will conduct routine inspections of active portions of the project area to verify that the procedures of the SPCCP are properly implemented and maintained. The SPCCP and its implementation will be in accordance with EPA's guidelines (40 CFR 110) and in accordance with Shasta County Environmental Health Division and the California Department of Toxic Substance Control (DTSC). Implementation of MM GEO-1 and MM HAZ-1 would further reduce potentially significant hazard impacts of the proposed project.

Implementing MM HAZ-1 and MM GEO-1 will reduce Impact HAZ-1 to a less-than-significant level.

### Impact HAZ-2: Encountering hazardous materials during construction

#### Mitigation Measures. MM HAZ-2. Conduct Phase I investigation; MM HAZ-3. Plan for encountering hazardous materials

Implementation. These mitigation measures will be included in the conditions of approval for the project.

Finding 1. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. The project area is not included on the list of hazardous materials sites compiled by the California DTSC, and the possibility of migration of toxic substances from surrounding land is

unlikely because the project area is undeveloped and at a higher elevation than surrounding land. However, naturally occurring hazardous materials such as asbestos could be encountered during construction activities, resulting in a potentially significant impact. MM HAZ-2 requires that prior to approval of a grading permit, the project applicant will prepare a Phase I site assessment in conformance with standards of the ASTM to include recommendations for reducing or eliminating the source or mechanisms of contamination (or pathways of exposure to such contamination) if contamination is found and remediation/control measures are determined to be necessary concerning construction-period exposure and the handling of contaminated material. MM HAZ-3 will be implemented concurrently and requires the project applicant to prepare a business plan specifying the proper handling, reporting, and disposal procedures for hazardous materials used during construction. If hazardous contaminants are unexpectedly encountered during construction, construction crews will cease work in the vicinity and notify the County, which shall require a licensed waste disposal contractor to remove the hazardous materials, once identified, from the site in accordance with federal, state, and local requirements.

Implementing MM HAZ-2 and MM HAZ-3 will reduce Impact HAZ-2 to a less-than-significant level.

### Impact HAZ-3: Interference with air navigation

#### Mitigation Measures. MM HAZ-4a. Comply with FAA regulations; MM HAZ-4b. Comply with Caltrans Division of Aeronautics regulations

Implementation. These mitigation measures will be included in the conditions of approval for the project.

Finding 1. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. The proposed project includes two components that could potentially interfere with both general and military air navigation: wind turbines and meteorological towers. As described in detail on pages 3.7-14 and 15 of the Draft EIR, each turbine/tower combination would have a maximum height of approximately 420 feet, measured from the ground to the turbine blade tip at its highest point. One or two permanent meteorological towers (approximately 220 feet tall) would also be constructed in the project area, as well as up to five temporary meteorological towers (also about 220 feet tall).

According to comments by the FAA, the Hatchet Ridge Wind Project is presumed to be hazardous to air navigation, and further analysis of the project will be necessary when the applicant files an FAA Notice of Proposed Construction or Alteration (FAA Form 7460-1). MM HAZ-4a requires the project applicant to file an FAA form 7460-1 for each wind

turbine site and to submit site coordinates based on the 1983 North American Datum (NAD) to the FAA. The applicant will then implement measures to reduce impacts on aircraft and air navigation in accordance with FAA's response and the requirements of FAA's analysis of the Form 7460-1 and Advisory Circular 70/7460-1K, *Obstruction Marking and Lighting*.

MM HAZ-4b requires the project applicant to obtain a permit from the Caltrans Division of Aeronautics prior to approval of construction permits in accordance with Public Utilities Code (PUC) Section 21656, *Permit for Extension of Structure More Than 500 Feet Above the Ground*, and Section 21659, *Hazards Near Airports Prohibited* (unless FAA has determined that the construction does not constitute a hazard to air navigation or would not create an unsafe condition for navigation).

Implementing MM HAZ-4a and MM HAZ-4b will reduce Impact HAZ-3 to a less-than-significant level.

### Impact HAZ-4: Impacts related to increased risk of wildland fires

**Mitigation Measures. MM HAZ-5. Comply with legal requirements for fire prevention during construction activities; MM HAZ-6. Create and maintain adequate firebreaks and practice fire prevention; MM HAZ-7. Prepare an emergency response plan**

Implementation. These mitigation measures will be included in the conditions of approval for the project.

Finding 1. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. As discussed in detail on pages 3.7-16 and 16 of the Draft EIR, most wind farm development is undertaken on remote, grassy or brush-covered hills where high winds occur on a regular basis, creating a high fire hazard potential, as is the case for the project area, which is a identified as a Very High Fire Hazard Severity Zone in the County General Plan. Increased fire risks associated with wind generators derive from several sources: construction-related accidents, hardware and conductor failures of power collection lines, dropping of collection lines, turbine malfunction or mechanical failure, avian related incidents, and lightning incidents. This impact is considered potentially significant. MM HAZ-5, MM HAZ-6, and MM HAZ-7 require the following measures to be implemented during and prior to project construction and during project operation.

- In accordance with the Public Resources Code, the construction contractor will comply with the following legal requirements during construction activities.

- Earthmoving and portable equipment with internal combustion engines will be equipped with a spark arrestor to reduce the potential for igniting a wildland fire (PRC Section 4442).
- Appropriate fire suppression equipment will be maintained during the highest fire danger period: from April 1 to December 1 (PRC Section 4428).
- On days when a burning permit is required, flammable materials will be removed to a distance of 10 feet from any equipment that could produce a spark, fire, or flame, and the construction contractor will maintain the appropriate fire suppression equipment (PRC Section 4427).
- On days when a burning permit is required, portable tools powered by gasoline-fueled internal combustion engines will not be used within 25 feet of any flammable materials (PRC Section 4431).

- The applicant will comply with the following measures for the duration of project operations.
  - Maintain around and adjacent to buildings and structures a firebreak made by removing and clearing away, for a distance of 100 feet as required by PRC 4290, all flammable vegetation or other combustible growth.
  - Maintain around and adjacent to the project facilities additional fire protection or firebreak made by removing all brush, flammable vegetation, or combustible growth that is located within 100 feet of the structures or to the property line, whichever is nearer. Grass and other vegetation located more than 30 feet from the structures and less than 18 inches in height above the ground may be maintained where necessary to stabilize the soil and prevent erosion.
  - Provide prior to project operations and maintain at all times a screen over the outlet of every chimney or stack that is attached to any device that burns any solid or liquid fuel. The screen will be constructed of nonflammable material with openings not larger than 0.5 inch.
  - Prior to occupancy, install fire extinguishers at the O&M building.
  - Employees will be trained in using extinguishers and communicating with the SCFD.
  - The SCFD and/or Cal Fire will periodically inspect the project area.
  - Provide the SCFD and/or Cal Fire access to onsite water storage tanks, if such access is needed.

- Prior to approval of construction permits, an Emergency Response Plan will be prepared for the review and approval by Shasta County in accordance with the Integrated Contingency Planning Guidelines.

In addition, as part of the conditions of approval for the project, the applicant will implement measures recommended by the Shasta County Fire Department in its letter dated May 22, 2008 (Final EIR Appendix D). These conditions stipulate requirements for roadways and turnarounds, address identification, roofing materials, building setbacks, spark arresters, fire protection water, vegetation management, storage of flammable/combustible liquids, fire safety equipment and procedures, tools and materials storage, review/approval of improvement plans, employee training, fire protection plan, and vegetation clearances. Specifically, the applicant shall provide the following vegetative modification: (1) Along Turbine Ridge Road, provide a 100-foot shaded fuel break on the western side; provide a 50-foot clear zone from the centerline of the road extending east; and from the easternmost edge of the clear zone, provide an additional 100-foot shaded fuel break. (2) Around the turbines, from the outer edge of each tower, provide a 30-foot clear zone in all directions; and from the outer edge of the clear zone, provide an additional 70-foot shaded fuel break in all directions.

Implementing the above conditions of approval and MM HAZ-5, MM HAZ-6, and MM HAZ-7 will reduce Impact HAZ-4 to a less-than-significant level.

### Impact HAZ-6: Turbine or meteorological tower failure and blade or ice throw

#### Mitigation Measure. MM HAZ-8. Wind turbine design and safety mechanisms

Implementation. This mitigation measure will be included in the conditions of approval for the project.

Finding 1. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. As discussed in detail on pages 3.7-18 through 3.7-20 of the Draft EIR, because the project is approximately 0.5 mile (2,640 feet) from SR 299, it would not be expected to cause a safety hazard to the public. Although this setback will minimize the potential for impacts on the public resulting from turbine or meteorological tower failure and blade and ice throw hazards, there is nevertheless the potential for such hazards to result in injury of personnel in the project area. MM HAZ-8 requires the implementation of the measures listed below.

- As part of the project design the project applicant will ensure that turbines will conform to international standards for wind turbine generating systems, including those set forth in International Electrotechnical Commission (IEC)

61400-1: *Wind Turbine Generator Systems—Part I: Safety Requirements* (1999), and will be certified according to these requirements to help ensure that the static, dynamic, and defined life fatigue stresses of the blade would not be exceeded under the combined load expected in the project area.

- The project applicant will adhere to state and local building codes during turbine installation on the foundations; such adherence will also minimize the risk of rotor and tower failure.
- To prevent safety hazards caused by over-speed, the project applicant will install a comprehensive protection system on each turbine to prevent excess rotor speed and turbine and tower failures, such as having rotor speed controlled by a redundant pitch-control system and a backup disk-brake system. During normal operations, the rotor speed is controlled by the generator torque microprocessors and blade pitch. When wind speeds increase to excessive levels, the rotor pitch would turn, or feather, the blades. Power control automated systems are used to constantly monitor rotor speed to ensure that it is maintained within the desired operating range. If an over-speed is detected, the control system immediately initiates a procedure to shut down the machine. The shutdown procedure will utilize a combination of generator torque applied by the power electronics unit and rapid pitching of the blades to the feather position, which is accomplished by the hydraulic pitch actuator and the hydraulic power unit. In the event of hydraulic power unit failure or loss of electrical power, the turbines will be shut down using stored pressure that will power the hydraulic actuator to the feather position and bring them to a complete stop. Additionally, critical components have multiple temperature sensors and a control system to shut the system down and take it off line if an overheat condition is detected.
- To prevent safety hazards caused by tower failure, the project applicant will fulfill the requirements below.
    - Design the turbine towers and foundation to withstand wind speed of 100 miles per hour to ensure stability even under extreme wind conditions at the standard height.
    - Engineer the turbines according to Zone 4 Uniform Building Code Earthquake Standards.
    - Ensure that all installed equipment meets the standards of National Electrical Manufacturers Association (NEMA), the American National Standards Institute (ANSI), and Cal-OSHA.
- To prevent safety hazards caused by electrical failure, electrical systems and the substation will fulfill the requirements listed below.
    - Be designed by California-registered electrical engineers.
    - Meet national electrical safety codes and other national standards, including NEMA, ANSI, and Cal-OSHA standards.
    - The project applicant will provide the County with manufacturers' specifications for the wind turbines, specifying that all turbines are equipped with a braking system, blade pitch control, and/or other

mechanism for rotor control and have both manual and automatic over-speed controls.

Implementing MM HAZ-8 will reduce Impact HAZ-6 to a less-than-significant level.

### Impact HAZ-7: Electrical shock and accidents

#### Mitigation Measure HAZ-9. Install grounding and equipment shutoff mechanisms on project facilities

Implementation. This mitigation measure will be included in the conditions of approval for the project.

Finding 1. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. Public access to the wind turbines would be restricted to avoid potential safety hazards of the proposed project. However, personnel working on the proposed project during construction and operations would be at risk of electrical shock from energized facilities and injury from work-related accidents that may occur during construction and operation. MM HAZ-9 requires the project applicant to implement the measures listed below.

- To protect workers from electrical shock and other work-related accidents during the Hatchet Ridge Wind Project, the following measures will be implemented.
  - Grounding will be designed and implemented to the standards of the Institute of Electrical and Electronics Engineers.
  - All turbines and utility lines will be equipped with automatic and manual disconnect mechanisms.
  - Three circuit breakers that can be both manually and automatically operated will be provided between each turbine and the connection to the electrical grid.
  - The electrical systems and substations will be designed by California-registered electrical engineers and will meet national electrical safety codes and other national standards, including NEMA, ANSI, and Cal-OSHA standards.
  - The above mechanisms will be installed and tested before interconnection.

Implementing MM HAZ-9 will reduce Impact HAZ-7 to a less-than-significant level.

### Impact HAZ-8: EMF risk associated with transmission lines

**Mitigation Measure. MM HAZ-10. Prepare a field management plan to reduce EMF risk**

Implementation. This mitigation measure will be included in the conditions of approval for the project.

Finding 1. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. Like the risk of electrical shocks and accidents described above, EMF impacts on the public would be reduced by limiting access to the Hatchet Ridge Wind Project facilities. However, personnel working on the proposed project during construction or operations could be at risk of EMF exposure from existing and proposed transmission lines. MM HAZ-11 requires the project application to implement the measures listed below.

- In accordance with CPUC Decision 93-11-013, PG&E and/or the project applicant will prepare a field management plan that incorporates "no-cost" and "low-cost" magnetic field reduction steps to reduce EMF risks to personnel on the project site. The field management plan will be submitted to CPUC for review and approval prior to occupancy of the site. Consistent with PG&E's Transmission and Substation EMF Design Guidelines, the field management plan will include the following project information.
    - A description of the project (e.g., cost, design, length, location).
    - A description of the surrounding land uses using priority criteria classifications.
    - No-cost options to be implemented.
    - Priority areas where low-cost measures are to be applied.
    - Measures considered for magnetic field reduction, percent reduction, and cost. These measures may include but not be limited to the following:
        - Increased distance from conductors and equipment.
        - Reduced conductor spacing.
        - Minimized current.
        - Optimized phase configuration.
    - Which options were selected and how areas were treated equivalently or why low-cost measures cannot be applied to this project because of cost, percent reduction, equivalence, or some other reason.

Implementing MM HAZ-10 will reduce Impact HAZ-8 to a less-than-significant level.

## Hydrology and Water Quality (Draft EIR Section 3.8)

### Impact HYD-1: Degradation of water quality resulting from construction

**Mitigation Measures. MM HAZ-1. Prepare a hazardous materials business plan/spill prevention control and countermeasures plan; MM HYD-1. Implement measures to maintain groundwater and surface water quality in case of accidental spills**

Implementation. These mitigation measures will be included in the conditions of approval for the project.

Finding 1. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. Construction activities involving soil disturbance, excavation, cutting/filling, stockpiling, and grading could result in increased erosion and discharge of sediment to surface waters (nonpoint source pollution), a major contributor to the degradation of water quality. Accidental spills of hazardous vehicular and equipment fluids may occur during construction activities. These potential spills, if not contained, could contaminate groundwater and surface waters. MM HAZ-1 would be implemented to limit accidental spills and control any potential spills into surface waters. MM HYD-1 requires the County and/or project applicant to determine if project activities have adversely affected surface or groundwater quality. The County will be responsible for ensuring that a detailed analysis is performed by a registered environmental assessor to identify the likely cause of contamination in conformance with Society for Testing and Materials standards. The analysis will include recommendations for reducing or eliminating the source or mechanisms of contamination. Based on this analysis, the project proponent and/or the County will select and implement measures to control contamination, with a performance standard that groundwater quality must be returned to baseline conditions. These measures will be subject to approval by the County.

Implementing MM HAZ-1 and HYD-1 will reduce Impact HYD-1 to a less-than-significant level.

### Impact HYD-7: Potential adverse effects as a result of septic system use

**Mitigation Measure: HYD-2. Ensure that site-specific geotechnical investigation addresses septic system constraints and design**

Implementation. This mitigation measure will be included in the conditions of approval for the project.

Finding 1. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. As discussed on pages 3.8-11 and 12 of the Draft EIR, the County septic permit process requires the applicant to conduct groundwater monitoring and soil percolation tests, and to obtain approval of the constructed septic system by a County representative prior to operation of the system. No permit would be issued if the site is found to be unsuitable, or if a site-appropriate design cannot be developed. This impact is considered to be less-than-significant.

Improperly designed or constructed septic systems can also contribute to slope failure hazards by adding excess moisture to soil and rock materials. Potential effects of a septic system leach field on slope stability could result in significant impacts. MM HYD-2 requires the project applicant to ensure that the site-specific geotechnical report prepared for the project includes an evaluation of the site's suitability for the proposed septic system, including the potential for septic leach field use to contribute to risks of slope failure. If appropriate, the geotechnical report will also identify constraints on septic system placement and design. The applicant will be responsible for ensuring that all recommendations of the site-specific geotechnical report are implemented.

Implementing MM HYD-2 will reduce Impact HYD-7 to a less-than-significant level.

## Transportation/Traffic (Draft EIR Section 3.12; Final EIR Chapter 3)

### Impact TRA-2: Increase in safety hazards due to construction-generated traffic

**Mitigation Measure. MM TRA-1. Develop and implement a construction Traffic Control Plan**

Implementation. This mitigation measure will be included in the conditions of approval for the project.

Finding 1. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. Construction-related traffic, including trucks entering and exiting State Route 299 to and from Bunchgrass Lookout Road and construction trucks widening Bunchgrass Lookout Road, could increase safety hazards. This impact is considered potentially significant. MM TRA-1 requires the project applicant to develop and implement a Traffic Control Plan as part of the overall Construction Management Plan, in accordance with County and Caltrans policies. The

Traffic Control Plan will be implemented throughout the course of project construction. This plan would include but not be limited to the elements listed below.

- A plan for communicating construction plans with Caltrans, emergency service providers, residences located in the project vicinity, and anyone else who may be affected by project construction.
- An access and circulation plan for use by emergency vehicles when lane closures and/or detours are in effect. If lane closures occur, provide advance notice to local fire departments and sheriff's department to ensure that alternative evacuation and emergency routes are designed to maintain response times.
- Maintain access to existing development in the area at all times.
- Provide for adequate parking for construction trucks and equipment within the project area and designated staging areas along Bunchgrass Lookout Road throughout the construction period.
- Provide adequate parking for construction workers within the project area and designated staging areas.
- Provide temporary truck crossing signs on State Route 299 during construction if allowed by Caltrans.
- Provide flaggers/traffic control personnel as necessary (e.g., when oversize loads must turn from State Route 299 onto Bunchgrass Lookout Road).

Implementing MM TRA-1 will reduce Impact TRA-2 to a less-than-significant level.

### Impact TRA-3: Interference with emergency access and circulation due to construction-generated traffic

#### Mitigation Measure. MM TRA-1. Develop and implement a construction Traffic Control Plan

Implementation. This mitigation measure will be included in the conditions of approval for the project.

Finding 1. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. Construction-related activities—specifically, road closures, detours, and construction-related traffic—could delay or obstruct the movement of emergency vehicles and limit emergency access to the project area. This impact is considered potentially significant. To avoid impacts related emergency access on the project site, the project applicant shall implement Mitigation Measure TRA-1.

Implementing MM TRA-1 will reduce Impact TRA-3 to a less-than-significant level.

### Impact TRA-6: Impact on aviation patterns due to the height of turbines

#### Mitigation Measure. MM TRA-2. Consult with FAA to meet the FAA requirements

Implementation. This mitigation measure will be included in the conditions of approval for the project.

Finding 1. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. Because the turbines and meteorological tower proposed under the project would be up to 420 feet tall, the project could have potential impacts on air navigation. MM TRA-2 requires the project applicant to file a FAA Form 7460-1, *Notice of Proposed Construction or Alteration*, for each wind turbine structure. FAA will issue a Determination of No Hazard to Air Navigation for each of the project turbines and meteorological towers if the project meets FAA requirements. If FAA determines that the project would potentially be an obstruction unless reduced to a specified height, the project proponent will work with FAA to resolve any adverse effects on aeronautical operations.

Implementing MM TRA-2 will reduce Impact TRA-6 to a less-than-significant level.

## Utilities and Service Systems (Draft EIR Section 3.13)

### Impact USS-6: Potential to interfere with microwave transmissions, resulting in interference with television and radio reception or mobile phone signals

#### Mitigation Measure. MM USS-1. Notify communication tower owners and site wind turbines to avoid conflicts with microwave signals

Implementation. This mitigation measure will be included in the conditions of approval for the project.

Finding 1. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. As discussed in detail on page 3.13-12 of the Draft EIR, the project area contains several radio and communications facilities, which could face interference from operation of the proposed project resulting in potentially significant effects on these radio,

television, or telecommunications utilities. MM USS-1 requires the project applicant to notify all owners of frequency-based communication stations and towers within 2 miles of the proposed project prior to issuance of the Conditional Use permit by the County. Wind turbine towers and the proposed corrugated metal O&M building will be sited to avoid potential conflict with microwave communication signals. In the event that a complaint is received regarding microwave or land mobile pathway interference, the project applicant will appropriately and satisfactorily resolve receiver interference through coordination with owners of frequency-based communication stations and towers. Possible actions include installation of high-performance antennas at nearby microwave sites, if required.

Implementing MM USS-1 will reduce Impact USS-6 to a less-than-significant level.

### Impact USS-7: Potential to interfere with aircraft navigation signals

**Mitigation Measures. MM HAZ-4a. Comply with FAA regulations; MM HAZ-4b. Comply with Caltrans Division of Aeronautics regulations**

Implementation. These mitigation measures will be included in the conditions of approval for the project.

Finding 1. Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant impact on the environment.

Rationale for Finding. Wind energy development has the potential to interfere with aircraft navigational systems. It is generally concluded that little or no signal interference can occur when wind turbines are located more than 2 miles from either a runway or a beacon location, as is the case with the proposed project. As described in Section 3.7, *Hazards and Hazardous Materials*, of the Draft EIR, the FAA requires that a Notice of Proposed Construction (Form 7460-1) be filed for any object that would extend more than 200 feet above ground level. Once the Form 7460-1 is reviewed by the FAA, the applicant shall implement measures to reduce impacts on aircraft and aircraft navigation in accordance with the requirements of FAA's analysis of the Form 7460-1 and Advisory Circular 70/7460-1K, *Obstruction Marking and Lighting*.

To avoid impacts to aircraft navigation signals, the project applicant shall implement MM HAZ-4a and MM HAZ-4b.

Implementing these mitigation measures will reduce Impact USS-7 to a less-than-significant level.

# D. Impacts that Remain Significant and Unavoidable After Implementation of Mitigation Measures

To the extent the mitigation measures will not mitigate or avoid all significant impacts, it is hereby determined that any remaining significant unavoidable adverse impacts are acceptable for the reasons specified in Section VII, *Statement of Overriding Considerations*. The impacts and mitigation measures identified below are presented in summary form. For a detailed description of impacts and mitigation measures, see the appropriate text in the Draft and/or Final EIR. Except as expressly otherwise stated in certain cases below, all mitigation measures proposed in the Final EIR shall be implemented.

## Aesthetics and Visual Resources (Draft EIR Section 3.1; Final EIR Chapter 3 and Appendix A)

### Impact AES-2: Adverse effects on a scenic vista by degrading the visual character of the project area and its surroundings

**Mitigation Measure. No feasible mitigation measures are available**

Implementation. Not applicable because no feasible mitigation measures are available.

Finding 3. Specific economic, legal, social, technological, or other considerations make infeasible the mitigation measures or project alternatives identified in the EIR.

Rationale for Finding. The proposed project would introduce large, vertical, artificial structures with revolving turbine blades into the viewshed and would change the ridgeline from one that is predominantly natural to one with distinct artificial features that would be highly visible to Burney residents and businesses, roadway travelers, and recreationists in or on the outskirts of Burney. Relative to baseline conditions, these turbines would substantially alter the existing visual character and quality of views toward the ridge regardless of the number or height of the turbines. As shown in the simulation for Viewpoint 1 (Figure 3.1-11 of the Draft EIR), at far distances the turbines would not be very noticeable and would not affect the existing visual character. However, as shown in simulations for Viewpoints 2 and 3 (Figures 3.1-12 and 3.1-13, respectively, of the Draft EIR), from closer vantage points (e.g., Burney), the turbines become prominent visual features on the ridgeline and alter the visual character and quality for all viewer groups. In addition to the size, movement of the turbines would likely draw more focused viewer attention toward the structures than would stationary structures of equal size and visual mass.

FAA Advisory Circular AC 70/7460-1K (Federal Aviation Administration 2007) includes marking standards for wind turbines, which states "The bright white or light off-white paint most often found

on wind turbines has been shown to be most effective, and if used, no lights are required during the daytime. However, if darker paint is used, wind turbine marking should be supplemented with daytime lighting, as required." [133. Marking Standards, page 33].

The applicant has completed thorough siting studies, incorporating the various constraints, to determine the optimal location for the turbines along the ridge. In addition, the applicant hired a meteorological technical team to investigate the zone of visual influence for the town of Burney and to evaluate the possibility of relocating some or all of the turbines further down-slope from the top of the ridge (Final EIR Appendix A). The study concluded that the removal of the turbines from the Burney area zone of visual influence and from the main ridgeline would result in reduced wind resource and energy production capabilities (about 40% of the proposed layout), constructability feasibility problems related to building on the side of a steep slope, and property setback issues.

The proposed project would have a significant and unavoidable impact on the ridgeline vista by degrading the visual character of the project area and its surroundings from closer vantage points, and there are no feasible mitigation measures. The Commission finds that the design of the proposed project reduces the potential adverse visual impacts to the greatest extent possible. These significant and unavoidable impacts are overridden by the economic, legal, and social considerations detailed in Section VII.

## Biological Resources (Draft EIR Section 3.4; Final EIR Chapter 3)

### Impact BIO-8: Potential direct mortality of greater sandhill cranes

**Mitigation Measure. MM BIO-6. Monitor avian mortality rates and implement adaptive management measures, if necessary**
Implementation. The mitigation measure will be included in conditions of approval for the project.

Finding 3. Specific economic, legal, social, technological, or other considerations make infeasible the mitigation measures or project alternatives identified in the EIR.

Rationale for Finding. Operation of the proposed project could result in the direct mortality of greater sandhill cranes through collision with rotating turbines or transmission lines. Sandhill cranes, listed as threatened under the California Endangered Species Act, are known to be at a relatively high risk of collision with transmission lines, at least in areas where breeding or wintering habitat is in proximity to power lines. One flight of 30 sandhill cranes was documented flying over the project area within the rotor-swept area of the proposed turbines; based on this observation, the relative exposure risk calculated for sandhill crane was

the eleventh largest risk of all birds that were observed using the project area (Appendix C-1 of the Draft EIR). It is therefore possible that flocks of cranes could regularly be exposed to turbine collision impacts during migration between breeding grounds in northeastern California and wintering grounds in the Central Valley and Sacramento–San Joaquin River Delta. Without additional information on the movement patterns of greater sandhill cranes during migration, the magnitude of this potential impact cannot be reasonably predicted; because the actual mortality rate could be higher than that indicated by the exposure risk calculated in the baseline ecological studies (Appendix C-1 of the Draft EIR), this impact is considered significant and unavoidable.

Implementation of MM BIO-6 (reproduced below in its entirety) would reduce this impact to the maximum extent practicable; however, it would still not reduce this impact to a less-than-significant level. This significant and unavoidable impact is overridden by the economic, legal, and social considerations detailed in Section VII.

Mitigation Measure BIO-6 involves preparing and implementing a multifaceted program of avian and bat mortality monitoring and implementing adaptive management measures, as needed. It comprises the components listed below.

- Forming a technical advisory committee (TAC).
- Preparation and implementation of an avian and bat mortality monitoring study plan, and submittal of annual monitoring reports.
- Evaluating results of the monitoring study relative to specified fatality thresholds.
- Providing funding for and implementation of offsite mitigation for potential take of fully protected species and/or impacts on other avian or bat species.
- Providing a secondary compensatory mitigation fund for implementation of offsite habitat enhancement or protection/conservation measures.
- Preparing and implementing an onsite habitat protection and enhancement plan.
- Implementation of adaptive operational management measures, based on monitoring results, if necessary.

A summary table presenting the Mitigation Measures Decision Framework is presented following the narrative description below.

*Technical Advisory Committee.* Shasta County Department of Resource Management shall be responsible for the formation of a Technical Advisory Committee (TAC). Invitations for participation shall be sent to representatives from the California Department of Fish and Game, the U.S. Fish and Wildlife Service, Shasta County Department of Resource

Management, the applicant's project operations and construction managers (also referred to herein as "project owner" or "owner"), and a not-for-profit organization dedicated to avian conservation. The County shall make reasonable efforts to ensure participation by the above parties, but notwithstanding failure of any of these representatives to respond or agree to participate, the TAC shall be formed prior to the initiation of project operations. As its first order of business the TAC shall approve its Charter which shall specify all organizational matters including but not limited to notice, frequency and conduct of meetings, and specification of those decisions which may be determined solely by the TAC without subsequent directive from the Planning Director. Attendance at TAC meetings shall be by invitation of its members only.

The TAC shall review and approve monitoring protocols prior to project operations and prior to implementation of any new or revised protocols. The TAC will review results from fatality monitoring to determine if fatality thresholds have been exceeded or if fatality of fully protected species has occurred. If such thresholds have been exceeded, the TAC shall make recommendations to the County Planning Director to require implementation of mitigation measures pursuant to the Mitigation Measures Decision Framework table below. To the extent practicable, decisions of the TAC shall be made using best available science as determined by the TAC. In the event that decisions cannot be made by consensus, decisions of the TAC shall be made by simple majority vote. The Planning Director shall have final authority to direct their implementation. Prior to making any decision based on a TAC recommendation, the Planning Director shall review the recommendations of the TAC and may consider additional recommendations of, or any other information provided by, any of its voting members.

*Monitoring Study.* The project owner shall implement and fully fund a 3-year operational avian and bat fatality monitoring study by a qualified professional recommended by the TAC and approved by the County Planning Director, which will begin when the first turbine begins operation, pursuant to the monitoring protocols developed by the TAC and approved by the Planning Director. The owner shall submit the monitoring results in an annual monitoring report, submitted to the TAC.

After the first full 2 years of monitoring after the entire project is in operation, a third year will be scheduled as determined by the TAC. Additional years of monitoring at the owner's expense may be required should population-level impacts on any species become apparent. Consultation among the California Department of Fish and Game, the U.S. Fish and Wildlife Service, and Shasta County Department of Resource Management shall occur on a semiannual basis through the TAC process during the monitoring study to determine the need for continued monitoring or additional studies specific to refining mitigation measures. One objective of the monitoring study will be to determine if specific additional mitigation for impacts is warranted and what the

mitigation should entail. Additional mitigation will be required if fatality rates exceed a threshold of concern for a particular species or groups of species. See the fatality thresholds table below; note that due to state fully protected status for bald eagle and sandhill crane, more than one fatality of either shall constitute a requirement for additional mitigation as described below. To determine if a threshold has been exceeded, the average annual fatality rate for species and species groups will be determined after each year of monitoring. Fatality thresholds listed in the table below were determined based on the pre-project surveys, current knowledge of species that are likely to use the habitat in the project area, the EIR impact analysis, and the regulatory status of the potentially impacted species. The owner shall arrange for a permit to enter for research/monitoring purposes for qualified scientists (when funded by others) subject to approval of the TAC.

The operational monitoring study shall be designed to determine the level of each avian or bat species' mortality from the project and must take into account biases such as the searcher efficiency, carcass removal, and effective search area to estimate total mortality from the project, using methods such as those described in the California Energy Commission's California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development. The determination of exceedance of fatality thresholds shall be based on the results of the monitoring, so will therefore be expressed as an annual rate per turbine or per MW. This method effectively utilizes the adjusted or calculated fatalities impacts, as opposed to just the observed impacts. For example, the number of fatalities for any given species that are found may not be the total number of that species actually impacted because of the biases associated with searcher efficiency (carcasses that are not found) or carcass removal (carcasses scavenged before they could be found).

*Fatality Thresholds.* Due to the project's potential for causing fatalities to bald eagle and sandhill crane, which are state fully protected species, compensatory mitigation is mandatory prior to construction (described further below). Under California law, any take of a fully protected species is illegal. Per the EIR, the project owner will assume impacts are possible and will mitigate up front for these potential impacts. Additionally, if impacts exceed the fatality thresholds identified in the tables below, additional mitigation will be required as described in the mitigation framework outlined below. Exceedance of the following fatality thresholds would trigger the TAC to evaluate additional mitigation and to use the funds set aside in a secondary compensatory mitigation fund as prescribed in the following below.

**Fully Protected Species**

| Species | Fatality Thresholds |
|---|---|
| Bald eagle | 1 fatality per year |
| Sandhill crane | 1 fatality per year |

Special-Status Species

| Species | Fatality Threshold Per Year of Operations |
|---|---|
| Other raptor species | 0.35 fatalities per turbine; 0.15 fatalities per MW |
| Yellow warbler | 0.07 fatalities per turbine; 0.03 fatalities per MW |
| Owls | 0.11 fatalities per turbine; 0.05 fatalities per MW |

*Funding for Offsite Mitigation for State Fully Protected Species Prior to Project Construction and Operation.* In recognition of the project's potential to take state fully protected species (bald eagle and sandhill crane), which, were a take permit possible per the State Fish and Game Code, would require the owner to minimize and fully mitigate for all take, the owner shall provide for compensatory mitigation prior to construction. Mitigation will involve acquisition of offsite habitat appropriate for sandhill crane and bald eagle. For impacts on sandhill crane, the project owner will work with an appropriate wildlife refuge with nesting and breeding habitat located such that sandhill crane populations potentially impacted have a reasonable nexus to populations that breed on the lands to be acquired. The acreage and quality of acquired breeding land shall be chosen to optimize opportunity for breeding enhancement of sandhill cranes at a ratio of 2:1 (i.e., two birds produced annually from enhanced or preserved breeding habitat for each bird potentially killed; best available estimate is 1 fatality per year). Title to acquired parcel(s) will be transferred to the wildlife refuge for preservation, enhancement, and management of sandhill crane breeding habitat prior to construction. The project owner shall also donate $100,000 to a reputable land trust or conservation program approved by the California Department of Fish and Game and U.S. Fish and Wildlife Service for the purpose of preservation and enhancement of bald eagle breeding habitat. The program may involve acquisition of lands, purchase of a conservation easement, land stewardship or conservation, or research projects.

*Secondary Compensatory Mitigation Fund for Implementation of Offsite Species or Habitat Enhancement or Protection/Conservation Measures.* If data show that a fatality threshold of concern has been exceeded, the project owner shall implement additional mitigation measures that the County Planning Director determines are appropriate, based on the TAC's recommendations and analysis of the data and best available information for the species impacted. Such mitigation shall be designed to benefit the affected species or species group (e.g., raptors). Examples of appropriate additional mitigations include, but are not limited to, protection of nesting habitat for the affected species through purchase or conservation easement, enhancement of habitat or protected areas, creating artificial nesting habitat (e.g., nest structures), improving wildfire response and prevention, modifications of onsite conditions (e.g., grazing, weed control), wetland enhancement or creation, species-related research to improve knowledge of a species and conservation needs (e.g., bat population research), contributing to established conservation programs for specific species or issues (e.g., Bat Wind

Energy Cooperative), and establishing a compensatory mitigation fund for species-specific conservation programs. Focusing mitigation on specific impacted species and resources is consistent with state and national policies for environmental protection such as the California Environmental Quality Act, National Environmental Policy Act, Endangered Species Act, and Clean Water Act.

*Onsite Habitat Protection and Enhancement Plan.* Onsite habitat modification/ protection or enhancement measures shall also be implemented if thresholds for additional mitigation are reached or unexpected fatalities occur. Unexpected fatalities include exceedance of the above-established fatality thresholds or fatalities of special-status species not anticipated in pre-operations studies. Examples of possible mitigation measures include, but are not limited to, protection of nests identified within the project boundary, alterations to habitat within the study area to inhibit or enhance certain species' success, and modification of lighting schemes to address fatalities related to lighting at the project site. The TAC shall review and consider the relevant data and recommend the appropriate habitat protection measures to be implemented for the particular species in question.

*Adaptive Operational Management Measures.* Further mitigation that includes operations strategies for the wind project would be considered only if the above-described additional species- or resources-specific mitigation measures imposed by the Planning Director fail to mitigate the fatality threshold exceedance after 1 year of implementation, as determined by the recommendation of the TAC based on its review and analysis of the monitoring data following implementation of the above-described measures. Also, the operations strategies must be designed to benefit the appropriate species or species group (e.g., raptors) where a threshold for significant impacts has been exceeded and there are no other appropriate mitigation measures to offset the impact. Any operations management strategies would be developed by the TAC with input from the project owner's operations management team and Shasta County's Department of Resource Management, so that project owner expertise and understanding of feasibility related to turbine management is considered in the process.

*Additional Research.* Additional research may be needed if unexpected fatalities occur as a result of operations. Unexpected fatalities include exceedance of the above-established fatality thresholds or fatalities of special-status species not expected in pre-operations studies. The scope of any additional studies shall be limited to addressing specific unexpected fatalities, and the results shall be used to determine appropriate additional mitigation measures; the owner shall provide updates to State BIOS and CNDDB records within 6 months of any new information on species occurrences, diversity, or migration.

*Mitigation Measures Decision Framework.* The following table provides a listing and summary of each component of MM BIO-6 program, as

well as the timing and responsibility for implementation and triggers for additional mitigation.

Mitigation Measures Decision Framework for Impact BIO-6

| Mitigation Measure Component | Summary Description | Timing/Duration/Formulae | Trigger/Threshold for Additional Mitigation |
|---|---|---|---|
| Technical Advisory Committee | Formation of a Technical Advisory Committee (invited parties shall include one representative each from the CDFG, USFWS, one conservation organization, project operations and construction manager (the owner), and Shasta County Department of Resource Management). The TAC shall be limited to one voting member from each party, with advisors for each party allowed to attend and participate in meetings and lend expertise to the members. See *Technical Advisory Committee* above for further details on the operation of the TAC. | The TAC shall be formed during construction and shall hold its first meeting prior to the commencement of commercial project operations in order to review and make initial recommendations for the monitoring study protocols. Thereafter, the TAC shall meet at least semiannually to review the results of avian fatality monitoring. | If the monitoring studies show that any fatality thresholds have been exceeded, the TAC shall confer to make recommendations to the Planning Director for additional mitigation as outlined below. |
| Fatality monitoring and thresholds | Fatality monitoring will be conducted by a qualified biologist approved by the TAC and will be used to compare pre-operations predictions of fatality with actual fatalities associated with project operations to determine if impact thresholds have been exceeded. Carcass scavenge calibration shall commence on the first appropriate day for the applicable species after day 1 of operations. In addition the owner shall arrange for a permit to enter for research/monitoring purposes for qualified scientists (when funded by others) subject to approval of the TAC.<br>Additionally, project operations staff will be trained in handling and reporting avian fatalities encountered in the course of turbine maintenance and other regular activities on site. A protocol for project staff will be developed through coordination with the California Department of Fish and Game and the County for appropriate handling and reporting of fatalities. The project owner acknowledges that project staff training is intended to supplement, not substitute, for the formal monitoring study requirements outlined above. | Three years, beginning as close as possible to the first day of commercial project operations. Additional periods of monitoring shall be required should results of monitoring studies suggest that additional monitoring is warranted. See *Monitoring Study* and *Fatality Thresholds* above for further details. | Referral to the TAC for potential changes to monitoring methods and additional monitoring or research shall occur if the monitoring studies show that the fatality thresholds are exceeded. The TAC shall review the first year of monitoring data to determine whether to recommend to the Planning Director any changes or refinements to the monitoring protocols.<br>Reasons for extending monitoring beyond the 3 years include: fatality of species not expected during pre-project surveys, fatality of special-status or fully protected species exceeding thresholds, and inadequacy of monitoring data. Additional monitoring or changes to the monitoring protocols will be subject to the approval of the Planning Director based upon the recommendations of the TAC. |
| Up-front compensatory mitigation for potential bald eagle and sandhill crane impacts | The owner shall provide for compensatory mitigation prior to construction for potential impacts on bald eagle and sandhill crane. | For sandhill crane and bald eagle, mitigation will involve acquisition, enhancement, or preservation of sufficient offsite breeding habitat at a 2:1 ratio of potential | Due to the project's potential for causing fatalities of bald eagle and sandhill crane, which are state fully protected species, compensatory mitigation is mandatory prior to |

| Mitigation Measure Component | Summary Description | Timing/Duration/Formulae | Trigger/Threshold for Additional Mitigation |
|---|---|---|---|
| | | mortality. The project owner will work with the appropriate wildlife refuge to identify appropriate sandhill crane breeding habitat for acquisition. Lands will be transferred to the wildlife refuge for preservation and enhancement. For bald eagle, mitigation will be contribution of $100,000 to a reputable land trust or conservation program approved by DFG and USFWS for the purpose of offsite preservation and enhancement of bald eagle habitat.<br>Proof of initiation of compliance with the up-front compensatory mitigation requirements shall be provided by the project owner to the Planning Director prior to the issuance of any construction permits. | construction. |
| Secondary compensatory mitigation fund | The applicant shall set aside a mitigation fund to be used should threshold exceedances occur. The mitigation fund shall be used for habitat protection and enhancement, additional research, and/or additional mitigation determined to be appropriate by the TAC to address threshold exceedances. The TAC will recommend to the Planning Director the best uses of the compensatory mitigation fund. | A mitigation fund shall be set up by the project owner as a one-time endowment or other type of protected principal for individual mitigation activities approved by the Planning Director, based on the recommendations of the TAC. The mitigation fund shall be calculated at a rate of $1,000 per MW based on the full capacity of the project. Proof of funding and the details of the fund's principal value, custodial financial institution, and accessibility shall be provided by the project owner to the Planning Director prior to the commencement of commercial project operations. | Subject to the Planning Director's review and approval of the recommendations of the TAC, and in addition to all other mitigation herein described, the Secondary Compensatory Mitigation Fund shall be used when the fatality thresholds described above are exceeded in any year of operations |
| Onsite habitat protection and enhancement plan | Onsite habitat modification/protection or enhancement measures shall be implemented if thresholds for additional mitigation are reached or unexpected fatalities occur. Unexpected fatalities | The TAC shall make a recommendation to the Planning Director for additional measures to be included in a Habitat | If fatality thresholds are exceeded, habitat protection and enhancement measures may be needed, subject to the recommendation of the |

| Mitigation Measure Component | Summary Description | Timing/Duration/Formulae | Trigger/Threshold for Additional Mitigation |
|---|---|---|---|
| | include exceedance of the above-established fatality thresholds or fatalities of special-status species not anticipated in pre-operations studies. Examples of possible mitigation measures include, but are not limited to, protection of nests identified within the project boundary, alterations to habitat within the study area to inhibit or enhance certain species' success, and modification of lighting schemes to address fatalities related to lighting at the project site. The TAC shall review and consider the relevant data and recommend the appropriate habitat protection measures to be implemented for the particular species in question. | Protection and Enhancement Plan. Such measures shall be implemented as specified by the Planning Director, but in all cases shall be fully implemented within 1 year following the final decision of the Planning Director to impose specific additional measures. | TAC and approval of the Planning Director. |
| Operations measures | Changes to operations shall be considered only if all other mitigation approaches outlined above are not effective in fully mitigating the impact to a less-than-significant level. Any proposed changes to operations shall be subject to the approval of the Planning Director and must be determined to be reasonable, feasible, and linked to reducing specific impacts identified through the monitoring studies conducted at the project. For example, operations changes that may be implemented include shutdown of individual turbines during times of sensitivity of species known to be impacted, if the TAC can determine that a particular turbine location and the spinning of its blades is a cause of the fatalities. Operations shutdowns will be limited to individual turbines where fatality thresholds are consistently exceeded and to the time periods in which the fatality threshold exceedances occur. Shutdowns shall only be approved on a month-to-month basis. | Approved on a month-to-month basis and limited to the time periods in which the fatality threshold exceedances occur. | Operational changes shall only be implemented if the fatality threshold exceedance persists and cannot be mitigated to a less-than-significant level by the Habitat Protection and Enhancement Plan, compensatory mitigation, and additional research mitigation approaches described above. The Planning Director has the ultimate approval authority over any changes to project operations. |
| Additional research | Additional research may be needed if unexpected fatalities occur as a result of operations. Unexpected fatalities include exceedance of the above-established fatality thresholds or fatalities of special-status species not expected in pre-operations studies. The scope of any additional studies shall be limited to addressing specific unexpected fatalities and the results shall be used to determine appropriate additional mitigation measures; the owner shall provide updates to State BIOS and CNDDB records within 6 months of any new information on species occurrences, diversity, or migration. | Additional research to address unexpected fatalities may be needed after the first year of fatality monitoring. The TAC may make recommendations to the Planning Director regarding the protocols of any such additional research. | If fatality thresholds are exceeded, additional research may be necessary, subject to the discretion and recommendations of the TAC. The Planning Director shall have final approval authority over the protocol, timing, and methodology of any such additional research. |

## Impact BIO-9: Potential direct mortality of bald eagles

**Mitigation Measure. MM BIO-6. Monitor avian mortality rates and implement adaptive management measures, if necessary**
Implementation. The mitigation measure will be included in conditions of approval for the project.

Finding 3. Specific economic, legal, social, technological, or other considerations make infeasible the mitigation measures or project alternatives identified in the EIR.

Rationale for Finding. Bald eagle is listed as threatened under the California Endangered Species Act and was recently delisted under the federal Endangered Species Act. Operation of the proposed project could result in the direct mortality of bald eagles through collision with rotating turbines or transmission lines. Bald eagles nest at Lake Margaret and along the Pit River. The nest site at Lake Margaret (active in 2006) is located approximately 1.75 miles from the project area. Eleven nesting territories are located along the Pit River (10 active in 2004), and 17 additional territories (10 active) are located in adjacent areas. The wintering bald eagle population along the entire Pit River watershed covered under the Pit River Management Plan has ranged from 27 to 61 birds, with a median population near 50. The proposed project is located within the Pit River watershed and is approximately 2 miles south of the Pit River at the closest point. The proposed project is located outside areas designated as essential bald eagle habitat in the Pit River Management plan.

Twelve bald eagles were documented flying over the project area, of which seven were observed to be flying within the rotor-swept height of the proposed turbines (Appendix C of the Draft EIR). An additional three observations were recorded incidentally, two of which were within the rotor-swept height of the proposed turbines (see Appendix C-1 of the Draft EIR). All these observations were recorded during winter (November–April). Although golden eagles have been found to be susceptible to mortality from wind turbines (one golden eagle was documented during the avian use surveys [see Appendix C-1 of Draft EIR]), there have been relatively few documented mortalities of bald eagles at wind power plants; it should be noted, however, that most wind power projects where mortality monitoring studies have been conducted support relatively low levels of bald eagle use.

Bald eagle use of the project area throughout the year was estimated to be 0.039 birds per 20-minute survey, while the overall raptor use was 1.028 per 20-minute survey; thus, bald eagles comprised approximately 4% of the raptor use in the project area. Assuming that use is directly correlated to mortality and that between 0 and 0.1 raptor fatalities per year per MW can be expected to occur from operation of the proposed project, operation of a 100MW project would result in one bald eagle fatality every 2–3 years (Appendix C-2 of the Draft EIR). Although this

level of mortality is probably not high enough to result in adverse population-level effects, the actual mortality rate that would result from operation of the proposed project could be much higher given the large number of bald eagles living and moving through the vicinity and the well-documented susceptibility of golden eagles to collision impacts near wind farms. Because the actual mortality rate could be higher than that indicated by the exposure risk calculated in the baseline ecological studies (Appendix C-1 of the Draft EIR) and the mortality rate estimated in the BA (Appendix C-2 of the Draft EIR), this impact is considered significant and unavoidable.

To minimize impacts on bald eagle, the project applicant will implement MM BIO-6.

Implementation of MM BIO-6 would reduce this impact to the maximum extent practicable; however, it would still not reduce this impact to a less-than-significant level. This significant and unavoidable impact is overridden by the economic, legal, and social considerations detailed in Section VII.

### Impact BIO-11: Potential direct mortality of special-status raptors and other avian species

**Mitigation Measure. MM BIO-6 Monitor avian mortality rates and implement adaptive management measures, if necessary**
Implementation. The mitigation measure will be included in conditions of approval for the project.

Finding 3. Specific economic, legal, social, technological, or other considerations make infeasible the mitigation measures or project alternatives identified in the EIR.

Rationale for Finding. Direct mortality of many avian species through collision with turbine blades and transmission lines has been well documented. Diurnal raptors are considered to be particularly susceptible to mortality from collision with wind turbines and transmission lines because of their large size and flight characteristics. Operation of the proposed project could result in the direct mortality of special-status raptors (e.g., Cooper's hawk, long-eared owl, ferruginous hawk, sharp-shinned hawk, osprey, merlin, peregrine falcon) and both common and special-status avian species (e.g., California horned lark, yellow warbler).

Raptor/vulture use at Hatchet Mountain is lower than at 10 wind resource areas but higher than at 17 other wind resource areas evaluated in the continental United States using similar protocols. Correlating the estimated mean raptor use at Hatchet Mountain in conjunction with data on raptor use and mortality at existing wind farms yields an estimated mortality rate of 0.06/MW/year, or six raptor mortalities per year at Hatchet Mountain for a 100-MW project. The 90% confidence interval

around this estimate is 0–17 raptor fatalities per year for the project. Based on species composition of the most common raptor fatalities at other western wind farms and species composition and timing of raptors observed at Hatchet Mountain, the majority of fatalities of diurnal raptors would consist of red-tailed hawks and American kestrels, both of which are locally and regionally common species.

Of 24 wind farm sites with comparable data, overall avian use of the Hatchet Mountain site is lower than 20 of these sites and higher than four sites. Estimated songbird mortality at Hatchet Mountain is lower than the national average of 2.3 birds/turbine/year or 3.1 birds/MW/year. Based on conclusions and estimates made from the information collected during the 1-year avian use study, operation of the proposed project could result in avian fatalities less than or equal to the national average for these facilities, with a slightly higher average for diurnal raptors.

However, the accuracy of these estimates is confounded by several factors. The proposed project will use 2.3–2.4 MW turbines, whereas the data used in the analyses are from wind farms using 1.8 MW turbines. Larger turbines such as those proposed for use at Hatchet Mountain are characterized by larger and higher rotor-swept areas but lower rotation speeds (in revolutions per minute). Whether these turbine characteristics would result in lower, higher, or comparable mortality rates than traditional turbines is unknown.

In addition to the avian use studies, a radar study of nocturnal bird and bat migration using marine radar was conducted in fall 2007 (included as Appendix B of the Final EIR). The results of this study provide no additional information that would alter the conclusions drawn from the diurnal avian use studies. Due to the uncertainty associated with these estimates and the potential for unexpectedly high mortality rates, this impact is considered significant and unavoidable.

To minimize impacts on special-status raptors and other avian species, the project applicant will implement MM BIO-6.

Implementation of MM BIO-6 would reduce this impact to the maximum extent practicable; however, it would still not reduce this impact to a less-than-significant level. This significant and unavoidable impact is overridden by the economic, legal, and social considerations detailed in Section VII.

## Cultural Resources (Draft EIR Section 3.5; Final EIR Chapter 3)

### Impact CUL-1: Visual and auditory disruption of Pit River Tribe religious practices conducted on Hatchet Ridge caused by construction and operation of wind turbines

**Mitigation Measures. MM CUL-1. Conduct ongoing coordination with the Pit River Tribe concerning project development, and prepare a detailed recordation of Hatchet Ridge–Bunchgrass Mountain**

Implementation. The mitigation measure will be included in conditions of approval for the project.

Finding 3. Specific economic, legal, social, technological, or other considerations make infeasible the mitigation measures or project alternatives identified in the EIR.

Rationale for Finding. Hatchet Ridge–Bunchgrass Mountain appears to be a historical resource for the purposes of CEQA. The ridge has a documented history of use as a travel corridor and setting for Achumawi spiritual practices from at least as early as 1879 to the present day. Because of this long history of traditional use of Hatchet Ridge–Bunchgrass Mountain, the feature appears to be eligible for listing in the California Register of Historical Resources under its first significance criterion as being associated with events that have made a significant contribution to broad patterns of California's cultural heritage—in this case regionally, among the Pit River Tribe.

The construction and operation of the proposed wind turbines would result in visual and auditory disruptions of Pit River Tribe spiritual practices on Hatchet Ridge and Bunchgrass Mountain. The presence, sight, and sound of the wind turbines would impede the serenity of Hatchet Ridge and Achumawi spiritual practitioners' sense of isolation from society, both of which outcomes are detrimental to traditional spiritual practices of the Pit River Tribe on Hatchet Ridge. This impact would be considered significant and unavoidable.

To minimize impacts to the Pit River Tirbe's religious practices, MM CUL-1 and CUL-2, as described below, will be implemented.

- The County and the project owner will facilitate a preconstruction meeting and field visit with the Pit River Tribe through the Tribe's chairperson and the Pit River Environmental Office to discuss locations or issues of cultural sensitivity in the proposed project area. The project owner will coordinate with the Tribe to consider ways to minimize impacts on culturally sensitive locations during construction. Additionally, the County and the applicant will coordinate with the Pit River Tribe through the Tribe's chairperson and the Pit River Environmental Office to retain a professional ethnographic consultant to undertake a detailed recordation of Hatchet Ridge–Bunchgrass

Mountain. The recordation will commence prior to construction and will include photographic documentation of pre- and post-construction conditions on Hatchet Ridge–Bunchgrass Mountain. Additional research, particularly into ethnographer Omer C. Stewart's notes filed at the University of California, Berkeley, and interviews with Itsatawi and Madesi individuals, will be referenced in the document. The information gathered as a result of field, interview, and research tasks will be compiled into a report, which will be transmitted to the Pit River Tribe. The Tribe will have the right to determine if the report is submitted to the California Historical Resources Information System. Detailed recordation of Hatchet Ridge–Bunchgrass Mountain in this manner will create a photographic and documentary record of the cultural resource prior to construction of the proposed project, resulting in partial compensation for the loss of the property's character-defining features of isolation, harshness, and serenity.

- Cultural resource monitors from the Pit River Tribe will be invited by the project owner to monitor initial ground-disturbing construction activities associated with the proposed project in areas identified by the Tribe as culturally sensitive to ensure that more discrete sacred localities in the project area are avoided or that impacts on such localities are mitigated to the extent feasible, including, but not limited to, avoidance or data recovery. The Pit River Environmental Office should coordinate with the appropriate Achumawi bands (Itsatawi and Madesi) to assign monitors.

Implementation of MM CUL-1 and MM CUL-2 will reduce this impact to the maximum extent practicable; however, it will not reduce this impact to a less-than-significant level. This significant and unavoidable impact is overridden by the economic, legal, and social considerations detailed in Section VII.

# E. Findings Regarding Growth-Inducing Impacts

Section 4.2 of the DEIR presents the growth-inducing impacts that can be anticipated from adoption and implementation of the proposed Project. Section 15126(d) of the CEQA Guidelines requires that an EIR address the growth-inducing impacts of the proposed action. According to the CEQA Guidelines, the EIR should discuss the ways in which the proposed Project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment, including Projects which would remove obstacles to population growth.

The County finds that there are no direct growth-inducing impacts of the Project. The County also finds that there are potential indirect growth-inducing impacts of the Project.

Rational for Finding. Because the proposed project would not require the extension or improvement of other public services in the area, such as sewer and water supply, any existing barriers to development would remain unchanged.

Construction of the proposed project would require a short-term increase in personnel of up to 200 people; these personnel would be provided from the

regional employment base that exists in the northern California area. Long-term employment would be limited to approximately 6–10 people. Therefore, the population and employment growth within the county anticipated to result from the proposed project would not be significant.

The proposed project would generally widen existing access roads. No other development would be anticipated as a result of the proposed project road improvements because the area is zoned and planned for timber uses, and installation of the wind turbines would tend to preclude other development from occurring.

# F. Findings with Respect to Cumulative Impacts

### Cumulative Impact on Aesthetics and Visual Resources

There are no other wind energy projects proposed within the viewshed of the proposed project. As described in Section 3.1, *Aesthetics and Visual Resources*, the proposed project involves installing up to 68 wind turbines along the ridgeline of Hatchet Mountain. These turbines would substantially alter the existing visual character and quality of the views looking toward the ridge relative to baseline conditions. The project would introduce large, vertical, artificial structures into the viewshed and would change the ridgeline from one that is predominantly natural to one with distinct artificial features that would be highly visible to Burney residents and businesses, roadway travelers, and recreationists within or on the outskirts of Burney.

Existing development on Hatchet Ridge consists of a pair of parallel 230-kilovolt (kV) transmission lines owned by PG&E, overhead and buried lower voltage electrical distribution lines, existing communication towers, and associated access roads. The project area also contains the Bunchgrass and Bear Springs radio facilities; the communication towers range in height from 50 to 140 feet. The visual intrusion of the 68 wind turbines, in addition to the existing development on Hatchet Ridge, is considered a cumulatively significant impact on the viewshed.

This significant and unavoidable impact is overridden by the economic, legal, and social considerations detailed in Section VII.

### Cumulative Impact on Traditional Cultural Properties of the Pit River Tribe

The proposed project would result in cumulatively considerable impacts on a particular subset of historical resources, namely, traditional cultural properties of the Pit River Tribe. The proposed project would result in significant and unavoidable impacts on Bunchgrass Mountain–Hatchet Ridge, a traditional Achumawi travel route, basketry-material gathering area, and power place (see Section 3.5, *Cultural Resources*, of the Draft EIR). In addition to this traditional cultural property, some 151 Pit River Tribe traditional cultural properties have been documented in a portion of historic Achumawi territory.

To properly assess the proposed project's contribution to cumulative impacts on Pit River Tribe traditional cultural properties, it is necessary to compare

Bunchgrass Mountain–Hatchet Ridge with similar kinds of cultural resources. For cultural resource management purposes, Tiley and Pierce (2004:Table 1) and Woods and Raven (1985:41, 50, 54, 56, 58) place Pit River Tribe traditional cultural properties in one or more of five categories: village, resource procurement, sacred areas, Indian allotments/historic sites, and place names. Of these categories, Bunchgrass Mountain–Hatchet Ridge fits three categories: resource procurement area (basketry material), sacred areas (power place), and place name (reference to as the Windy Point Trail).

Reasonably foreseeable projects would result in impacts on resource procurement areas, sacred areas, and named places through visual and auditory intrusions into sacred areas and impeded access to resource procurement localities, power places, and culturally important named places. Past, present, and reasonably foreseeable future projects for this analysis include Federal Energy Regulatory Commission relicensing along the Pit River and Lake Britton, ongoing park management at McArthur–Burney Falls Memorial State Park, and timber harvest plans for private timberlands.

Of the 46 sacred areas or power places known in the region, information concerning four of them is detailed enough to warrant specific discussion here. These power places are Burney Falls, Chalk Mountain, Big Blue Springs, and the Eddy in Big Bend/Kinner Falls. Use of these power places is similar to that of Bunchgrass Mountain–Hatchet Ridge. At present, none of these four power places is accessible to the Pit River Tribe. Given the likelihood that a number of power places not discussed here are also located on lands not owned by the Pit River Tribe, access to most power places is limited. Compromised access to Bunchgrass Mountain–Hatchet Ridge as a result of project development and operation would therefore contribute significantly to the continued impairment of access to power places, a vital aspect of the Pit River Tribe's traditional practices. This significant and unavoidable impact is overridden by the economic, legal, and social considerations detailed in Section VII.

Similarly, access to several traditional basketry material gathering areas is denied to the Pit River Tribe, both by land ownership conflicts and the Federal Energy Regulatory Commission's changing stream-flow regimes along Pit River (Jones & Stokes 2005:3–35). While traditional materials occur on Bunchgrass Mountain near the project area, implementation of the project would not change access or restrictions currently in place on forested Sierra Pacific Industries land. Accordingly, the proposed project would not affect existing limitations on access to areas for basketry materials.

### Resource Areas without Cumulative Impacts

In the following resource topics, it was found that there are no cumulative impacts as a result of the proposed project activities. Refer to the Draft EIR for a complete description of impact assessments, as indicated for each section below.

- **Agriculture and Forest Resources** (See Section 4.1.3, *Cumulative Impacts by Resource Area*, page 4-4 of DEIR)

- **Air Quality** See Section 4.1.3, *Cumulative Impacts by Resource Area*, page 4-4 of DEIR)
- **Biological Resources** (See Section 4.1.3, *Cumulative Impacts by Resource Area*, page 4-5 of DEIR)
- **Geology and Soils** (See Section 4.1.3, *Cumulative Impacts by Resource Area*, page 4-7 of DEIR)
- **Hazards and Hazardous Materials** (See Section 4.1.3, *Cumulative Impacts by Resource Area*, page 4-7 of DEIR)
- **Hydrology and Water Quality** (See Section 4.1.3, *Cumulative Impacts by Resource Area*, page 4-8)
- **Land Use and Planning** (See Section 4.1.3, *Cumulative Impacts by Resource Area*, page 4-8)
- **Noise** (See Section 4.1.3, *Cumulative Impacts by Resource Area*, page 4-8)
- **Public Services** (See Section 4.1.3, *Cumulative Impacts by Resource Area*, page 4-8)
- **Traffic and Transportation** (See Section 4.1.3, *Cumulative Impacts by Resource Area*, page 4-8)
- **Utilities and Service Systems** (See Section 4.1.3, *Cumulative Impacts by Resource Area*, page 4-9)

# G. Findings with Respect to Alternatives

The EIR evaluated a No-Project Alternative. This alternative would not meet the project objectives; however, it is evaluated in the EIR as required by CEQA. Such analysis entails consideration of (a) existing conditions and (b) reasonably foreseeable future conditions that would exist if the proposed project were not approved (CEQA Guidelines Sec. 15126[d][4]). As described in Chapter 4, *Other Analyses*, other potential alternatives were considered but not evaluated in detail in the draft EIR because they would have environmental effects that are either similar to or greater than those associated with the proposed project or were considered infeasible (Draft EIR Section 4.5).

## No-Project Alternative

Under the no-project alternative, the conditional use permit would not be issued and the proposed project would not be built. It is assumed that the land would continue to be managed for timber production.

Under this alternative, the existing physical conditions of the site would continue as described in the Existing Conditions section of each resource area discussed in Chapter 3, *Environmental Setting, Impacts, and Mitigation*, of the Draft EIR. There would be no changes to the physical or visual character of the site. There would be no possibility of avian or bat mortality resulting from the project. There would be no impact on a scenic vista or disruption of Native American practices. No project-generated traffic would be added to state or county

roadways, and no electrical power would be generated at the site. The other project-specific impacts described in Chapter 3 of the Draft EIR would also not occur.

### Alternatives Considered but Rejected

The following alternatives were considered but rejected because they did not meet one or more of the screening criteria, or they failed to eliminate or substantially reduce one or more of the significant effects on the proposed project. Refer to the Draft EIR for a complete description of each alternative, as indicated for each section below.

- **Alternative Technologies** (See Section 4.5.1, *Alternatives Considered but Rejected*, page 4-12 of DEIR)
- **Alternative Site** (See Section 4.5.1, *Alternatives Considered but Rejected*, page 4-13 of DEIR)
- **Phased Project Alternative** (See Section 4.5.1, *Alternatives Considered but Rejected*, page 4-15 of DEIR)
- **Alternative Site Plan** (See Section 4.5.1, *Alternatives Considered but Rejected*, page 4-15 of DEIR)
- **Smaller Capacity Project Alternative** (See Section 4.5.1, *Alternatives Considered but Rejected*, page 4-15 of DEIR)
- **Butte County Morning Glory Alternative** (See Section 4.5.1, *Alternatives Considered but Rejected*, page 4-16 of DEIR)

## XII. Statement of Overriding Considerations

CEQA Guidelines Section 15093(a) states:

*"CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered 'acceptable.'"*

*" When the lead agency approves a project which will result in the occurrence of significant effects which are identified in the final EIR but are not avoided or substantially lessened, the agency shall state in writing the specific reasons to support its action based on the final EIR and/or other information in the record. The statement of overriding considerations shall be supported by substantial evidence in the record."*

*"If an agency makes a statement of overriding considerations, the statement should be included in the record of the project approval and should be mentioned*

*in the notice of determination. This statement does not substitute for, and shall be in addition to, findings required pursuant to Section 15091."*

The DEIR concluded that significant and unavoidable impacts of the proposed project would include adverse effects on a scenic vista by degrading the visual character of the project area and its surroundings, potential direct mortality of greater sandhill cranes, potential direct mortality of bald eagles, potential direct mortality of special-status raptors and other avian species, and visual and auditory disruption of Pit River Tribe religious practices conducted on Hatchet Ridge caused by construction and operation of wind turbines.

The Commission has balanced the benefits of the Hatchet Ridge Wind Project against its significant and unavoidable environmental impacts in determining whether to approve the Hatchet Ridge Wind Project, and has determined that the benefits of the proposed project outweigh its unavoidable adverse environmental impacts.

This determination is based on the Final EIR and other information in the record. Notwithstanding the implementation of the mitigation measures as included above, certain impacts of the proposed project have not been reduced to a level of insignificance or eliminated by changes in the proposed project. Based on the above findings, the entire record, oral and written testimony, and other evidence received at the public hearings on the project, the Commission finds that there is substantial evidence that the project will bring substantial benefits to the County and State of California, including economic, legal, social, technological, or other benefits that outweigh the significant effects on the environment that cannot be mitigated to a less-than-significant level.

This project would further the goals of the California Renewable Portfolio Standard (RPS) and other similar renewable energy programs in the State. The legislation enacting RPS requires retail sellers of electricity to purchase 20% of their electricity from renewable sources, such as wind, by 2017. This project would generate wind power and would assist the state in meeting its legislated mandate.

The project coordinates the planning process to minimize environmental impacts from the construction and operation of the project. For example, to mitigate the potential impacts on sensitive habitats, the project applicant has complied with all siting constraints and setback requirements, and will conduct further geotechnical engineering studies to avoid and minimize geologic or other hazards.

The benefits of the project include offsetting the need for electricity generated from fossil fuel by supplying renewable energy, and helping the state further reduce greenhouse gases, among other benefits as more specifically detailed below. Any one of these overriding considerations is sufficient to support the Commission's determinations. The County of Shasta hereby finds that the following social, legal, and economic benefits of the Hatchet Ridge Wind Project outweigh the unavoidable impacts for the following reasons.

- The project would develop wind power in close proximity to existing transmission lines that can support up to 102 MW of generating power.
- The project will be constructed in a location that will minimize impacts on birds, bats, vegetation, and other environmental resources.
- The project will utilize a wind resource area previously identified by the California Energy Commission as a potential site.
- The project will meet regional energy needs in an efficient and environmentally sound manner.
- The project will assist California in meeting its legislated RPS for the generation of renewable energy in the state; these standards require investor-owned utilities to purchase 20% of their power from renewable sources by 2017.
- The project will offset the need for additional electricity generated from fossil fuels (which, unlike wind power, emit air pollutants), thereby assisting the state in meeting its air quality goals and reducing impacts on the environment related to greenhouse gases.
- The project applicant has agreed to fund an offsite compensation/mitigation program as part of MM BIO-6 that will provide habitat protection and enhancements for potentially affected special-status species.
- The project will produce up to 102 MW of electricity.
- The project is an economically feasible wind energy project that will support commercially available financing.
- The project will help realize the full potential of the wind resource on the lands under lease.
- The project will provide new fulltime jobs during construction of the project.
- The project will provide economic benefits to the County and its residents by increased spending in the community as a result of construction.
- The project will increase spending on goods and services in the community by project operators.
- The project provides new access roads that enable emergency vehicles, including firefighting equipment, to access property that would not otherwise be available.

In light of the foregoing economic, social, environmental, and planning benefits to the County, pursuant to CEQA Guidelines section 15093, the Commission finds and determines that these considerable benefits of the proposed project—which outweigh the unavoidable adverse effects and the "adverse environmental effects" that cannot be mitigated to a level of environmental insignificance—are deemed "acceptable."

# Incorporation by Reference

The June 2008 Final EIR, which includes the December 2007 Draft EIR and MMRP, is hereby incorporated into these Findings in its entirety. Without limitation, this incorporation is intended to elaborate on the comparative analysis of alternatives, the basis for determining the significance of impacts, the scope and nature of mitigation measures, and the reasons for approving the project despite the potential for associated significant unavoidable adverse impacts.

# Summary

Based on the foregoing Findings and the information contained in the record, the Commission has made one or more of the following findings with respect to each of the significant effects of the project.

- Changes or alterations have been required in or incorporated into the project that mitigate or avoid the significant effects on the environment.
- Those 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.
- 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 final EIR that would otherwise avoid or substantially lessen the identified environmental effects of the project.

Based on the foregoing Findings and the information contained in the record, it is determined that:

- all significant effects on the environment due to the approval of the project have been eliminated or substantially lessened where feasible, and
- any remaining significant effects on the environment found to be unavoidable are acceptable due to the factors described in the above Statement of Overriding Considerations.

# Citations

Shasta County Department of Resource Management. 2007. *Draft Environmental Impact Report for the Hatchet Ridge Wind Project.* State Clearinghouse #2007042078. December. (J&S 00024.07.) Redding, CA. Prepared with technical assistance from Jones & Stokes, Sacramento, CA.

———. 2008. *Final Environmental Impact Report for the Hatchet Ridge Wind Project.* June. (ICF J&S 00024.07.) Redding, CA. Prepared with technical assistance from ICF Jones & Stokes, Sacramento, CA.

**RESOLUTION NUMBER 2008-102**

**A RESOLUTION OF THE SHASTA COUNTY PLANNING COMMISSION CERTIFYING AN ENVIRONMENTAL IMPACT REPORT FOR THE HATCHET RIDGE WIND PROJECT**

WHEREAS, an application was received from Hatchet Ridge Wind, LLC, for a wind energy electrical generation project to be located on Hatchet Mountain approximately seven miles due west of Burney, and 34 miles northeast of Redding, and immediately north of State Highway 299 at Hatchet Mountain Pass, on Assessor's Parcel Numbers 027-120-004, 007 and 008; 030-010-008 and 009; 030-030-001, 003, 004, 005, 008, 010, 011, 015, 016 and 018; 030-080-012 and 016. The project is generally described as follows:

> The area actually covered by the project would be an approximately 73-acre portion of the 17 parcels. The project would produce approximately 100 megawatts of electricity and would require construction of 42 to 68 wind turbines on steel tubular towers from about 213 feet to 263 feet tall. The total height of each tower with its attached wind turbine could reach from 338 feet to 418 feet high. The line of towers would stretch for about 6.5 miles northeasterly along the ridge of Hatchet Mountain. The project would include transmission lines from the turbines to a new substation and additional lines to interconnect with existing high-voltage transmission lines that cross the project site and which are owned by Pacific Gas & Electric Company. The project would also include one or more temporary construction offices, an operations and maintenance building/control center, new access roads, temporary staging areas, and up to four permanent meteorological masts up to 220 feet high. The project would be constructed over a 6 to 12-month period. In general, the towers would be constructed in areas managed for commercial timber production which were replanted after the 1992 Fountain Fire; and

WHEREAS, an Initial Study has been conducted by the Shasta County Department of Resource Management, Planning Division, to evaluate the potential for significant adverse environmental effects; and

WHEREAS, based on the findings of the Initial Study, the Shasta County Environmental Review Officer determined that an Environmental Impact Report (EIR) was required to evaluate the potential impacts of the proposed project; and

WHEREAS, Shasta County contracted with Jones & Stokes Associates, Inc., which prepared a Draft EIR (State Clearinghouse #2007042078); and

WHEREAS, a scoping meeting for the EIR was held on Wednesday, April 25, 2007, at the Burney Veterans of Foreign Wars Hall, Burney, California; and

WHEREAS, a Notice of Completion and a Notice of Availability were sent to responsible and trustee agencies and various other federal, state and county agencies; and

WHEREAS, a Notice of Availability was published in the Record Searchlight and the Intermountain News newspapers and was sent to persons who had expressed interest in the project, and to property owners within a minimum of 300 feet of the proposed project site, as shown on the current Tax Assessor's rolls; and

WHEREAS, the period for comments on the Draft EIR was from December 13, 2007, through January 28, 2008; and

WHEREAS, comments were received from various agencies, groups and individuals; and

WHEREAS, all comments received on the Draft EIR have been reviewed and responded to in the Final EIR; and

WHEREAS, the Shasta County Planning Commission has reviewed and considered the Hatchet Ridge Wind Project EIR, including the comments on the Draft EIR and responses to the comments.

NOW, THEREFORE, BE IT RESOLVED that the Shasta County Planning Commission:

1. Makes the following findings:

   A. The Hatchet Ridge Wind Project Draft Environmental Impact Report (Draft EIR) was prepared and circulated to the State Clearinghouse (State Clearinghouse Number 2007042078), and was made available for public and governmental agency review and comment for the required time period; and

   B. The comments on the Draft EIR and the responses to each comment were compiled into the Final EIR; and

   C. Changes to the Draft EIR have been incorporated into the Final EIR based on the comments received. The changes represent clarifications or amplifications to the text and mitigations in the Draft EIR and do not represent significant new information as defined in Section 15088.5 of the California Environmental Quality Act (CEQA) Guidelines; and

   D. The Final EIR includes mitigation measures that eliminate or substantially lessen all significant adverse effects on the environment where feasible, and identifies all significant effects on the environment found to be unavoidable; and

   E. The Final EIR includes a Mitigation Monitoring and Reporting Program that satisfies the requirements of the County Mitigation Monitoring and Reporting Procedures and CEQA; and

   F. The EIR and record of proceedings upon which the Planning Commission decision is based are located and maintained at the Shasta County Department of Resource Management, Planning Division, 1855 Placer Street, Suite 103, Redding, CA 96001-1759.

2. Certifies that:

   A. The Hatchet Ridge Wind Project Environmental Impact Report (EIR) has been completed in compliance with the California Environmental Quality Act (California Public Resources Code Section 21000 et seq.) and the CEQA Guidelines (California

Code of Regulations Section 15000 et seq.); and

B. The EIR was presented to the Shasta County Planning Commission which reviewed and considered the information contained in the Draft EIR and the Final EIR prior to taking action on the project; and

C. The EIR reflects the independent judgement and analysis of the Shasta County Planning Commission.

DULY PASSED this 2nd day of October 2008, by the following vote:

AYES: RAMSEY, EASLEY, RUTLEDGE, CORNELIUS, WILSON
NOES:
ABSENT:
ABSTAIN:
RECUSE:

David Rutledge

DAVID RUTLEDGE, Chairman
Planning Commission
County of Shasta, State of California

ATTEST:

FOR:

RUSS MULL, Secretary
Planning Commission
County of Shasta, State of California

**RESOLUTION NO. 2008-103**

**A RESOLUTION OF THE SHASTA COUNTY PLANNING COMMISSION APPROVING USE PERMIT 06-016 (HATCHET RIDGE WIND)**

WHEREAS, the Planning Commission of the County of Shasta has considered Use Permit 06-016, filed by Hatchet Ridge Wind, LLC, for a wind energy electrical generation project, to be located on Hatchet Mountain approximately seven miles due west of Burney, and 34 miles northeast of Redding, immediately north of State Highway 299 at Hatchet Mountain Pass, on Assessor's Parcel Numbers 027-120-004, 007 and 008; 030-010-008 and 009; 030-030-001, 003, 004, 005, 008, 010, 011, 015, 016 and 018; 030-080-012 and 016, in accordance with Section 17.92.020 of the Shasta County Code; and

WHEREAS, said Use Permit was referred to various affected public and private agencies, County departments, and referral agencies for review and comment; and

WHEREAS, the Shasta County Environmental Review Officer has reviewed the project and recommends a specific environmental finding; and

WHEREAS, public hearings were duly noticed pursuant to Government Code Sections 65090 and 65091 and held on July 24, 2008 and October 2, 2008; and

WHEREAS, the Shasta County Planning Commission has considered public comments and a report from the Planning Division.

NOW, THEREFORE, BE IT RESOLVED that the Shasta County Planning Commission:

1. Makes the following environmental findings:

   A. The Hatchet Ridge Wind Project Environmental Impact Report (EIR) and Mitigation Monitoring and Reporting Program (MMRP) have been completed in compliance with the California Environmental Quality Act (CEQA)(California Public Resources Code Section 21000 et seq.) and the CEQA Guidelines (California Code of Regulations Section 15000 et seq.).

   B. The EIR and MMRP reflect the independent judgment and analysis of the lead agency.

   C. Through changes in the project prescribed by mitigation measures adopted in the Final EIR and conditions of approval, all significant adverse effects on the environment identified in the EIR have been eliminated or substantially lessened where feasible, and any remaining significant effects on the environment found to be unavoidable are acceptable in light of the overriding considerations incorporated herein; and

   D. Mitigation monitoring provisions have been considered by the approving authority pursuant to County Mitigation Monitoring and Reporting Procedures and CEQA. Feasible mitigation measures have been specifically identified in the Environmental Impact Report (EIR) and incorporated in the Statement of Conditions with monitoring as specified in the Mitigation Monitoring and Reporting Program. The

EIR, by its provisions for monitoring of mitigation measures or changes made to the project or conditions of project approval to be adopted in order to mitigate or avoid significant impacts on the environment, represents the program designed to ensure environmental compliance during project implementation. This program, as required by Public Resources Code Section 21081.6, is based on those documents and materials referred to in the EIR, and incorporated therein by reference, which are maintained at the County Planning Division's office located at 1855 Placer Street, Suite 103, Redding, California.

E. The Planning Commission has certified the Hatchet Ridge Wind Project Environmental Impact Report (EIR), and including the Mitigation Monitoring and Reporting Program (MMRP).

F. Findings of Fact and a Statement of Overriding Considerations have been prepared for this project and reviewed by the Planning Commission.

2. Makes the following findings for the Use Permit, based on the information contained in the Environmental Impact Report and the project record:

A. The project, as conditioned, is consistent with the objectives, policies, uses and programs of the General Plan;

B. The establishment, operation and maintenance of the subject use, under the circumstances of the particular case will not be detrimental to the health, safety, peace, morals, comfort and general welfare of persons residing or working in the neighborhood or be detrimental or injurious to property or improvements in the neighborhood or to the general welfare of the County.

C. The design and construction of all proposed improvements, including any manmade change to improved or unimproved real property, are consistent with the need to minimize flood damage based on conditions as set forth in the attachment to this Resolution; and

D. Drainage will be designed to reduce exposure to flood hazards based on conditions as set forth in the attachment to this Resolution.

3. Adopts and incorporates by reference the Findings of Fact and Statement of Overriding Considerations prepared for this project.

4. Adopts the Mitigation Monitoring and Reporting Program for the project found at Chapter 4 of the Final EIR with the following correction to Table 4-1: The text of mitigation measure MM BIO-6 under the heading *Description* which precedes the section titled *Mitigation Measures Decision Framework for BIO-6* shall be revised to be the same as the text on pages 3-3 through 3-7 of the Chapter 3, Revisions to the EIR, in the Final EIR. The *Timing*, *Monitoring Responsibility*, and *Verification* sections for MM BIO-6 are correct as presented in Table 4-1.

5. Approves Use Permit 06-016, subject to the conditions as set forth in the attachment to this Resolution.

DULY PASSED this 2nd day of October 2008, by the following vote:

AYES: RAMSEY, EASLEY, RUTLEDGE, CORNELIUS, WILSON
NOES:
ABSENT:
ABSTAIN:
RECUSE:

David Rutledge
DAVID RUTLEDGE, Chairman
Planning Commission
County of Shasta, State of California

ATTEST:

FOR:
RUSS MULL, Secretary
Planning Commission
County of Shasta, State of California

# STATEMENT OF CONDITIONS

## Use Permit 06-016 - Hatchet Ridge Wind Project

*October 2, 2008*

1. The requirements of all concerned governmental agencies having jurisdiction by law, including but not limited to the issuance of appropriate permits, shall be met.

2. This Use Permit is granted for the following listed uses and structures. Minor modifications may be approved by the Director of Resource Management. Any substantial revisions shall require either amendment to this permit or a new use permit.

   A wind energy project comprised of up to sixty-eight (68) 1.5 megawatt wind turbines, or as few as forty-two (42) 2.4 megawatt wind turbines, and up to four (4) meteorological towers, with a power substation, operation and maintenance facilities, accessory facilities, and interconnection with existing high-voltage power transmission lines, as described in more detail in Chapter 2, Project Description, of the Draft Environmental Impact Report for the Hatchet Ridge Wind Project, prepared by Jones & Stokes, December 2007. The site includes the following Assessor's Parcels: 027-120-004, 007 and 008; 030-010-008 and 009; 030-030-001, 003, 004, 005, 008, 010, 011, 015, 016 and 018; 030-080-012 and 016.

3. This Use Permit shall become automatically revoked without further action by Shasta County if the activity or use for which the Use Permit was granted has not actively and substantially commenced within two years of the date of final approval, unless the Permittee requests an extension of time prior to the expiration date, and the extension of time is approved by the Planning Commission.

4. Unless otherwise noted, all listed conditions must be completed prior to initiation of the use. The Permittee is responsible for demonstrating, in writing, that all conditions requiring completion prior to initiation of the use have been satisfied. Failure to demonstrate compliance with conditions may result in the project becoming null and void.

5. At any time the Director of Resource Management finds that one or more grounds exist for revocation, revocation proceedings may be initiated in accordance with applicable provisions of the Shasta County Ordinance Code.

6. Failure to comply with the conditions of this permit will result in the initiation of abatement proceedings pursuant to Division 2, Part 1 of the Shasta County Ordinance Code in which all County costs and expenses incurred in investigating and physically resolving the problem shall be recoverable as a lien against the property.

7. All mitigation measures listed in the Final Environmental Impact Report (Final EIR) for the Hatchet Ridge Wind Project, prepared by Jones & Stokes, June 2008, and the accompanying Mitigation Monitoring and Reporting Plan (MMRP), are incorporated herein as conditions of approval of this Use Permit, and shall be implemented as indicated in the Final EIR and MMRP.

8. While every attempt has been made to make these conditions consistent with the mitigation measures proposed in the Final EIR and adopted in the MMRP, these conditions may differ slightly from the text of the MMRP. If there is any significant conflict between the conditions of approval and the mitigations required in the MMRP, the Director of Resource Management shall determine which conditions or combination of conditions shall prevail.

9. This Use Permit authorizes only one operating entity (the "Permittee") at a time on this site. The Use Permit may be assigned to a new Permittee. If there is a change in Permittee, the new Permittee shall send a signed and notarized statement to the Planning Division, within 30 days of the change of ownership or transfer of operations, stating that they have read and understand this Use Permit and agree to comply with each and every condition.

10. This Use Permit shall be valid for 30 years beginning on the date of commencement of commercial operation of the wind energy facility, or beginning two years from the date of Use Permit approval, whichever comes first.

11. A copy of this Use Permit and conditions of approval shall be kept at the project site at all times when the project is under construction and in operation. The Permittee shall review the Use Permit conditions applicable to each employee with the employee on the site prior to the employee beginning work at the site, and at least annually thereafter, for the life of the operation.

Access for Inspections

12. The Permittee shall allow the Shasta County Department of Resource Management, Planning Division, Environmental Health Division, Building Inspection Division, Air Quality Management District, Public Works Department, the California Department of Fish and Game, and all other responsible agencies to conduct site inspections of the construction and operation of the project at the reasonable discretion of said department(s), in order to ensure compliance with this Use Permit.

Limiting Public Access

13. To ensure public safety, public access to the interiors of the wind turbines and to accessory facilities shall be restricted. The Permittee shall submit a security plan to the Director of Resource Management for review and approval within 90 days of the effective date of this permit. The security plan shall identify the method for restricting access to the tower interiors and other facilities.

Sign Requirements

14. Signs warning of high voltage electricity shall be posted on stationary portions of each wind turbine or its tower and at all gated entry points to the project site at a height of five feet above the ground. No advertising sign or logo shall be placed or painted on any wind turbine or tower, with the exception of standard manufacturers' logos or turbine identification numbers. No more than two identification signs relating to the development shall be located on the project site. Signs shall not exceed 16 square feet in surface area or eight (8) feet in height.

Certification of Rotor and Overspeed Design

15. Prior to issuance of building permits, the Permittee shall submit a statement by a professional engineer registered in California certifying that the rotor and overspeed controls have been designed and fabricated for the proposed use in accordance with good engineering practice. The statement shall also certify that the wind turbines are equipped with both manual and automatic controls to shut down the turbines and prevent a rotational overspeed situation.

Setbacks

16. Wind turbines shall have a minimum setback from the exterior project boundaries and public roads equal to the total height of the wind turbine (from grade to top of blade) unless it is shown in a report prepared by a qualified professional that a lesser minimum setback is adequate, in which case the Director of Resource Management may reduce the required safety setback.

Timber Management on Surrounding Properties

17. Except for activities necessary for the construction, operation, and maintenance of the wind turbines and accessory facilities as described in the project description, the facility permitted by this Use Permit shall not interfere with commercial timber management activities on the same or adjacent properties.

Junk

18. There shall be no storage or accumulation of wrecked or dismantled towers, turbines, related energy generation or transmission equipment, vehicles or parts thereof, discarded items, junk, or inoperable machinery.

Roads

19. All on-site and access roads used for this project shall be constructed of all-weather materials and shall be maintained in an erosion-free and dust-free condition. Road construction shall be limited to those roads identified in the project description in the Environmental Impact Report.

Parking

20. Prior to issuance of building permits, the Permittee shall submit to the Director of Resource Management a parking plan for the project site. One on-site parking space shall be provided for each employee, plus one on-site parking space for each vehicle kept on the site in connection with the use. A minimum of four spaces shall be provided. All parking areas shall be constructed of all-weather materials and shall be maintained in an erosion-free and dust-free condition and maintained in a similar manner to the project roads as stipulated in the condition regarding roads above.

Dust Control

21. Prior to commencement of construction activities, the Permittee shall submit to the Director of Resource Management for approval of a plan for dust control. Said plan shall be implemented and complied with during construction and for the life of the project.

Erosion and Sediment Control

22. Prior to commencement of construction activities, the Permittee shall submit to the Director of Resource Management for approval a plan for erosion and sediment control. Said plan shall be implemented and complied with during construction and for the life of the project.

No disturbance of non-construction / non-operation areas

23. a. No grading or ground disturbance shall take place in areas not required for tower or turbine placement, turbine assembly, foundation construction, switching stations, substations, overhead lines, buried cable installation, accessory structures, on-site maintenance/control building, access roads, and parking areas and a construction staging area, etc., as described in the project description. The boundaries of all non-disturbance areas shall be flagged or fenced to be clearly identifiable to equipment operators. The flags or markings shall be spaced a maximum of 50 feet apart, with each marker clearly visible from the immediately adjacent markers. Said flagging or fencing shall be installed prior to commencement of construction and maintained until reclamation is completed. The operator shall submit to the Planning Division an aerial photograph layout of the site at a scale of 1 inch = 200 feet or larger (for example 1 inch = 100 feet) showing the anticipated and approximate limits of the disturbance area.

b. Prior to grading or removal of trees and other vegetation in, or adjacent to, the staging areas the applicant shall submit a plan for review and approval by the Director of Resource Management with the intent to maintain a visual screen between State Highway 299 and the staging area by retaining trees and other vegetation.

Bird Flight Deflectors

24. The Permittee shall use bird flight deflectors on guyed permanent meteorological towers or use un-guyed meteorological towers.

Injured Bird Protocols

25. In the event either the qualified professional biologist or Permittee personnel discover an injured bird with a special species status (e.g., golden eagle, red-tailed hawk, burrowing owl, American kestrel, peregrine falcon, etc.), such personnel shall also be responsible for contacting either the California Department of Fish and Game or the nearest qualified wildlife rehabilitation center or specialist as approved by the United States Fish and Wildlife Service, within 3 hours of discovery to provide immediate veterinary care.

Markings and Lighting

26. a. All turbines, towers and other structures should either be painted or constructed with non-glare, non-reflective materials, unless otherwise required by the Federal Aviation Administration. The permittee shall submit to the Director of Resource Management for approval a plan for markings and lighting.

b. All on-site lighting shall be the minimum required to meet safety and security needs. Where possible, on-site lighting, excluding wind turbines and meteorological towers, shall be shielded to reduce unnecessary skyward illumination, and shall not create intense light or glare that causes a nuisance or hazard beyond the property line, except as required by the Federal Aviation Administration.

c. Lighting on wind turbines and meteorological towers shall have the minimum on-period allowed under FAA regulations.

Noise

27. a. The maximum noise level during operation shall be limited to daytime hourly Leq dB of 55 (7 a.m. to 10 p.m.) and nighttime hourly Leq dB of 50 (10 p.m. to 7 a.m.) at the nearest off-site residence.

b. In the event that complaints about noise are received by the Planning Division, staff is available with noise testing equipment to evaluate any alleged noise violations. The Director of Resource Management shall review each complaint and determine whether it can be verified. If so, the Director shall inform the owner/Permittee that a report must be submitted to the Planning Division from an acoustical engineer or other qualified professional including actual measurements of noise from project operations. The Director may choose to have the Planning Division hire the acoustical engineer or other qualified professional to perform the study. In that event, the owner/Permittee shall deposit funds with the Planning Division to cover the cost of the study and the Planning Division's associated administration costs.

c. If the results of that monitoring indicate that the County's noise standards are exceeded, additional noise control measures shall be implemented as needed.

Emergency Response Plan

28. The Permittee shall prepare and be responsible to implement an emergency response plan for this facility, which shall be reviewed and approved by the Shasta County Fire Department, the Shasta County Sheriff's Office, and the Director of Resource Management. A copy of the plan shall be kept at the project site at all times when the project is under construction and in operation. The Permittee shall review the emergency response plan with each employee beginning work at the site, and at least annually thereafter, for the life of the operation.

Notification of tower collapse, blade throw, etc.

29. The Permittee shall notify the Director of Resource Management and all other required government officials (as specified in the Emergency Response Plan) of any tower collapse, blade throw, or fire, etc., within the wind farm within five (5) days of such occurrence.

Inoperative Equipment

30. a. The Project shall be deemed abandoned for the purposes of this condition if either of the following occurs:

1. The wind turbines have not produced electricity in more than one year, unless the cessation is due to one or more of the following conditions: Unresolved mechanical or technical problems, one or more force majeure events (e.g. major earthquake, volcanic eruption, etc.), turbines are shut down as a result of avian or bat fatality mitigation measure, and the Project Owner has not demonstrated a plan to address these conditions and bring the turbines back into operations; or there is no demonstrated plan, satisfactory to the Director of Resource Management, to restore the equipment to a productive operating condition; or

2. It can be established that more than 50% of the turbines are actively being removed or are in disrepair and there is no demonstrated plan, satisfactory to the Director of Resource Management and an Independent Engineer (IE) familiar with wind turbine technology and mutually agreed by both the Project Owner and Director of Resource Management, to restore the equipment to a productive operating condition.

b. Upon determination by the Director of Resource Management that either of the above criteria is present on the property, the Director of Resource Management shall give notice to the Permittee that the project has been deemed abandoned.

c. Within a reasonable time after the date of the notice by the Director of Resource Management as may be specified in the notice or otherwise determined by the Director of Resource Management, the Permittee shall either (1) restore any inoperable or abandoned wind turbine to operating condition; or (2) restore the site of such turbine to its preconstruction condition. However, in the event a building permit is required for either action described above, the Permittee shall satisfy this subsection by applying for such building permit within a reasonable time after the date of the notice, and completing the activities which are the subject of the building permit within a reasonable time after the issuance of said permit.

1. An inoperable or abandoned turbine is a turbine that has been taken out of commercial service and has not resumed commercial service within 12 months unless such failure to resume service relates to (i) force majeure events, or (ii) other event or condition where Permittee has not elected to abandon the turbine and is using good faith efforts to overcome or mitigate the event or condition preventing operation.

d. If the Permittee does not comply with subsection (c), above, the County shall, in its discretion, take any legal steps necessary, including the use of deposit funds that have been collected, to restore the turbine site to its preconstruction condition.

Monitoring and Reporting

31. a. The Permittee shall be responsible for submitting an annual written report to the Director of Resource Management documenting the status of compliance with all mitigation measures and use permit conditions. The report shall be submitted no later than 90 days following the end of each calendar year, beginning with the initiation of on-site construction, and shall be available to the members of the Technical Advisory Committee for use in monitoring of mitigation measure MM BIO-6, and also available to the public upon request.

b. Additional research may be needed if unexpected fatalities occur as a result of operations. "Unexpected fatalities" are defined as exceedances of the fatality thresholds set forth in mitigation measure MM BIO-6 adopted for the project (fully protected species: bald eagle and sandhill crane; special-status species: other raptor species, yellow warbler and owls) or fatalities of special-status species not expected from pre-operations studies. The scope of any such additional studies shall be limited to addressing specific unexpected fatalities, and the results shall be used to determine appropriate additional mitigation measures. Such studies may include operation-phase bird and bat use studies of the wind power site, consistent with the protocols for pre-project bird and bat use studies. Such additional research may be recommended by the Technical Advisory Committee as provided in mitigation measure MM BIO-6, but approval authority for the protocol, timing and methodology of all such additional research is reserved to the Director of Resource Management, who shall determine whether such research may be funded from the secondary compensatory mitigation fund.

c. All raw avian and bat mortality data shall be submitted annually by the Permittee to the California Department of Fish and Game's Biogeographic Information and Observation System Program, (BIOS, for common species), and California Natural Diversity Database, (CNDDB, for special-status species), consistent with the submission procedure set forth in the California Energy Commission's "Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development,"(pp.79-81). The Permittee will coordinate with the BIOS and CNDDB Database managers to determine the type of data and the format appropriate for submittal.

Decommissioning

32. a. Within one year of the cessation of project operations, defined as a cessation of production of energy for a period lasting more than one year, but excluding cessation of operations for events of force majeure (e.g., major earthquake, volcanic eruption, etc.), major mechanical outages or malfunctions (e.g., a significant turbine re-design or retrofit that must be completed before operations can recommence or a substation failure) that last longer than one year, or turbine shutdowns longer than one year required for avian or bat fatality mitigation, all above-ground structures and equipment related to the wind project shall be removed from the site and disposed of in a legal manner and the site shall be restored to its

pre-project condition. Turbine foundations shall be removed to a depth necessary for reforestation for commercial timber management (minimum depth of three feet), and the surface shall be restored to its pre-project condition. Roads and structures may remain on the site at the request of the property owner for a use that is consistent with County land use regulations and provided that all required permits are obtained.

b. Prior to construction, the Permittee shall submit to the Director of Resource Management for review and approval, a plan for removal of all structures and equipment and restoration of the site to its pre-project condition (" Decommissioning Plan").

c. Prior to construction, the Permittee shall submit an itemized cost estimate for removal of all structures and equipment and restoration of the site ("Reclamation and Restoration Cost") in conformance with the approved Decommissioning Plan, along with an estimate from a qualified party of the reclamation value of the wind turbines and plant electrical infrastructure ("Reclamation Value"). The cost shall be based on the cost for a public works contract (i.e., Caltrans equipment rental rates and prevailing wage rates). The Reclamation and Restoration Cost and the Reclamation Value estimate shall be revised and updated every five years, and shall be subject to third party review paid for by the operator at the discretion of the County.

d. Prior to construction, the Permittee shall collaterally assign to the County the salvage rights to the wind turbines and related electrical infrastructure comprising the project to be effective upon the cessation of project operations as described in subparagraph (a) above to the extent that Permittee has breached its obligations under the Decommissioning Plan. If any of the estimates provided pursuant to subparagraph (c) above indicate that the Reclamation and Restoration Cost as of such time exceeds the Reclamation Value as of such time, Permittee shall submit to the County a financial assurance mechanism, acceptable to the County, in the amount of the difference between such estimates. The mechanism may consist of a surety bond, certificate of deposit or an irrevocable standby letter of credit and shall be in place until all equipment and structures are removed and the site fully restored in accordance with the Decommissioning Plan or until the estimated Reclamation Value meets or exceeds the estimated Reclamation and Restoration Cost. The collateral assignment will terminate and, if applicable, the County will release the mechanism at such time as the structures and equipment have been removed and the site is restored in accordance with the terms hereof.

e. The Permittee shall provide the County with irrevocable authority from the landowner to gain access to the project site for the purpose of recovering and taking possession of buildings, structures, and equipment, and site restoration, in accordance with all salvage rights assigned to the County.

Reimbursement of County Administrative Costs

33. Prior to commencement of construction activities, the Permittee shall submit to the Director of Resource Management, a signed agreement for reimbursement by the Permittee of the County costs to administer Use Permit and MMRP compliance. Costs will be determined by the County and applied in a manner consistent with government accounting principles.

Community Benefit Agreement

34. Developer voluntarily agrees to execute and fund a Community Benefit Agreement ("CBA") as a condition of approval for the project.

Pit River Tribe

35. a In connection with the consultation and recordation efforts required to be undertaken pursuant to Mitigation Measure CUL-1, the Permittee shall prepare and provide a confidentiality and non-disclosure agreement for review and approval by the County and the Pit River Tribe prior to the commencement of recordation activities.

b. The Permittee shall allow enrolled members of the Pit River Tribe, who are designated by the Tribe, to take possession of any dead birds from the project site, taken as part of the avian fatality monitoring program defined in Mitigation Measure BIO-6, for proper treatment and disposition in accordance with California Fish & Game Code Section 3801.6, so long as such activities are otherwise in compliance with all other applicable federal and state laws. Imposition of this condition is not intended to place an undue burden on the Permittee and neither the County nor the Permittee shall bear any responsibility for Pit River Tribe actions that result from this condition of approval.

c. In addition to the requirements set forth in Mitigation Measure CUL-2, the Permittee shall immediately contact the Pit River Tribe in the event that any cultural items are discovered during the construction of the project, and the Tribe shall be consulted regarding the treatment and disposition of such items. Cultural resources shall also be subject to the same notification and treatment measures to which archaeological resources are subject under Mitigation Measures CUL-3a and -3b.

Federal Aviation Administration

36. The Permittee shall obtain all required permits from, and comply with all applicable regulations of, the Federal Aviation Administration.

Caltrans

37. The Permittee shall coordinate with Caltrans to implement traffic safety measures at the intersection of Bunch Grass Lookout Road and State Highway 299 East during construction, and whenever heavy equipment is transported to or from the site.

California Department of Fish and Game

38 a. Any rock piles created during construction must be dismantled and dispersed to match the pre-construction surrounding landscape prior to commencement of operation of turbines.

b. The Permittee shall pay the Shasta County Clerk a documentary handling fee for posting a Notice of Determination or Notice of Exemption for this project pursuant to the California

Environmental Quality Act (CEQA), Section 15075. The Permittee shall also pay the appropriate fees pursuant to Fish and Game Section 711.4 (AB 3158). Said fees shall be paid within five (5) days following the end of any final appeal period, or in the event of a timely appeal within five (5) days following any final decision on the appeal, before the project approval will be considered final. Failure to pay the required fees will render this contingent project approval null and void.

Regional Water Quality Control Board

39. The Permittee shall obtain all required permits from, and comply with all applicable regulations of, the Regional Water Quality Control Board

Shasta County Environmental Health Division

40. a. The Permittee shall obtain all required permits from, and comply with all applicable regulations of, the Shasta County Environmental Health Division

b. Sanitary facilities shall be constructed and maintained in conformance with the requirements of the Environmental Health Division.

c. The owner or facility operator shall submit a Hazardous Materials Business Plan for emergency response to the Environmental Health Division for facilities storing or handling hazardous materials equal to or greater than 55 gallons, 500 pounds, or 200 cubic feet of a gas at standard temperature and pressure.

Shasta County Fire Department (SCFD)

41. a. Roadways and turnarounds shall be constructed in accordance with Section 6.12 of the Fire Safety Standards prior to the construction of any portion of the proposed facility.

b. The facility shall be identified with a street address marker located on the proposed building and adjacent to facility access road at Highway 299. The address numbers shall be a minimum of four inches in height, reflectorized, and shall contrast in color with the background. The address shall be clearly visible at all times.

c. Roofing shall have a Class A rating according to the Shasta County Fire Safety Standards and the California Building Code.

d. All buildings constructed on parcels one acre or larger in size shall be setback a minimum of 30 feet from all property lines and road easements in accordance with the Shasta County Fire Safety Standards, but a 100-foot setback is recommended in order to comply with the defensible space requirement.

e. Chimneys and flues shall be equipped with an approved spark arrestor as defined in Section 6.53 of the Fire Safety Standards.

f. Fire protection water for the proposed buildings shall be in compliance with Section 6.43 of the Fire Safety Standards.

g. Due to the large size of the proposed project, vegetation cleared for construction and/or land development purposes shall be disposed of on a regular basis. Accumulation of vegetation debris shall be minimized. Disposal shall be in accordance with Air Quality Management Regulations and State or local Fire Department Burning Permit Regulations. Prior to the final inspection by the Shasta County Building Division and SCFD, all cleared vegetation shall be properly disposed of.

h. Storage, use, and dispensing of flammable/combustible liquids shall be in accordance with the adopted edition of the California Fire Code. Plans shall be submitted to SCFD for review and approval prior to construction, storage, or use.

i. Portable fire extinguisher(s) for the proposed buildings shall be provided in accordance with the adopted edition of the California Fire Code.

j. All welding and storage of cylinders shall be in accordance with the adopted edition of the California Fire Code. In addition to welding, other high-risk activities such as cutting and grinding shall require welding curtains, and shall be restricted based on fire weather indices as determined by the SCFD.

k. Accumulations of waste paper, weeds, combustible waste material, waste petroleum products, tires, or rubbish of any type shall be prohibited.

l. Rags, cloth, or paper towels saturated with oil, solvent, or petroleum products shall be kept in a metal can with a tight fitting cover.

m. The Permittee shall provide and maintain "Defensible Space" around all buildings in accordance with Public Resources Code 4291.

n. All mobile and stationary equipment with non-turbo charged internal combustion engines shall be equipped with a properly functioning, approved spark arrestor.

o. All field work vehicles, including sub-contractors, which engage in field operations, and routinely access the site, shall be provided with:

1. A means for reporting emergencies.

2. At least one round-point shovel at least 46 inches in length.

3. One 5-gallon backpack water pump.

4. A minimum of one 2-A:10-B:C fire extinguisher.

p. Vehicles shall not travel off-road or upon roads which have not been maintained free of flammable vegetation except when necessary because of an immediate hazard to life or property.

q. The SCFD shall sign the improvement plans for this project.

r. Advisory note: The project is located in an area designated as a "VERY HIGH" Fire Hazard Severity Zone under Section 4203 of the Public Resources Code of the State of California.

s. If Permittee installs an automatic fire extinguishing system in the proposed buildings, plans shall be submitted for SCFD review as part of the building permit.

t. All fires shall be reported to SCFD immediately even though they may have been extinguished.

u. Permittee shall provide the following vegetative modification:

1. Turbine Ridge Road (TRR):

A. Provide a 100-foot shaded fuel break on the western side of the TRR.

B. From the centerline of the TRR going east, provide a 50-foot clear zone.

C. From the easternmost edge of the clear zone, provide an additional 100-foot shaded fuel break.

2. Turbines:

A. From the outer edge of each tower, going in all directions, provide a 30-foot clear zone.

B. From the outer edge of the clear zone, going in all directions, provide an additional 70-foot shaded fuel break.

3. Definitions:

A. Turbine Ridge Road (TRR) is a 20-foot-wide surfaced road with 5-foot shoulders on both sides. It is the easternmost road within the project that is adjacent to all of the turbines located on Hatchet Ridge. For the purposes of this condition, TRR does not access the cluster of 5 turbines located west of the Hatchet Ridge.

B. Clear zone: Remove all brush, trees and slash.

C. Shaded fuel break:

1. Trees planted at 20-foot spacing.

2. Existing tree stands to be reduced to 20-foot spacing.

3. Tree pruning:

   A. Begins when the trees are 18 feet tall.

   B. Prune one-third of the live crown or up to 12 feet, whichever is less.

4. Brush and slash must be kept less than one foot high.

v. Permittee shall provide the necessary equipment and necessary training (or funding for equipment and training) to SCFD for the training of employees for the extinguishment of facility specific fires and rescue. The rescue equipment shall include items such as ropes, hardware, harnesses, personal protective safety gear, and rescue basket. The Permittee shall provide a secure on-site location for the storage of the rescue equipment, to be accessible by SCFD personnel only. The purchased equipment shall become the property of SCFD, and the equipment shall be maintained by SCFD. Replacement equipment shall be purchased by the current owner and provided to SCFD as necessary. This shall continue for the life of the facility.

w. All electrical systems shall be designed and maintained in accordance with the California Public Utilities General Order 95 and corresponding underground standards.

x. All electrical distribution and collection components shall be underground where possible. Where above-ground installations are necessary, the latest standards for raptor and rodent protection shall be incorporated.

y. In accordance with PRC 4292, all electrical distribution and collection components shall be "exempt" and designed for high wind conditions.

z. Water storage facilities of not less than 5,000 gallons shall be provided for firefighting purposes in strategic locations within the site. Such locations shall be noted on the road map plan. The number and location of such water supplies shall be determined in cooperation with SCFD and the Permittee. The risk of freezing shall be considered when determining the type and location of water storage facilities.

aa. The Permittee shall provide SCFD a current copy of the facility fire prevention plan. The SCFD will review this plan and if necessary require modification. The elements of the plan shall include the following:

1. A description of the operating area along with a map showing major access routes, significant hazards, firefighting water supply locations, and a 24-hour emergency contact phone number.

2. An analysis of fire causes going back a minimum of five years. List any trends indicated by the fire causes along with a plan of correction/proposed solutions for preventing these fire causes. Provide an implementation and completion date for all plans and correction.

3. Procedures pertaining to reporting of emergencies, curtailment of hazardous activities during high and very high fire danger periods, weather monitoring for establishing the fire danger, and company action for fire suppression.

4. The training/orientation program for the facility employees and contactors pertaining to fire safety, fire suppression, and emergency notification.

5. A list of state and local fire laws applicable to the facility operations, and any conditions of approval pertaining to fire safety along with the facility operating procedures which indicate your compliance with these laws and/or conditions of approval.

6. Staffing and equipment assignment and inventories as follows:

   a. Company emergency incident manager and 24-hour contact telephone number.

   b. General staff and specialist responsibilities.

   c. Available motorized equipment for firefighting and support operations.

   d. Location, type and number of firefighting tools and equipment.

bb. No person shall conduct any hazardous operation (mowing, welding, cutting, grinding, or other tool or equipment from which a spark, fire or flame may originate), or operate any motor, engine, any time flammable vegetation exists (such as dry grass and dead vegetative litter), without meeting all of the following requirements: (This condition does not apply to: 1) the operation of the wind turbine, 2) the operation of the electrical transmission system, 3) the regular maintenance of the turbines within the area cleared of vegetation, and 4) the use of motorized vehicles to access the turbines on the maintained access road system.)

1. Vegetation clearances of 15 feet shall be provided in all directions around the area of operation. An additional 15 feet shall be cleared or wet down. If wetting down is chosen, the area shall be maintained wet throughout the operation and the water used for wetting shall not diminish the backpack pumps capacity.

2. Two serviceable round point shovels at least 46 inches in length and a minimum of two 5-gallon water backpack fire pumps shall be maintained within 25 feet of the operation.

3. A fire watch shall be maintained within 25 feet of the hazardous operation. The fire watch shall have a radio or equivalent shall be available at the operation site in which to report emergencies.

cc. Hazardous operations (as defined above) shall not be permitted during the following periods:

1. Anytime flammable ground vegetation exists and anyone of the following conditions exist:

   a. The air temperature is 90 degrees Fahrenheit or greater.

   b. The wind speed is 8 miles per hour (mph) or greater.

   c. The relative humidity is 20% or less.

   d. Exceptions:

      i. When the wind speed is 15 mph or less and the relative humidity is 60% or greater.

      ii. When the wind speed is 15 mph or greater and the relative humidity is 80% or greater.

2. Anytime during the declared fire season when the wind speed is 25 mph or greater.

3. Anytime during the declared fire season when the relative humidity is 10% or less.

4. Anytime SCFD declares a Red Flag Warning.

dd. Permittee shall provide a "Risk Manager" to be available on site whenever construction activities are in progress. The Risk Manager shall have oversight authority and shall be the point of contact for the SCFD.

ee. Smoking shall only be permitted in vehicles parked in areas cleared of flammable vegetation and in designated smoking areas at building sites.

ff. Prior to each fire season and upon hire of new employees or sub-contractors, an orientation concerning fire hazards, fire safety, emergency notification procedures, use of fire safety equipment, fire safety rules and regulations, and the conditions of approval shall be provided by the employer.

gg. Any installation which results in a fire hazard, shall be addressed the Permittee or designee, and measures shall taken to prevent or mitigate the problem. SCFD may also require measures to mitigate or correct any such problem.

hh. All initial project clearing shall be done between November 1st and May 1st. Extensions may be allowed based on weather conditions as determined by the SCFD Battalion Chief assigned to that area.

ii. Permittee shall provide to SCFD the telephone number of the control center that has the ability to shut down the windmills. When the control center is notified by SCFD, the control center shall immediately shut down facility as necessary when in the opinion of the Incident Commander, the continued use of the windmills is detrimental to the mitigation of an incident located in proximity of the windmills.

jj. Nothing in these conditions are intended to diminish the responsibility of the Permittee or their designee from taking any additional responsibility and reasonable measures necessary to preclude the ignition and rapid spread of fire.