

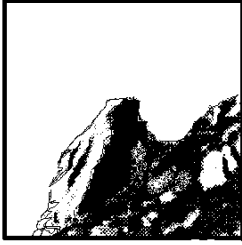
Steve Taffolla

From: William Micklin <wmicklin@leaningrock.net>
Sent: Thursday, March 03, 2011 2:05 PM
To: ECOSUB; catulewind@blm.gov
Cc: William Micklin; Iain Fisher; Greg Thomsen; Michael Garcia
Subject: Ewiiapaayp Comments to DEIR/EIS
Attachments: Ewii Comments1 Tule DEIR-EIS 030311.pdf; Ewii Comments2 Tule DEIR-EIS 030311.pdf
Importance: High

Please find the attached comments of the Ewiiapaayp Band of Kumeyaay Indians to the Tule Wind (DOI-BLM-CA-D070-2008-0040-EIS) portion of the DEIR/EIS East County Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects. The Tribe's comments are to the Joint DEIR/DEIS that addresses Pacific Wind Development's application to build and operate the Tule Wind Project. The Tribe's comments are submitted as two PDF files.

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March 3, 2011

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SUBJECT: Comments to Joint Draft Environmental Impact Report, Draft Environmental Impact Statement (DEIR/DEIS), East County Substation/Tule Wind/Energia Sierra Juarez Gen-Tie Projects

The following are the comments of the Ewiiapaayp Band of Kumeyaay Indians to the Joint Draft Environmental Impact Report/Draft Environmental Impact Statement (DEIR/DEIS) under the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) for consideration of Pacific Wind Development's application to build and operate the Tule Wind Project, referred to collectively with the ECO Substation Project and ESJ Gen-Tie Project as the Proposed PROJECT in the Joint DEIR/DEIS.

The Tribe shares the goals of the Department of Interior and the Bureau of Land Management and the Fish and Wildlife Service to responsibly site renewable energy projects while implementing necessary and reasonable measures to protect the human and natural environment in accordance with the intent of applicable regulation. The Tribe's historical and cultural, and successful, stewardship of its environment is evidenced by its unspoiled tribal lands. Our tribal government once more, as in times past, re-balances the needs of our tribal residential community and our need to establish a tribal economy through development of the Tribe's only commercially viable natural resource, its wind. While few governments have matched our resolve to protect our tribal environment, as evidenced by the beauty of the Ewiiapaayp Indian Reservation, our community has no employers, no commercial taxpayers and no jobs to offer our tribal citizens. The Tribe's participation in the Tule Wind Project is essential to our tribal citizen's welfare. We have been proactive in seeking solutions to common issues and improving siting practices with federal agencies who are also stakeholders in the Tule Wind Project.

In response to the Joint Draft Environmental Impact Report, Draft Environmental Impact Statement (DEIR/DEIS) Tule Wind Project documents released by the Bureau of Land Management, the Tribe reviewed the details and herein provides comments. Based on our review, we strongly disagree with critical elements of the DEIR/EIS. In particular, we are

shocked that our trustee, who is charged with protected our interests as trust beneficiary arising from the federal-tribal trust relationship established by the U.S. Constitution, treaties, public laws, regulations and court precedent, in the DEIR/EIS preferred alternative 5 proposes to remove the Project from the Tribe's Reservation lands and thereby reduce the benefit to the Tribe to zero. We are further concerned this alternative's removal of the most productive of the wind turbines may likely make the Project financially infeasible. The Tribe is concerned that flawed analyses result in the misapplication of type I impacts to direct and indirect effects, and conservation measures proposed are so costly as to jeopardize the commercial viability of the overall Project. These measures are unreasonable for a project that has few, and we contend no, Class 1 significant adverse environmental impacts, and none that cannot be mitigated.

Because this DEIR/EIS is likely to serve as a precedent for other similar projects, and unless a rationale response is provided by the forthcoming record of decision, the current severe regime of conservation restrictions will become a standard that would remove the flexibility necessary to allow governments and the renewable energy industry to site wind projects in a manner that is both effective in protecting the environment while continuing to achieve the shared national goal of promoting the responsible yet financially feasible goal of developing clean, renewable wind energy benefitting the American rate-payer. Further, the Tribe is concerned that a precedent would be established for the inappropriate imposition of unreasonable conservation restrictions on sovereign tribal governments and their tribal lands by agencies of the federal government who have no jurisdiction over tribal lands. The end result for the general public would be fewer, smaller and more expensive renewable energy projects, and for the Tribe, the loss of its sole economic opportunity.

All human activity has an impact on the natural environment. The governments of the Tribe, the United States and the state of California government have established a goal of renewable energy production and associated environmental processes intended to find a balance in protecting the human environment in a way that responds to and balances the energy and environmental needs of our citizens. These governments' voters and legislators have established a policy that wind energy represents the best solution for achieving that goal. Current post-construction survey data collected from wind facilities in this and other countries, and ensuing scientific studies, clearly shows that today's modern wind industry is not having an adverse significant impact on sensitive wildlife or their habitats, and that the impacts that are documented are not only mitigated and offset by the benefits of wind energy, but are insignificant when compared to other forms of energy production. Indisputably, wind energy is the most environmentally-friendly means of generating electricity. Wind energy projects displace emissions of air toxins, greenhouse gases, and other pollutants from fossil fuel energy projects that threaten wildlife and the natural environment and are a far greater threat to wildlife and their critical habitats than any potential impact of wind energy projects, including the Tule Wind Project.

As a final comment, the Tribe wishes to plainly state that the California Public Utility Commission ("CPUC") or the State of California has no jurisdiction over the Tribe's tribal lands within the context of this Project or its environmental review. The language of the DEIR/EIS

Ewiiapaayp Band Comments to Joint DEIR/EIS

was somewhat careless in mixing references to the CEQA EIR and the Tribe's tribal lands, so we thought best to alleviate any potential confusion with this plain statement of fact.

The Tribe requests the record of decision arising from the DEIR/EIS permit the Tule Wind Project proponent to construct this project as proposed by the Project proponent without reduction in wind turbines or further delay.

Please find attached the Tribe's detailed comments to the draft document. Should you have any questions, please contact the Tribe's Chief Executive Officer, Mr. Will Micklin. Thank you.

Sincerely,

A handwritten signature in black ink that reads "Robert Pinto Sr". The signature is written in a cursive, slightly slanted style.

Robert Pinto, Sr. Tribal Chairman
Ewiiapaayp Band of Kumeyaay Indians

EWIIAAPAAYP BAND OF KUMEYAAY INDIANS COMMENTS TO THE JOINT DRAFT DEIR/EIS

The Ewiiapaayp Band of Kumeyaay Indians (the “Tribe”) hereby submits its comments to the Joint Draft Environmental Impact Report/Draft Environmental Impact Statement (DEIR/DEIS) under the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) for consideration of Pacific Wind Development’s application to build and operate the Tule Wind Project, referred to collectively with the ECO Substation Project and ESJ Gen-Tie Project as the Proposed PROJECT in the Joint DEIR/DEIS.

The Ewiiapaayp Band of Kumeyaay Indians is a federally recognized tribal government. The Tribe’s Ewiiapaayp Indian Reservation was reserved from original tribal lands in 1891 with additions that established today’s 4,542-acre East area and the 10-acre West area of the Reservation.

The Tribe cannot support the Project alternative 5 recommended by the Bureau of Land Management referring to Tule Wind Project Tule Reduction in Turbines Alternative or the adaptive management plan, turbine setback or fire guidance.

Unfortunately, the preferred alternative and conservation restriction guidance recommended in the draft documents by the BLM deviates significantly from the consensus recommendations in wind project environmental studies. Among other problems with the alternatives and guidance as recommended, it would:

- Terminate the portion of the Tule Wind Project beneficial to the Ewiiapaayp Band of Kumeyaay Indians by reducing all turbines on the Ewiiapaayp Indian Reservation, and possibly the entire Tule Wind Project by reducing approximately half of the proposed turbines.
- Delay construction of Tule Wind Project by up to three years, and require operating projects to retroactively conduct post-construction wildlife studies for five years, adding unforeseen costs to the operating budgets of these facilities.
- Accept golden eagle impacts as type 1 and unmitigable despite the facts that the project area is not suitable foraging or nesting habitat.
- Requires golden eagle baiting with animal carcasses for the purpose of capture and release with monitoring devices that has the potential to lure golden eagles to the project area that would otherwise not be in the area (despite the baiting, no golden eagles have been sighted in the project area despite persistent attempts).
- Require "adaptive management", which could include operational changes, such as shutting off turbines at certain times of the year, which will add further unquantifiable costs and severely diminish operating revenues.
- Accept noise and vibration impacts as type 1 and unmitigable without any peer-reviewed scientific evidence that sound related to the construction and operation of wind farms has the potential to impact wildlife.

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- Accept fire and fuels management impacts as type 1 and unmitigable without any peer-reviewed scientific evidence that the project reduces firefighter effectiveness and that ignores the improvements to firefighter effectiveness provided by the project.
- Greatly expand applicability under the National Environmental Policy Act (NEPA) to projects built on tribal lands under tribal jurisdiction, adding time and costs to developing wind projects, when there is insufficient federal staff to perform this vastly increased amount of administrative work.

The draft document's preferred alternatives effects severe environmental constraints on the backs of the Ewiiapaayp Band of Kumeyaay Indians, a Tribe without other economic development opportunities on a Reservation without electricity, community water or waste water systems, telephone or cellphone or radio, or adequate roads. In establishing this inappropriate standard as a precedent, the BLM threatens the nation's ability to meet the renewable energy targets set forth by the President and the Congress.

Indian tribes have a long history of being proactive on environmental issues. Indian reservations are often islands of environmental purity surrounded by polluted lands bereft of wildlife that have been ravaged by residential and commercial development. Environmental regulatory agencies, like the BLM, often attempt to constrain development on Indian reservations as mitigation for non-tribal development. The Ewiiapaayp Band of Kumeyaay Indians' east area of its Reservation scale has tipped 100% towards environmental preservation simply because it has had no resources for development until a wind energy project became feasible. Now that the Tribe wishes to re-balance towards economic develop for the benefit of its citizens, the BLM wishes to sacrifice the Tribe's welfare by preventing development on tribal lands in order to mitigate the impact of development on non-tribal lands.

Pacific Wind, the project proponent, volunteered to fund millions of dollars worth of wildlife research and mitigation, and agreed to fund a habitat conservation plan. The Tribe contributes to this through its diminished share of revenues lessened by expense of these costly, if not excessive, mitigation measures. Mitigation should be based upon science and not simply be recommended as the most restrictive and costly environmental measures available without considering the cost to the renewable energy benefits of this project and others that will use this project as a benchmark.

Wind energy projects are far less harmful to birds than communication towers, tall buildings, airplanes, vehicles, cats, and numerous other human-caused threats including the conventional energy sources that wind power displaces (http://www.fws.gov/habitatconservation/windpower/wind_turbine_advisory_committee.html). Wind turbines are estimated to cause fewer than three out of every 100,000 human-related bird deaths in the U.S., and will never cause more than a very small fraction of bird deaths no matter how extensively wind power is used in the future ("A Summary and Comparison of Bird Mortality from Anthropogenic Causes with an Emphasis on Collisions," USDA Forest Service, 2005, http://www.fs.fed.us/psw/publications/documents/psw_gtr191/Asilomar/pdfs/1029-1042.pdf).

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According to a study by the New York State Energy Research and Development Authority (NYSERDA), non-renewable energy sources "pose higher risks to wildlife" in the New York/New England region than renewable sources, and coal "is by far the largest contributor" to wildlife risks ("Comparison Of Reported Effects And Risks To Vertebrate Wildlife From Six Electricity Generation Types In The New York/New England Region," NYSERDA, March 2009, http://www.nyserda.org/publications/executive_summary_report.pdf). The study, which examined coal, oil, natural gas, nuclear, hydroelectric and wind power, found that wind was the only source that did not present population-level risks to birds.

The Tribe cannot support the draft document's preferred alternatives as currently drafted. The Tribe requests that the record of decision permit the Tule Wind Project to be constructed as proposed by the Project proponent without any reduction in wind turbines or delay.

The Tribe's detailed comments follow below.

DETAILED COMMENTS

Executive Summary

Tule Wind Project (page ES-6).

The Tule Wind Project should be permitted to proceed as proposed by Pacific Wind Development.

Project Alternatives

ES.5.2.2 Tule Wind Project Alternatives, Tule Wind Alternative 5, Reduction in Turbines (page ES-16).

This Tule Wind Alternative 5 should be eliminated. It would eliminate all turbines on the Ewiiapaayp Indian Reservation, and therefore all benefits, and likely threaten the financial viability of the entire project.

Summary of Environmental Analysis

ES.6.2 Tule Wind Project (page ES-20-21).

The proposed elimination of 17 turbines would be on tribal land, and of the total reduction of 62 turbines only 11 turbines would be removed from state of California lands. Section ES.6.2's application of California Environmental Policy Act ("CEQA") to tribal and federal lands is inappropriate as such lands are subject to tribal environmental law and the National Environmental Policy Act ("NEPA") respectively.

The draft document inappropriately determines as significant and unmitigable (Class I) impacts the following issues areas: biological resources (bird/golden eagle strikes with turbines), visual resources (impacts to scenic vistas, existing visual character, light/glare, and inconsistency with policies/plans), cultural resources (potential adverse change to traditional cultural properties), short-term construction noise and air emissions, and wildland fire and fuels management. These impacts are Class II and mitigable to less than significant impacts; and are, in fact, mitigated by measures proposed by the project applicant, Iberdrola (see D.2.3.2 Applicant Proposed Measures, Tule Wind Project).

The Table ES-4, the Tule Wind Alternative 5, Reduction in Turbines, is combined by BLM with the Tule Wind Alternative 2, Gen-Tie Route 2 Underground with Collector Substation/O&M Facility on Rough Acres Ranch, as the alternative that "would cause the least environmental impact." (page ES-21, ¶ 1). There is no peer-reviewed scientific study offered to support this claim, and it should be replaced with the development of the project as proposed by the applicant.

The BLM claims, again without support, that "Class I impacts to golden eagles would be reduced with the removal of turbines within areas considered high risk of any known active golden eagle nest...the risk of mortality due to collision with operating turbines by golden eagle remains adverse and unmitigable due to the fact that the remaining turbines would continue to present

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risk, albeit with lower risk of collision to golden eagles foraging in the vicinity of the project.” BLM should re-classify the project’s impact as Class II for the project as proposed by the applicant without any reduction in turbines in recognition of the mitigation measures offered by the project applicant.

The draft document recognizes that the Reduction in Turbines Alternative “would remove the 17 turbines proposed on the Ewiiapaayp Indian Reservation; thereby affecting the Ewiiapaayp Band of Kumeyaay Indians’ wind and solar energy resources policies to develop renewable energy projects to serve economic and social needs of the reservation.” Yet this devastating impact on the Tribe is nothing more than a footnote and viewed as acceptable to the BLM. Such a cursory disposal of the Tribe’s interests is unconscionable and should not be the policy of the Department of the Interior, who is the trustee of the Tribe’s interests.

The Reduction in Turbines Alternative also means “27 turbines would be removed from lands administered by the BLM, 7 turbines would be removed from lands administered by the CSLC, and 11 from lands under the jurisdiction of the County of San Diego.” Yet the BLM does not consider that this reduction in turbines may well mean the project is not financially feasible for the applicant, Iberdrola, and could cause its termination. Yet the draft documents determines the No Project Alternative as undesirable because “[w]ithout the Tule Wind Project, approximately 200 MW of proposed renewable energy production would not be developed on lands in the southeastern portion of San Diego County... thereby negatively affecting the region’s ability to meet California’s renewable portfolio standard (RPS) program and associated Executive Order requirements to increase renewable energy and reduce greenhouse emissions, [therefore] it was determined not to be environmentally superior or preferable.” (ES.6.2, page ES-22, ¶ 1). The BLM apparently cannot connect the dots that a reduction of the project by 62 of 134 turbines, including the 17 turbines on the Tribe’s Reservation that produce approximately 25% of the total electricity produced by the Tule Wind Project, may well cause the termination of the project. If the No Project Alternative is determined by BLM “not to be environmentally superior or preferable”, then the Reduction in Turbines Alternative that may well cause there to be no project is also not environmentally superior or preferable.

ES.7.2 BLM-Preferred Alternative

The BLM’s preferred alternative per NEPA requirements and pending public comment on the Draft EIS for the Tule Wind Project component is the Tule Wind Alternative 5, Reduction in Turbines, combined with Tule Wind Alternative 2, Gen-Tie Route 2 Underground with Collector Substation/O&M Facility on Rough Acres Ranch, which conclusion is based on the analysis presented in Sections D.2 through D.18. The Tribe’s recommendation and request is the record of decision instead permit the full construction of the Tule Wind Project as proposed by its applicant, Iberdrola, as described on page ES-6.

ES.8 Issues to be Resolved

The Tribe proposes the U.S. Fish & Wildlife Service (USFWS) consultation under Section 7 of the Endangered Species Act for the Tule Wind Project be deemed satisfied by the EIS, as well as

the USFWS determination of consistency with the Bald and Golden Eagle Protection Act, the Section 106 consultation with the Office of Historic Preservation, and federal fire agency approval of applicant prepared Fire Protection Plans. The Tribe also requests the record of decision accept the project proponent's Applicant Proposed Measures (APMs) TULE-BIO-1 through TULE-BIO-21 to reduce impacts to biological resources (see Section B.4.4, Tule Wind Project Applicant Proposed Measures) instead of the BLM's adaptive management plan.

B. Introduction

A.4.2 Statement of Objectives

The Statement of Objectives (A.4.2), which includes the project applicant's objectives (A.4.2.2 Proponents' Objectives) for the Tule Wind Project, fails to include the Ewiiapaayp Band of Kumeyaay Indians' objectives. The Tribe is both a governmental entity with legal/regulatory jurisdiction and a stakeholder in the project as a lessor of tribal lands to the project applicant and proponent. While the California Public Utility Commission (CPUC) is provided project objectives (A.4.2.1), as well as Iberdrola (A.4.2.2), the Tribe is inequitably denied inclusion of its governmental objectives. These objectives should be included in this section and included as defined goals and objectives to be considered under the NEPA process. These objectives are vaguely described in Section A.3.2 Ewiiapaayp Band of Kumeyaay Indians Project Purpose. A proper description would be: Accommodate delivery of renewable energy to meet tribal (i) renewable energy goals and (ii) economic development goals from wind and solar sources on the West area of the Ewiiapaayp Indian Reservation.

C. Alternatives

C.1 Alternatives Development and Screening Process, NEPA Requirements.

NEPA's rule of reason is not satisfied by the Reduction in Turbines Alternative. It is not an alternative "necessary to permit a reasoned choice" (C.1, page C-1, ¶ 2) when it is without the support of peer-reviewed scientific studies in determining Class I impacts and is inconsistent with the objectives of the Tribe and the state and federal governments, including the potential to terminate the Tule Wind Project when the BLM determined a no project alternative is not preferred or desirable.

These potential outcomes resulting from the Reduction in Turbines Alternative violates the alternatives screening methodology described in C.2 as the alternative does not "meet most of the Proposed PROJECT's basic objectives and fulfill the BLM's project purpose and need as provided in Section A of this EIR/EIS", especially if the Tribe's objectives are included as should be; the alternative is not feasible as it removes so many turbines as to make the project infeasible, including the Tribe's 17 turbines that produce approximately 25% of the projects total electricity production; and the alternative does not "avoid or substantially lessen environmental effects of the Proposed PROJECT" as not peer-reviewed scientific studies support the Class I impact determination and the project area, including the tribal lands, are not suitable foraging or

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nesting habitat for the golden eagle, and, even though takes are unlikely, any potential take will not jeopardize the species.

C.2.1 Consistency with Project Objectives

The Tribe's project objectives should be included in the list of project objectives as:
Accommodate delivery of renewable energy to meet tribal (i) renewable energy goals and (ii) economic development goals from wind and solar sources on the West area of the Ewiiapaayp Indian Reservation.

C.4.2.5 Tule Wind Alternative 5, Reduction in Turbines

The BLM presents no analysis for its brazen conclusion that “[a] reduction in turbines as proposed would meet project objectives criteria, is considered feasible, and is consistent with the purpose and need as set forth in Section A; therefore, this alternative is considered a reasonable alternative in this EIR/EIS.” There is no financial analysis that a reduction in 62 of 134 turbines leaves a financially viable project. Nor any analysis that eliminating the 17 turbines on the Tribe's lands that produce 25% of the electricity projected to be produced by the 134 turbines results in a financially viable project. That means that the project proponent's revenues would be only 75% of the projected total, yet the expenses are reduced to only 87.32% of the projected total. This mismatch of revenues and expenses is excessive. Nor does BLM consider that the elimination of the Tribe's entire interest in the project meets the Tribe's objectives. Nor does BLM consider the excessive and costly environmental conservation restrictions and excessive studies add a disproportionate cost burden for the project proponent while significantly reducing project revenues by the reduction in turbines. Overall, this alternative has the potential to result in no project, which the BLM determined is not desirable or preferable.

D. Biological Resources

The following determination of the BLM is the foundation for the draft document's Reduced Turbine Alternative and its proposed Adaptive Management Plan regarding golden eagles: “Although golden eagle use of the Tule Wind Project area was very low based on point count surveys, the presence of an active golden eagle nest at the Canebrake location indicates that golden eagles are using a foraging area in the vicinity of the northern portion of the project area. Therefore, there would be an increased risk of collision for golden eagle in the northern portion of the project area than would be estimated from the bird use data alone. [emphasis added] A low risk of collision for golden eagle in the southern portion of the project area would be estimated based on increased distance to active nests and low bird use. (page D.2-177-178, ¶ 1) The Tribe is extremely concerned that the preceding statements of fact do not support this determination, as follows:

“Typically, the denser forms of chaparral habitat [as found on the Tribe's Reservation] are not suitable for foraging of golden eagle. Suitable nesting habitat (i.e., cliffs) is not known within the Proposed PROJECT area;...” (Page D.2-45, ¶ 2)

Golden Eagle. There were three observations of golden eagles during the avian survey in fall 2007 and spring 2008 (Tetra Tech EC, Inc. 2009). Two of the observations were during point count and one was an incidental observation. No nests were observed during that survey and overall the observations of golden eagles were low relative to the survey effort. (Page D.2-88, ¶ 5).

“The Canebrake location is approximately 0.1 mile west of the northern portion of the Tule Project. The Moreno Butte location is approximately 10 miles southwest of the project. The Glenn Cliff/Buckman Springs location is approximately 8 miles west of the central portion of the project. The other active territories, located at Garnet Mountain, Monument Peak, and Thing Valley, are approximately 8, 5, and 5 miles west or northwest of the Tule Wind Project, respectively. There are no CNDDDB records of this species within the Mount Laguna, Sombrero Peak, Live Oak Springs, and Jacumba quadrangles where the project area is located. The San Diego County Bird Atlas corroborates the above description with active breeding locations located southwest and northwest of the project site as well as nesting locations located farther east within the Carrizo Gorge area (Unitt 2004).” (Page D.2-89, ¶ 2-3)

Golden Eagle. This species has high potential for foraging based on suitable foraging habitat in the project area. [This conclusion is not supported by studies nor by the succeeding findings] This species is not expected to nest in the ESJ Gen-Tie Project area due to lack of habitat; however, there could be territories located within the vicinity. This species was not observed during the 2008 surveys (EDAW 2009) and there are no CNDDDB records within the In-Ko-Pah Gorge quadrangle. In spring 2010, Wildlife Research Institute conducted a golden eagle helicopter survey within a 10-mile radius of the proposed Tule Wind portion of the project, which also included the ESJ Gen-Tie Project area (WRI 2010). Within 10 miles of the ESJ Gen-Tie project area, the survey found three golden eagle territories, none of which were currently active. The territories are generally located at Table Mountain with five nests, Carrizo Gorge with four nests, and Boundary Peak, which, as a historical territory, had no nests. The Table Mountain location is approximately 3 miles north of the project. The Carrizo Gorge location is approximately 8 miles north of the project. The Boundary Peak territory is approximately 10 miles west of the western portion of the project. All of these territories, except Boundary Peak, were documented to be active within the past 2 to 3 years. Because the survey was conducted at the end of March, some of the eagle pairs may have already attempted and failed at nesting for the 2010 breeding season (WRI 2010).” (Page D.2-105, ¶ 3)

“Collision risk is the number of collision fatalities for a species or group of species divided by the number of individuals of that species or group in the zone of risk (area where the species can travel through and be exposed to the collision factor) (USFWS 2009a). USFWS acknowledges that direct, quantitative estimates of individual, group, or population collision risk is difficult and—usually beyond the scope of wind energy project studies due to the difficulties in evaluating these metrics (2009a); therefore, collision risk estimates are typically qualitative and utilize comparisons among existing wind energy projects and/or design alternatives. USFWS states that the —assessment of risk should synthesize sufficient data collected at a project to

estimate exposure and predict impact for individuals and their habitat for the species of concern, with what is known about the population status of the species, and in communication with the relevant wildlife agency and industry wildlife experts (2009a).” These statements regarding collision risk are erroneous. Collision risk is quantifiable. The Tribe previously provided the BLM with material regarding the High Probability of Collision Avoidance for the Tule Wind Project for the turbines on tribal lands, as follows:

In the unlikely event that the nest abandonment or displacement of golden eagles due to unsuitable foraging habitat or windfarm operation is less than 100% then golden eagles may be at an unquantified risk of colliding with the proposed turbines. Previous studies on golden eagles the scale and causes of mortality elsewhere, e.g. at Altamont Pass Wind Resource Area (WRA)(Thelander et al. 2003, Smallwood & Thelander 2004, 2008), Tehachapi Pass WRA (Anderson et al. 2004, Erickson et al. 2002), San Geronio WRA (Anderson et al. 2005, Erickson et al. 2002) and Foote Creek Rim (Johnson et al. 2000, Erickson et al. 2002, Young et al. 2003a, b). Whitfield (2009) found that golden eagles’ ability to avoid collisions with turbine rotors was similar to that of other raptor species (Whitfield & Madders 2006a, b) but lower than estimates for geese (Fernley et al. 2007) and waders (shorebirds) (Whitfield 2007). However, there is evidently much variation in risk between windfarms, presumably as a result of differences in eagle abundance, flight behaviour and the technical specification of turbines.

The “Proposed Windfarm at Volovja Reber - An independent appraisal of the likely effects on golden eagles”, Dr Michael Madders, Natural Research Ltd, 01 June 2009, states, “Quantitative assessment of golden eagle collision risk demands empirical data on flight activity per unit area and time. These data can only be generated from time-budget data gathered during systematic surveys covering the entire turbine array over the calendar year. In other words, to construct a collision risk model one must first be able to reliably estimate how many seconds per year eagles spend flying within the volume of air swept by the turbine rotors.” No such information is presented in the Draft EIR/EIS Study to suggest that such surveys have been undertaken as part of the baseline assessment. While collision risk is assumed to be proportional to the amount of flight activity at turbine rotor height, there is a large discrepancy in the levels of activity, and this conclusion is consistent only with the expectation that the proposed development site provides critical resources, and is located close to nesting sites. The area of turbines closest to the Thing Valley GOEA nest does not provide critical resources (i.e., suitable foraging habitat) and is not close to the nest. Therefore, one cannot conclude that flight activity is high near the Project turbines or that collision risk is high, which collision risk is proportional to the (unknown) amount of flight activity at rotor turbine height. Therefore, based on the information currently available, it is not possible to undertake a meaningful evaluation of collision likelihood.

However, a comparative study of previous golden eagle collision studies and collision risk models is available in “Collision Avoidance of Golden Eagle at Wind Farms under

the “Band” Collision Risk Model”, D.P. Whitfield, March 2009), states, “Avoidance rate estimates for golden eagles varied between 98.64 % and 99.89 % depending on site and uncertainty associated with observed mortality rates before and after adjustment for potential biases. An overall ‘worst case’ estimate weighted by the scale of study was 99.33 % and the mean unweighted ‘worst case’ (lowest) avoidance rate for the four wind farms was 99.19 %. A precautionary value of 99.0 % is therefore recommended for use in predictive assessments of wind farm proposals. Other recommendations include the need for further research which avoids the biases inherent in many existing studies of wind farm effects on birds... The estimated avoidance rates, and the means of their derivation, documented by the present study, are contrasted with those calculated for golden eagle by Fernley (2008), which are higher. Several discrepancies are identified which would lead to elevated estimates of avoidance rates by Fernley (2008), such as not accounting for some eagle deaths or relatively high inactivity of turbines at some sites, or using inflated measures of eagle activity.”

Other factors may indicate a higher percentage for avoidance rates for the Tule Wind Project turbines on the Ewiiapaayp Indian Reservation. Weather, notably wind speed, can influence collision risk and low wind speed may be more problematic than high wind speed (Barrios & Rodriguez 2004, de Lucas et al. 2008) because birds are less able to use wind energy in evading blades (Whitfield, March 2009). The Project turbines on the Ewiiapaayp Indian Reservation would be sited on the Reservation’s eastern ridge, which features the highest of all wind resource ratings, a class 7 wind resource, aiding golden eagles in evading turbine blades.

In “Collision fatality of raptors in wind farms does not depend on raptor abundance”, Manuela de Lucas, Guyonne F. E. Janss, D. P. Whitfield and Miguel Ferrer, *Journal of Applied Ecology* 2008, 45, 1695–1703 states, “Bird mortality and bird abundance varied markedly between seasons. Although numbers of dead birds, and especially dead griffon vultures, were higher during winter, bird abundance, and especially griffon vulture abundance, was higher during the pre-breeding season. This is not consistent with the proposal of Barrios & Rodríguez (2004) that bird mortality increases with bird density but supports the results reported by Fernley, Lowther & Whitfield (2006) and Whitfield & Madders (2006) of no relationship between collision mortality and abundance. It is frequently assumed that collision mortality should increase with bird abundance because more birds are ‘available’ to collide (e.g. Langston & Pullan 2003; Smallwood & Thelander 2004), but our study adds to mounting evidence that such an assumption may be too simplistic. This result has important implications when attempting to predict the impacts of wind- farm proposals. For example, a direct positive relationship between mortality and abundance is an implicit assumption of predictive collision risk models (CRMs) (e.g. Band, Madders & Whitfield 2007). If this assumption is wrong, the utility of current CRMs as predictive tools is severely weakened...differences in mortality are equally or more likely to be related to species-specific flight behaviour and morphology, weather and topography around the wind farm... We suggest that others factors, related to

species-specific flight behaviour, weather, and topography around the wind farm, might be equally or more important in explaining differences in mortality rates. The different vulnerability of species to collision with turbines is well known and has been linked to species-specific flight behaviour (Orloff & Flannery 1993; Thelander, Smallwood & Rugge 2003; Barrios & Rodríguez 2004; Drewitt & Langston 2006)...High wing loading is associated with low manoeuvrability in flight and a low capability for powered flight is typical of some soaring birds like griffon vultures (Tucker 1971). This relationship has been linked with an elevated risk of collision with objects other than turbine blades (Pennycuik 1975; Janss 2000). With only weak-powered flight, griffon vultures rely heavily on wind for flying (Pennycuik 1975) and to lift them above turbines, whereas other species can use powered flight to avoid collisions with turbine blades. This increases their risk of collision with turbine blades compared with species that have a greater capability for powered flight. Winds that provide lift and assist griffon vultures in cross-country soaring flights will come from two main sources: declivity updrafts from wind deflected upwards by ground slopes, and thermals (Pennycuik 1998). We expect, therefore, that collisions will be more likely when uplift winds are weaker. ... All else being equal, more lift is required by a griffon vulture to fly over a taller turbine at a higher elevation and we found that such turbines killed more vultures compared to shorter turbines at lower elevations. Vulture mortality was also greatest in winter, when thermal updrafts are less common due to lower soil temperatures and lower insolation. Updrafts from gentle slopes are weaker than those from steeper slopes, and so turbines situated on the top of gentle slopes should pose a greater risk to vultures than those atop steep slopes.”

The conclusion for the Tule Wind Project turbines on the Ewiiapaayp Indian Reservation is clear, that the combination of power flight by the golden eagle and the presence of strong winds and updrafts and precipitous ridgelines makes the probability of collision avoidance very high.

Reservation topographic features, especially attractive to raptors (McLeod et al. 2002), are absent from these ridgelines (Hoover & Morrison 2005, de Lucas et al. unpubl. data), as suitable foraging habitat is absent from these sites for the Project turbines. In addition, the often poor visibility on these Reservation ridgelines also reduce collisions in that during fog birds take flight actions which compensate for the reduced visibility (e.g. don't fly or fly close to the ground: Moyle & Heppner 1998, Richardson 2000, Piersma et al. 2002), so in foggy conditions birds may actually be at less risk of collision.

In addition, the previously cited “Birds and Bird Habitats: Guidelines for Wind Power Projects” provides best management practices (see Appendix A) for evaluating bird significant habitat (see Appendix B: Methods for Evaluating Bird Significant Wildlife Habitat) and for Bird Mortality Surveys (see Appendix C: Post Construction Monitoring Methods).

“All other raptors detected in the project area (i.e., Cooper’s hawk, American kestrel (Falco

sparverius), northern harrier, sharp-shinned hawk (*Accipiter striatus*), golden eagle, prairie falcon, osprey (*Pandion haliaetus*), and an unidentified falcon and raptor) had very low encounter rates and would be at relatively low risk of collision according to these two studies (Tetra Tech EC, Inc. 2008, 2009).” (Page D.2-174, ¶ 4)

“Based on studies of the flight behavior of golden eagles, they are at lower risk than species such as red-tailed hawks because only 15% of their flight behaviors put them in a vulnerable position to turbine collisions (flying at the height of the rotor plane), and they did not spend significant time within the close proximity (within 50 meters or 164 feet) to the turbines (Thelander et al. 2003). In addition, the collision risk for golden eagles is dependent on avoidance ability, flight behavior and use in the turbine area, and weather. A study by de Lucas et al. (2008) describes certain bird species that have high wing loading for flight (i.e., turkey vulture), which have a resulting lower maneuverability and thus are at a greater risk of collision with objects; however, species with higher maneuverability, such as golden eagle, may be able to use their highpowered flight to avoid collisions with turbines. Although golden eagles are thought to have the same ability to avoid collision with turbines as other raptors, the collision risk is assumed to be proportional to the amount of activity at the turbine rotor height (Madders 2009).” (Page D.2-174-175).

“Therefore, golden eagle flight behavior at Altamont does not conclusively provide evidence of flight behavior relative to ridgelines and the proposed RSA in the Tule Wind area.” (Page D.2-175, ¶ 2).

“Golden eagles can be sensitive to changes in their environment (e.g., wind farms). Madders (2009) describes a home range use change in a pair of resident golden eagles after a wind farm was constructed in their territory. Madders (2009) also indicates that it is unlikely that golden eagles would nest within the immediate vicinity (i.e., 500 meters or 1,640 feet) of the proposed wind turbines, likely constraining the eagles from occupying nests within their existing territory. Currently, the Canebrake eagle pair is nesting within the 500-meter (1,640-foot) area; thus, if the pair changes its nesting location to avoid the Tule Wind Project area, that territory may be lost from use.” (Page D.2-175, ¶ 2)

The BLM has ignored the historical testimony provided by the Tribe supported by San Diego County golden eagle expert Mr. Dave Bittner that this tribal lands are unsuitable foraging and nesting habitat for the golden eagle. The Tribe has informed the BLM that it believes this one nest will be unsuccessful and will be abandoned due to the lack of these critical factors; yet the BLM continues to use this one nest as the sole foundation for its Reduction in Turbines Alternative and its Adaptive Mitigation Plan with regard to golden eagles. The next reference to golden eagles again fails to support the BLM’s conclusions:

“Golden eagle was not observed within either RSA elevation range during 2005–2006 surveys. For the 2007–2008 surveys, the overall encounter rate for both RSA elevation ranges was 0.00. During fall 2007, one golden eagle was seen flying in a northwest direction, and in spring 2008

one was seen flying north.” (Page D.2-176)

“Collision risk can also be increased from idling turbines, which provides increased perching opportunities for birds in the project area. Although it is not clear that perching would increase the risk of collision, Erickson et al. 2001, suggests that a lack of perching and nesting opportunities may discourage some birds from utilizing these areas. Idling of turbines is a potential adaptive management option that could be employed, if determined appropriate under the adaptive management program as triggered by substantial bird mortality. The adaptive management program will address the potential increase in perching opportunities if turbines are idled.” (Page D.2-177)

The Tribe previously submitted evidence to the BLM that idling of turbines was ineffective in preventing collisions and, in fact, encouraged such, as follows:

Inactive Turbines

Manuela de Lucas, et al (see above) concluded that raptor collisions with turbine blades are insensitive to the raptor population (abundance), therefore, the number of turbines is an ineffectual method to reduce turbine collisions. In fact, inactive turbines provide perching opportunities that would increase the risk of collision. “Avian Collisions with Wind Turbines: A Summary of Existing Studies and Comparisons to Other Sources of Avian Collision Mortality in the United States”, August 2001, Wallace P. Erickson, Gregory D. Johnson, M. Dale Strickland, David P. Young, Jr., Karyn J. Sernka, Rhett E. Good, Western EcoSystems Technology Inc., states, “Newer generation windplants incorporate improvements in site planning and changes in the design of the wind turbines ... many of the newer generation turbines are designed to provide little perching and no nesting structure (tubular towers, enclosed nacelle). Although it's not clear that perching increases risk of collision, the lack of perching and nesting opportunities may discourage some bird species from using the [area].” Inactive turbines would increase perching opportunities for raptors and place them at added risk, therefore, the reasonable and effective approach would be to keep the turbines in operation as much as possible.

Again, the BLM ignored the Tribe’s information and chose to include turbine idling as a part of its adaptive management plan.

All of the above citations from the draft document do not support the BLM’s conclusion that “there would be an increased risk of collision for golden eagle in the northern portion of the project area than would be estimated from the bird use data alone.” [emphasis added] There are no facts, peer-reviewed scientific studies, or even reasonable interpretations available that the northern portion of the project area would not present a low risk of collision for golden eagle as the BLM determines for the southern portion of the project area. The BLM’s sole premise, and only foundation for this conclusion, is based on distance to one nest. This is despite the Tribe’s contention that this nest will be unsuccessful because it is in an area of unsuitable foraging and nesting habitat and low use for golden eagles, which is supported by the BLM, the San Diego

County golden eagle expert, and historical records. (page D.2-177-178, ¶ 1) Without a foundation, the Reduction in Turbines Alternative must be removed.

“Based on the use data, encounter rate index, nest survey information, and the species’ population and regulatory status, the operation of wind turbines proposed by the project would result in an adverse impact to golden eagle and therefore, Mitigation Measures BIO-10a through BIO-10i have been provided. However, the identified impact cannot be mitigated. Under CEQA, the risk of collision to golden eagle in the western portion of the project area, would be significant and cannot be mitigated to a level that is considered less than significant (Class I). The proximity of active golden eagle nests to the proposed turbines in the western portion of the project area makes it probable that an adult or juvenile eagle could collide with the turbines at some point within the lifetime of the project. In the worst case, this western area of the project could become a continuing sink for golden eagles attempting to use nesting sites west of the project area. There is no established buffer distance from active nests deemed high risk for golden eagle collision with wind turbines, and golden eagle use and foraging areas around active nests are not uniform and will vary from territory to territory. Although territory size and shape is not known for the golden eagle territories around the Tule Wind Project, circular foraging areas with a 4-mile radius around each of the active nest locations shows overlap of potential golden eagle use area with the western half of the proposed turbine strings.” (Page D.2-178-179) Despite evidence to the contrary, the BLM bases its conclusions of “adverse impact” that “cannot be mitigated to a level less than significant” solely on the proximity of one nest to the project area, and, therefore, concludes it “probable” that an adult or juvenile eagle “could collide” with the turbines at some point within the 30-year lifetime of the project. These conclusions stretch the credibility of the BLM’s environmental interpretations to the breaking point. The proximity of a single nest is not sufficient to overturn the facts. The facts are: (1) all those who possess expertise agree this one nest is likely to be unsuccessful due to unsuitable foraging and nesting habitat; (2) on-site studies prove low use by golden eagles (3 sightings in two years); (3) the inability to capture by carcass baiting or even see golden eagles in the tribal lands project area; (4) the high probability of collision avoidance by golden eagles under any circumstances; (5) the presence of factors that increase the already high probability of collision avoidance by the few golden eagles that may overfly the project area; (6) the high importance for achieving the objectives of renewable energy production through wind projects. All of these facts known to the BLM should have prevented its proposal for the Reduction in Turbines Alternative. The Tribe requests this alternative be eliminated.

The Tribe requests the elimination of MM BIO-10f in its entirety.

The Tribe requests the elimination of MM BIO-10h and MM BIO 10-I in their entirety, and replaced by measures proposed by the project proponent (see D.2.3.2 Applicant Proposed Measures, Tule Wind Project).

In accordance with the Bald and Golden Eagle Protection Act, (16 U.S.C. 668a–d), the Tribe recommends the Secretary of the Interior permit the taking of golden eagle nests that interfere

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with resource development provided by the Tule Wind Project. (Page D.2-117-118, Bald and Golden Eagle Protection Act). The Tribe recommends the Secretary permit takes according to guidance provided by the document, “Birds and Bird Habitats: Guidelines for Wind Power Projects”, developed by the Ontario Ministry of Natural Resources, October 2010, Section 4.1 Mortality Thresholds. This document provides:

A threshold approach will be used to identify and mitigate potential negative environmental effects resulting from the operation of wind turbines (i.e. significant bird mortality).

Bird and raptor mortality is considered by this Guideline to be significant when a threshold of annual bird mortality exceeds:

- 18 birds/ turbine/year at individual turbines or turbine groups;
- 0.2 raptors/turbine/year (all raptors) across a wind power project;
- 0.1 raptors/turbine/year (raptors of provincial conservation concern) across a wind power project; or
- 2 raptors/wind power project (<10 turbines)

Studies indicate that turbine-related mortality maintained below these thresholds is unlikely to affect bird populations. Thresholds have been established based on the highest reported bird mortality at wind power projects in North America, outside California. Post-construction mortality reports from wind power projects in Ontario have shown that approximately two birds per year are killed by individual wind turbines.

A significant bird mortality event is defined by this Guideline to have occurred when bird mortality during a single mortality monitoring survey exceeds:

- 10 or more birds at any one turbine; or
- 33 or more birds (including raptors) at multiple turbines.

The distribution and species composition (e.g. provincial conservation concern species) of bird fatalities should be considered when developing contingency plans. MNR’s Natural Heritage Information Centre (Appendix E) is a useful source for identifying and considering birds of provincial conservation concern.

These thresholds are not intended to replace any species-specific approaches that may be needed to comply with the Endangered Species Act.

MM HAZ-6: Wind Turbine Safety Zone and Setbacks. (Page D.10-66)

As proposed in the EIR in Mitigation Measure H-6, which affects the H and J strings, the mitigation measure would eliminate 9 turbines on Tribal land. Due to the location of the ridge in

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relation to the BLM/Ewiiapaayp boundary, the seemingly nominal setback is impractical due to topography.

1.25 times the total height for wind turbines					
<i>Turbine ID</i>	<i>Tip Height (ft)</i>	<i>Setback (ft)</i>	<i>Conflict</i>	<i>Needs to Move (ft)</i>	
A1	401	501.25	No		
A2	401	501.25	No		
A3	401	501.25	No		
A4	401	501.25	No		
A5	401	501.25	No		
A6	401	501.25	No		
A7	401	501.25	No		
B1	401	501.25	No		
B2	401	501.25	No		
B3	401	501.25	No		
B4	401	501.25	No		
B5	401	501.25	No		
B6	401	501.25	No		
B7	401	501.25	No		
C1	401	501.25	No		
C2	401	501.25	No		
C3	401	501.25	No		
C4	401	501.25	No		
D1	401	501.25	No		
D2	401	501.25	No		
D3	401	501.25	No		
D4	401	501.25	No		
D5	401	501.25	No		
D6	401	501.25	No		
D7	401	501.25	No		
D8	401	501.25	No		
D9	401	501.25	No		
D10	401	501.25	No		
E1	401	501.25	No		
E2	401	501.25	Yes		30
E3	401	501.25	Yes		35
E4	401	501.25	Yes		50
E5	401	501.25	Yes		50
E6	401	501.25	Yes		50
E7	401	501.25	Yes		50
E8	401	501.25	Yes		35
E9	401	501.25	Yes		20
E10	401	501.25	Yes		60
E11	401	501.25	No		
E12	401	501.25	No		
F1	401	501.25	No		
F2	401	501.25	No		
F3	401	501.25	No		

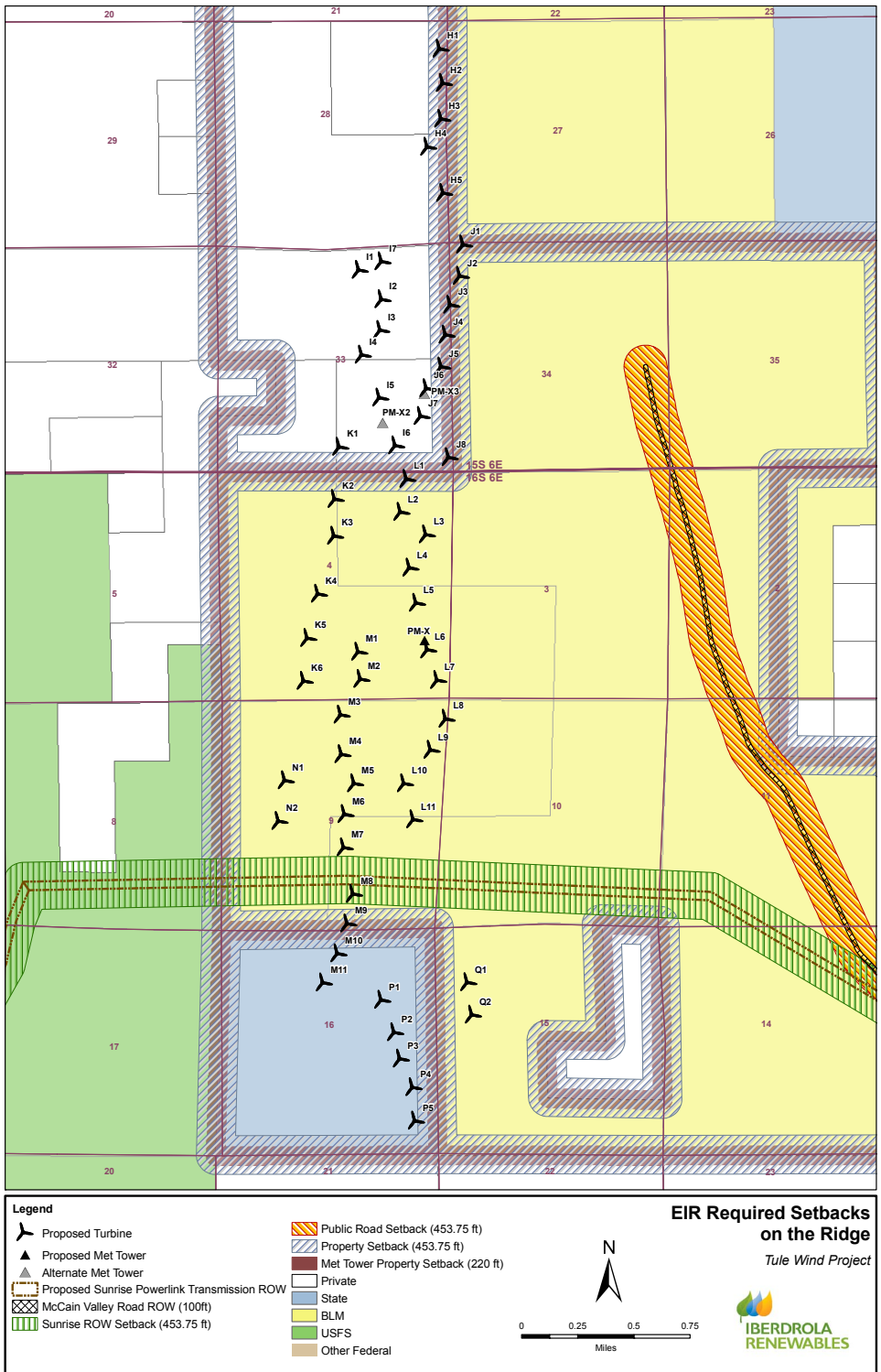
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F4	401	501.25	No
G1	401	501.25	No
G2	401	501.25	No
G3	401	501.25	No
G4	401	501.25	No
G5	401	501.25	No
G6	401	501.25	No
G7	401	501.25	No
G8	401	501.25	No
G9	401	501.25	No
G10	401	501.25	No
G11	401	501.25	No
G12	401	501.25	No
G13	401	501.25	No
G14	401	501.25	No
G15	401	501.25	No
G16	401	501.25	No
G18	401	501.25	No
H1	363	453.75	No
H2	363	453.75	No
H3	363	453.75	No
H4	363	453.75	No
H5	363	453.75	No
I1	363	453.75	No
I2	363	453.75	No
I3	363	453.75	No
I4	363	453.75	No
I5	363	453.75	No
I6	363	453.75	No
I7	363	453.75	No
J1	363	453.75	No
J2	363	453.75	No
J3	363	453.75	No
J4	363	453.75	No
J5	363	453.75	No
J6	363	453.75	No
J7	363	453.75	No
J8	363	453.75	No
K1	363	453.75	No
K2	363	453.75	No
K3	363	453.75	No
K4	363	453.75	No
K5	363	453.75	No
K6	363	453.75	No
L1	363	453.75	No
L2	363	453.75	No
L3	363	453.75	No
L4	363	453.75	No
L5	363	453.75	No

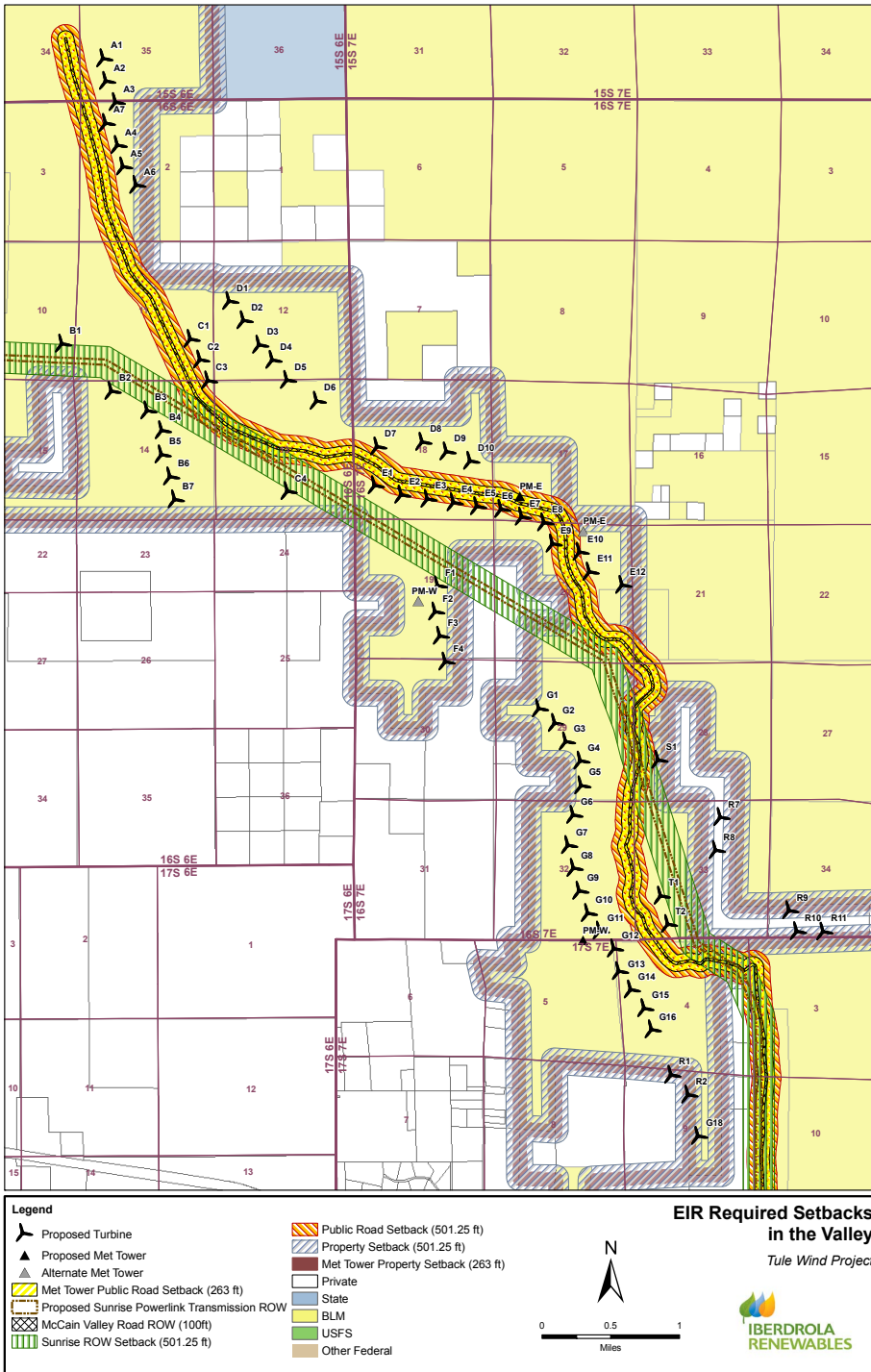
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L6	363	453.75	No
L7	363	453.75	No
L8	363	453.75	No
L9	363	453.75	No
L10	363	453.75	No
L11	363	453.75	No
M1	363	453.75	No
M2	363	453.75	No
M3	363	453.75	No
M4	363	453.75	No
M5	363	453.75	No
M6	363	453.75	No
M7	363	453.75	No
M8	363	453.75	No
M9	363	453.75	No
M10	363	453.75	No
M11	363	453.75	No
N1	363	453.75	No
N2	363	453.75	No
P1	363	453.75	No
P2	363	453.75	No
P3	363	453.75	No
P4	363	453.75	No
P5	363	453.75	No
Q1	363	453.75	No
Q2	363	453.75	No
R1	401	501.25	No
R2	401	501.25	No
R7	401	501.25	No
R8	401	501.25	No
R9	401	501.25	No
R10	401	501.25	No
R11	401	501.25	No
S1	401	501.25	No
T1	401	501.25	No
T2	401	501.25	No

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The Tribe proposes the setback (Tule MM HAZ-6) not apply when the adjacent landowner is a participant in the project. The Tribe also suggests the record of decision permit a waiver by the neighboring landowners.

The topography of the site makes application of the 1.25 ROW setback inappropriate because the ridge is very narrow and the turbines can't be moved because of the precipitous terrain.

D. 15 Fire and Fuels Management

The Tribe believes the approved Fire Protection Plan and mitigation measures provide adequate safety measures and justify a conclusion that impacts should be categorized as Class II, not Class I.

The Tribe has had few funds to develop and maintain firebreaks in order to reduce the risk of catastrophic wildland fire on the Ewiiapaayp Indian Reservation. The Project will create and maintain firebreaks and thin ladder fuels, which will increase wildfire prevention and suppression – not increase it.

Also called a fireroad, fire line or fuel break, a firebreak is a gap in vegetation or other combustible material that acts as a barrier to slow or stop the progress of a bushfire or wildfire. The high density of thick brush and prolonged drought, along with the elapse of 20 years since the last wildfire, makes the likelihood of catastrophic wildfire in the Project area extremely high if the fire prevention measures proposed by the Project proponent are not implemented. Firebreak management is a particularly effective, efficient and low-cost method of simultaneously addressing the issues of wildfire hazards to wildlife habitats, residential communities and property.

In the construction of a firebreak, the primary goal is to remove deadwood and undergrowth down to mineral soil. Various methods may be used to accomplish this initially and to maintain this condition. The Project development will act as a firebreak as defined according to the established practices of sustainable forestry and fire protection engineering also known as best management practices (BMP). The Project will effect a firebreak and slow the spread of wildfire, and will be of sufficient size and density to reduce the ultimate size of future wildfires. The result would be to maintain the ecology of the high mountain desert habitat, to reduce the impact of wildfires on air pollution and the global climate, and to protect lives, residences and property.

These goals would be more likely to be achieved through the full development of the Project, less likely through a reduced Project, and unlikely should the Project not be constructed.

The Project would result in a permanent firebreak, with reduced density, reduced ladder fuels, and improved herbaceous ground cover. The Project area will also be much less likely to support crown fire spread, and resistance to fire control and risk to fire suppression personnel will be greatly reduced.

Please find below the Tribe's requested edits to D.15.

Section D.15: Fire and Fuels Management

No.	Section/ Appendix	Page	Draft EIR/EIS Text Revision	Justification
	Fire and Fuels Management		<p>Subsequent to submittal of the September 2010 Fire Protection Plan (FPP) to the CPUC, based on comments from the fire agencies, Tule Wind LLC revised the FPP (November 2010, attached) to identify the substantial number of project design features (PDFs) that reduced the potential for fire ignition and mitigation measures that reduce the potential for fire ignition associated with the project to cause a wildland fire. The revised FPP was approved by the San Diego Rural Fire District (SDRFP) Board of Directors on November 2, 2010. The SDRFP also issued an approval letter for the FPP (attached). In addition, Tule Wind LLC is currently in discussions with the San Diego County Fire Authority (SDCFA) regarding a separate fire services agreement.</p> <p>Tule Wind LLC requests that the CPUC update the Fire and Fuels Management section of the FPP to reflect the content, analysis, and conclusions of the November 2010 FPP. For your convenience, the Tule Wind LLC project team has revised the Draft EIR/EIS Fire and Fuels Management section to reflect the content, analysis, and conclusions of the SDRFP approved FPP.</p>	
	Fire and Fuels Management			<p>[Insert revised, “track changes” version of the Fire and Fuels Management section] – After project description is updated based on Modified Project Layout]</p>
	Fire and Fuels Management	D.15-6	<p>Consider adding a Table like Table 5, at pg. 42, from the San Diego Rural Fire Protection District (SDRFPD)-approved Fire Protection Plan, dated November 3, 2010, which describes the fire suppression resources available to respond to the area.</p> <p>“Between these agencies, there are significant firefighting resources to serve the area’s wildfire</p>	<p>Table 5 documents and supports the Draft EIR/EIS’s statement that, “Between these agencies, there are significant firefighting resources to serve the area’s wildfire potential, especially with CAL FIRE’s air attack capabilities that can reach the area within 20 minutes.”</p> <p>Add USFS air attack capabilities for consistency with statement at pg. D.15-7.</p>

No.	Section/ Appendix	Page	Draft EIR/EIS Text Revision	Justification
			potential, especially with CAL FIRE's and USFS air attack capabilities that can reach the area within 20 minutes."	
	Fire and Fuels Management	D.15-7	Consider adding a Table like Table 5, at pg. 42, from the San Diego Rural Fire Protection District (SDRFPD)-approved Fire Protection Plan, dated November 3, 2010, which describes the fire suppression resources available to respond to the area.	Table 5 documents and supports the Draft EIR/EIS's statement that, "These agencies include significant firefighting resources to serve the area's wildfire potential, especially with the combined CAL FIRE and USFS air attack capabilities that can reach the area within 20 minutes or less."
	Fire and Fuels Management	D.15-9	"Fires Caused by Potential Ignition Sources From Equipment Use Equipment that may cause a fire hazard includes:"	Use of equipment types listed will not necessarily result in a fire. Please consider revising the text accordingly.
	Fire and Fuels Management	D.15-9	Compost Debris piles—large piles that are allowed to dry and are left on-site for extended periods may pose a risk of ignition result in combustion and potential for embers landing in adjacent vegetation"	To our knowledge, composting is not anticipated as part of the Proposed Project.
	Fire and Fuels Management	D.15-9	<p>"Transformers—in turbines with a down-tower transformer design, where the transformer is pad-mounted outside the turbine housing, the transformer is filled with flammable oils and are subject to occasional failure and explosion, sending sparks, hot materials out in all directions. <u>Transformers are constructed with a metal containment housing. Transformer failure would only create a risk of ignition if the explosion breaches the metal containment housing of the transformer and ignitable vegetation is within range.</u>"</p> <p>"Capacitors—may overheat, fail, and cause a spark, which may result in combustion of flammable materials, such as vegetation, if</p>	<p>Please consider adding additional information about the fire risk posed by transformers and capacitors, which are constructed with containment.</p> <p>See Figure B-24, pg. B-101, which shows that the maximum hub height for the nacelle is between 201 and 328 feet.</p>

No.	Section/ Appendix	Page	Draft EIR/EIS Text Revision	Justification
			<p>nearby. <u>Capacitors are normally contained within a substation that separates them from flammable materials.</u></p> <p>“Wind turbines–include various components inside the nacelle as well as transformers that may ignite and cause heated or flaming debris/embers from as high as 400³²⁸ feet above ground”</p>	
	Fire and Fuels Management	D.15-10	“ <u>Potential Ignition Sources From Fires Caused by Power Lines</u> ”	Use of equipment types listed will not necessarily result in a fire. Please consider revising the text accordingly.
	Fire and Fuels Management	D.15-11	“voltage line, and, on average, annual low-voltage and high-voltage line ignitions, on a per-mile basis, are similar within SDG&E’s territory. <u>Per CPUC GO 95 “Rules For Overhead Electric Line Construction” and the current edition of the NESC, the Proposed Project are required to ensure sufficient clearance between conductors and vegetation to prevent contact.</u> ”	CPUC GO 95 is a requirement. Please consider including it and revising the text according.
	Fire and Fuels Management	D.15-13	<p><u>Potential Ignition Sources From Fires Caused by Wind Turbines</u></p> <p>“<u>Iberdrola Renewables independently analyzed data from the California State Fire Marshal’s Office, and was only able to identify four (4) confirmed wind turbine-related fire incidents in the period between January 1, 2008 and Fall 2010 – a rate of approximately 1.3 turbine fires per year. To place this number in context, the California Wind Energy Association calculates that there are approximately 11,000 wind turbines currently in operation in California. See http://www.calwea.org/bigPicture.html.</u>”</p>	<p>See Letter from Harley McDonald to James Pine, dated October 25, 2010.</p> <p>The wind industry is at the nascent stages of adopting fire suppression technology in the wind turbine nacelle. See the Fire Protection Plan prepared for the San Diego Rural Fire Protection District, approved on November 3, 2010, pg. 2.</p>

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			<p>However, most modern turbines are equipped with lightning arresters and automatic fire detection and suppression systems (CPUC and BLM 2007a). <u>Fire suppression systems installed in the wind turbine nacelle are in the early adoption phase, and are not widely utilized in the wind industry. (RC Biological, Inc. 2010.)</u></p>	
	Fire and Fuels Management	D.15-13	<p>Potential Ignition Sources From Fires Caused By Transformers.</p> <p>“Transformers located at the base of each wind turbine tower may cause fires through arcing that occurs following failure of insulation within the transformer. <u>Transformers are constructed with a metal containment housing.</u> Industry statistics indicate that one in five transformer failures result in a fire (USDI 2005). The extremely hot arc may cause oils to combust, metals to be vaporized, and molten copper to be thrown into the air (USDI 2005). Explosions sometimes occur from the vaporization of mineral oils and release of carbon monoxide.”</p>	Use of equipment types listed will not necessarily result in a fire. Please consider revising the text accordingly.
	Fire and Fuels Management	D.15-13	<p><u>“Iberdrola Renewables independently analyzed data from the California State Fire Marshal’s Office, and was only able to identify four (4) confirmed wind turbine-related fire incidents in the period between January 1, 2008 and Fall 2010 – a rate of approximately 1.3 turbine fires per year. To place this number in context, the California wind Energy Association calculates that there are approximately 11,000 wind turbines currently in operation in California. See http://www.calwea.org/bigPicture.html.</u></p> <p>However, most modern turbines are equipped</p>	See Letter from Harley McDonald, Iberdrola Renewables, to James Pine, San Diego County Fire Marshal (dated October 25, 2010), pgs. 6-7.

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			with lightning arresters and automatic fire detection and suppression systems (CPUC and BLM 2007a), <u>which are likely to reduce the risk even further.</u> "	
	Fire and Fuels Management	D.15-19	<p><u>San Diego Rural Fire Protection District</u></p> <p>Please add a section including a discussion of the San Diego Rural Fire Protection District from the Fire Protection Plan, November 3, 2010.</p>	The San Diego Rural Fire Protection District is an agency with jurisdiction over a substantial portion of the Proposed Project, and will be a first responder.
	Fire and Fuels Management	D.15-20	ISSUE: confirm Tule Wind Project "Project Area Vegetation Fuel Types" after modified project layout defined.	
	Fire and Fuels Management	D.15-21	<p>Tule Wind Project</p> <p>"Given the steep terrain and fuel bed throughout this project area combined with the potential ignition sources associated with wind turbines, the potential for wildfire ignition and spread is higher than associated with the ECO Substation Project."</p> <p>Discusses ignition sources associated with Turbines. EIR should list what those are. The turbines are enclosed systems, and will have fire suppression system, so there shouldn't be ignition sources. Revise text to reflect actual safeguards provided.</p>	Enclosed turbine and fire suppression system. All ignition sources have been reasonably mitigated.
	Fire and Fuels Management	D.15-22 Table D.15-3	ISSUE: confirm Tule Wind Project "Project Components for Each Project Area Fire Environment Interface"	
	Fire and Fuels Management	D.15-24	<p>Regional Assets at Risk</p> <p>"From a regional wildfire perspective, the Proposed PROJECT is located in an area designated by</p>	

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			<p>the County of San Diego as a wildfire corridor based on fuel ages, topography, and climate. Based on this designation, it is feasible that communities and individual structures beyond the arbitrary 0.5-mile distance from the Proposed PROJECT may be impacted should a wildfire ignite from a Proposed PROJECT-related source. As such, County fire estimates that over 2,000 residences (not including other structures) may be at risk of loss during a wind driven wildfire (Miller et al. 2009). <u>According to the CALFIRE San Diego Unit, CALFIRE can contain 90-95% of all wildland fires in its jurisdiction, should they occur, to 10 acres or less in size. (Hunt Research Corp., personal communication with Chief Nick Schuler, January 10, 2011).</u>”</p>	
	Fire and Fuels Management	D.15-26	<p>“Created by the International Code Council, the International Fire Code addresses a wide array of conditions hazardous to life and property including fire, explosions, and hazardous materials handling or usage. <u>Although it is not a federal regulation, but rather the product of the International Code Council, . . .</u>”</p>	The International Fire Code is not a Federal Regulation. Please consider revising the text accordingly.
	Fire and Fuels Management	D.15-28	<p>“Similar to the International Fire Code, the California Fire Code and the California Building Code use a hazards classification system to determine the appropriate measures to incorporate to protect life and property. <u>There is not a Hazard Classification System in the Fire Code that includes Wind Turbines, in fact the Fire Code does not address Wind Turbines.</u>”</p>	

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	Fire and Fuels Management	D.15-39	<p>“APMs TULE-Project Design Feature (PDF)-1 through TULE-PDF-26 are proposed by Pacific Wind Development <u>Tule Wind, LLC</u> to reduce impacts related to fire safety”</p> <p>Table D.15-4 – change title to “Pacific Wind Development <u>Tule Wind, LLC</u> Tule Wind – Fire and Fuels Management Impacts”</p>	Global change: Tule Wind, LLC owns the project assets, and is a wholly owned subsidiary of Iberdrola Renewables.
	Fire and Fuels Management	D.15-46	San Diego County FPP Content Requirements (http://www.co.sandiego.ca.us/sdcounty.ca.gov/dplu/docs/Fire-Report-Format.pdf)	Incorrect webpage citation.
	Fire and Fuels Management	D.15-48	<p>“The presence of up to 134 wind turbines, up to 400 feet tall presents a unique potential ignition source for burning embers/materials in a <u>high wildland fire hazard area with receptive fuel beds</u>. Wind turbines in California does not track annual wind turbine fires, although Iberdrola Renewables independently analyzed data from the California State Fire Marshal’s Office, and was only able to identify four (4) confirmed wind turbine-related fire incidents in the period between January 1, 2008 and Fall 2010 – a rate of approximately 1.3 turbine fires per year. To place this number in context, the California wind Energy Association calculates that there are approximately 11,000 wind turbines currently in operation in California. See http://www.calwea.org/bigPicture.html. An IAEI article previously claimed that wind turbines in California annually result in 35 turbine generator related fires (IAEI 2010). The article cited an anti-wind power website maintained by the Keepers of the Blue Ridge to document this assertion. The Keepers of the Blue Ridge website</p>	<p>Please consider removing the word “unique.” There are over 11,000 operating wind turbines in California, and the wind industry has been operating in California for decades.</p> <p>The IAEI article’s claims are based on an information source that has been shown to be faulty. See Letter from Harley McDonald, Iberdrola Renewables, to James Pine, San Diego County Fire Marshal (dated October 25, 2010), pgs.1-3.</p> <p>There is no evidence to support the Draft EIR/EIS claim that most wind turbine fires occur in the nacelle.</p>

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			<p><u>did not provide attribution for the figure, and the figure was removed when challenged by the California State Fire Marshal's Office. Fire causes are related to short-circuits and lightning. The fire in the elevated nacelle, where most wind turbine fires occur, results in</u> has the potential for burning, heated or flaming material to be liberated from the turbine. Under worst-case wind conditions, with wind gusts in excess of 50 mph, burning material (embers) may travel a mile or more, held aloft by the wind (Dudek 2010). However, most debris from a failed turbine drops within 500 feet of the turbine (Iberdrola Renewables, Inc. 2010b)."</p>	
	Fire and Fuels Management	D.15-48	<p>Decommissioning "When the facility is retired or decommissioned, the turbine towers will be removed from the site and the materials will be reused or sold for scrap. Decommissioning activities are anticipated to have similar types of construction-related activities, and, therefore, all procedures, management plans, mitigation measures, and BMPAPMs developed for the construction phase of the project would be applied to the decommissioning phase of the project."</p>	Please consider clarifying the decommissioning phase to indicate what MMs and APMs will be applied to the project.
	Fire and Fuels Management	D.15-49	<p><u>"Initial attack for a nacelle fire that is up to 400328 feet in the air may be limited through conventional firefighting strategies. In the absence of Tule Wind, LLC, will install built in fire suppression systems in the wind turbine nacelle. In the event of an ignition in the wind turbine nacelle, the fire suppression system would be activated and the fire agencies would be immediately notified. In addition, each wind</u></p>	See Fire Protection Plan, November 3, 2010, pg. 35, see PDF-16.

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			<p><u>turbine nacelle will be equipped with smoke detectors, arc flash sensors, and over-current sensing transducers that can detect conditions that could lead to a fire prior to ignition. Should any of these devices register an out-of-range condition, the device immediately commands a shutdown of the turbine and will disengage it from the electrical collection system. The entire turbine is electrically protected by current-limiting switchgear that is installed inside the base of the tower.</u>fire The fire agencies would provide ground-based fire suppression, in the event that fighters would likely focus on monitoring the nacelle fire and focusing ground suppression efforts on ember or debris created spot fires. A 200-foot-wide fuel modification zone (in all directions) will be provided around each wind turbine. As previously discussed, during worst-case wind conditions, embers/debris may travel a mile or more, but most debris falls near the tower base with proportionally less debris the further from the tower (Iberdrola Renewables, Inc. 2010b). Based on the typical debris pattern in a tower failure, larger fuel modification zones around each tower are not warranted due to the fact that under normal conditions, 200 feet would be adequate to capture the majority of debris and under worst case conditions, fuel modification zones that are 1,000 feet or greater would not guarantee capture of all potential embers. The impacts associated with increasing the fuel modification areas are not directly proportional</p>	

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			to the anticipated benefits.”	
	Fire and Fuels Management	D.15-50	“Implementation of Mitigation Measures FF-1 and FF-2, which augment and clarify APMs TULE-PDFE-1 through TULE-PDF-26, along with incorporation of Mitigation Measures FF-3 (development agreement) and FF-4 (customized fire protection plan incorporating APMs), would mitigate the increased probability of a wildfire during construction operation and maintenance and decommissioning of the Tule Wind Project. Under CEQA, this impact with implementation of mitigation would be less than significant (Class II).”	Please consider correcting typo.
	Fire and Fuels Management	D.15-54	Tule Wind Project “The presence of over 100 wind turbines and related electrical transmission lines would result in potential ignition sources adjacent to wildland fuels in an area with a history of wildfires and over 2,000 inhabited structures in the vicinity, especially “down wind” to the east and west during a Santa Ana wind-driven fire. <u>Pre-planning and personnel fire awareness and suppression training not only results in lower probability of ignition, but also in higher probability of fire control and extinguishment in its incipient stages. Data indicate that 95% of all wildfire ignitions are controlled during initial attack (Smalley 2008).</u> Turbines and electrical transmission lines include potential for sparks, heat, and flammable liquids, and they require ongoing maintenance procedures for the life of the project. Ongoing maintenance activities and the inclusion of five <u>up to twelve</u> permanent and	Tule Wind, LLC anticipates employing up to 12 permanent employees at the project.

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			<p>five part-time employees at the facility will also increase the possibility of a vegetation ignition.”</p> <p>ISSUE: can Jim Hunt provide comment letter disputing that 2,000 occupied structures are at risk?</p>	
	Fire and Fuels Management	D.15-56	<p>“Pacific Wind Development Tule Wind, LLC will implement this technology through the wind turbine manufacturer or an aftermarket supplier....”</p> <p>[please consider inserting the following paragraph following MM FF-5] <u>“These PDFs and MMs have been proposed to minimize the potential for an ignition, including automatic fire suppression systems in the wind turbine nacelle(s), various design features such as arc flash relays, fuel management around project features (i.e., 100’ clearance around turbines with fire-safe vegetation and annual fuel management), five (5) 10,000 gallon water storage tanks installed throughout the project area that can be utilized for regional fire suppression support, training of both construction and operational personnel, provide training to Firefighters on an ongoing basis as to the facility and electrical hazards and handling of such emergencies on site, both new and improved access roads through an area that currently does not have improved access, and funding for both the SDCFA and the SDRFPD. Not only has the project minimized the risk of a potential ignition resulting from the project, but it will also improve</u></p>	See FPP approved by SDRFPD, dated November 3, 2010; Letter from Robin Church to Patrick Brown, dated January 10, 2011.

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			<p>access and response time and provide water for wildland firefighting within the large expanse of BLM lands that do not currently have access or water but contain the baseline conditions that make the area a high fire hazard area. Although, Implementation of APMs PDF-1 through PDF-26, and Mitigation Measures FF-1 through FF-4 along with Mitigation Measure FF-5, which provides ignition resistance, warning, and extinguishing measures, will mitigate the increased probability of wildfire provide a proactive plan for ongoing operation and maintenance of the Tule Wind Project with reduced fire threat, this impact remains adverse due to the impact created by the presence of the wind turbine facility and the corresponding increase in the probability of a wildfire. Under CEQA, this impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class II)."</p>	
	Fire and Fuels Management	D.15-58	<p>ISSUE: discuss with ESJ and SDG&E whether they agree that this is an impact that can be mitigated.</p> <p>EIR states sources of ignition can be managed but cannot be controlled to the point of excluding the potential for ignition and subsequent wildfire. Response: no fire risk anywhere can be totally eliminated. Unrealistic. Delete statement.</p>	The goal in Fire Protection should be reasonable fire and life safety. All risks in the world cannot be eliminated and all fire risks cannot be totally mitigated; otherwise nothing would ever be built.
	Fire and Fuels Management	D.15-59	<p>Aerial Firefighting</p> <p>"The presence of the 138 kV transmission line in an area where fire history indicates fires are likely to recur and where there are currently limited aerial obstructions would have the potential of significantly impacting aerial firefighting efforts. Introducing transmission lines</p>	See Fire Protection Plan, approved November 3, 2010, pg. 75.

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			<p>to the area could affect firefighting operations and endanger the safety of aerial-based responders to a wildfire in the area. <u>The transmission lines are spaced far enough apart to not restrict aircraft maneuverability, however, or to significantly increase the risk of contact by aircraft or water buckets. Water drops are performed at 150 feet above the ground otherwise known as the “150 foot drop zone”. The 138kV transmission towers are proposed to be 75 feet in height, less than half the height of the drop.</u> The proposed electrical transmission line would create a north-south aerial feature in an area that currently does not include this potential barrier for several miles to the east and is void of aerial barriers to the west. The presence of the line represents various aerial fire attack hazards including increasing the risk of transmission line direct contact by aircraft or water buckets, resulting in a “no fly” zone or restricting aerial water or retardant drop effectiveness in areas with transmission lines. Limiting the effectiveness of aerial fire containment activities is considered significant since this form of fire attack has proven to be an especially effective means of slowing or containing fires, particularly in areas where there is limited access or longer response times.”</p> <p>The transmission lines are spaced far enough apart to not restrict aircraft maneuverability and significantly increase the risk of contact by aircraft or water buckets. Water drops are performed at 150 feet above the ground otherwise known as the “150 foot drop zone”. The transmission towers are proposed to be 75 feet in</p>	

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			height, less than half the height of the drop.	
	Fire and Fuels Management	D.15-60	“Volunteer firefighters in the area may not have the latest training for this type of condition. Regardless, even trained firefighters have accidents as indicated by the number of deaths related to electrical transmission lines over the last 40 years.”	Please provide a source for deaths associated with trained firefighters being killed by electrical transmission lines.
	Fire and Fuels Management	D.15-60-61	“Indicative of the difficulty of fighting fires related to these facilities is the Draft Boulevard Subregional Plan that states, “There is uncertainty in how Boulevard’s volunteer fire and rescue department will be able to handle a fire or other emergency event at the top of new industrial turbines which now stand between 400 and 600 feet tall. The plan goes on to state that fires at an industrial wind energy facility represents a new and significant health and safety issue that needs to be fully and properly addressed (County of San Diego 2010b).”	<p>The Draft Boulevard Subregional Plan has not adopted, and therefore, it is inappropriate for to quote it as a statement of risk.</p> <p>Tule Wind, LLC has committed to working closely with relevant fire agencies to make sure they are appraised on the Tule Wind Project’s features. As noted in MM FF-5, each wind turbine nacelle will be equipped with a fire suppression system that will provide immediate fire suppression in the event of an ignition in the wind turbine nacelle.</p> <p>Furthermore, there is no confusion as to whether firefighters responding to a nacelle fire would attempt to fight the fire because they will not enter the turbine, but develop a perimeter and verify that no ground fires are started. Also, the wind turbines contemplated by the Tule Wind Project are at maximum 328 feet tall at the nacelle, not the 400 to 600 feet tall claimed in the draft plan.</p>
	Fire and Fuels Management	D.15-61	“The presence of the nearly 400-foot wind turbines and the 138 kV Transmission Line in an area where there is currently no aerial obstructions would have the potential of significantly impacting aerial firefighting efforts. Introducing	

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			<p>these vertical features to the area could affect firefighting operations and endanger the safety of firefighters responding to a wildfire in the area (CAL FIRE 2010a). However, the 138 kV Transmission Line will only be XX feet tall, and minimum drop distance for helicopters is XX feet. Furthermore, the wind turbines are spaced on average XX miles apart, providing a corridor that an aircraft pilot could navigate through, if not above."</p>	
	Fire and Fuels Management	D.15-61	<p>Ground Based Firefighting</p> <p>"Wildland firefighters working around energized transmission lines may be exposed to electrical shock hazards including the following: direct contact with downed power lines, contact with electrically charged materials and equipment due to broken lines, contact with smoke that can conduct electricity between lines, and the use of solid-stream water applications around energized lines. Between 1980 and 1999 in the U.S., there were 10 firefighter fatalities due to electrical structure contact during wildfire suppression (NFPA 2001). Maintaining a minimum 500-foot safety buffer greatly reduces the risk of electrical structure contact, and it reduces the effectiveness of ground-based frontal attacks. Most, if not all, firefighting organizations employ a similar safety buffer around electrical structures. Depending on the fire circumstances, the presence of the electrical transmission line may result in the decision to let a fire burn through the area before attacking with ground and aerial firefighting resources."</p>	<p>Please provide a source for the use of a minimum 500-foot safety buffer around electrical transmission lines. The International Fire Service Training Association (IFSTA) Fire Department Training manual "Fundamentals of Wildland Fire fighting" 3rd edition, states on page 304 that Firefighters should stay a distance away from downed power lines a distance equal to one span between poles (the reason is that this distance is typically the longest distance that a wire would fall, and then they typically only fall at one end) until they are sure the power is off. And then, use fine spray fog streams for any firefighting.</p> <p>The modern highly trained, well equipped, Firefighter and Fire Agency needs to be given credit in the EIR for their ability to evaluate the risks and intelligently and properly handle a fire at the property. Public Fire Protection has vastly improved in San Diego County, to the point that a fire at this facility should be a fairly routine fire, rather than a catastrophic event.</p>
	Fire and Fuels	D.15-61-62	Aerial Firefighting	Fire Protection Plan, dated November 3, 2010, pg.

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	Management		<p>“The presence of the nearly 400-foot wind turbines and the 138 kV Transmission Line in an area where there is are currently no aerial obstructions would have the potential of significantly impacting aerial firefighting efforts in the project area. Introducing these vertical features to the area could affect firefighting operations and endanger the safety of firefighters responding to a wildfire in the area (CAL FIRE 2010a). <u>The turbines are located approximately one-quarter mile apart, which would allow helicopters to navigate around the towers. Furthermore, the turbines and towers will be equipped with safety lighting as required by the FAA. The proposed electrical transmission lines are spaced far enough apart to not restrict aircraft maneuverability, however, or to significantly increase the risk of contact by aircraft or water buckets. Water drops are performed at 150 feet above the ground, otherwise known as the “150 foot drop zone”. The 138kV transmission towers are proposed to be 75 feet in height, less than half the height of the “150 foot drop” zone. Furthermore, the Tule project’s 138kV transmission line will be adjacent to and overlap with the Sunrise Powerlink, which will be approximately 130 to 160 feet in height. Accordingly, the Tule project will not add to any additional aerial firefighting risk to what is already in construction in the project area.</u> would create a substantial number of north-south trending aerial features in an area that currently does not include this potential barrier for several</p>	<p>75.</p> <p>The Sunrise Powerlink is under construction, and should be included as the baseline condition for the Proposed Project.</p>

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			<p>miles to the east and is void of aerial barriers to the west. . . .</p> <p>Even wWith implementation of these mitigation measures, the source of potential conflict (i.e., the presence of the 400-foot tall wind turbines and overhead transmission line) would remain, and the potential for reduced aerial and ground firefighter effectiveness would be adverse and cannot be reliably mitigated. Under CEQA, impacts would be significant and cannot be mitigated to a level that is considered less than significant (Class II)."</p>	
	Fire and Fuels Management	D.15-64	<p>ISSUE: discuss with ESJ and SDG&E whether they agree that this is an impact that can be mitigated.</p> <p>Regarding the potential for reduced aerial and ground effectiveness of firefighters, due to additional facilities and aerial features: Response: firefighters are trained, equipped, and able to work around facilities and deal with this type of issue frequently. Any development has "facilities" and may have "aerial Features" such as a tall building would have, for example. This should not effect and aerial and ground effectiveness. Revise text.</p>	Fire risks have been reasonably mitigated due to built in protection and fuel modification. On site access roads have been provided. Any new development has facilities and may have aerial features, such as a tall building, It is unclear why this is raised as an issue. The modern fire service and firefighter should be given more credit in the EIR for their knowledge and skills, towards being able to respond to, and mitigate, incidents at this facility.
	Fire and Fuels Management	D.15-66	<p>Tule Wind Project</p> <p>"If invasive plants become establishedment and corresponding spread of invasive plants within the proposed project ROW, such growth would adversely influence fire behavior by altering fuel beds . . ."</p>	Existing phrasing makes it appear that the Tule Wind project will be establishing invasive plant species, which is not the case. Please consider revising the text to clarify.
	Fire and Fuels	D.15-66	ISSUE: confirm after modified project layout	

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	Management		determination that, "The project is anticipated to disturb a total of 762.5 acres, with approximately 230 acres of temporary disturbance during construction."	
	Fire and Fuels Management	D.15-74-75	For the reasons set forth in Comments [insert comment numbers], above, all Impacts Tule-FF-2 and Tule-FF-3 should be changed from Class I to Class II.	Please see comments [insert comment numbers] above.
	Fire and Fuels Management	D.15-91	Regarding statement that the project presents a significant source of ignitions and obstruction to firefighting effectiveness and operations. The reason for this statement is unclear. Also, ignition sources have been mitigated. Statements should be deleted.	See comment 14 above
	Fire and Fuels Management	D.15-97-99	MM FF-1, MM FF-2, MM FF-4, and MM FF-6 have different text in the summary table than initially presented in the body of the Draft EIR/EIS. Compare to MM FF-1 (D.15-44), MM FF-2 (D.15-45), MM FF-4 (D.15-46-47), and MM FF-6 (D.15-60) with the same mitigation measures at pages D.15-97-101.	Mitigation Measure text should be uniform and consistent.
	Fire and Fuels Management	D.15-97-99	ISSUE: discuss with SDCFA and SDRFPD whether they agree with proposed mitigation measures, and how they would amend them.	
	Fire and Fuels Management	D.15-99 D.15-46	Table D.15-8; Mitigation Measure FF-3. "FF-3: Development Agreement with Rural Fire Protection District and San Diego County Fire Authority (SDCFA). Provide funding for the training and acquisition of necessary firefighting equipment and services to Rural Fire Protection District/SDCFA to improve the response and firefighting effectiveness near wind	Fire agencies respond statewide via the state Mutual Aid system. This includes emergencies in Federal land or BLM land, reservations, etc. Fire agencies also respond nationwide and into Mexico upon request. The same change to text should be made to MM FF-3, at pg. D.15-46.

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			<p>turbines, electrical transmission lines, and aerial infrastructure. Although not implementable on BLM or other federal land, the local fire authority agency will respond to wildfires within its jurisdiction, along with support through mutual aid to wildfires within its jurisdiction, regardless of land ownership designation.”</p>	
	Fire and Fuels Management	D.15-101	<p>FF-6: Funding for FireSafe Council</p> <p>[get input from fire agencies; MM appears to lack concreteness]</p>	