PINE TREE
WIND DEVELOPMENT PROJECT

ENVIRONMENTAL ASSESSMENT / FINAL ENVIRONMENTAL IMPACT REPORT (EA/FINAL EIR)

SCH#2004041076
BLM#CA-650-2005-13

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APRIL 4, 2005

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SECTION 1.0 INTRODUCTION AND SUMMARY

1.1 ORGANIZATION OF THE DOCUMENT

This document is the Environmental Assessment/Final Environmental Impact Report (EA/Final EIR) for the Pine Tree Wind Development Project. The EA/Final EIR is an informational document that has been prepared jointly by the Los Angeles Department of Water and Power (LADWP; lead agency under the California Environmental Quality Act [CEQA]) and the federal Bureau of Land Management (BLM; lead agency under the National Environmental Policy Act [NEPA]).

According to the CEQA Guidelines (Section 15132), a Final EIR must consist of the following elements:

- Draft EIR or a revision of that draft
- Comments and recommendations received on the draft EIR either verbatim or in summary
- A list of persons, organizations, and public agencies that commented on the Draft EIR
- Responses of the Lead Agency to significant environmental points raised in the review and consultation process
- Any other information added by the Lead Agency

Under NEPA, and specifically BLM's NEPA Handbook, the EA does not have a draft and final component. Rather, the EA is issued for review and the comments received (and a response to those comments) are considered prior to BLM making a decision either to undergo further environmental review or to make a Finding of No Significant Impact (FONSI). The decision to issue a FONSI would be preceded by a public comment period.

This EA/Final EIR serves to complete the environmental document process required by both CEQA and NEPA and includes the following information:

Section 1.0 – Introduction and Summary: This section provides an introduction to the EA/Final EIR and provides a revised summary of the overall project and associated environmental impacts and mitigation measures. It also summarizes and compares the alternatives considered.

Section 2.0 – Letter Comments on Draft EIR/EA and Responses: This section provides a list of persons commenting on the Draft EIR/EA, copies of the written comments (numerically coded for reference), the response to those comments put forth by LADWP and BLM, and several attachments.

Section 3.0 – Changes to the Draft EIR/EA: This section includes all corrections and additions to the Draft EIR/EA text made as a result of comments received. Any changes in text are indicated by underline/strikeout revision.

Appendix A – Mitigation Monitoring and Reporting Program: This appendix includes the Mitigation Monitoring and Reporting Program (MMRP) required by the CEQA Guidelines (Section 15097).

Appendix B – Mailing List for Draft EIR/EA: This appendix includes the list of interested individuals, groups, and agencies that received a copy of the Draft EIR/EA.

Appendix C – Proofs of Publication: This appendix includes the proofs of publication of the Draft EIR/EA for the public review.

Though not included within the cover of this EA/Final EIR, the Draft EIR/EA as issued for public review in November 2004 is incorporated herein by reference and is revised as shown in Section 3.0.

1.2 ENVIRONMENTAL REVIEW PROCESS

On April 16, 2004, LADWP issued a Notice of Preparation of Draft EIR (NOP), announcing that LADWP and BLM were cooperating to prepare an environmental document for the proposed Pine Tree Wind Development Project. The NOP with CEQA Initial Study was sent to various persons, agencies, and organizations that would likely be interested or affected by the proposed project (see Appendix A of the Draft EIR/EA). At the same time, a letter was mailed to a larger list of persons and agencies that notified them of the proposed project, the environmental process, where to view copies of the NOP/Initial Study, and how to participate in the process. A project scoping meeting to obtain input from interested persons and agencies was held at the Kern County Planning Department on May 7, 2004. Written and verbal comments on the project were collected at this meeting.

Eight written comment letters were received during the NOP review period, which began on April 19, 2004, and ended on May 18, 2004. The comments received during the scoping meeting and the responses to the NOP were considered by the lead agencies in determining the scope of the issues to be addressed in the Draft EIR/EA. All comments received in response to the NOP are included in Appendix A of the Draft EIR/EA and are part of the project record.

LADWP also held two informal community meetings to inform the public about the project and receive public input, and LADWP also met with BLM's Citizen Steering Committee on two occasions during preparation of the Draft EIR/EA. The community meetings were held on May 28, 2003, in Tehachapi, California, and May 29, 2003, in Mojave, California. These meetings discussed the progress of project planning and design and raised several issues pertaining to the project, including:

- Potential for impact on habitats and wildlife, raptors in particular;
- Possible riparian effects;
- Potential effects related to recreation resources, in particular the Jawbone Canyon Open Area;
- Potential for impacts due to soil disturbance;
- Requirements for lighting of the wind turbines; and
- Restoration considerations for turbine sites and access roads.

During the time period that the Draft EIR/EA was being prepared, LADWP and BLM met with representatives of Native American groups to identify and discuss issues related to potential cultural and historic resources that could be affected by the proposed project. The Native American consultation process is discussed in the Cultural Resources Technical Report contained in Appendix F of the Draft EIR/EA.

In addition to the NOP consultation, LADWP and BLM consulted directly with California Department of Fish and Game (CDFG) and U.S. Fish and Wildlife Service (USFWS) about wildlife and habitat issues during preparation of the Draft EIR/EA. CDFG personnel visited the project site two times in 2004, and a joint meeting with CDFG, USFWS (by phone), BLM, and LADWP was

held to discuss biological resource and regulatory issues. Formal consultation under Section 7 of the federal Endangered Species Act (ESA) was initiated by BLM on November 18, 2004. Additionally, LADWP coordinated the preparation of the Draft EIR/EA with Kern County staff relative to issues of land use, military air space, transportation, and landform modification.

The public review period for the Pine Tree Wind Development Project Draft EIR/EA began on November 22, 2004, and ended on January 7, 2005, lasting approximately 47 days. A Notice of Availability (NOA) was filed and submitted to the State Clearinghouse along with 15 copies of the Draft EIR/EA for state agency review on November 22, 2004. No state agencies submitted comments to the State Clearinghouse. One state agency, the California Energy Commission, submitted comments directly to BLM and LADWP. The Acknowledgement of Receipt from the State Clearinghouse is included as Letter 14 in Section 2, Letter Comments on the Draft EIR/EA and Responses. Additionally, copies of the Draft EIR/EA were mailed and/or distributed directly to agencies and groups for review, and the Draft EIR/EA was also available for review at the Bureau of Land Management, Ridgecrest Field Office at 300 S. Richmond Road, Ridgecrest, CA 93555 and at the Tehachapi Branch Library at 450 West F Street, Tehachapi, CA 93561. The environmental document was also posted on LADWP's and BLM's websites, and copies were made available on CD by request.

The NOA of the Draft EIR/EA was published in the Los Angeles Times, Tehachapi News, Mojave Desert News, The News Review (Ridgecrest), and Daily Independent (Ridgecrest) for 1 to 2 weeks starting the week of November 22, 2004. The NOA was mailed to all state responsible and trustee resource agencies through the State Clearinghouse, mailed to all interested members from the public who participated in the project scoping process, and posted on LADWP's and BLM's individual websites. The NOA announced the availability of the Draft EIR/EA, stating where the document could be obtained or reviewed; the dates of the comment period; the deadline for receiving written comments; and the time, place, and date of two community meetings that were planned.

LADWP conducted two community meetings during the public review period to discuss the proposed project and the associated environmental impacts and mitigation measures. The meetings were held on Wednesday, December 8, 2004, at the Kerr McGee Community Center in Ridgecrest, California, and Thursday, December 9, 2004, at the Mojave Veterans Building in Mojave, California. The community meetings provided an opportunity for the public to become familiar with the project, the Draft EIR/EA, and the environmental review process. Opportunity was provided for the public to make comments and ask questions about the project, and answers to those questions were provided by project representatives that included LADWP, Wind Turbine Prometheus, LLC (the wind power development company), BLM, and LADWP's consultant.

The LADWP Board of Water and Power Commissioners (Board) will consider the Pine Tree Wind Development Project for approval at a regularly scheduled board meeting (the specific date of the meeting is to be announced). The Board will hold a public hearing regarding the project and must certify the Final EIR prior to making a decision to approve the project.

The Board will consider all information in the record, including the Draft EIR/EA, response to comments, findings, mitigation monitoring plan, and any testimony, prior to making its decision. The Board will consider the staff recommendations, including:

- A recommendation as to whether the Final EIR portion of the joint document has been completed in accordance with CEQA and should be certified by the Board;
- A recommendation regarding selection of an appropriate project alternative (including the proposed action and the "No Action" alternative);
- A recommendation regarding adoption of the MMRP; and
- A recommendation regarding Findings and possible conditions that may override significant environmental impacts of the project.

Should the Board approve the Pine Tree Wind Development Project, it will file a Notice of Determination (NOD) with the Los Angeles and Kern County Clerks and the State Clearinghouse. The filing of the NOD completes the CEQA environmental review process.

1.3 OTHER NECESSARY DECISIONS

Upon filing the NOD, LADWP would forward materials documenting its action to BLM, who would then consider a decision on the proposed action. In this case, the decision is to issue right-of-way easements for use of federal lands for site access and for construction of a power transmission line. The NEPA process is completed with preparation of a FONSI and Decision Record by BLM.

As required under the federal ESA (16 U.S.C. 1531 et seq.), implementation of the proposed action required consultation with USFWS. Additionally, implementation of the project would require a number of permit and agency approvals under local, state, and federal laws. Agencies with potential permit and approval authority include:

CDFG;
California Department of Transportation;
California Regional Water Quality Control Board, Lahontan Region; and
County of Kern.

1.4 PROJECT SUMMARY AND OVERVIEW

PROJECT HISTORY

The Draft EIR/EA for this project addressed the environmental issues, alternatives, and impacts associated with the construction of the Pine Tree Wind Development Project, consisting of 80, 1.5-megawatt (MW) wind turbine generators, for a total installed capacity of 120 MW. The project would be built in one phase and is planned to be online by May 2006. The project is being undertaken to increase the amount of electrical power that is produced using clean and renewable energy sources and to help meet overall demand for electrical power in the Southern California area. LADWP and BLM have cooperated to prepare one environmental document for the proposed project and action meeting the requirements of CEQA and NEPA.

LADWP is working with Wind Turbine Prometheus, LLC, a wind energy development company, to develop and construct the proposed project; however, the project would be owned and operated by LADWP. As part of the proposed project, LADWP would also construct and operate approximately 8 miles of 230-kilovolt (kV) transmission line and a switching station, which would connect the proposed project substation to an existing LADWP 230-kV transmission line.

The federal involvement stems from the requirement for BLM to consider and issue two right-of-way grants. One would be required to cross approximately 1.1 miles of BLM-administered land along Pine Tree Canyon Road for the proposed project transmission line (in Section 13 of Township 31 South, Range 36 ½ East; and Sections 14 and 22 of Township 31 South, Range 36 East). To provide access to the project property for both construction activities and long-term project operations and maintenance (O&M), a right-of-way would also be required to cross approximately 4.7 miles of BLM-administered land in Jawbone Canyon (in Sections 20, 22, and 27 of Township 30 South, Range 37 East; Section 24 of Township 30 South, Range 36 ½ East; and Sections 22, 24, 28, and 30 of Township 30 South, Range 36 East).

The primary NEPA cooperating and CEQA responsible and trustee agencies include:

- U.S. Fish and Wildlife Service;
- CDFG;
- California Regional Water Quality Control Board, Lahontan Region;
- California Department of Transportation; and
- County of Kern.

NEED FOR THE PROJECT AND OBJECTIVES

Each EIR is required by CEQA to include a statement of the objectives to be achieved by the proposed project (*CEQA Guidelines*, § 15124, subd. (b)). The objectives help the implementing agency develop a reasonable range of alternatives and assist decision-makers in preparing findings or a statement of overriding considerations, if necessary. Similarly, NEPA regulations require that each EA briefly specify the need to which the agency is responding in proposing various alternatives, including the proposed project (40 CFR § 1508.9, subd. (a)).

Need for the Project

The proposed project is needed so that LADWP may meet commitments to supply an increased share of its electrical generation capacity from clean and renewable energy sources. In accordance with state requirements that public utilities develop a renewable energy portfolio standard, the City of Los Angeles City Council approved a resolution on June 29, 2004, supporting the concept of increasing the amount of energy LADWP generates from renewable power sources to 13 percent of its energy sales to retail customers by 2010 and to 20 percent by 2017. These goals are generally consistent with state mandates for investor-owned utilities operating within California. This commitment to renewable sources is a means to provide sustainable energy resources that will reduce air pollutant emissions and dependence on fossil fuels for power generation.

The generation capacity from the proposed project is needed to help meet the future electrical energy demands of the Southern California region. Demand for electricity in Southern California has grown at a steady, moderate pace since the early 1990s. According to the LADWP Integrated Resource Plan, as amended and adopted by the Board of Water and Power Commissioners and the Los Angeles City Council (August 15, 2000), annual growth in demand in Los Angeles is expected to average about 1.5 percent, or an average of about 80 MW per year, over the next 16 years. It is estimated that between the years 2004 and 2010, the net peak demand for electricity in the city will grow by 450 MW, or approximately 7.5 percent (from 5,920 MW to 6,370 MW).

Objectives

To meet the project needs, LADWP, in its capacity as CEQA Lead Agency, has the following objectives for the project.

- *Energy Demand:* Provide a wind energy electrical generation facility with an annual generating capacity of approximately 330 gigawatt hours (GWh).

- *Renewable Energy Sources:* Increase LADWP's renewable energy production by about 1.5 percent of its total electrical production capacity.

- *Private Property Development:* Locate the primary project facilities on private property to avoid or minimize impacts to public lands and resources.

- *Available Transmission Capacity:* Locate the proposed project turbines relatively close to existing transmission lines that are controlled by LADWP and have available capacity to accommodate the power generated by the proposed project.

BLM, in its capacity as NEPA Lead Agency responsible for management of federal lands that would provide road and electrical transmission access to the proposed project site, has the following objectives for the proposed project.

- *Regulatory Compliance:* Ensure that project-related right-of-way grants for the use of federal land are issued in accordance with relevant federal laws, regulations, and policies.

- *Plan Conformance:* Ensure that the use of federal lands for road and electrical transmission access for the proposed project conforms to existing BLM land use and resource management plans.

- *Wind Energy Development Policy:* Promote the appropriate development of wind energy as a component of the President's National Energy Policy to encourage the development of renewable energy resources.

REGULATORY REQUIREMENTS AND COMPLIANCE

In addition to meeting the requirements of NEPA and CEQA, the Pine Tree Wind Development Project environmental documentation has been prepared to facilitate compliance with federal and state laws and the subsequent project approval by various federal, state, and local agencies having jurisdiction over one or more resources potentially affected by the project.

SUMMARY DESCRIPTION OF THE PROPOSED PROJECT AND ACTION

Wind Turbines

The primary component of the proposed project is a series of 80, 1.5-MW nameplate capacity wind turbines. The proposed wind turbines would be grouped along separate ridges in zones, or "strings," ranging in groupings of from 2 to 16 towers. The turbine strings are significant from the standpoint that the zones surrounding the strings would receive a Wind Energy Combining District zoning

designation from Kern County, allowing for the construction of the turbine generators. The wind turbines must be located within these zones.

Analysis for the siting of the proposed wind turbines considered a broader study area of approximately 21,500 acres. Due to constraints imposed by such factors as terrain and military training routes (MTRs), and in an effort to minimize potential impacts to existing sensitive biological and cultural resources, the boundaries of the project property were narrowed to their present configuration, encompassing approximately 8,000 acres. Within these narrowed boundaries, the objective of the project is to optimize wind energy production based on a cost-benefit analysis that balances construction, operations, and maintenance considerations with the anticipated output of each turbine. A primary factor in this analysis is the quality of the wind resource at a particular site within the property.

To operate and maintain the turbines, the proposed project would require a network of service roads to provide access to the turbine sites, the substation, and the O&M facility. These operational roads would generally need to be 16 feet wide. However, to deliver large and heavy components and equipment to the turbine sites during project construction, most project roads would need to be 20 feet wide. In addition, to operate large equipment, including large truck- or track-mounted cranes, access roads approximately 34 feet wide would be required within the turbine strings to provide access to each turbine site.

Substation and O&M Facility

A substation would be required on site to convert the voltage of the electrical energy generated by the wind turbines from a lower to higher voltage so that it can be transmitted. The substation would be located on an 11-acre parcel consisting of a fenced yard area containing the step-up transformer, substation, and related electrical control equipment. The voltage will be increased from 34.5 kV to 230 KV. A 34.5-kV collection system would link the individual turbines to the substation. The O&M facility would be located on a 10-acre parcel and consist of a storage and equipment yard and an approximate 35-foot-high, 60-foot by 120-foot building containing offices for O&M personnel, a control and relay room, a workshop area, spare parts storage, training rooms, restrooms, and a lunchroom.

Electrical Transmission Line and Switching Station

An overhead 230-kV transmission line would connect the project substation to an existing LADWP transmission line located west of and generally paralleling SR-14. The proposed transmission line would be approximately 8 miles in length. It would originate at the project substation in the south-central part of the project property and travel southeastward through privately owned land until it intersected Pine Tree Canyon Road, to the southeast of the project property. The line would then generally parallel Pine Tree Canyon Road eastward to a proposed switching station at LADWP's existing regional transmission line (Inyo-Rinaldi 230-kV line) near SR-14. This proposed route would cross three parcels of BLM land for a total length of approximately 1.1 miles. LADWP intends to secure a 150-foot-wide right-of-way for the transmission line alignment through BLM-administered land. This right-of-way would not be fenced.

The switching station would be constructed adjacent to the existing Inyo-Rinaldi 230-kV line right-of-way, approximately 1,500 feet north of where this regional transmission line crosses the existing Pine

Tree Canyon dirt road. The station would be constructed on private land between the Inyo-Rinaldi line towers adjacent to the east side of the right-of-way.

Project Construction

The project construction would be performed in several stages and would include the following primary activities:

- Grading of roads, turbine pads, and crane pads
- Grading of substation, O&M building, switching station, materials laydown, and equipment staging areas
- Construction of the turbine tower foundations and transformer pads
- Installation of the electrical collection system
- Erection and assembly of the wind turbines
- Construction and installation of the substation and O&M facility, including water well and septic system
- Construction of the 230-kV transmission line and switching station, including water well and septic system
- Plant commissioning and energization

While the overall project footprint extends over much of this property, the actual area of new ground disturbance caused by the project (excluding existing roads that would be used by the project) would total approximately 238 acres. This would include approximately 106 acres of temporary disturbance related to construction activities, including temporary roads, spoils areas, materials laydown areas, etc. These areas would be revegetated after the completion of construction. The area of permanent disturbance related to the project facilities would total approximately 132 acres, including areas for the wind turbines, maintenance access roads, the substation and O&M building, and the transmission line and switching station. Existing on-site roads that would be used by the project would total approximately 30 more acres. A total of approximately 2 acres of permanent disturbance would occur on public lands, associated with the transmission line in Pine Tree Canyon. The estimated approximate area of temporary and permanent disturbance from the proposed project on private property and BLM-administered land is listed below.

	Private Land	**BLM Land**	**Total**
Temporary	102 acres (96.2 %)	4 acres (3.8 %)	106 acres
Permanent	130 acres (98.5 %)	2 acres (1.5 %)	132 acres
Total	232 acres (97.5 %)	6 acres (2.5 %)	238 acres

Project Operations and Maintenance

Routine maintenance of the turbines would be necessary to maximize performance and detect potential problems. Additionally, all roads, pads, and trenched areas would be regularly inspected and maintained to minimize erosion. Monitoring the operations of the wind turbines would be conducted both from computers located in the base of each turbine tower and from the O&M facility using telecommunication linkages and computer-based monitoring. Periodic exchanging of lubricants and hydraulic fluids in the operating mechanisms of the turbines and towers would occur.

Project Decommissioning

Decommissioning refers to the dismantling of the project elements and restoration of the site upon completion of the operating life of the facility. Periodic replacement of equipment can extend operating life indefinitely, depending on future demand for electricity generated by the project. Therefore, the estimated life of the project depends primarily on the demand for power, which is expected to continue growing. However, the project is expected to have a minimum of 20-year life.

At the end of the project's useful life, LADWP would obtain any necessary authorization from the appropriate regulatory agencies and from the landowners to decommission the facilities. Decommissioning would involve removing the turbines and support towers, transformers, and substation, and removing the upper portion of foundations so that they are not exposed at the surface. Site reclamation would be based on site-specific requirements and techniques commonly employed at the time the area is reclaimed. As necessary, this could include regrading, spot replacement of topsoil, and revegetation of project-disturbed areas. Project access roads would be reclaimed or left in place based on landowner preference. The land would then revert exclusively to landowner control.

EXISTING/AFFECTED ENVIRONMENT, IMPACTS, AND MITIGATION

The existing and affected environment related to each resource category addressed in the EA/Final EIR is summarized below. Table 1-1, at the end of this summary, displays the potential impacts from the proposed project and mitigation measures in a matrix format. Please note that the mitigation measures that have been revised as a result of the comment letters received during the public review period are shown in marked-text (<u>underline</u> for new text and ~~strikethrough~~ for deleted text).

Geology and Soils

The project site is situated in the southern section of the Sierra Nevada Geomorphic Province and is characterized by deeply incised valleys, steep hillsides, and mountains that lie on the eastern side of the Pacific Crest line descending towards the Mojave Desert. The project site is considered to be in a seismically active area. The closest major active faults to the site include the Garlock Fault system, the Southern Sierra Nevada Fault zone, and the White Wolf Fault zone. The project facilities themselves are not underlain by known active faults.

The project site is typically underlain by a highly varied series of sedimentary formations (e.g., sandstone, limestone, dolomite, siltstone, shale, chert, conglomerate), volcanic formations (e.g., andesite, basalt, tuff, tuffaceous sandstone, rhyolitic felsite), granitic rocks (e.g., quartz monzonite, granite, quartz diorite, hornblende diorite, gabbro), and metamorphic rocks (e.g., gneiss, schist, quartzite). Unconsolidated materials such as topsoil and colluvium, alluvial sediments, older alluvium, and slopewash deposits overlie theses units.

Hydrology and Groundwater

The proposed project lies within two major watershed areas, Jawbone Canyon and Pine Tree Canyon. Both Jawbone and Pine Tree canyons drain into the Fremont Valley, to the east of the project property. Drainage waters collected in the watershed flow in surface water and stream channels and eventually permeate into the coarse permeable soils of the channels and flow subsurface to aquifers in the valley.

Pine Tree Canyon falls approximately 3,260 feet over the 12-mile-long water course, with an average gradient of approximately 5 percent. A gradient of 5 percent reflects relatively unstable flow conditions within the watershed. The floodplain channel to the southeast of the project property is approximately 600 feet wide and 38 feet deep. Jawbone Canyon falls approximately 4,030 feet over the 24-mile-long watercourse with an average gradient of approximately 3 percent. A gradient of 3-percent reflects relatively stable flow conditions within the watershed. The floodplain channel on the northeast side of the project limits is approximately 1,450 feet wide and 38 feet deep.

Air Quality

The project site is located within the Mojave Desert Air Basin, which is under the jurisdiction of the Kern County Air Pollution Control District (KCAPCD). The project site is within an area that is in attainment for all federal criteria pollutants except ozone (O_3). On April 15, 2004, the U.S. Environmental Protection Agency (EPA) issued the initial designations for the 8-hour O_3 standard, and Eastern Kern County is classified as "basic nonattainment." Basic is the least severe of the six degrees of O_3 nonattainment. KCAPCD must submit an air quality plan to the EPA to demonstrate how the 8-hour O_3 standard will be attained by June 2009. Relative to state standards, Kern County has been classified as a nonattainment area for the state 1-hour O_3 and PM_{10} (particulate matter equal to or less than 10 microns in size) standards (California Air Resources Board 2004).

Biological Resources

Thirty-two vegetation communities and cover types were identified within the project area during general surveys. Six generalized vegetation groupings and cover types are used to characterize and discuss the vegetation communities and land cover observed during the habitat assessments. These include scrubs and chaparrals, wetlands, grasslands and fields, woodlands, ecotones, and developed and disturbed.

Due to the large size of the project study area, the diverse assortment of vegetation communities, the variation in topographic relief, and the fact that the habitat is primarily undeveloped, a diverse array of wildlife species would be expected in the project area. General and focused wildlife surveys were conducted for the proposed project, including specific seasonal and/or protocol surveys for desert tortoise and avian species. Bird, mammal, reptile, amphibian, and insect species were widely distributed.

Sensitive vegetation communities are those that are considered rare in the region, support sensitive plant or wildlife species, or receive regulatory protection. In addition, vegetation communities listed on the California Natural Diversity Database (CNDDB) as having the highest inventory priorities are considered sensitive (CDFG 2003). Five vegetation communities within the project area are considered to be of high priority for inventory in the CNDDB, including Mojave desert wash scrub, Mojave riparian forest, southern riparian scrub, native perennial grassland, and Joshua tree woodland. In addition, the California Desert Conservation Area (CDCA) Plan identifies Unique Plant Assemblages (UPAs) for emphasis in the environmental review process and for special monitoring attention. All riparian systems in the CDCA are classified as UPA. On the project site, this would include all Mojave riparian forest, Mojave desert wash scrub, and southern riparian scrub vegetation communities.

Land Use

The project site is essentially undeveloped, but it is currently and has historically been used as grazing land for cattle. The project site is designated 8.3 Extensive Agriculture (minimum 80- or 20-

acre parcel size) and 8.3/2.4 (Extensive Agriculture/Steep Slope) in the Kern County General Plan. The property is currently zoned Estate (20) (Estate – minimum lot size of 20 acres). The project site is not designated as Farmland by the California Department of Conservation; therefore, the project would not convert Farmland to non-agricultural use.

The area surrounding the proposed project property is also essentially undeveloped. The project site is bounded primarily by privately owned land except along a portion of its eastern boundary and a portion of its northern boundary, which adjoin federally owned land administered by BLM. Much of this adjoining BLM property is located within a closed area that is open to public access by permit only. To the southeast of the project property, the Pine Tree Canyon Road transmission line alignment passes through approximately 7 miles of private land and approximately 1.1 miles of the BLM-administered land.

A segment of the Pacific Crest National Scenic Trail is located on private property approximately 1 to 2 miles west of the western boundary of the project property. The Jawbone Canyon access road to the project passes through the Jawbone Canyon Open Area, a designated off-highway vehicle (OHV) use area managed by BLM. Naval Air Systems Command Weapons Division (NAVAIR WD) and Edwards Air Force Base (EAFB) both maintain low-altitude MTRs that overlay portions of the project property to conduct aviation training and testing missions. Structures taller than 200 feet that penetrate an MTR may represent obstructions to aviation navigation.

Transportation

SR-14 is the principal regional access route leading to the project area. It is a two-lane and four-lane north-south state highway that, along with U.S. Highway 395, connects Mojave, California, south of the project site, to the cities of Lone Pine, Big Pine, Bishop, and the Mammoth Mountain Resort areas to the north.

Primary access to the proposed wind turbine component would be taken from Jawbone Canyon Road at SR-14. Jawbone Canyon Road is a County-maintained paved road of approximately 25 feet in width. The County road travels westerly from SR-14 for approximately 6 miles, at which point it turns northward. A dirt road, which is controlled by a gate and on which public access is prohibited, continues southwestward to the project property for 4 miles through Jawbone Canyon. Traffic volumes on Jawbone Canyon Road are generally very low. However, use increases considerably on holiday weekends and winter weekends as recreational users visit the Jawbone Canyon Open Area.

Access to the transmission line component of the project would be taken from Pine Tree Canyon Road at SR-14. Pine Tree Canyon Road is a private dirt road located south of Jawbone Canyon Road that runs west from its intersection with SR-14. This roadway is very lightly traveled. It is maintained by LADWP to provide access to transmission facilities and the two Los Angeles aqueducts, which are located west of SR-14.

Cultural Resources

The cultural resources inventory and records search conducted for the project area resulted in the identification of 101 archaeological sites, including 43 previously recorded and 58 newly identified properties. Of these, 90 sites are within the project area. The majority are prehistoric resources, defined by flaked and ground stone artifact scatters, some with bedrock milling features or cultural middens. Twenty sites have the potential to be affected by project activities, depending upon which

components (e.g., access roads, 230-kV transmission line, and laydown areas) are selected for use or construction. The remaining 70 sites do not occur within or immediately adjacent to proposed project components. Of the 20 sites with potential project impact, only seven are considered National Register of Historic Places-eligible properties, the remainder not qualifying due to lack of integrity and/or lack of research potential.

Visual Resources

The vegetative cover within the project property consists of a mix of pinyon-juniper woodland, oak woodland, scrub, and grassland. Terrain within the proposed project site ranges from rolling hills to moderately steep ridges. A number of rocky outcroppings are present on the property. Elevations range from approximately 3,000 feet above mean sea level (MSL) in the northeastern corner of the project property to approximately 5,000 feet above MSL in the southwestern corner of the property. The project property is located entirely on privately owned land that is essentially undeveloped.

The Sky River Ranch wind development, located on the Sweet Ridge ridgeline about 1 to 2 miles west of the project property, consists of 342 approximately 100- to 150-foot-tall turbines sited along an approximate 6-mile length of the ridgeline. The Sky River Ranch wind turbines are visible from various locations within the project property and the surrounding area. A segment of the Pacific Crest National Scenic Trail is also located approximately 1 to 2 miles west of the western boundary of the project property. In the vicinity of the project property, the trail generally parallels the Sky River Ranch wind development primary access road. The trail is situated on private property for nearly the entire segment that is located to the west of the project.

Potentially sensitive viewpoints within the area surrounding the proposed project include SR-14 as it passes to the east of the project site; the Jawbone Canyon Open Area, located northeast of the project site; and the Pacific Crest Trail as it passes to the west of the project site. More distant but potentially sensitive viewpoints include California City, located approximately 10 miles southeast of the project site, and Red Rock Canyon State Park, located approximately 10 miles to the northeast.

Socioeconomics

The areas surrounding the project site are predominantly sparsely populated, unincorporated areas of Kern County, with concentrations of population in several smaller cities and communities. Although Kern County as a whole and portions of the project study region experienced relatively rapid population growth over the last decade, the project study region has, with the exception of Tehachapi, more than matched this growth with additional housing unit growth. While a number of census tracts within the study area show higher proportional populations of certain racial minorities, in general, populations within the study area remain markedly below county racial and ethnic averages. Although income levels within the majority of census tracts and communities within the study area were generally above the county average, a limited number of areas in the study area reported incomes significantly below that of the county average. The study area generally remained below county average in percent of population living at or below poverty levels, and recent unemployment levels within Tehachapi, California City, and Mojave remained below that of Kern County as a whole.

Table 1-1
Potential Impacts and Mitigation of the Proposed Pine Tree Wind Development Project
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IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT AFTER MITIGATION
GEOLOGY AND SOILS		
Seismic-Related Public Safety Hazards		
Impact 2.1 Implementation of the proposed project could expose people and structures to geologic hazards, including earthquakes and ground shaking.	**MM 2.1:** To mitigate the exposure of people and structures to potential strong ground motion: • All habitable structures shall include engineered design and earthquake-resistant construction to increase safety of persons occupying the buildings. • A qualified professional engineer will design the wind turbine structures, including foundations, constructed on the site. • The minimum seismic design will comply with the Kern County Building Code, Chapter 17, and applicable California Building Codes.	Less than significant.
Impact 2.2 Construction in areas of shallow groundwater could expose people and structures to liquefaction hazard during significant seismic events.	**MM 2.2:** Any damage to the unpaved roads caused by exposure to liquefaction of underlying alluvium shall be repaired after the event. For the transmission line, mitigation shall consider densifying the soil in place with vibroreplacement (stone columns), compaction grouting, use of deeper than normal foundations, and/or other recommendations of the engineering geologist. Any damage caused to the power lines by liquefaction of underlying alluvium shall be repaired after the event.	Less than significant.
Impacts Due to Grading and Construction		
Impact 2.3 Grading for project facilities could affect slope stability by increasing the potential for landslides, debris flows, and rock falls.	**MM 2.3:** To mitigate the impacts associated with slope stability, landslides, and rock falls, geotechnical evaluations shall be performed to evaluate slope stability and provide recommendations for project construction. Specific recommendations for remedial actions shall be made and could include any of the following: • A qualified engineering geologist shall provide design recommendations to reduce potential for slope failure and to ensure proper placement and design of facilities, foundations, and remediation of unstable ground. • Grading will be conducted pursuant to Kern County Grading Codes, Chapter 17.28, and BMPs. • No project structures or grading shall occur in areas where potential for severe hazard exists that cannot be mitigated with engineering.	Less than significant.

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	• Measures to stabilize slopes shall consider retaining walls, soil nails, geofabric stabilized earth, wire retention devices, berms to deflect debris, and buttress fills. The construction manager shall implement the plans, and an engineering geologist shall certify that slopes have been properly stabilized. • At project abandonment, the project owner or successors will ensure ongoing stability. All fill slopes shall be engineered to provide long-term stability (drainage, reseeding, etc.). • To mitigate the potential soil corrosiveness impacts, appropriate concrete mix design shall be used to resist against sulfate attack, and appropriate cathodic protection or encapsulation of steel shall be employed. • Wind turbine sites where slopes exceed 4:1 will require specific consultation and approval by the Kern County Engineering and Survey Services Department, with site-specific mitigation measures implemented.	
Impact 2.4 Grading of soils and rock units for construction of proposed facilities would result in potentially significant impacts, including the use of blasting to assist excavation.	**MM 2.4:** The impacts associated with blasting are mitigated through compliance with local and state laws and by preparing and complying with a blasting plan approved by Kern County Planning Department, in consultation with Kern County Engineering and Survey Services Department, Kern County Fire Department, and Kern County Air Pollution Control District (KCAPCD). The blasting plan shall include the following essential elements: • The contractor performing blasting at the site shall comply with applicable regulations and standards established by the regulatory agencies, codes, and professional societies including the rules and regulations for storage, transportation, delivery, and use of explosives. • Blasting operations shall be conducted so as to prevent impact on special status plant and wildlife species and migratory birds. • Whenever blasting operations are in progress, explosives shall be stored, handled, and used as provided by law, including safety and health regulations for construction. • The contractor shall ensure that flyrock, air blast, and ground vibration are controlled so as not to affect the known archaeological and historical sites prior to data recovery.	Less than significant.

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Impact 2.5 Construction activities associated with the proposed project could result in increased erosion and associated sedimentation in the Jawbone Canyon and Pine Tree watersheds.	**MM 2.5-1:** Measures shall be incorporated into the design of the project to minimize erosion and sedimentation. Turbine generator pads and roads should be graded to divert flow away from natural slopes and toward permanent culverts and swales leading to natural drainage courses. Depending on the slope, energy dissipaters and/or detention basins may be needed at the end of the culverts or swales. Road design shall consider opportunities to provide sheet flow drainage from surfaces where erosion can be avoided. Where roads cross streams, the crossing should be made at right angles to the stream to the extent possible, and engineered measures such as flow dissipaters, adequately sized culverts, and sediment traps shall be used to minimize erosion. **MM 2.5-2:** The following measures shall be implemented throughout construction to minimize the impacts of erosion to an acceptable level: • Areas where ground disturbance will need to occur shall be identified in advance of construction and limited to only those areas approved by LADWP. • All construction vehicles shall be confined to the designated access routes, roads, and staging areas. • Site disturbance shall be limited to the minimum necessary to complete construction activities. • Consider crushing vegetation rather than blading in construction laydown areas. • Inform all supervisory construction personnel of environmental concerns, permit conditions, and final rehabilitation specifications. • Significantly weak soils may be stabilized with granular base with possible geotextile underlayment. • Where the soil is too wet such that ruts occur, restrict access to area or avoid by rerouting vehicles if possible. **MM 2.5-3:** To mitigate the potential adverse effects of erosion, the LADWP shall prepare and implement an Erosion and Sedimentation Control Plan and SWPPP. The plan shall include BMPs identified in reference documents, including BMPs for construction of wind power projects on BLM lands, BMPs for Erosion and Sediment Control (FHWA FLP 94-005), Kern County Grading requirements, and measures provided in MM 2.5-1 and 2.5-2 above. In addition, the following shall be used as a guide to develop these plans.	Less than significant.

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	• Restore disturbed areas to pre-construction contours to the extent feasible. • Salvage, store, and use the highest quality soil for revegetation. • Discourage noxious weed competition and control noxious weeds through physical or chemical removal and prevention (chemical removal on BLM lands requires specific authorization from BLM). In particular, efforts to prevent yellow starthistle from inhabiting the site shall include use of weed-free native seed mixes and prevention of noxious weeds from entering the site via vehicular sources. For instance, implement Trackclean or other method of vehicle cleaning for vehicles coming and going from the site. Earth-moving equipment shall be cleaned prior to transport to the project site. Weed-free rice straw or other certified weed-free straw shall be used for all hay employed for erosion control. • Leave drainage gaps in topsoil and spoil piles to accommodate surface water runoff. • Cease topsoil-stripping activities during significantly wet weather. • For areas that require permanent erosion control structures, stepped footings or retaining walls designed to preserve the natural landforms should be used. • Use bales and/or silt fencing as appropriate. • Before seeding disturbed soils, work the topsoil to reduce compaction caused by construction vehicle traffic. • Following completion of each zone of construction, weed-free mulch shall be applied to disturbed areas within 10 days in order to reduce the potential for short-term erosion. • ~~Soils, other than access roads, shall not be left exposed~~ Erosion control measures shall be implemented during the rainy season in areas disturbed by construction activity. • Establish provisions for construction operations during foul weather. • Filter fences and catch basins shall be used to intercept sediment before it reaches stream channels. • Spoil sites shall be located such that they do not drain directly towards a natural spring. At spoils sites draining toward a surface water feature, catch basins shall be constructed to intercept sediment before it reaches the feature. Spoil sites shall be graded and revegetated to reduce the potential for erosion. • Sediment control measures shall be in place prior to the onset of the rainy season and shall be monitored and maintained in good working condition until disturbed areas have been revegetated.	

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Impacts Due to Project Operations		
Impact 2.6 During project operations, travel on dirt roads, maintenance activities, and storm water runoff from project facilities could cause soil erosion.	**MM 2.6:** To mitigate potential long-term impacts of soil erosion and sedimentation, the project site access roads, turbine sites, and other structures and areas will be regularly monitored for erosion, sedimentation, and to ensure that drainage control features are in good working order. Drainage and erosion control devices will be repaired prior to start of each rainy season. Revegetated areas shall be monitored for a period of time as specified in the erosion control plan.	Less than significant.
HYDROLOGY AND GROUNDWATER		
Surface Water Impacts		
Impact 3.1 The project has the potential to alter runoff volumes through clearing and grading for project components and by access road crossings of stream channels.	**MM. 3.1:** All required approvals and permits, including drainage plan approval, shall be obtained from the Kern County Engineering and Survey Services Department prior to construction. For coordination purposes, materials, studies, and responses from the CDFG and the BLM regarding permitting of crossings or watercourses within the project limits shall be provided to the Kern County Engineering and Survey Services Department.	Less than significant.
Impact 3.2 Construction that occurs within the 100-year flood plains in Jawbone and Pine Tree canyons could alter flood plains established by FEMA.	100-year flood plains would be avoided or flood plain assessment required; therefore, no mitigation measures required.	Less than significant.
Surface Water Quality		
Impact 3.3 Grading for project facilities has the potential to cause soil erosion that could temporarily increase turbidity and total suspended solids in runoff water.	No additional mitigation measures are required since detailed erosion measures are provided in Soil and Geology section.	Less than significant.

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Impact 3.4 Use of construction equipment on the site could increase the potential for accidental fuel or lubricant spills or leaks that could degrade water quality.	Standard preventive measures contained in SWPPP. (See MM 2.5-2 and 2.5-3).	Less than significant.
AIR QUALITY		
Impact 4.1 During construction, local CEQA air quality significance thresholds would be exceeded for ROC, NOx, and PM_{10} emissions.	**MM 4.1-1:** To mitigate fugitive dust and PM_{10} emissions, all construction operations will be conducted in accordance with KCAPCD Rule 402, either the 2004 Final Draft version or a subsequently approved version, including use of an approved dust control plan. The dust control plan, to be approved by KCAPCD, shall incorporate the appropriate Reasonably Available Control Measures (RACMs) to minimize fugitive dust emissions. The dust control plan shall consider and/or incorporate the use of chemical dust suppressants, application of water, use of wind screens, speed controls on dirt roads, and other applicable methods as provided in Rule 402. Additionally, a method to prevent mud and dirt tracked out onto paved roads shall be provided for the Pine Tree and Jawbone canyons construction area egress points. Relative to ROC and NO_x emissions, the most effective emissions reductions from diesel engines is a new technology using exhaust gas recirculation (EGR). Emission reductions with EGR are on the order of 40 percent for NO_x and 90 percent for ROC. Other new technologies include exhaust catalysts, which provide 20 percent NOx reduction and no ROC reduction. These technologies have been developed in response to USEPA regulations issued in 2002, requiring manufacturers to provide the cleaner engines beginning in 2004. While some EGR and catalyst equipment is available, it would not be reasonable to require complete use of the newer equipment in the near term. Therefore, MM 4.1-2 and MM 4.1-3 given below are incorporated into this EIR/EA: **MM 4.1-2:** At least 10 percent of the diesel engine-driven construction equipment on site will be equipped with EGR or low NO_x exhaust catalytic equipment. This measure is not mandatory if it is demonstrated that this quantity of newer technology equipment would be unavailable for the expected construction window (July 2005 to May 2006).	The adverse construction impacts would be less than significant under NEPA but significant under CEQA. Implementation of MM 4.1-1, 4.1-2, and 4.1-3 would reduce emissions but would not reduce the emission rates to less than the Kern County and KCAPCD thresholds of significance. Therefore, for the period of construction, which would be 10 months or less, air quality impacts would be significant and unavoidable both individually and cumulatively under CEQA.

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	MM 4.1-3: Use of aqueous diesel fuels in diesel-driven construction and long-haul equipment could reduce construction NO_x emission by up to 14 percent. Aqueous diesel fuel will be used in all project diesel engine-driven construction equipment if it is commercially available in the project area.	
BIOLOGICAL RESOURCE		
Vegetation Communities **Impact 5.1** Construction of the proposed project would directly and permanently impact approximately 1.23 acres of native perennial grassland considered sensitive by CDFG.	**MM 5.1:** LADWP will mitigate the impact on perennial grassland by equivalent replacement, restoration, or compensation, subject to consultation with California Department of Fish and Game.	Less than significant.
Impact 5.2 Construction of the proposed project would have temporary direct impacts on approximately 17.37 acres of wetland habitat and permanent direct impacts to approximately 1.96 acres of wetland habitat.	**MM 5.2-1:** Mitigation requirements for temporary direct impacts to wetland communities are generally met by restoring the wetland habitats in-place. Thus, restoration of 17.37 acres of wetland habitat in-place will be required to mitigate project-related impacts. Mitigation requirements for permanent direct impacts to wetland communities (1.96 acres) are to be met by a combination of wetland creation, restoration, or enhancement. A mitigation site shall be preserved at a suitable area near the impact area. Mitigation requirements for permanent impacts to wetlands resulting from project-related construction shall be provided at a ratio acceptable to CDFG and shall be finalized as part of a Streambed Alteration Agreement with CDFG. **MM 5.2-2:** Mitigation requirements for permanent direct impacts to ephemeral drainages will require habitat creation, enhancement or restoration, and preservation at a location approved by CDFG and other relevant regulatory agencies. Mitigation compensation requirements for these impacts shall be finalized as part of a Streambed Alteration Agreement with CDFG.	Less than significant.

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IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT AFTER MITIGATION
Impact 5.3 Construction of the proposed project would have permanent direct impacts to approximately 1.11 acres of Joshua tree woodland vegetation community.	**MM 5.3-1:** Mitigation requirements for permanent direct impacts to Joshua tree woodland (1.11 acres) and individual Joshua trees will be satisfied through either avoidance, salvage, or replacement of the existing habitat or trees at a ratio to be determined through discussions with CDFG and other relevant regulatory agencies. In addition, these agencies shall approve where the mitigation is to occur and whether preservation or restoration is the preferred method to mitigate for project impacts. **MM 5.3-2:** The construction crews and contractors shall be responsible for working around all shrubs and trees within the construction zone to the extent feasible. Particular avoidance shall be applied to Joshua trees and riparian trees (i.e., cottonwoods and willows). Shrubs and trees shall be flagged by a qualified botanist or arborist to indicate top priority for avoidance.	Less than significant.
Impact 5.4 Construction of the proposed project would directly and permanently affect approximately 131.83 acres of the various habitat types and directly and temporarily affect an additional 105.60 acres of various habitats.	**MM 5.4-1:** The construction crew and any contractor(s) shall be informed of the biological constraints of the project through a contractor education program presented by a project biologist. The construction crews and contractor(s) shall be responsible for unauthorized impacts from construction activities to sensitive biological resources that are outside the areas ultimately approved for impacts by the County of Kern and resource agencies. **MM 5.4-2:** The anticipated impact zones, including staging areas, equipment access, and disposal or temporary spoils areas, shall be delineated with stakes and flagging prior to construction to avoid impacts to natural resources where possible. Construction-related activities outside of the impact zone shall be avoided. **MM 5.4-3:** Spoils shall be stockpiled in disturbed areas or other designated areas. Stockpile areas shall be marked to define the limits where stockpiling may occur. Topsoil shall be segregated from the other stockpiled material and shall be reapplied as the topsoil layer to assist revegetation. **MM 5.4-4:** BMPs shall be employed to prevent further loss of habitat resulting from erosion caused by project-related impacts (i.e., grading or clearing for new roads). ~~All detected erosion shall be remedied within two days of discovery~~ Corrective action for erosion problems shall be taken within seven days after the problem is detected.	Less than significant.

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	MM 5.4-5: Fueling of equipment shall take place within designated construction areas or other approved parking areas and not within or adjacent to drainages or native habitats. Contractor equipment shall be checked for leaks prior to operation and repaired as necessary. **MM 5.4-6:** Mitigation of potential permanent indirect impacts to vegetation communities will be achieved by applying an approved native seed mix in the bare areas after construction is complete to minimize the potential for exotic species introductions. The native seed mix shall be approved by CDFG and BLM and shall be dispersed in the fall, prior to winter rains.	
Impact 5.5 There is a potential for permanent and temporary direct impacts on vegetation communities, including sensitive habitats, that results from the construction of access roads or other facilities outside of the established construction footprint.	**MM 5.5:** To mitigate for the potential permanent and temporary direct impacts on vegetation communities that could occur from changes in the project construction footprint, the following protocol will be implemented. 1. The construction manager and owner's representative (or design engineer) will assess the variance needed to complete the construction task. 2. The owner's representative will review the location and potential resources affected by variance. 3. Should conditions dictate, a qualified environmental monitor would be called to evaluate impacts and monitor construction activity. 4. Conditions warranting evaluation and observation by an environmental monitor include construction that is (a) within desert tortoise and Mohave ground squirrel habitat areas, (b) in a riparian community, streambed, or other sensitive communities such as Joshua tree or oak woodland, (c) within 50 feet of a known archaeological or historical site, and (d) more than 50 feet from the previously surveyed or staked area. 5. A report of the construction deviations shall be provided to the LADWP prior to the completion of construction for use in making any necessary adjustments to mitigation ratios, habitat compensation, and other mitigation requirements.	Less than significant.

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IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT AFTER MITIGATION
Sensitive Plant Species **Impact 5.6** Permanent direct impacts to approximately 150 individual Joshua trees would result from project-related construction activities.	**MM 5.6:** Mitigation Measure 5.3-1 is applicable to the impact on Joshua trees.	Less than significant.
Sensitive Wildlife Species **Federally Listed Wildlife Species** **Impact 5.7** Construction of the proposed project would result in direct temporary and permanent impacts to the federally listed desert tortoise.	**MM 5.7-1:** Mitigation requirements for temporary direct impacts to desert tortoise habitat are generally met by restoring the habitat in-place and through on-site monitoring of ground disturbance activities in all areas with the potential to support the species. Mitigation requirements for permanent direct impacts to habitats occupied or presumed to be occupied by the desert tortoise are met by conservation of in-kind habitat of equal or greater value than that impacted at the site at a ratio determined through consultation with USFWS and CDFG. Funding (as approved by USFWS and CDFG) for the long-term management of the preserved habitat shall also be provided. **MM 5.7-2:** Mitigation requirements to avoid or minimize permanent direct impacts to the desert tortoise would include on-site monitoring of ground disturbance activities in desert tortoise habitat areas. A qualified biologist with extensive knowledge and experience with desert tortoise and who has a valid handling permit shall monitor ground disturbance activities. Because active tortoise burrows would be avoided to the extent feasible through project design features, the monitoring biologist would only handle a desert tortoise if a tortoise or an active burrow were discovered within the impact area. In this situation, the tortoise would be removed from the burrow and placed into an existing burrow outside of the area of impact. If no existing burrows are located, the monitoring biologist would construct a new burrow and place the tortoise inside. The monitoring biologist's duties shall include: • Implementation of a pre-construction contractor education program;	Less than significant.

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	• Pre-construction tortoise clearance surveys within the impact area; • Relocation of any desert tortoise located within the impact area to a location 100 feet from the impact area; • Burrow construction, if needed; and • Preparation of construction monitoring and desert tortoise relocation reports. During construction activities, monthly and final compliance reports shall be provided to USFWS, CDFG, and other relevant regulatory agencies documenting the effectiveness of mitigation measures and the level of take associated with this project. **MM 5.7-3:** Mitigation requirements for permanent indirect impacts to the desert tortoise resulting from habitat fragmentation shall include the implementation of a contractor education program, on-site signage, and speed limit restrictions along the access roads in the Pine Tree area. No berms shall be placed along dirt roads to ensure that tortoises are able to move between habitat fragments. **MM 5.7-4:** New and existing roads that are planned for either construction or widening shall not extend beyond the planned impact area. All vehicles passing or turning around shall do so within the planned impact area or in previously disturbed areas. Where new access is required outside of existing roads or the construction zone, the route shall be clearly marked (i.e., flagged and/or staked) prior to the onset of construction.	
Impact 5.8 During operations, the proposed project would have permanent indirect impacts on the federally listed desert tortoise due to potential vehicle strikes on project access and patrol roads within the habitat areas. The areas of impact include Jawbone Canyon Road in the vicinity of SR-14 (east of the active off-road vehicle Open Area) and a portion of the proposed transmission facilities.	**MM 5.8:** Indirect impacts from vehicle strikes are minimized by employee education on the proper procedures upon encountering desert tortoises on roads, by maintaining safe speed limits on access/patrol roads, and by prohibiting travel off the established roadways.	Less than significant.

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IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT AFTER MITIGATION
State-Listed Wildlife Species		
Impact 5.9 Construction of the proposed project would have direct impacts on the state-listed threatened Tehachapi slender salamander if project activities occur within the suitable habitat.	Project avoids habitat areas.	No impact.
Impact 5.10 Construction of the proposed project would result in direct temporary and permanent impacts to the state-listed Mohave ground squirrel.	**MM 5.10-1:** Mitigation requirements for temporary direct impacts to Mohave ground squirrel habitat are generally met by restoring the habitat in-place and through on-site monitoring of ground disturbance activities in all areas with the potential to support the species. Mitigation requirements for permanent impacts to this species shall be met by conservation of in-kind habitat of equal or greater value than that impacted at a location and ratio approved by CDFG. Funding for the long-term management of the land preserved would also be provided as part of the mitigation measure. **MM 5.10-2:** Mitigation requirements to avoid or minimize permanent direct impacts to the Mohave ground squirrel shall include on-site monitoring of ground disturbance activities by a qualified biologist in all areas with the potential to support the Mohave ground squirrel. During construction activities, monthly and final compliance reports shall be provided to CDFG and other relevant regulatory agencies documenting the effectiveness of mitigation measures and the level of take associated with this project.	Less than significant.
Impact 5.11 Project operations would result in indirect permanent impacts to the state-listed Mohave ground squirrel. Indirect permanent impacts on the state-listed Mohave ground squirrel would occur from potential vehicle strikes on project access and patrol roads within the habitat areas. The areas of impact include Jawbone Canyon Road in the vicinity of SR-14 (east of the active off-road vehicle Open	**MM 5.11:** Indirect impacts from vehicle strikes are minimized by employee education on the proper procedures for operating vehicles on the site, including using proper vigilance to avoid wildlife, maintaining safe speed limits on access/patrol roads, and by prohibiting travel off the established roadways.	Less than significant.

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Area) and Pine Tree Canyon Road and the location of the proposed transmission facilities from SR-14 west to the first Los Angeles Aqueduct.		
Impact 5.12 Construction of the proposed project would result in indirect temporary impacts to the desert tortoise and Mohave ground squirrel.	**MM 5.12:** BMPs shall be employed to prevent further loss of habitat due to erosion caused by project-related impacts (i.e., grading or clearing for new roads). ~~All detected erosion shall be remedied within two days of discovery~~ Corrective action for erosion problems shall be taken within seven days after the problem is detected.	Less than significant.
Impact 5.13 Operation of the proposed project would result in potential direct and permanent impacts to the state-listed American peregrine falcon through potential collisions with wind turbines and potential electrocution associated with operation of the electrical transmission line.	See MM 5.14-1.	Less than significant.
BLM Sensitive Wildlife (and Other Non-listed Species)		
Impact 5.14 Operation of the project would result in potential direct and permanent impacts to BLM sensitive and other non-listed avian species (0.047 raptors per turbine per year, 0 to 2 passerines and songbirds per turbine per year, and 0 to 2 bats per turbine per year) due to collisions with rotating turbine blades.	**MM 5.14-1:** To ensure that the predicted rates of raptor mortality due to collisions with wind turbines remain low and insignificant, avian and bat mortality associated with the proposed project shall be monitored. A qualified ornithologist will conduct bird mortality monitoring at the project site for one year following the first delivery of power. The species, number, location and distance from turbine, availability of raptor prey species, and apparent cause of bird and bat mortalities would be noted. All results will be provided to the Wildlife Response and Reporting System (WRRS) database and to CDFG. The monitoring will follow standardized guidelines outlined by the National Wind Coordinating Committee (Anderson et al. 1999). LADWP will maintain a record in accordance with USFWS guidance of avian injury and mortality that is observed on the project site during operations for the life of the project.	Less than significant.

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	MM 5.14-2: <u>After one year of post-construction monitoring data has been obtained, LADWP shall review project operations to determine if any specific turbine(s) is responsible for disproportionately high levels of avian mortalities compared to other turbines on site. If so, LADWP shall implement operational modifications of the turbine(s) and conduct further study in consultation with CDFG and/or USFWS to evaluate the effectiveness of the modifications.</u> **<u>MM 5.14-3</u>:** LADWP will report, by telephone, injuries or mortalities of species listed in Table 3.5-3 as endangered or threatened (and any species listed in the future) to USFWS or CDFG within 24 hours following observation. **MM 5.14-~~3~~<u>4</u>:** If lighting is used for aircraft safety purposes, lights should be placed when practicable on meteorological towers, or lights should be placed on towers with the least potential to attract birds, but consistent with FAA lighting requirements.	
Impact 5.15 Permanent direct impacts to BLM and other non-listed, sensitive raptors could also result from electrocution from electrical power transmission and distribution lines in areas where raptors nest or forage.	**MM 5.15:** The proposed project includes design features to protect birds from electrocution, including perch guards, adequate separation of conductors, line insulators, and monopole towers.	Less than significant.
Impact 5.16 Permanent and temporary direct impacts to birds listed under the Migratory Bird Treaty Act or Bald Eagle Protection Act would be considered by the USFWS to be a violation of these federal acts.	**MM 5.16:** To avoid or minimize impacts to birds covered under the MBTA and/or BEPA, project-related construction activities shall not be conducted within 500 feet of an active nest. A pre-construction nest survey shall be performed to ensure that raptors have not inhabited the site.	Less than significant.

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LAND USE & RECREATION		
Impact 6.1 To construct the proposed project, a zone change on portions of the project site would be required.	Project to be developed consistent with local zoning requirements.	No impact.
Impact 6.2 The construction and operation of the proposed project would occur on some lands currently used for livestock grazing under federal grazing allotment.	**MM 6.2-1:** During construction, the existing cattle guards shall be maintained and new cattle guards provided if none exist at entry gates on Jawbone Canyon Road to prevent livestock from entering the Jawbone Canyon Open Area. A staffed security station would be located at the Jawbone Canyon access road gate during times of project construction.	Less than significant
Impact 6.3 Construction of the proposed project would potentially conflict with designated military training routes and flight corridors above the property.	**MM 6.3-1:** All turbines are limited to a height not to exceed 400 feet above ground level. During project planning and construction, LADWP shall consult with representatives at EAFB and NAVAIR WD~~NWSCL~~ regarding any changes, if necessary, to proposed wind turbine locations. **MM 6.3-2:** Prior to issuance of any permits, including grading, a letter shall be submitted to the Kern County Planning Department from all military authorities responsible for operations in the R-2508 airspace complex that provides written concurrence that the height of the proposed structures would create no significant impacts to military mission. The project shall comply with all provisions of Kern County Ordinance G-7130, if still in effect, and if not in effect, any other ordinances regarding structures under military low-level flight routes, and all provisions of the Zoning Ordinance that apply to the siting and height of wind turbines.	Less than significant
Impact 6.4 The proposed project could conflict with CDCA Plan management objectives that have been established for public lands through the designation of Multiple Use Classes for BLM property.	With the implementation of the transportation safety plan for Jawbone Canyon Road (MM 7.4), the project is consistent with CDCA land use classifications and with BLM land use policy regarding wind energy development.	Less than significant

Table 1-1
Potential Impacts and Mitigation of the Proposed Pine Tree Wind Development Project
Note: Underlined text represents mitigation measures beyond those listed in the Draft EIR/EA

IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT AFTER MITIGATION
TRANSPORTATION		
Construction Impacts		
Impact 7.1 During construction, the proposed project will generate additional peak hour trips on SR-14.	Impact does not exceed significance threshold.	Less than significant.
Impact 7.2 The movement of large vehicles from SR-14 onto Jawbone Canyon Road and Pine Tree Canyon Road may result in a safety hazard to motorists.	**MM 7.2:** To mitigate potential safety impacts caused by haul truck movements onto and off of Jawbone Canyon and Pine Tree Canyon roads, the following measures are proposed: • The contractor shall apply for encroachment permits with Caltrans and County of Kern and post warning signs in state and local road rights-of-way (State Route 14 and Jawbone Canyon Road). • The contractor shall discuss construction plans for truck movements with State and County transportation officials prior to the start of construction. • The contractor shall apply for installation of appropriate Caltrans warning signage for Jawbone and Pine Tree intersections. This could include Caltrans Warning Sign SW-40 Truck Crossing and/or Warning Sign SC-5 Special Event Ahead pursuant to State Highway Design Guidelines. • As required by state or local transportation departments, traffic control flaggers, pilot cars, and signage warning of construction activity shall be employed.	Less than significant.
Impact 7.3 Oversize loads, and in particular overweight loads, required to transport equipment to the site during construction can physically damage roadways, which would be a significant adverse impact.	**MM 7.3:** While the project is under construction, the condition of Jawbone Canyon Road shall be monitored, and the roadway shall be kept in a safe operating condition using generally accepted methods of maintenance. At the conclusion of construction, repair of damage to the roadway shall be completed to the satisfaction of the Kern County Roads Department.	Less than significant.
Impact 7.4 There is a potential safety hazard from construction traffic and transportation of oversize loads on Jawbone Canyon Road during high recreation use periods of the	**MM 7.4-1:** LADWP will consult with BLM and the Kern County Roads Department to develop a transportation safety plan for construction traffic transiting the Jawbone Canyon Open Area. The plan will primarily address construction traffic but will also address operations traffic. The plan will become a condition of the County road permits and the BLM right-of-way grants. The plan will include, at a minimum, the following specific	Less than significant.

Table 1-1
Potential Impacts and Mitigation of the Proposed Pine Tree Wind Development Project
Note: Underlined text represents mitigation measures beyond those listed in the Draft EIR/EA

IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT AFTER MITIGATION
Jawbone Canyon Open Area.	components: ~~▪ Transportation of oversize or overweight loads will be minimized to the extent practicable on certain holidays and high use weekends, to be determined in consultation with BLM.~~ ~~▪ Signs shall be posted to warn visitors of potential construction activity and possible temporary facility/road closures. If a temporary closure for the County maintained portion of Jawbone Canyon Road is allowed, it shall be in accordance with Kern County Roads Department policies and standards.~~ ~~▪ On weekends during the fall (peak use seasons), speed limits, pilot cars, warning signs, and flaggers shall be employed.~~ ~~▪ Prior to construction, LADWP shall notify the OHV community, off-road groups, BLM Steering Committee, and nearby recreational facilities (such as Red Rock State Park and Jawbone Store) of the start date and anticipated duration of construction activities.~~ ~~▪ A copy of the transportation safety plan shall be posted at the Jawbone BLM station and on an information kiosk to be erected near Jawbone Canyon Road in the Open Area.~~ ▪ Transporters shall follow Kern County regulations for the transportation of oversized and overweight loads on all county roads, including the 6 miles of Jawbone Canyon Road that would be utilized for access to the project. These regulations include provisions for time of day, pilot cars, law enforcement escorts, speed limits, flaggers, and warning lights. ▪ During project construction, delivery of equipment and materials shall be prohibited on Jawbone Canyon Road on the following holiday periods. -Veterans Day, from 12 pm on the preceding Thursday to the following Monday -Thanksgiving, from 12 pm on the preceding Wednesday to the following Monday -Christmas and New Years, from 12 pm on the Friday preceding Christmas to the Tuesday following New Years -Martin Luther King Day, from 12 pm on the preceding Friday to the following Tuesday	

Table 1-1
Potential Impacts and Mitigation of the Proposed Pine Tree Wind Development Project
Note: Underlined text represents mitigation measures beyond those listed in the Draft EIR/EA

IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT AFTER MITIGATION
	-Presidents Day, from 12 pm on the preceding Friday to the following Tuesday -Easter, from 12 pm on the preceding Friday to the following Monday -Memorial Day, from 12 pm on the preceding Friday to the following Tuesday With at least four weeks notification to LADWP, BLM may also prohibit construction deliveries on additional sanctioned event weekends in the Jawbone Canyon Open Area. ▪ On weekends and holiday periods during the high-use recreation season in the Jawbone Canyon Open Area (late fall to late spring), construction workers shall be prohibited from travel in individual vehicles on Jawbone Canyon Road and shall be shuttled to and from the project site in multi-person vehicles beginning on the day preceding the weekend or holiday. This limitation on the use of vehicles does not include conducting limited critical activities associated with minimal security and safety monitoring and construction management. ▪ During the high-use recreation season in the Jawbone Canyon Open Area (late fall to late spring), the delivery of large loads on Jawbone Canyon Road shall be avoided to the extent practicable on weekends (in addition to those weekends during which project deliveries shall be prohibited). In addition, the transportation safety plan shall include time of day limitations during which no project-related traffic, except limited critical activities associated with minimal security and safety monitoring and construction management, shall be allowed on Jawbone Canyon Road. Transportation permits for oversized and overweight loads on County-maintained portions of Jawbone Canyon Road on high-use weekends shall be issued at the direction of the Kern County Roads Department. ▪ No construction activity related to road improvements on Jawbone Canyon Road shall be conducted during high-use recreation periods in the Jawbone Canyon Open Area. All road improvements shall be completed in a manner and according to a schedule that provides uninterrupted access on Jawbone Canyon Road during high-use recreation periods in the Jawbone Canyon Open Area. If a temporary closure of the County-maintained portions of Jawbone Canyon Road is allowed, it shall be in accordance with Kern County Roads Department policies and standards.	

Table 1-1
Potential Impacts and Mitigation of the Proposed Pine Tree Wind Development Project
Note: Underlined text represents mitigation measures beyond those listed in the Draft EIR/EA

IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT AFTER MITIGATION
	▪ A training program regarding the rules and regulations for project-related travel shall be conducted with all project transporters and drivers. The program shall address such issues as speed limits, pilot vehicle requirements, and warnings regarding potential safety conflicts with recreation use in the Jawbone Canyon Open Area. All drivers shall be strictly monitored to ensure compliance with rules and regulations, and consequences (e.g., revocation of permission to deliver or drive for the project) shall be applied to individuals and/or the project for noncompliance. Enforcement measures shall be defined in the transportation safety plan. ▪ Traffic signs shall be provided to control traffic and ensure safety along Jawbone Canyon Road and at designated crossings of the road within the Jawbone Canyon Open Area. These signs shall adhere to the Federal Highway Administration Manual on Uniform Traffic Control devices and shall include regulatory signs (e.g., stop, speed limits, yield), warning signs (e.g., OHV road crossings), and construction signs (e.g., temporary lane closures, flaggers). All signs shall be maintained throughout the project construction. ▪ Project representatives shall continue to consult with the Friends of Jawbone, other recreation groups, the BLM, and Kern County Roads Department regarding concerns related to project construction traffic on Jawbone Canyon Road. LADWP shall notify the OHV groups, the BLM, and the Kern County Roads Department of the date and anticipated duration of construction deliveries on Jawbone Canyon Road. ▪ An information kiosk shall be erected near Jawbone Station to provide current information about the project (including, if available, delivery schedules for Jawbone Canyon Road) to Jawbone Canyon Open Area users. A brochure describing the project and its construction shall be produced and made available for distribution at the Jawbone Station. ▪ A copy of the transportation safety plan shall be posted at the information kiosk and made available at the Jawbone Station.	

Table 1-1
Potential Impacts and Mitigation of the Proposed Pine Tree Wind Development Project
Note: Underlined text represents mitigation measures beyond those listed in the Draft EIR/EA

IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT AFTER MITIGATION
	MM 7.4-2: LADWP shall provide funding to support an additional staff position at the Jawbone Visitors Center during the project construction phase. This staff member will serve as an interface with the public to respond to questions and provide information regarding the project construction and the related traffic issues. In addition, LADWP shall provide funding to support a BLM ranger position during periods of high recreation use in the Jawbone Canyon Open Area during the project construction phase. This ranger will help enforce traffic controls on Jawbone Canyon Road within the Open Area and assist in preventing or resolving disputes that arise from potential conflicts between recreation users and the use of the road for construction access. The funding for the two positions shall be established through a Memorandum of Agreement between LADWP and BLM.	
CULTURAL RESOURCES		
Impact 8.1 Construction of the proposed project would potentially affect archaeological sites; however, the current project configuration would avoid most of these sites.	Mitigation for specific sites provided. See MM 8.2.	Less than significant.
Impact 8.2 Construction of the proposed project would potentially directly affect 20 archaeological sites depending upon which components are selected. Of these 20 sites, only 7 are considered eligible for listing and therefore require mitigation.	**MM 8.2**: Mitigation for the seven identified sites affected by project construction involves preparing and implementing a data recovery program that includes further investigations at each of the seven sites. The recommendations for each site are described in detail in the Cultural Resources Report (see Table 4-1 of Appendix F) and in Table 3.8-4 of the Draft EIR/EA. The treatment strategy developed for the data recovery program incorporates a flexible program of surface reconnaissance, surface collection, surface transect units, controlled excavation, and laboratory studies to ensure the recovery of sufficient data before the site is affected by project activities.	Less than significant.

Table 1-1
Potential Impacts and Mitigation of the Proposed Pine Tree Wind Development Project
Note: Underlined text represents mitigation measures beyond those listed in the Draft EIR/EA

IMPACTS	MITIGATION MEASURES	RESIDUAL IMPACT AFTER MITIGATION
VISUAL RESOURCES		
Impact 9.1 The proposed wind turbines could result in potential visual impacts when viewed from SR-14.	Because there would be no significant impacts to visual resources caused by the proposed project, no mitigation measures are required.	Less than significant.
Impact 9.2 The proposed transmission line could result in potential visual impacts when viewed from SR-14.	Because there would be no significant impacts to visual resources caused by the proposed project, no mitigation measures are required.	Less than significant.
Impact 9.3 The proposed wind turbines could result in potential visual impacts when viewed from Jawbone Canyon Open Area	Because there would be no significant impacts to visual resources caused by the proposed project, no mitigation measures are required.	Less than significant.
Impact 9.4 The proposed wind turbines could result in potential visual impacts when viewed from the Pacific Crest National Scenic Trail.	Because there would be no significant impacts to visual resources caused by the proposed project, no mitigation measures are required.	Less than significant.
Impact 9.5 The proposed wind turbines could result in potential visual impacts when viewed from California City.	Because there would be no significant impacts to visual resources caused by the proposed project, no mitigation measures are required.	Less than significant.
Impact 9.6 The proposed wind turbines could result in potential visual impacts when viewed from Red Rock Canyon State Park.	Because there would be no significant impacts to visual resources caused by the proposed project, no mitigation measures are required.	Less than significant.
SOCIOECONOMICS		
There would be no adverse socioeconomic effects.	No mitigation measures are required as there would be no adverse socioeconomic effects.	No impact.

ALTERNATIVES TO THE PROPOSED PROJECT

In accordance with CEQA Guidelines, alternatives to the proposed project have been considered to foster informed decision making and public participation. Section 15126.6 (a) of the CEQA Guidelines requires that "an EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." Under NEPA (specifically, BLM's NEPA Handbook H-1790-1), an EA must briefly describe the alternatives to the proposed action, if any, considered. The alternatives to the proposed project are discussed in the Draft EIR/EA, including the following:

- Alternative 1: No Project (CEQA and NEPA required)
- Alternative 2: Develop Alternative Energy Sources
- Alternative 3: Resite Turbines within the Project Study Area
- Alternative 4: Install Smaller Turbines
- Alternative 5: Relocate the Proposed Project
- Alternative 6: Repower Existing Wind Turbine Site
- Alternative 7: Use Alternate Access Routes
- Alternative 8: Roadless Construction

The proposed project is the environmentally-superior project that meets the project objectives. Table 1-2 displays and compares the alternatives to the proposed project in a matrix format.

Table 1-2
Summary of Alternatives to the Proposed Project

Alt.	Description	Feasibility	Attainment of Proposed Project Objectives	Elimination/Substantial Reduction of Proposed Project Impacts	Additional Impacts not Created by Proposed Project
1	**No Project**	Feasible	• Would not provide electrical power from clean and renewable energy sources • Would not help meet the electrical energy demands • Would ensure federal regulatory compliance and management plan conformance since no actions would occur on BLM land • Would not promote development of wind energy in accordance with BLM's Interim Wind Energy Development Policy	• Would avoid site-specific impacts associated with the proposed project since no construction activities or long-term operations would occur at the project site	• Would result in a continued dependence on fossil fuels to generate the power that would have been realized from proposed project • Would result in continued air pollutant emissions and greenhouse gases associated with the sustained use of these fossil fuels
2	**Develop Alternative Energy Sources**	Infeasible	Not applicable due to infeasibility of alternative	Not applicable due to infeasibility of alternative	Not applicable due to infeasibility of alternative
3	**Resite Turbines within Project Study Area**	Infeasible	Not applicable due to infeasibility of alternative	Not applicable due to infeasibility of alternative	Not applicable due to infeasibility of alternative
4A	**Install Smaller Turbines: Maximize Turbine Output**	Feasible	• Would not attain basic project objectives for production of electrical power from clean and renewable energy sources • Would not attain basic project objectives for meeting electrical energy demands • Would locate the primary project facilities on private property and relatively close to existing LADWP transmission lines with available capacity • Would ensure federal regulatory compliance and management plan conformance on BLM land • Would promote development of wind energy in accordance with BLM's Interim Wind Energy Development Policy	• Would reduce the width of some roads required for project construction, which would reduce impacts related to site grading	• Would increase the number of project wind turbines and the length of roads required for project construction and maintenance, which would require additional site grading

Table 1-2
Summary of Alternatives to the Proposed Project

Alt.	Description	Feasibility	Attainment of Proposed Project Objectives	Elimination/Substantial Reduction of Proposed Project Impacts	Additional Impacts not Created by Proposed Project
4B	**Install Smaller Turbines: Install Turbines Shorter than 200 Feet AGL**	Feasible	• Would attain project objectives for production of electrical power from clean and renewable energy sources • Would attain project objectives for meeting electrical energy demands • Would locate the primary project facilities on private property and relatively close to existing LADWP transmission lines with available capacity • Would ensure federal regulatory compliance and management plan conformance on BLM land • Would promote development of wind energy in accordance with BLM's Interim Wind Energy Development Policy	• Would reduce the width of some roads required for project construction, which would reduce impacts related to site grading	• Would substantially increase the number of project wind turbines and the length of roads required for project construction and maintenance, which would require additional site grading • Would locate wind turbines in areas avoided by the proposed project, which may result in increased impacts to potentially significant biological, cultural, and visual resources
5	**Relocate Proposed Project**	Feasible	• Would attain project objectives for production of electrical power from clean and renewable energy sources • Would attain project objectives for meeting electrical energy demands • Would locate the primary project facilities on private property and relatively close to existing LADWP transmission lines with available capacity • Would ensure federal regulatory compliance and management plan conformance on BLM land • Would promote development of wind energy in accordance with BLM's Interim Wind Energy Development Policy	• Would not eliminate or reduce any impacts associated with the proposed project	• May result in additional impacts to visual resources and avian wildlife
6	**Repower Existing Wind Turbine Site (in Tehachapi Pass area)**	Infeasible	Not applicable due to infeasibility of alternative	Not applicable due to infeasibility of alternative	Not applicable due to infeasibility of alternative

Table 1-2
Summary of Alternatives to the Proposed Project

Alt.	Description	Feasibility	Attainment of Proposed Project Objectives	Elimination/Substantial Reduction of Proposed Project Impacts	Additional Impacts not Created by Proposed Project
7A	**Use Pine Tree Canyon Road as Primary Project Access**	Feasible	• Would attain project objectives for production of electrical power from clean and renewable energy sources • Would attain project objectives for meeting electrical energy demands • Would locate the primary project facilities on private property and relatively close to existing LADWP transmission lines with available capacity • Would ensure federal regulatory compliance and management plan conformance on BLM land • Would promote development of wind energy in accordance with BLM's Interim Wind Energy Development Policy	• Would eliminate impacts related to conflicts between project construction traffic and off-road vehicle recreation use in the Jawbone Canyon Open Area	• Would result in additional significant impacts to cultural and biological resources in Pine Tree Canyon and may increase impacts related to erosion and runoff
7B	**Use Sky River Ranch as Primary Project Access**	Feasible	• Would attain project objectives for production of electrical power from clean and renewable energy sources • Would attain project objectives for meeting electrical energy demands • Would locate the primary project facilities on private property and relatively close to existing LADWP transmission lines with available capacity • Would ensure federal regulatory compliance and management plan conformance on BLM land • Would promote development of wind energy in accordance with BLM's Interim Wind Energy Development Policy	• Would eliminate impacts related to conflicts between project construction traffic and off-road vehicle recreation use in the Jawbone Canyon Open Area	• Would result in other impacts related to construction traffic in Sand Canyon and Horse Canyon and may increase impacts related to erosion, runoff, and stream crossings

Table 1-2
Summary of Alternatives to the Proposed Project

Alt.	Description	Feasibility	Attainment of Proposed Project Objectives	Elimination/Substantial Reduction of Proposed Project Impacts	Additional Impacts not Created by Proposed Project
7C	**Use Jawbone Canyon as Project Transmission Line Alignment**	Feasible	• Would attain project objectives for production of electrical power from clean and renewable energy sources • Would attain project objectives for meeting electrical energy demands • Would locate the primary project facilities on private property and relatively close to existing LADWP transmission lines with available capacity • Would ensure federal regulatory compliance and management plan conformance on BLM land • Would promote development of wind energy in accordance with BLM's Interim Wind Energy Development Policy	• Would eliminate impacts related to the disturbance of desert tortoise and Mohave ground squirrel habitat in Pine Tree Canyon	• Would increase impacts related to the disturbance of desert tortoise and Mohave ground squirrel habitat in Jawbone Canyon • Would result in additional impacts related to safety and use conflicts with off-road vehicle recreation function in the Jawbone Canyon Open Area
8	**Roadless Construction**	Infeasible	Not applicable due to infeasibility of alternative	Not applicable due to infeasibility of alternative	Not applicable due to infeasibility of alternative

SECTION 2.0 LETTER COMMENTS ON DRAFT EIR/EA AND RESPONSES

2.1 INTRODUCTION

This document provides a response to the written comments made on the Pine Tree Wind Development Project Draft EIR/EA. Each written comment letter is numbered (Letter 1, Letter 2, etc.), for ease of reference. The letter numbers are shown below in Section 2.2 for the various commenters. Immediately following each comment letter is the formal response to the comments contained in the letter. Each specific comment within each letter that requires a response is numbered. The response to that comment has the same number. Where changes to the Draft EIR/EA text result from comments, those changes are noted in the response to comment and included in full in Section 3.0, Changes to the Draft EIR/EA. Comments that present opinions about the project or that raise issues not directly related to the substance of the Draft EIR/EA are noted without a detailed response.

2.2 LIST OF COMMENTERS

The persons and/or agencies that submitted written comments on the Draft EIR/EA are listed below. The comments and associated responses are arranged by date of receipt, with the older dates listed first. The LADWP and BLM response directly follows each letter.

Letter Number	Agency/Signatory	Date of Letter
1.	Keith Axelson, Citizen	January 3, 2005
2.	Garry George, Los Angeles Audubon Society	January 5, 2005
3.	Lorelei H. Oviatt, AICP, County of Kern	January 6, 2005
4.	Don Turkal, Engineer III, County of Kern	January 6, 2005
5.	Terri Middlemiss, Kerncrest Audubon Society	January 6, 2005
6.	Georgette Theotig, Kern-Kaweah Chapter, Sierra Club	January 2, 2005
7.	Mary Prismon, Santa Monica Bay Audubon Society	January 4, 2005
8.	Roger E. Johnson, California Energy Commission	January 7, 2005
9.	Anthony M. Parisi, PE, NAVAIR Weapons Division	January 7, 2005
10.	William L. Nelson, Consulting Practice	January 7, 2005
11.	Sophia Anne Merk, Citizen	January 7, 2005
12.	Solveig A. Thompson, Citizen	January 7, 2005
13.	Randy Banis, Editor of Death Valley.Com,	January 6, 2005
14.	Terry Roberts, State Clearinghouse and Planning Unit	January 6, 2005
15.	V. John White, Center For Energy Efficiency And Renewable Technologies	February 18, 2005

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Letter 1

RECEIVED

JAN 0 5 2005

TANIA S. BONFIGLIO

Keith Axelson
Sageland Ranch
Post Office Box 967
Weldon CA 93283

760 371 6116

January 3. 2005

Tania Bonfiglio
Los Angeles Department of Water & Power
111 North Hope Street. Room1044
Los Angeles. California 90012

Re:
Comments on the Pine Tree Wind Development Project Draft Environmental Impact Report/Environmental Assessment (DEIR/EA) Issued November 9. by LADWP and BLM.

Dear Tania Bonfiglio.

It appears to be a given that the Pine Tree WDP will proceed even with the certainty of irreparable damage upon the natural world. The Project's relative obscurity from the public's view may be its only positive feature. Renewable energy is an undisputed step toward replacing fossil fuel use, however, in this particular case, it should not be at the expense of a basically pristine area. This leads to several objections from my point of view.

1.1

1. I urge the Los Angeles Department of Water and Power and the Bureau of Land Management to utilize Pine Tree Canyon Road as the Primary Access Route (Alternative 7A) and eliminate Jawbone Canyon Road as it is presently advocated in the DEIR/EA. Kern County and the BLM must be fully aware of the inherent dangers and public nuisance the Jawbone Canyon Access Route will cause even with the mitigation measures in place. The users of this federally mandated OHV Open Area should not be compelled to suffer any inconvenience by a private development especially when there is a much less intrusive solution. Also, do not disregard the thousands of campers, birders, rock-hounds, hikers, landowners and travelers who use Jawbone Canyon Road annually within this Jawbone-Butterbredt Area of Critical Environmental Concern (ACEC). Alternative 7A proposes a more direct route to the Pine Tree WDP and would impose less public

1.1 Cont'd involvement and could be utilized along with the realignment of the transmission line and the construction of the switching station.

1.2 2. The California Energy Commission state in their comment letter to LADWP (May 13. 2004) "Surveys (of birds) should typically be conducted for a full year to capture seasonal differentiation and follow established protocol." This length of survey was evidently not considered necessary for the Pine Tree WDP. Dates of Dec.5-12, 2002; April 6-7, 2002; March 16-17, 2004 (Raptor/Bat habitat survey); April 4-5, 10-14, 28, 2004, were quoted. This is a total of 11 days of field study. Almost all avian and bat references are made to the Tehachapi Pass WRA or the CDFG. The Tehachapi Pass WRA is nearby, however, its wildlife studies (1998) do not validate the Pine Tree WDP. There should be a prolonged, comprehensive wildlife study here due to supposition and inadequate field work. Birds and bats are highly mobile, migratory and consequently their ranges are largely unpredictable and cannot be quantified with less than two weeks of field data.

1.3 An example of the importance of a canyon such as Pine Tree lies approximately eight air miles NNE of the proposed Pine Tree WDP. Butterbredt Spring has over 300 species of birds recorded at this oasis in Butterbredt Canyon. This spring has been designated an Important Bird Area (IBA) by the American Bird Conservancy because it is estimated that 500 thousand migrants may pass here each spring. Due to the proximity of Butterbredt Spring to the Pine Tree WDP one can easily deduce that the southern Sierra is flooded with migratory birds in the spring.

1.4 On page 2, Appendix F, it states that "at least 250 bats of several species died in the fall 2003 at the Mountaineer Wind Farm in West Virginia (Williams 2003)." However, in the Fall 2004 issue of Bats (Bat Conservation International) it states "The first major Wind Energy Farm to be built on a ridgetop in the eastern United States (44 wind turbines installed last year (2003) at West Virginia's Mountaineer Project) killed approximately 4000 bats of seven species. Another 366 turbines are already approved for similar locations within a 50 mile radius, 92 of them on the same ridge." Whose arithmetic is faulty?

1.5 Sageland Ranch lies approximately 13 air miles due north of the proposed Pine Tree WDP. On June 5, 2003 an acoustic survey of bats was made there. The time spread was from 8:15 pm to 9:49 pm (1 hr., 34 min.). Within that brief time six species of bats were recorded: western pipistrelle, western small-footed bat, California myotis, Mexican free-tailed bat,

1.5 Cont'd

pallid bat and the uncommon pocketed free-tailed bat. There were 175 bat calls in this relatively short time span. This small survey clearly shows the value of a determined effort. A survey of this type could be done in the Pine Tree WDP area. In addition, the above examples indicate that all of the canyons from Tehachapi Pass northward to Walker Pass provide natural access routes for migratory birds coming off the northwest Mojave Desert from the southeast.

1.6

1.7

3. Chapter 3, page 37, Table 4 of the LADWP/DEIR/EA. In my opinion, all of the bird species listed below (including my additions) could pass or migrate through the Pine Tree WDP area.

-Bald eagle: Migrant, winters at Lake Isabella (seen 12/9/04) and points south. This includes Big Bear Lake. The implication seems to be that habitat is the reason it would not occur.

-Swainson's hawk: Migrant, seen at Butterbredt Spring and in Kelso Valley.

-Ferruginous hawk: Migrant, winters in and around Kelso Valley every year.

-Golden eagle: Nests are known. The impending losses of golden eagles are of great concern in the proposed Pine Tree WDP. The effects of eagle mortality by blade strikes here is much higher because the avian base is smaller than at Altamont (see CA Energy Commission Study of July, 2002).

-American Peregrine falcon: Is an intermittent migrant, could be seen anywhere at any time. It should be expected.

-Yellow-billed cuckoo: Migrant, should be expected.

-Mountain plover: Migrant, should be expected.

-Prairie falcon: Nests are known. Should be expected.

-Willow flycatcher: Migrant, should be expected.

-Horned lark: Traveler, common in Kelso Valley and foothills.

-Least Bell's vireo: Migrant, should be expected.

-Yellow-breasted chat: Migrant, should be expected.

Letter 1
Cont'd.

1.7 Cont'd

-Tri-colored blackbird: Traveler, should be expected.

-CA Gray-headed junco: The Pine Tree WDP has poor information for this vagrant. See addendum for complete data on range and status.

-Flammulated owl: Migrant, should be expected.

-Osprey: Migrant, seen at Lake Isabella, should be expected.

-Merlin: Migrant, should be expected.

-American Rough-legged hawk: Migrant, this hawk arrives in winter at nearly the same time as the Ferruginous hawk. It can be expected in Kelso Valley foraging the surrounding desert hillsides.

1.8

All of the above named birds are susceptible to wind turbine blade strikes. Since passerines (perching song birds) migrate mostly at night (but also in daylight) the threat of blade strikes is constant for them--unless there is no wind. Scavengers pluck the bodies swiftly so body counts can be difficult and often inaccurate. It appears to me that most of the avian data was collected from off-site text and field guides and insufficient field work in and around the Pine Tree WDP was done. Birds and bats seem to be dismissed with little regard.

1.9

Certainly this proposed project will ensure and encourage urban development in the Antelope and Fremont Valleys. But how many have considered the cumulative effect the Pine Tree Wind Development Project will have upon ever vanishing open space and the recreational visitor?

Sincerely.

Keith Axelson
Naturalist

cc: Hector Villalobos, Ridgecrest Field Office Manager, BLM

Peter Graves, BLM

Ed Waldheim, President, Friends of Jawbone

Dark-eyed Junco ***Junco hyemalis***

J. h. hyemalis N Alaska and Yukon to n-central US; winters to n Mexico
J. h. oreganos Coastal se Alaska to cent. Br. Col.; winters to cent. California
J. h. cismontanus S-c Yukon to w-c Alberta; winters to n Baja and central Texas
J. h. montanus Interior Br. Col. and sw Alberta to e Oregon, w Montana, c Idaho
J. h. mearnsi SE Alberta, sw Saskatchewan to e Idaho, Montana, ne Wyoming
J. h. shufeldti W slopes of coastal mts. from sw British Columbia to w Oregon
J. h. thurberi S Oregon to mts. of San Diego Co.; winters to n Baja, sw N Mex.
**J. h. caniceps* Mts. of s Idaho to Utah and n New Mexico; winters to nw Mexico
J. h. dorsalis Mts. of New Mexico, n Arizona and extreme w Texas
J. h. aikeni SE Montana to w South Dakota, ne Wyoming and nw Nebraska
J. h. pinosus Coastal ranges of California (San Francisco to s Monterey Co.)
J. h. pontilus Mountains of n Baja California (Sierra Juárez)
J. h. townsendi Mountains of n Baja California (San Pedro Mártir)
J. h. carolinensis Appalachian Mountains to n Georgia

Clements, James F. 2000. *Birds of the World: A Checklist*. Fifth Edition. Vista, CA: Ibis Publishing Company

California Gray-headed Junco** ***Junco hyemalis caniceps.
However, according to the *American Ornithologists' Union Checklist of North American Birds*, Seventh Edition 1998. p. 625-626, the range of *J. h. caniceps* is: Mts. of w-central US, from s Idaho, n Utah and s Wyoming south to e California, central Arizona, s New Mexico and w Texas.

Oregon Junco ***Junco hyemalis oreganos***. W North America from s-central, se Alaska, coastal and central British Columbia, w-central, s Alberta and sw Saskatchewan, s to northern Baja California, w Nevada, n Utah and s Idaho and nw Wyoming.

Prior to the lumping of the various North American forms of the junco complex, **Slate-colored Junco** (*Junco hyemalis*) represented the eastern form of the complex; **White-winged Junco** *Junco aikeni* represented a mid-western form; **Oregon Junco** *Junco oreganos* represented the form from Alaska to northern Baja California (the form that occurs commonly in Butterbredt Spring area); **Gray-headed Junco** *Junco caniceps* barely gets into extreme eastern California.**

** *American Ornithologists' Union Checklist of North American Birds*, Fifth Edition 1957. p. 606-612.

Response to Letter 1
Keith Axelson, January 3, 2005

1.1 As discussed in Section 3.13 (Alternatives to the Proposed Project) of the Draft EIR/EA, Alternative 7A would cause additional significant impacts to archaeological resources that would not be created by the proposed project. The existing Pine Tree Canyon Road, at approximately 15 feet wide as it enters the project property from the southeast, crosses over a relatively large site of significant prehistoric cultural remains, including bedrock milling sites and lithic scatter, indicating a potential habitation site or temporary camp. Because of the width and vertical alignment required for the project access roads and the topography surrounding Pine Tree Canyon Road in the area of these archaeological resources, substantial ground disturbance related to road construction may occur and significant impacts to the resources might not be avoidable. Improvements to Pine Tree Canyon Road and the use of the road by construction vehicles would also increase potential impacts related to the endangered desert tortoise and Mohave ground squirrel and the disturbance of their habitat and impacts to sensitive Joshua Tree woodland plant communities located in the lower reaches of the canyon. In addition, because of the relative steepness and narrowness of Pine Tree Canyon Road as it approaches the project property when compared to Jawbone Canyon Road, Alternative 7A would require large areas of disturbance to accommodate the vertical alignment of the road and the associated quantities of cut and fill, resulting in additional impacts related to erosion, runoff, and stream crossings.

The Draft EIR/EA recognizes the intense use that the Jawbone Canyon Open Area can receive from off-highway vehicle users as well as other recreation users. The level of this use varies markedly, depending on the season, the day of the week, and holiday periods. During the summer season and even on non-holiday weekdays in the winter season, the use of the Open Area is generally very light. However, during late fall, winter, and spring, many thousands of people may visit and use the Open Area for camping and off-highway vehicle recreation on a single holiday weekend. In Section 3.7 (Transportation), the Draft EIR/EA identifies the conflict relative to use and safety in the Open Area during these high use periods related to project construction vehicle traffic on Jawbone Canyon Road as it traverses the Open Area.

The 2,100 truck trips projected for the proposed project construction represent 1,050 deliveries to the site. Each inbound (laden) and each outbound (unladen) truck trip was counted separately for traffic analysis purposes, resulting in a total of 2,100 one-way trips (1,050 round trips) on Jawbone Canyon Road. Based on a conservative assumption that 80 percent of these estimated truck trips would occur over a 6-month period (rather than being evenly distributed over the entire 10-month construction schedule), an average of approximately 11 trucks trips per day on Jawbone Canyon Road would be expected. This would represent an average of slightly over one trip per hour over a 10-hour workday, with each incoming truck and each outgoing truck representing a single trip. Since this number is an average, more or fewer trips may actually occur in a given day or hour, but the average figure nonetheless helps place the level of expected construction traffic on Jawbone Canyon Road in context. In addition, based on the currently projected construction schedule, many of these deliveries would occur outside the seasonal timeframe of heaviest recreation use in the Jawbone Open Area, which occurs from late fall to late spring. Most would also occur on

days of the week when there is little or no recreation activity in the Open Area. This traffic would be temporary in nature, related only to the 10-month construction period of the project. The long-term operations of the project would require approximately 10 to 12 employees and only occasional truck deliveries on Jawbone Canyon Road.

However, as discussed in Section 3.7 of the Draft EIR/EA, even taking into account the level, timing, and temporary nature of traffic as discussed above, the impact caused by construction-related traffic to the recreation use in the Jawbone Canyon Open Area would be considered significant if not mitigated. Accordingly, Mitigation Measure 7.4 of the Draft EIR/EA requires the development of a transportation safety plan for construction traffic on Jawbone Canyon Road. The intent of this plan is to eliminate or substantially reduce the potential conflicts between the construction traffic and recreation users in the Open Area. The plan is to be developed in coordination with the Kern County Roads Department and BLM (including, as appropriate, Steering Committee representatives) as part of the County road permit and BLM right-of-way grant processes. The plan would become a condition of these permits and grants. The plan will provide rules, physical controls, and enforcement provisions for construction traffic to minimize conflicts. However, most significantly, the plan will establish time periods (related to the high recreation use periods of the Open Area) during which no deliveries of equipment or materials would be allowed on Jawbone Canyon Road. Among the closure times would be periods associated with the Veterans Day, Thanksgiving, Christmas, New Years, Martin Luther King Day, Presidents Day, Easter, and Memorial Day holidays. With at least four weeks notification to LADWP, BLM may also prohibit construction deliveries on additional sanctioned event weekends in the Jawbone Canyon Open Area. In addition, on weekends and holiday periods during the high-use recreation season in the Jawbone Canyon Open Area (late fall to late spring), construction workers shall be prohibited from travel in individual vehicles on Jawbone Canyon Road and shall be shuttled to and from the project site in multi-person vehicles beginning on the day preceding the weekend or holiday. This limitation on the use of vehicles does not include conducting limited critical activities associated with minimal security and safety monitoring and construction management. This provision of the transportation safety plan would essentially eliminate construction traffic impacts during the times of greatest potential conflict with recreation users in the Open Area. With the implementation of the proposed transportation safety plan as a condition of the road permits and right-of-way grants, including provisions for periods of time during which no deliveries or individual construction worker trips would be allowed on Jawbone Canyon Road, the potential impacts to existing recreation use in the Open Area would be less than significant. As mentioned above, the transportation safety plan is to be prepared as part of the County roads permit and the BLM right-of-way grant processes. However, Mitigation Measure (MM) 7.4 of the Draft EIR/EA has been modified to more specifically indicate the types of provisions and limitations that will be minimally included in the plan. Please see Section 3.0 (Changes to the Draft EIR/EA) of the EA/Final EIR for the complete revised text of MM 7.4.

Because of the impacts associated with the Pine Tree Canyon access route and because the potential impacts related to traffic safety in the Open Area could be mitigated to a less than significant level with the implementation of the transportation safety plan discussed above, Alternative 7A is not considered environmentally superior to the proposed project.

1.2 LADWP is aware of the guidelines suggesting that one year of biological baseline data be collected for wind power projects. The biological studies at the proposed project site were

initiated over 2 years ago, and avian studies are continuing at present and would continue through the first year of operations. The Pine Tree studies were approached in a manner widely accepted for complex biological analysis, following a phased progression of study that builds a basis of general information followed by progressively more detailed work. The methodologies, protocols, and extent of these surveys were documented in the Draft EIR/EA in the biological resources section. To summarize, studies were initiated in December of 2002 with a general biological habitat assessment over (at that time) a 33-square-mile project study area. Existing vegetation communities were delineated, potential habitats for sensitive plants and wildlife associations within those communities were mapped, and searches for sign of sensitive plant and wildlife species were completed. Based on the results of the December 2002 habitat assessment, and considering a list of sensitive species with the potential to occur within the project area assembled through literature review, focused surveys were conducted in the spring and summer of 2003. The characterization of wildlife usage of the site included direct observations of avian species as well as research regarding avian species likely to occur. The amount of time spent in the field was consistent with biological survey practice for wildlife characterization and was accomplished by professional biologists with significant experience with Southern California desert and mountain habitats. Field work was supplemented with research of published literature applicable to the region.

During these initial field visits to the site, which included the spring 2003 season, a remarkable characteristic of the site was the lack of observed bird activity, particularly raptors. A higher level of use by raptors typically would be expected. The biological survey team also noted a low level of riparian and songbird activity. Relative to song birds and riparian activity, California Department of Fish and Game wildlife biologists visiting the site confirmed this lack of activity and commented that the riparian areas appeared to not be well enough developed or extensive enough to be attractive to nesting riparian birds, including sensitive species like Southwestern willow flycatcher, yellow-billed cuckoo, and least Bell's vireo.

Under most circumstances, the relative absence of observed avian activity during spring would lead to the conclusion that the potential for significant impact would be low. In spite of this, and in consideration of the comments on the Notice of Preparation suggesting that one year of avian baseline information should be collected, LADWP decided to initiate a formal avian protocol survey. Dr. Michael Morrison, a nationally recognized avian biologist, was retained to develop a survey protocol and conduct the studies.

The avian protocol developed for this project is responsive to the level of effort recommended in the National Wind Coordinating Committee (NWCC) Guidance Document (Anderson et al. 1999) and the recently released United States Fish and Wildlife Service (USFWS) Interim Guidelines. The NWCC Guidelines call for an initial reconnaissance survey. The goal is to identify locations or sites that have a high probability of substantial bird fatalities. Reconnaissance surveys are composed of several site visits, a literature survey, analysis of unpublished data, interviews with local experts, and other information that might be available. Assuming no significant biological issues are raised following the reconnaissance survey, a Level 1 Survey is initiated. The Level 1 Survey is designed to quantify the numbers, species, and activity of birds in the project area. Available avian mortality data indicate that individual turbines are often responsible for the majority of fatalities in a development because they are located in locations that attract birds, such as near gullies or concentrations of prey. The survey protocol also addressed the potential for

occurrence of bats. Specific pre-construction surveys are designed to site turbines such that minimal or no mitigation is required during facility operation. Level 2 Surveys, which include detailed assessment of population effects due to avian fatalities, are seldom needed, especially if reconnaissance and Level 1 Surveys were implemented properly. Only the high mortality rate of golden eagles at the Altamont Pass Wind Resource Area (WRA) has resulted in a Level 2 Study to date.

The study protocols, observations, point counts, and statistical results of the avian survey, which included the important spring season, were presented in the Draft EIR/EA (with specifics included in Appendix F within Appendix D). It must be emphasized that these data are not derived from the Tehachapi WRA, Butterbredt Springs, or any other areas in the region. They are derived from direct observations and monitoring that occurred over a 2-year period of time at the Pine Tree project site. The use of avian data from the Tehachapi WRA was done only to provide a comparison to test the reasonableness of the Pine Tree conclusions. While there are distinct differences between the project site and the Tehachapi WRA, there are also similarities that allow for such direct comparison, with qualification provided in the Pine Tree survey report.

Relative to the validity of the field time and point counts undertaken for the avian survey, many published papers in the scientific literature have concluded that 3 point counts, usually of 5-10 minute duration each, will adequately quantify the species composition and relative abundance of birds in an area during breeding. Thus, the Pine Tree sampling protocol exceeds these standards both in terms of number of counts (5) and duration (30 minutes each). The 30-minute duration was chosen to count raptors but is more than adequate for songbirds. The fact that counts were conducted during the spring migration period and failed to locate any substantial number of songbirds using the riparian area in Jawbone Canyon (that portion within the wind turbine siting area), indicates that the area was likely not used in 2004 for resting and foraging by large numbers of migrating songbirds.

Based on these findings, it is reasonable for LADWP to proceed with planning and approval of the proposed project. However, protocol avian surveys continued for a fall 2004 season and a winter 2005 season (and will continue after that as well). The fall and winter survey reports are included at the end of Section 2.0 as Attachments A-1 and A-2, respectively, in the EA/Final EIR. These studies will serve to substantiate previous findings concerning impacts and add to the overall knowledge concerning avian use in relation to southern Sierra wind power projects.

1.3 LADWP does not deny the importance of Butterbredt Springs as an important bird area. However, the deduction that the Pine Tree Wind Development Project site is flooded with migratory birds in the spring because it is within 8 miles of Butterbredt Springs and is within the southern Sierra Mountains is not supported by the direct observations at Pine Tree. As summarized previously, the riparian portions of upper Jawbone Canyon and little Jawbone Canyon do not support a substantial number of migratory birds.

1.4 The reference to Williams 2003 was correctly quoted but represented preliminary results of the event. Subsequent work by Kerns and Kerlinger (2004) and others reported that approximately 2,000 bats died at the site, with an upper confidence limit of 4,000 (when adjusted for other factors such as searcher efficiency and carcass removal by predators). Additional studies are being conducted at this site. However, bat mortality on three wind

projects located on forested ridgetops in the east have been much higher than what is reported in the more open habitats of projects in the Midwest and West (20-50 times higher). These studies are thus not directly applicable to Pine Tree because of difference in habitat and geographic location. Most bat fatalities found at wind plants outside California in the West and Midwest have been migratory bats, with hoary, silver-haired bats and red bats being the most prevalent fatalities. At the Buffalo Ridge Wind Plant, Minnesota, based on a 2-year study, bat mortality was estimated to be 2.05 bats per turbine per year (Johnson et al. 2003a). At the Foote Creek Rim Wind Plant, based on 3+ years of study, bat mortality was estimated at 1.34 bats per turbine per year (Young et al. 2003). At the Vansycle Ridge Wind Plant in Oregon, bat mortality was estimated at 0.74 bats per turbine for the first year of operation (Erickson et al. 2000). At the Klondike Wind Project, in Oregon, bat mortality was estimated at 1.16 bat fatalities per turbine per year (Johnson et al. 2003b). At the Stateline Wind Project, bat mortality was estimated at approximately 1.5 fatalities per turbine per year (Erickson et al. 2004) from July 2001 through December 31, 2002. At the Nine Canyon Wind Project, bat mortality was estimated at approximately three fatalities per turbine per year (Erickson, Gritski, and Kronner 2003). Species observed at wind projects in California have consisted primarily of hoary and Mexican free-tail bats, both common species.

Bat research at other wind projects indicates that some bat species are at some risk of collision with wind turbines, mostly during the late summer and fall migration season (Johnson et al. 2003a). Very few bats have been reported as fatalities at older wind projects in California, including the Altamont, San Gorgonio, and Tehachapi Pass WRAs, although most studies have focused on documenting raptor fatalities, and most studies have been conducted on shorter turbines than those proposed for the project. Though the geographic location is vastly different than the Pine Tree project site, the first 11 months of monitoring at the High Winds Project in Solano County reported 71 bat fatalities, including primarily hoary and Mexican free-tailed bats, with most of the fatalities documented in August and September.

The Draft EIR/EA discussed five sensitive bat species that could occur in the project area. There is a much larger number of non-sensitive or abundant bat species that could occur in the project area associated with migration, including hoary bat, Mexican free-tailed bat, Brazilian free-tailed bat, and little brown myotis.

Operation of the proposed project would result in some bat mortality from collision with wind turbines. Given the low habitat value for bats, determined from site surveys, and the typical rates of mortality experienced at other Western operating sites described above, it is estimated that bat mortality would be approximately 0 to 2 bats per turbine per year. This level of mortality includes potential effects on migrants. This would not be considered a significant impact in relation to the total populations of the various bat species, which are numerically very large.

1.5 Acoustic bat surveys do not provide reliable estimates of bat abundance because it cannot be determined how often the same bat passes the recorder. That said, as noted above, no substantial or sustained mortality of bats have been recorded at any Western wind development. The Pine Tree site is characterized as not containing substantial habitat for bats. The June 2004 Avian Risk Assessment report contained in the Draft EIR/EA contained the following information about bat habitat:

> "No natural caves were located on the site and the few mine adits present did not harbor bats. Thus, it is unlikely that any large concentrations of bats occur within the project area at any time of the year. During summer, many bat species use rock crevasses, space under bark, buildings, and other structures for roosting; a few bats were observed at several water sources at dusk. Foraging would likely be concentrated over riparian areas, and water troughs and ponds established for cattle would be used for drinking. Based on the lack of locations of concentrated roosting, however, there is no reason to conclude that large numbers of bats would use specific routes to move between roosts and foraging and watering sites. Since there is no indication that substantial concentrations of bats occur in the project area, the spring wildlife survey did not include a formal assessment of bats (via acoustic surveys or observations of potential migratory routes).
>
> "Pre-assessment field survey methods for migratory bats are not well established and we are unaware of any strong relationship between indices of bat use and mortality rates. Several projects in the West and Midwest have documented some resident bat habitat (e.g., surface waters) near the facilities (e.g., Foote Creek Rim Wyoming, Buffalo Ridge MN). At both these facilities, nearly all fatalities were found during the fall migration period. To date, we are not aware that any standard agency recommendations have been made for assessing risk to bats. Until these methods are developed, mortality estimates at wind projects in similar habitats/landscapes is the primary assessment tool for assessing potential impacts."

1.6 The proposed wind turbines would be located in the western end of Jawbone Canyon, some 10 miles from the mouth of the canyon, near SR-14. Anecdotal information from the commenter and an unpublished report indicate that the localized spring migration in the area is from southeast to northwest and that the migration is captured in northwest-southeast trending canyons, such as the east portion of Jawbone Canyon. The Jawbone Canyon migration continues in a northwesterly direction up Alphie and Hoffman canyons through the topographic pinch point of Butterbredt Springs. This would take the localized migration well east of the proposed project property, which encompasses northeast-southwest trending portions of upper Jawbone Canyon. Our data based on extensive field observations show that there are no other logical reasons, such as good habitat or adequate cover and water, for a substantial number of birds to be loafing or resting in the proposed turbine area. There is a reason that birds seek Butterbredt versus the proposed project site (i.e., a readily available source of water and its location along the local canyon migratory pathway).

1.7 To clarify, the findings of the Biological Technical Report as to what species may actually occur on the site, forage on the site, or nest on the site are based on actual site surveys, including the protocol avian surveys. This survey information does not rule out the possibility that of one or more of the species listed in this comment would fly over the site. It is also noted that all but the last four species listed were directly addressed in the Biological Technical Report. Of these four species, only the rough-legged hawk (buteo lagopus) was observed over the site (Fall and Winter Survey Reports, Attachments A-1 and A-2). The rough-legged hawk is not listed as rare, threatened, or endangered at the state or federal level and is a winter migrant. The other three species have not been observed at the site.

1.8 Most studies of North American bird migration using techniques such as radar have suggested that nocturnal migrants follow a broadfront migration pattern, flying at high

altitudes, where they are not affected by variation in surface topography (e.g., Lowery and Newman 1966; Able 1972; Richardson 1972; Williams et al. 1977 *in* Williams et al. 2001). While there are certainly exceptions and it is expected that there will be some mortality of nighttime migrants, numbers of fatalities for individual species from the many fatality studies conducted in the West suggest levels inconsequential to the affected species (Erickson et al. 2002). For example, the fatality surveys conducted for over 13 years at the Altamont Pass WRA, including the intense surveys during the past approximately 5 years, have never recorded a substantial mortality of songbirds. Likewise, the fatality searches at the Tehachapi WRA failed to locate substantial songbird mortalities. Finally, the summary papers by Erickson and co-workers show that no Western wind development with newer larger turbines has had a large mortality of songbirds.

In summary, it does not appear that the project site serves as a major pathway or stopover area for migrating birds. The few instances in which relatively large numbers of migrating passerine birds have been killed in wind developments have been apparently due to a combination of poor weather and lights reflecting off of a low cloud ceiling.

Based on the habitat assessment and consideration of mortality rates from other Western wind developments, it is estimated that passerine mortality at the Pine Tree Wind Development would be approximately 0 to 2 birds per turbine per year. This level of mortality includes potential effects on migrants and would not be considered a significant impact in relation to the total population of the various bird species found in the area.

LADWP, through its continuation of avian studies, is building upon the base of resource information that it has collected over the past 2 years. LADWP has not dismissed the potential effects on birds and bats but has determined that significant mortality is not likely. It is noted that many of the birds potentially occurring at the Pine Tree project site could also occur at Tehachapi, and no substantial mortalities been recorded. Scavenging is accounted for in all appropriately designed fatality surveys (as it was in the Tehachapi study).

1.9 The proposed project would not support the energy needs for additional urban development in the Antelope and Fremont valleys, nor does LADWP possess the authority to supply power to such development outside the Los Angeles City limits. Unlike investor-owned electrical utilities, which may market their services for power supply to communities throughout the state, LADWP, in accordance with the Los Angeles City Charter, is responsible for providing a reliable supply of electrical power to residential, commercial, government, and other customers located within the boundaries of the City of Los Angeles. The objective of the proposed project is not to create surplus energy for the open marketplace but to help meet the projected electrical energy demands of City of Los Angeles customers while increasing the share of the power used by LADWP that is generated from clean and renewable energy sources.

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Letter 2

January 5, 2005

Los Angeles Department of Water and
Power
Environmental Services
111 North Hope Street, Room 1044
Los Angeles, California 90012

Bureau of Land Management
Ridgecrest Field Office
300 S. Richmond Road
Ridgecrest, California 93555

RE: **PINE TREE WIND DEVELOPMENT PROJECT**

Dear Sirs:

The Los Angeles Audubon Society, Inc. is a 501 (c) 3 California non-profit whose mission is to provide educational programs and services that build awareness of the importance of birds and other wildlife and to promote conservation and restoration of natural habitats, primarily in the Los Angeles area.

We are one of 17 chapters of Audubon located in the Southern California area with over 30,000 members, and a part of the national Audubon organization with over 500,000 members.

We are submitting our comments to you as the lead agency pursuant to the California Environmental Quality Act (CEQA) for the proposed Pine Tree Wind Development Project, and to the Bureau of Land Management Ridgecrest Field Office as lead agency for NEFA.

We have the following comments on the EIR (SCH#2004041076, BLM#CA-650-2005-13) prepared by you for the project.

2.1 We object to the conclusion that the Pine Tree Wind Development project "would have no substantial impact on avian wildlife" contained in Appendix D of the EIR and in the document entitled Biological Technical Report/Biological Assessment dated November 17, 2004 conducted by Michael L. Morrison Ph.D for EWA, Inc. for the following reasons:

1. The assessment underestimates the importance of the site for migratory songbirds and raptors during Fall and Spring migrations.

2.1 Cont'd

We have no experience with Pine Tree Canyon, located on private property. Birdwatchers and wildlife enthusiasts respect private property boundaries. However the Northeast section of the wind farm site and the proposed road is sited on Jawbone Canyon, a ridge above Butterbredt Springs. Butterbredt Springs has been recognized by the American Bird Conservancy as an Important Bird Area in the United States (see attached). It is an historic area of special interest for our organization and other wildlife organizations for at least thirty years due to it's unique location on the North South Pacific Flyway (map enclosed) for protected migratory songbirds and raptors. Our organization and others in Southern California sponsor field trips to Jawbone Canyon and Butterbredt Springs once or twice a year to observe the migratory birds which stop at the desert oasis for food, rest and water. In over thirty years, our groups often have observed up to 2,000 individual birds of in one day during Fall or Spring migration. A recent commercial eco-tour company recorded 1,000 birds in one day (report attached). These birds pass through Jawbone and Pine Tree Canyons in a rush to arrive at their breeding or wintering grounds as far North as Alaska or as far south as southern Central America. Migration schedules are affected by climate and food availability and are unpredictable as to the day but not the season. Migration schedules vary for different species, i.e. some birds move at the beginning of the period, some at the end. The migration period may last three weeks to a month, with concentrations of populations of birds varying by the day. All species migrate at night and use the daylight hours for rest, water and feeding. The survey in the Biological Assessment of your EIR found only a few birds during it's brief survey, and there was no survey at night.

2.2

2. The on-site survey over a two day period (March 16-17, 2004) by Dr. Morrison of raptors which are protected by the Migratory Bird Treaty Act, the Bald and Golden Eagle Protection Act, and/or state and federal Endangered Species Act is woefully inadequate especially in consideration of the fact that the site is on the North South Pacific Flyway migration route and raptor migrations occur in Fall and Spring through that site.

2.3

3. There was no survey of migratory birds passing through the area at night when there would be more bird activity than during the day during migration. avian night flight call monitoring for kill mitigation is practiced by the U.S Fish & Wildlife Service and is easily available through experts such as William R. Evans, P.O. Box 46, Mecklenburg, NY 14863. Ph. 607/272-1786. wrevans@clarityconnect.com. The Biological Assessement made no survey of avian populations passing through the site at night when most migration activity occurs.

2.4

4. The on-site survey of only five days in April (between April 4-28) of songbirds which are protected by the Migratory Bird Treaty Act and the state and federal Endangered Species Acts is woefully inadequate especially in consideration of the fact that the site is on the North South Pacific flyway route.

2.5

5. The conclusion of the EIR contradicts the State of California Energy Commission's August, 2004 report entitled "Developing Methods to Reduce Bird Mortality In the Altamont Pass Wind Resource Area." (Publication Number: 500-04-052). This report concludes that wind farms do indeed have substantial impact on avian wildlife, that the biological assessment for that

2.5 Cont'd

project severely underestimated the impact on avian wildlife both in numbers of species and numbers of individuals, and presents several methods of mitigating and studying the impact on avian wildlife, none of which are contained in the proposal for the wind farm, nor mentioned in the Biological Assessment in Appendix D. Instead, the biological assessment cites a study from Tehacapi which has no importance as a bird migration route.

2.6

6. The impact of roads needed to access private property for the construction of the project has not been adequately addressed for ground dwelling and nesting species of birds.

2.7

Our members urge you to conduct a more thorough biological assessment before granting approval of this project in order to mitigate against avian mortality especially during bird migration.

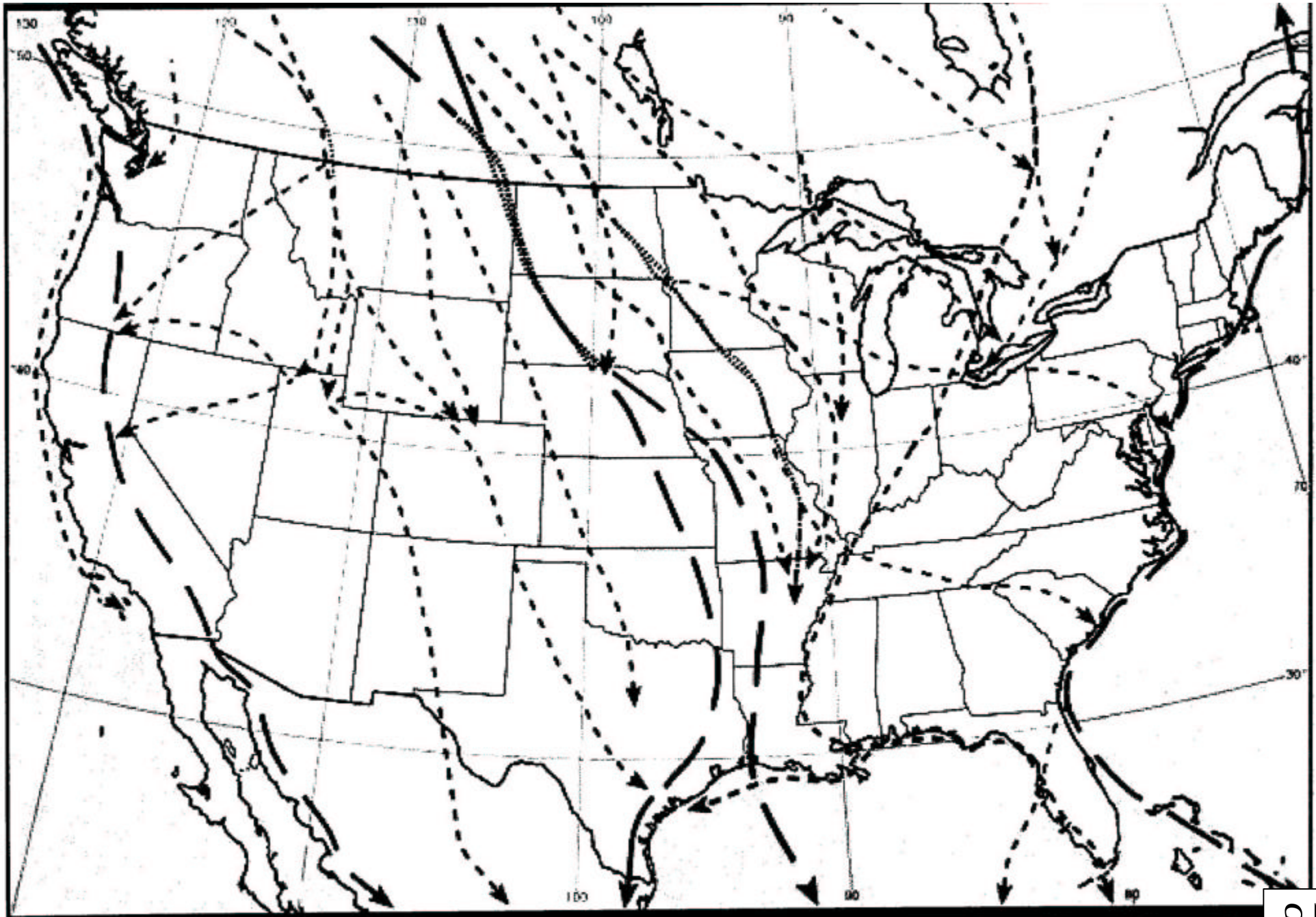
As the California Energy Commission concludes:

"Benefits to California will accrue if there is a demonstrable reduction of bird mortality in the APWRA (the Altamont project). Doing so will encourage more energy capacity to be permitted by Alameda and Contra Costa counties. By re-powering with fewer, larger wind turbines mounted on the tallest practicable towers, and/or implementing some or all of the recommended mitigation measures identified in this report, the owner/operators of the APWRA (the Altamont project) can expect to achieve improved compliance with state and federal laws and regulations protecting birds."

Improved compliance through thoughtful mitigation and clean energy are compatible as we all address the energy needs of Californians, but not without thorough assessment of the impact on our natural heritage.

We urge you to reconsider approving the plans for the Pine Tree Wind Project until a more thorough biological assessment can be made.

Garry George
1st VP, Conservation Chair
Los Angeles Audubon Society



North American Migration Flyways
(with Principal Routes)

Atlantic Flyway
Mississippi Flyway
Central Flyway
Pacific Flyway

Letter 2
Cont'd.

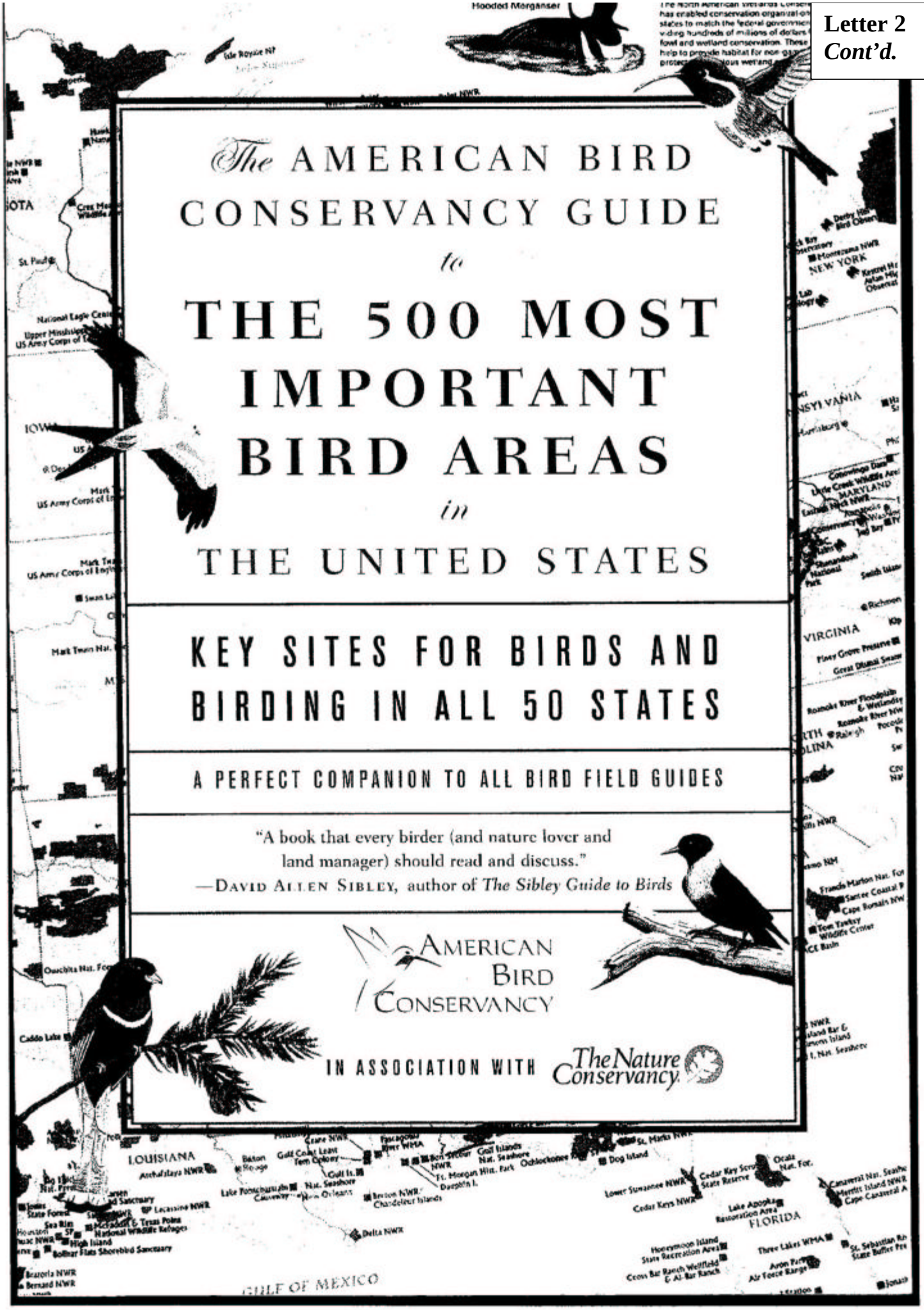
chance to study birds like the charming Jamaican Tody, which we saw every day. **Colorado: Lekking Grouse in April** featured an early spring blizzard, over a hundred Brown-capped Rosy-Finches, two Gray-crowned Rosy-Finches, two Black Rosy-Finches including a dazzling onyx-black male, Pine Grosbeaks, dancing Sandhill Cranes just off the road, nesting American Dippers, a Prairie Falcon dive-bombing a Red-tailed Hawk overhead for half an hour as we watched a Sage Thrasher, side-by-side comparisons of Barrow's and Common Goldeneyes with an apparent hybrid Barrow's x Common Goldeneye. And that was just day one of this year's tour … Oh yes, and we saw well all the expected grouse too. **Southern and Central California in Spring** combined near-coastal specialties like California Gnatcatcher with singing Gray Vireo and multiple Mountain Quail in the Laguna Mountains; vast numbers of birds at the Salton Sea; a fabulous 1000-bird day at the desert oasis, Butterbredt Springs; and our calm-seas trip to Santa Cruz Island, home of the endemic Island Scrub-Jay and with Xantus's Murrelets, Cassin's Auklets, Risso's Dolphins and Gray Whale spotted en route. **Upper Texas Coast in Spring** missed a major landbird fallout but there were vast numbers of birds to see, including both Yellow and Black Rails, almost 40 species of shorebirds and Red-cockaded Woodpecker. **South Florida, the Keys and Dry Tortugas** found Smooth-billed Anis and Snail Kites; pine-woods specialties like Red-cockaded Woodpecker, Brown-headed Nuthatch and Bachman's Sparrow; exotics such Oriole and White-winged Parak specialties which this year includ of boobies, one of them Red-foo as always a delightful mix of Greek island ambience and a marvelous passage of birds including flocks of Red-footed Falcon, Wood Sandpiper, Ruff and Collared Pratincole. Audouin's Gull, Olive-tree Warbler and Cinereous Bunting were just a few of the most exciting moments. **Texas: The Edwards Plateau, Big Bend National Park and the Davis Mountains** always records a vast array of birds given the transect from the cool, green and wet Edwards Plateau west to the high mountains of west Texas. Black-capped Vireo, Golden-cheeked Warbler, Gray Vireo, Common Black-Hawk, Buff-breasted Flycatcher, Colima Warbler and Lucifer Hummingbird all fulfilled our expectations. **Slovakia** had a morning in a clearing with views not only of eastern Slovakia's first and only pair of breeding White-tailed Eagles but also of displaying Lesser Spotted Eagles, Hobby, Black Woodpecker and Hoopoe, with a soundtrack provided by Corncrake and Grasshopper Warbler! **Dominican Republic and Puerto Rico** featured dawn birding in Barahona National Park, DR, with LaSelle's Thrush, Narrow-billed Tody and Hispaniolan Crossbill and, in Puerto Rico, Elfin-woods Warbler, Puerto Rican Screech-Owl and a middle-of-the road Key West Quail-Dove. **Mallorca** was its usual relaxed Mediterranean self with lots of migrants, along with specialties such as Eurasian Black Vulture, Audouin's Gull and Eleonora's Falcon; and we never passed up an opportunity for coffee or ice cream. **Hungary** recorded 76 Great Bustards, many in full foam-bath display; Eagle-Owl and Barred Warbler in Tokaj Quarry; Ural Owl in Lower Szava Valley; Black, Middle Spotted and White-backed Woodpeckers in Upper Szava Valley; Woodlark, Hawfinch, Honey Buzzard and Grey-headed Woodpecker in Erdobenye Valley; and Bluethroat and Thrush Nightingale on the path beside the Hortobagy fishpond. **Poland in Spring** highlights included a warm, still evening with close Eurasian Pygmy Owl; a "churring" European Nightjar; a male Tengmalm's Owl calling in a nearby spruce plantation; 15 European Bison and close-up views of Badger! **Southeastern Arizona in May** recorded eight species each of owls and hummingbirds and no fewer than 18 flycatchers amid the fabulous lower Sonoran Desert and its "Sky Island" mountains. **Point Pelee, Crane**

Letter 2
Cont'd.

Loggerhead Kingbird is a sub-canopy bird unlike its congeners and is often seen around Marshall's Pen on our Jamaica tour.

Photo: Rich Hoyer.

Letter 2
Cont'd.



Letter 2
Cont'd.

33. Sonoran and Mojave Deserts

The Mojave Desert is centered in southeastern California and southern Nevada and grades into the Sonoran Desert of southwestern Arizona, which extends south on both sides of the Gulf of California into the Mexican states of Baja California, Sonora, and Sinaloa. This arid region is dominated by creosote, cacti, and other desert shrubs and is the center of distribution of the Rufous-winged Sparrow, Le Conte's Thrasher, Bendire's Thrasher, Lucy's Warbler, and Abert's Towhee. Riparian wetlands are habitat for the "Yuma" Clapper Rail and "Southwestern" Willow Flycatcher. The Salton Sea hosts large numbers of American White Pelicans, Eared Grebes, and other colonial waterbirds; shorebirds such as Black-necked Stilts and Long-billed Curlews; and waterfowl during both migrations and winter. The Colorado River and adjacent wetlands provide habitat for ducks and other wetland birds, including some of the most important habitat in the arid southwest for Western and Clark's Grebes and American Avocets.

Butterbredt Spring Wildlife Sanctuary (1), California

▸ Highlight: One of the Mojave Desert's best birding localities, this site is an outstanding migrant trap, especially in the spring.

Le Conte's Thrasher

▸ Location: 35 miles southwest of Ridgecrest, Kern County.

▸ Size: The area of the fenced sanctuary is approximately seven acres.

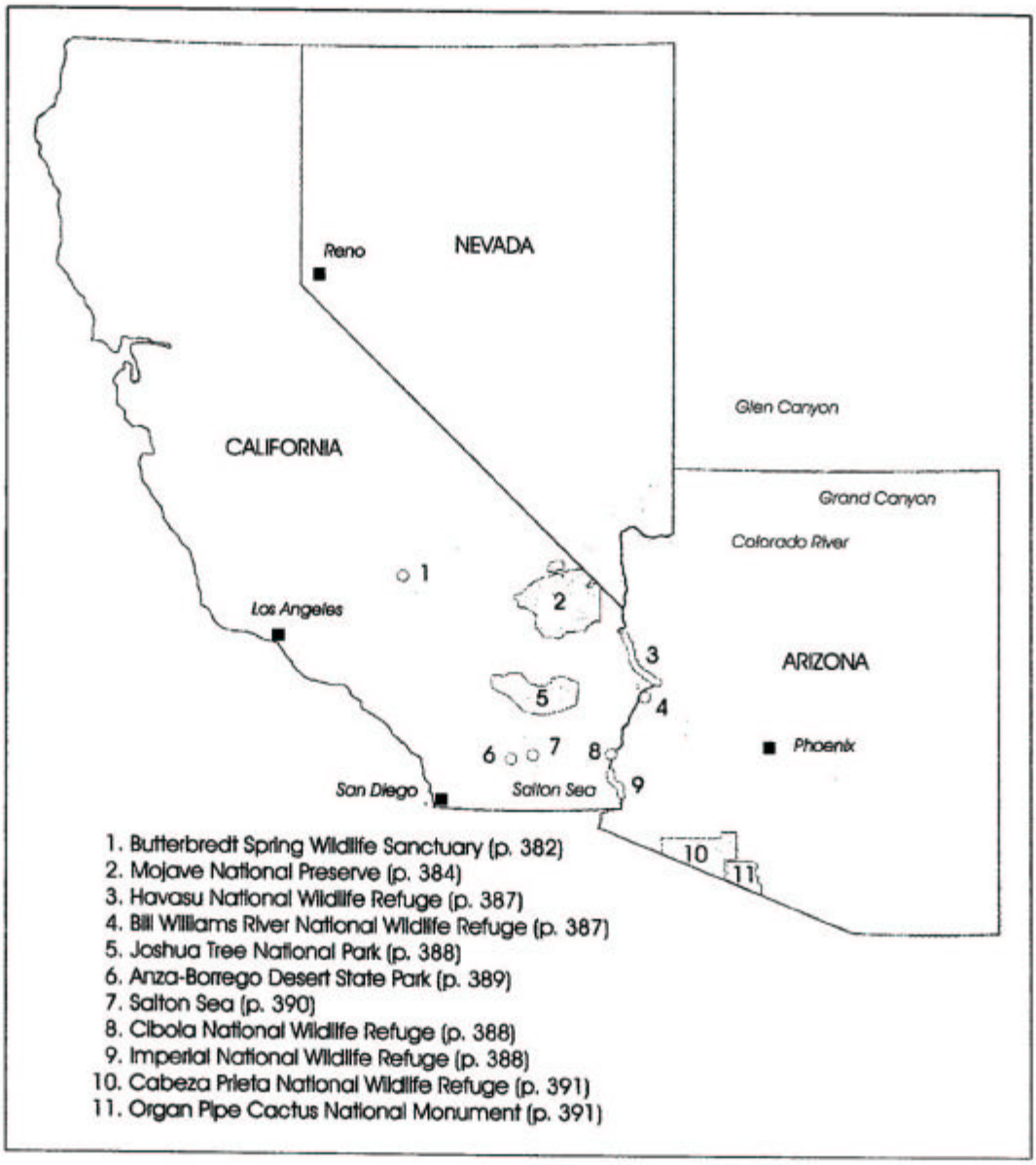
▸ Ownership: The fenced spring is within 720 acres of privately owned land, and the surrounding area is public land administered by the Bureau of Land Management.

▸ Habitats: Desert riparian, sagebrush, desert scrub.

▸ Land Use: Livestock grazing, recreational use by off-road vehicles, wildlife observation.

▸ Site Description: The site is a desert spring and oasis at the lower end of Butterbredt

Letter 2
Cont'd.



Canyon; dominant vegetation there is Fremont cottonwood and red willow, with surrounding ground cover of sage, desert scrub, and Joshua tree. Because of its orientation from southeast to northwest, the canyon provides a natural passageway from the northwestern Mojave Desert into the southern Sierra Nevada.

▸ Birds: As many as 500,000 migrant landbirds, both passerine and nonpasserine, may use the site during spring migration; it is an important migrant trap and one of the top sites for birding in the Mojave Desert, especially in the spring. Brewer's and Sage Sparrows are found there seasonally, and both California and Le Conte's Thrashers breed in the area.

▸ Conservation Issues: The sanctuary owes its existence to a cooperative agreement signed between the landowner, Keith Axelson, the Santa Monica Bay Audubon Society, and the Bureau of Land Management. Mr. Alexson is the prime reason the site has

Letter 2
Cont'd.

the recognition that it does; he maintains fencing that prevents entry by cattle. Th off-road vehicle use in the canyon and on surrounding lands. There is always the possibility that the sale of the private land would change the existing agreement.

▸ Visitor Information: The best times to visit are fall, winter, and spring. The area is very popular with birders during spring migration. Visitors must stay on designated routes of travel and avoid damage to grasses and other plants that provide feed for livestock and wildlife. Dirt roads can become impassable after a rain. The administering office is Bureau of Land Management, Ridgecrest Field Office, 300 South Richmond Road, Ridgecrest, CA 93555, 760-384-5400. Keith Axelson can be contacted at Sageland Ranch, P.O. Box 967, Weldon, CA 93283, 760-372-6116.

Mojave National Preserve (2), California

▸ Highlight: Two high-priority species, Bendire's and Le Conte's Thrashers, breed on the preserve, as do several other significant birds.

▸ Location: Eastern San Bernadino County, beginning approximately 60 miles west of Barstow and reaching to the Nevada state line.

▸ Size: 1.6 million acres.

▸ Ownership: National Park Service, with many private inholdings.

▸ Habitats: Creosote bush flats, piñon pine and juniper woodlands, sand dunes, volcanic cinder cones, Joshua tree forests.

▸ Land Use: Recreation, cattle grazing, mining, hunting.

▸ Site Description: Mojave National Preserve incorporates lowlands and desert mountain ranges; within its borders is the largest Joshua tree forest in the world. A major feature is Cima Dome, a symmetrical granite formation approximately 75 square miles in size.

▸ Birds: Among the resident and breeding birds are the Gilded Flicker, Juniper Titmouse, and Bendire's and Le Conte's Thrashers. Other species present in the preserve are the Pinyon Jay and Black-throated Gray Warbler.

▸ Conservation Issues: The preserve was created in October 1994 when Congress passed, and President Clinton signed, the California Desert Protection Act. Cattle grazing, mining, and hunting are all allowed within the preserve boundaries, since much of the land there is privately held. Water demand from southern California threatens the aquifer that supplies part of the preserve.

▸ Visitor Information: The Mojave is a hot desert. Days with temperatures in excess of 100°F typically begin in May and can last into October. Winters, however, can bring freezing temperatures. The most pleasant temperatures and the best times to visit are in spring and fall. Contact: Mojave National Preserve Headquarters, 222 East Main Street, Suite 202, Barstow, CA 92311, 760-255-8801.

SUBSPECIES CONSERVATION

"Yuma" Clapper Rail, "Southwestern" Willow Flycatcher, "Least" Bell's Vireo, "San Clemente" Loggerhead Shrike, "California" Least Tern, "Timberline" (Brewer's) Sparrow, "Wayne's" (Black-throated Green) Warbler: the list of rare or declining subspecies is long. Should we care about their conservation, or focus

Response to Letter 2
Los Angeles Audubon Society, January 5, 2005

2.1 The biological studies at the Pine Tree site were initiated over 2 years ago; the avian studies are ongoing and would continue through the first year of operations. The Pine Tree studies were approached in a manner widely accepted for complex biological analysis, following a phased progression of study that builds a basis of general information followed by progressively more detailed work. The methodologies, protocols, and extent of these surveys were documented in the Draft EIR/EA in the biological resources section. To summarize, studies were initiated in December of 2002 with a general biological habitat assessment over (at that time) a 33-square-mile project study area. Existing vegetation communities were delineated, potential habitats for sensitive plants and wildlife associations within those communities were mapped, and searches for sign of sensitive plant and wildlife species were completed. Based on the results of the December 2002 habitat assessment, and considering a list of sensitive species with the potential to occur within the project area assembled through literature review, focused surveys were conducted in the spring and summer of 2003. The characterization of wildlife usage of the site included direct observations of avian species as well as research regarding avian species likely to occur. The amount of time spent in the field was consistent with biological survey practice for wildlife characterization and was accomplished by professional biologists with significant experience with Southern California desert and mountain habitats. Field work was supplemented with research of published literature applicable to the region.

During these initial field visits to the site, which included the spring 2003 season, a remarkable characteristic of the site was the lack of observed bird activity, particularly raptors. A higher level of use by raptors typically would be expected. The biological survey team also noted a low level of riparian and songbird activity. Relative to song birds and riparian activity, California Department of Fish and Game wildlife biologists visiting the site confirmed this lack of activity and commented that the riparian areas appeared to not be well enough developed or extensive enough to be attractive to nesting riparian birds, including sensitive species like Southwestern willow flycatcher, yellow-billed cuckoo, and least Bell's vireo.

Under most circumstances, the relative absence of observed avian activity during spring would lead to the conclusion that the potential for significant impact would be low. In spite of this, and in consideration of the comments on the Notice of Preparation suggesting that one year of avian baseline information should be collected, LADWP decided to initiate a formal avian protocol survey. Dr. Michael Morrison, a nationally recognized avian biologist, was retained to develop a survey protocol and conduct the studies.

The avian protocol developed for this project is responsive to the level of effort recommended in the National Wind Coordinating Committee (NWCC) Guidance Document (Anderson et al. 1999) and the recently released United States Fish and Wildlife Service (USFWS) Interim Guidelines. The NWCC Guidelines call for an initial reconnaissance survey. The goal is to identify locations or sites that have a high probability of substantial bird fatalities. Reconnaissance surveys are composed of several site visits, a literature survey, analysis of unpublished data, interviews with local experts, and other information that

might be available. Assuming no significant biological issues are raised following the reconnaissance survey, a Level 1 Survey is initiated. The Level 1 Survey is designed to quantify the numbers, species, and activity of birds in the project area. Available avian mortality data indicate that individual turbines are often responsible for the majority of fatalities in a development because they are located in locations that attract birds, such as near gullies or concentrations of prey. The survey protocol also addressed the potential for occurrence of bats. Specific pre-construction surveys are designed to site turbines such that minimal or no mitigation is required during facility operation. Level 2 Surveys, which include detailed assessment of population effects due to avian fatalities, are seldom needed, especially if reconnaissance and Level 1 Surveys were implemented properly. Only the high mortality rate of golden eagles at the Altamont Pass Wind Resource Area (WRA) has resulted in a Level 2 Study to date.

The study protocols, observations, point counts, and statistical results of the avian survey, which included the important spring season, were presented in the Draft EIR/EA (with specifics included in Appendix F within Appendix D). It must be emphasized that these data are not derived from the Tehachapi WRA, Butterbredt Springs, or any other areas in the region. They are derived from direct observations and monitoring that occurred over a 2-year period of time at the Pine Tree project site.

Based on a comparison of the use of Pine Tree by birds relative to other existing wind developments, fatalities are predicted to be at the low end of that quantified elsewhere for both raptors and songbirds. In spite of the fact that some wind developments lie directly in areas that are known migration routes, Erickson et al. (2002) summarized the observed and likely potential impact of wind farms on passerine and other non-raptorial birds, including nocturnally migrating species. They found that nocturnal migrants are estimated to comprise approximately 50 percent of the fatalities at new wind projects (estimated range 34 to 59%), based on timing and species observed during standardized fatality monitoring. There has been no reported large episodic mortality event (e.g., >50 passerine birds during a single night) recorded at a U.S. wind plant. Two small nocturnal avian mortality events have been published at U.S. wind plants. Fourteen nocturnal migrating passerines at two turbines at Buffalo Ridge (Minnesota) were killed on one night during spring migration after a thunderstorm. At the Mountaineer Wind Energy Center, West Virginia, 33 (47.8%) of 69 passerine fatalities occurred on one night at a few turbines adjacent to a well-lit substation during spring migration (Kerns and Kerlinger 2004). The data suggest that sodium vapor lamps at the substation were the primary attractant, since fatality locations were correlated with the location of the substation, and the other turbines away from the substation had few fatalities documented the morning after the event. After the lights were turned off at the substation, no events occurred. Erickson et al. (2002) were not aware of any other mortality events greater than a few birds at single or adjacent turbines found during a single search at any U.S. wind plant.

Several studies have been published regarding extrapolated bird passage rates (McCrary et al. 1983; Mabee and Cooper 2004; Mabee and Cooper 2001; Johnson et al. 2002). We are aware of only a few studies that have attempted to compare fatality rates to bird passage rates. McCrary et al. (1986) estimated approximately 6,800 annual bird fatalities at the San Gorgonio wind project in California, with an estimate of approximately 75 million migrants passing through during fall and spring migration. McCrary et al. (1986) believed the mortality levels were biologically insignificant. Radar studies conducted in the vicinity of

the Buffalo Ridge wind project (over 400 turbines) in Minnesota suggested that as many as 3.5 million birds may migrate over the wind development area, and fatality studies suggest only a few hundred migrating songbirds are killed each spring. Radar studies at the Stateline Wind Project, a large facility (454 turbines) with its northern boundary located within 1.5 miles of the Columbia River, indicate a large number of birds migrate over that facility (several hundred thousand to over a million) during spring migration, and the fatality studies suggest a very small number result in collisions (Erickson et al. 2004). A similar pattern was observed for the nearby Nine Canyon facility (Cooper and Mabee 2001; Erickson et al. 2003b).

Rappole (1995) reviewed the behavior of migrating passerine birds including activities during stopovers. Most passerines migrate at night and rest and forage during the day. He noted that migrating flocks would sometimes spend several days in a location before continuing migration, while others would leave the evening of their arrival day. He thought that differences in stopover time were likely related to the physiological condition of individual birds, given that poor weather was not the reason for remaining at a location. He also noted that habitat selection was species specific, ranging from highly selective to very broad, and was at least partially based on a bird's energetic state.

As the fall 2004 and winter 2005 avian surveys continued, Dr. Morrison did not encounter large numbers of migratory birds using the proposed project site for foraging and resting; no large flocks of migrating raptors were observed. Anderson et al. (2004) noted that little is known about nocturnal and migratory bird movements through the Tehachapi area except that turkey vultures migrate through the area by the thousands each year. They found, however, that even though the Tehachapi area may experience relatively high use periodically by turkey vultures, their fatality was low, suggesting they are not very susceptible to collisions.

In summary, the data continue to support the conclusion that the Pine Tree project site does not serve as a major pathway or stopover area for migrating birds. In addition, the few instances in which relatively large numbers of migrating passerine birds have been killed in wind developments have been apparently due to a combination of poor weather and lights reflecting off of a low cloud ceiling. The proposed wind turbines would be located in the western end of Jawbone Canyon, some 10 miles from the mouth of the canyon, near SR-14. Anecdotal information from at least one Draft EIR/EA commenter and an unpublished report indicate that the localized spring migration in the area is from southeast to northwest and that the migration is captured in northwest-southeast trending canyons, such as the east portion of Jawbone Canyon. The Jawbone Canyon migration continues in a northwesterly direction up Alphie and Hoffman canyons through the topographic pinch point of Butterbredt Springs. This would take the localized migration well east of the proposed project property, which encompasses northeast-southwest trending portions of upper Jawbone Canyon. Our data based on extensive field observations show that there are no other logical reasons, such as good habitat or adequate cover and water, for a substantial number of birds to be loafing or resting in the proposed turbine areas. There is a reason that birds seek Butterbredt versus the proposed project site (i.e., a readily available source of water and its location along the local canyon migratory pathway).

2.2 The following table lists the schedule of biological surveys conducted in the preparation of the Draft EIR/EA. As shown, surveys were conducted on days other than just March 16 and 17, 2004.

Date	Type of Survey	Surveyors	Weather Conditions
December 5-12, 2002	Habitat Assessment and Vegetation Community Mapping	Marc Doalson, Bonnie Hendricks, Erik LaCoste, Kim Myers, Erin Riley, Bob Solecki, Danielle Tannourji, Petra Unger, Melissa Wilson	Clear skies, mild temperatures, light winds
December 5-12, 2002	Winter Raptor Survey	Erik LaCoste, Erin Riley, Bob Solecki, Melissa Wilson	Clear skies, mild temperatures, high winds
December 5-12, 2002	General Wildlife Surveys	Erik LaCoste, Lyndon Quon, Erin Riley, Melissa Wilson	Clear skies, mild temperatures, light winds
April 19-20, 2003	Rare Plant Surveys	Marc Doalson, Erik LaCoste, Erin Riley, Melissa Wilson	Clear skies, mild temperatures, high winds
April 6-7, 2003	Raptor Surveys	Erik LaCoste, Lyndon Quon, Erin Riley, Melissa Wilson	Clear skies, mild temperatures, high winds
April 7, 2003	Tehachapi Slender Salamander Surveys	Erik LaCoste, Erin Riley	Clear skies, mild temperatures, high winds
May 13-15, 2003	Desert Tortoise Surveys	Erik LaCoste, Lyndon Quon, Melissa Wilson	Clear skies, mild temperatures, high winds
May 28-30, 2003	CDFG Jurisdictional Wetland Determination Surveys	Marc Doalson, Mark Tucker	Clear skies, mild temperatures, high winds
June 11-13, 2003	Rare Plant Surveys	Elizabeth Candela, Marc Doalson, Erin Riley	Clear skies, mild temperatures, high winds
March 15-17, 2004	General Wildlife Surveys	Lyndon Quon, Melissa Wilson	Clear skies, mild temperatures, high winds
March 16-17, 2004	Raptor and Bat Habitat Assessment Surveys	Michael Morrison	Clear skies, mild temperatures, high winds
April 4-5, 13-14, 28, 2004	Avian Surveys	Michael Morrison	Clear skies, mild temperatures, high winds
April 13-15, 2004	Rare Plant Surveys	Marc Doalson, John Messina	Clear skies, mild temperatures, high winds
May 30, 2004	Raptor Nest Survey	Michael Morrison	Mostly clear, mild temperatures, high winds
June 8-10, 2004	Rare Plant Surveys	Shawn Johnston, Danielle Tannourji	Cloudy skies, mild temperatures, high wind
June 8-10, 2004	CDFG Jurisdictional Wetland Determination Surveys	Paula Jacks, Shawn Johnston, Danielle Tannourji, Melissa Wilson	Cloudy skies, mild temperatures, high winds

2.3 The commenter is correct that no night surveys were conducted. Night surveys are not commonly conducted when there is no evidence of daytime early morning or late evening use by migrants. As noted above, migrating passerine birds include some activity during stopovers and may forage for an entire day. This is largely absent at the proposed project site.

Most studies of North American bird migration using techniques such as radar have suggested that nocturnal migrants follow a broadfront migration pattern, flying at high altitudes, where they are not affected by variation in surface topography (e.g., Lowery and Newman 1966; Able 1972; Richardson 1972; Williams et al. 1977 *in* Williams et al. 2001).

While there is some expected mortality of nighttime migrants, numbers of fatalities for individual species from the many fatality studies conducted in the West suggest levels inconsequential to the affected species (Erickson et al. 2002).

2.4 As noted in the response to Comment 2.1, the biological studies at the Pine Tree site were initiated over 2 years ago, are continuing at present, and would continue through the first year of project operations. The Pine Tree project studies were approached in a manner widely accepted for complex biological analysis, following a phased progression of study that builds a basis of general information followed by progressively more detailed work. The methodologies, protocols, and extent of these surveys were documented in the Draft EIR/EA in the biological resources section.

2.5 The findings of the report that the commenter cites are specific to Altamont Pass in northern California and are not applicable to the proposed project site. Further, the protocols established for the Pine Tree project avian work are patterned after those published by the U.S. Fish and Wildlife Service, a federal agency with responsibility for biological resource issues. Many published papers in the scientific literature have concluded that 3 point counts, usually of 5-10 minute duration each, will adequately quantify the species composition and relative abundance of birds in an area during breeding. Thus, the sampling conducted at the Pine Tree project site exceeds these standards both in terms of number of counts (5) and duration (30 minutes each). The 30-minute duration was chosen to count raptors but is more than adequate for songbirds. The fact that counts were conducted during the spring migration period and failed to locate any substantial number of songbirds using the riparian in upper Jawbone Canyon shows that the area was likely not used in 2004 for resting and foraging by large numbers of migrating songbirds. The use of avian data from the Tehachapi WRA was done only to provide a comparison to test the reasonableness of the Pine Tree conclusions. While there are distinct differences between the project site and the Tehachapi WRA, there are also similarities that allow for such direct comparison, with qualification provided in the Pine Tree survey report.

2.6 Potential impacts to avian species, including those that inhabit or nest on the ground, were assessed during site wildlife surveys and have been addressed in the Draft EIR/EA. There are no ground-dwelling avian species potentially occurring within the study area that are designated sensitive. That is, impacts on these species that do occur would not result in the loss of either a highly sensitive species or the loss of a local population of lower-sensitivity species. As such, the analyses and mitigation measures identified for avian species are adequately addressed by the Draft EIR/EA.

2.7 The references to Altamont should include several other points of clarification. Repowering will use turbines of a similar design and size as those proposed for the Pine Tree project, and the new turbines will be spaced farther apart than those currently in place at Altamont. Once again, the data and conclusions in the Draft EIR/EA were not derived from studies at Altamont, which is an entirely different environment. They are derived from direct observations and monitoring that occurred over a 2-year period of time at the Pine Tree project site.

Also, because no substantial songbird mortality has occurred at Altamont, these changes are designed to reduce raptor fatalities. In addition, based on extensive site surveys (including fall 2004 and winter 2004-2005 surveys included as Attachment A at the end of Section 2.0

of the EA/Final EIR), raptor use at the project site is estimated to be 40 percent lower than the average use in the Tehachapi WRA, 50 percent lower than the average use found at other active or proposed wind energy developments, and 90 percent lower than the average use in the Altamont Pass WRA.

Based on the methodology, protocol, and extent of avian surveys, the studies and assessments completed for the proposed project are adequate. All field studies were conducted according to standard methodologies accepted by the resource agencies. The mitigation measures outlined in the Draft EIR/EA have been developed in coordination with the various resource agencies involved with the review of the proposed project. The resource agencies will also have additional opportunities to address concerns over potential impacts to listed species and their habitats through the federal and state Endangered Species Act consultation processes.

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PLANNING DEPARTMENT

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Web Address: www.co.kern.ca.us/planning

RESOURCE MANAGEMENT AGENCY

DAVID PRICE III, RMA DIRECTOR
Community & Economic Development Department
Engineering & Survey Services Department
Environmental Health Services Department
Planning Department
Roads Department

Letter 3

January 6, 2005

File: EIR
ZC 4, ZC 12; ZZ 3
Map 151-1, 151-2

Los Angeles Department of Water and Power
Attn: Ms. Tania Bonfiglio
111 North Hope Street, Room 1044
Los Angeles, California 90012

RE: Pine Tree Wind Development Project (SCH# 2004041076) (BLM# CA-650-2005-13)
Draft Environmental Impact Report / Environmental Assessment– Comments

Dear Ms. Bonfliglio,

The Pine Tree Wind Development Project is the approval and construction of 80, 1.5 –megawatt (MW) wind turbine generations, several meteorological towers, an electrical collection system, a substation, a transmission line to connect with the regional electrical grid, an operations and maintenance (O & M) building and access roads. The proposed property is currently zoned E-20 (Estate, 20 acre minimum lots) with a General Plan designation of 8.3 (Extensive Agriculture (minimum 80 or 20 acre parcel size) and 8.3/2.4 (Extensive Agriculture/Steep Slope). Implementation of the project in conformance with the General Plan for a commercial wind energy project will require the processing and approval of a zone change application to A(Exclusive Agriculture) WE (Wind Energy Combing) District. In addition a Conditional Use Permit will be required for the concrete batch plants during the ten month construction period. These are discretionary actions by the Board of Supervisors and Kern County is, therefore, a Responsible Agency under CEQA (PRC 21069).

The Kern County Planning Department intends to utilize this Environmental Impact Report for the processing of the Zone Change and Conditional Use Permit application for your project. The following comments are intended to comply with the requirements of CEQA , specifically Section 15096 of the CEQA Guidelines, that discuss the process and role of a responsible agency.

3.1

The Kern County Planning Department has reviewed the Draft Environmental Document for content and concurs with the findings regarding significance determination. Staff requests that any requests for clarification or modifications of mitigation measures made by County Departments having jurisdiction over the implementation of the project be made in the Final Environmental Impact Report.

Letter 3
Cont'd.

Please provide a copy of the Response to Comments on the Draft EIR, copy of the Final EIR, Hearing Notices for consideration before your Board and staff reports to this department.
We appreciate the working relationship the Los Angeles Department of Water and Power has maintained with this department. If you have any questions regarding the letter please call the staff planner assigned to this project, Lorelei Oviatt at (661) 862-8866 or email at Loreleio@co.kern.ca.us.
Thank you.

Sincerely,

Lorelei H. Oviatt, AICP
Supervising Planner

cc. Kathe Moluf

Response to Letter 3
County of Kern, Planning Department, January 6, 2005

3.1 Comment noted. All requests for clarifications and modifications to mitigation measures by County Departments having jurisdiction over the implementation of the proposed project have been incorporated in the EA/Final EIR.

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Letter 4

ROADS DEPARTMENT
CRAIG M. POPE, P.E., Director
2700 "M" STREET, SUITE 400
BAKERSFIELD, CA 93301-2370
Phone: 661-862-8850
FAX: 661-862-8851
Toll Free: 800-552-5376 Option 5
TTY Relay: 800-735-2929
E-Mail: *roads@co.kern.ca.us*

RESOURCE MANAGEMENT AGENCY
DAVID PRICE III, RMA DIRECTOR
Community Development Program Department
Engineering & Survey Services Department
Environmental Health Services Department
Planning Department
Roads Department

January 6, 2005

Ref: 7-8.1 Notice of Availability of a Draft Environmental Impact Report/Environmental Assessment for the Pine Tree Wind Development Project
4-0.0 Jawbone Canyon Road, 589X

Los Angeles Department of Water and Power
Attn: Ms. Tania Bonfiglio
111 North Hope Street, Room 1044
Los Angeles, California 90012

Dear Ms. Bonfiglio:

Thank you for the opportunity to comment on the above noted project. The Kern County Roads Department recommends the following items to be included in the document:

4.1 1. Page ES-30, M M 7.4 add the following:
Transportation permits for oversized and overweight loads on the County maintained portion of Jawbone Canyon Road on holidays and high use weekends will be issued at the discretion of the Kern County Roads Department.

4.2 2. Page 3.3-3, last paragraph, add the following:
Culverts shall be installed under encroachment permit issued by the Kern County Roads Department within the County maintained portion of Jawbone Canyon Road.

4.3 3. Page 3.7-8, M M 7.4, first bullet add the following after BLM:
Kern County Roads Department.

4.4 4. Page 3.7-8, M M 7.4, second bullet add the following:
If a temporary closure for the County maintained portion of Jawbone Canyon Road is allowed, it shall be in accordance with Kern County Roads Department policies and standards.

We have no comments regarding the project's traffic study.

Very truly yours,

Don Turkal
Engineer III

DT:nb
I:\admin\L8218
cc: Lorelei Oviatt, Planning Dept

Response to Letter 4
County of Kern, Roads Department, January 6, 2005

4.1 The requested change on page ES-30 (MM 7.4) has been incorporated by reference in the Draft EIR/EA. The change has also been incorporated by reference on page 3.7-8 (MM 7.4). Please see Section 3.0 (Changes to the Draft EIR/EA) in the EA/Final EIR.

4.2 The requested change on page 3.3-3 has been incorporated by reference in the Draft EIR/EA. Please see Section 3.0 (Changes to the Draft EIR/EA) in the EA/Final EIR.

4.3 The requested change on page 3.7-8 (MM 7.4) has been incorporated by reference in the Draft EIR/EA. The change has also been incorporated by reference on page ES-30 (MM 7.4). Please see Section 3.0 (Changes to the Draft EIR/EA) in the EA/Final EIR.

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Kerncrest Audubon Society

P.O. Box 984
Ridgecrest, CA 93556

Letter 5

January 6, 2005

Ms. Tania Bonfiglio
Los Angeles Department of Water & Power
111 N. Hope St., Room 1044
Los Angeles CA 90012

Re: Pine Tree Wind Farm DEIR/EA, November 9, 2004, LADWP & BLM

Dear Ms. Bonfiglio,

5.1 Several members of our Chapter attended the public meeting December 8 in Ridgecrest and have reviewed the Draft EIR/EA. We realize that you are required to make 15-20% of your energy from alternate sources. However, more stringent conservation efforts are also needed in your sphere of influence in Los Angeles. We don't feel that enough progress has been made in the conservation area, such as the use of solar on existing and new construction.

5.2 We are in favor of alternate energy sources such as wind turbines, however it would be better to relocate this project to a less sensitive area that is closer to existing transmission lines and would thus leave untrammeled, native habitat which recovers so very slowly from disturbance.

5.3 At the meeting, and reading the DEIR/EA, we see that in the 2 years of avian surveys on the property, combined with conclusions from the Tehachapi WRA, you conclude that you are outside the path of greatest avian migration. But because the Pine Tree site is closer than other sites to a known major migration route, which proceeds down Kelso Valley to Butterbredt Spring, and then down Jawbone Canyon, we question that conclusion and think that the number of migrants will be greater than that found in the Tehachapi area, not lesser. We do not feel that an adequate avian survey was done.

5.4 If this project proceeds, we strongly suggest that a year-round monitoring program be conducted, and that program should include night monitoring for migrants. We also know that more than 30,000 Turkey Vultures and many other raptors migrate over that route in September and October, and request that a survey is taken throughout that period. We would like to see the results of the fall survey just completed and then the one for winter when it is completed.

5.5 We are concerned for the Golden Eagles in the area since a death of one of them would be a major loss for the local population. Many years ago, our Chapter was instrumental in obtaining closure of the Nightmare Gulch area in Red Rock Canyon State Park for the nesting season of Golden Eagles and other raptors. The area of the wind farm is most certainly part of their range.

Letter 5
Cont'd.

5.6 We feel very strongly that the cumulative impacts of bird and bat strikes should have been addressed differently than you did. By stating that the project is not cumulative and significant in the context of the whole Tehachapi WRA and that there would be the same number of bird deaths with or without Pine Tree, you sidestep the fact that even a minor addition of turbines is still an addition to the whole. Especially when there is a current mostly-finished project and certainly more projects to come. We request that you address this important cumulative impact. When LADWP reports to CDFG or USFWS on mortality of birds and bats, we request that we also be notified and receive copies.

5.7 You said that it is in your best interests to look good on this project, so you will be holding your workers to stringent guidelines during construction. We are also concerned about how the public will know, during and after, that mitigation measures are being accomplished. Who monitors and answers to who? Are vehicles and people staying within cleared impact zones, honoring flagged plants, observing speed limits, alert for tortoises, etc.? We know from past projects that while these guidelines are on paper, they are often not practiced in reality unless monitored by an independent party. We strongly suggest that there are independent biologists on the site.

5.8 We support the use of local native plant material for revegetation and that it is replanted as needed until it is successful. We support only the lighting that may be required by the FAA, but if they require lights that contribute to light pollution, we request shielded lighting. Dark skies are a right and a necessity for night flyers.

5.9

5.10 We request that there be ongoing exotic plant removal along disturbed roadsides and cleared areas during the life of the project, and maintenance to control erosion problems. We request life-of-project monitoring of avian and bat mortality

5.11 Thank you for considering our comments. Please continue to keep us informed about this project.

Sincerely,

Terri Middlemiss

Terri Middlemiss, Conservation Chairman & Vice-President
8016 Lorene Ave.
Inyokern CA 93527
catbird4@earthlink.net

cc: Peter Graves, BLM
Hector Villalobos, Ridgecrest BLM
Supervisor Jon McQuiston, Kern County

Response to Letter 5
Kerncrest Audubon Society, January 6, 2005

5.1 As discussed in Section 1.2 of the EIR, the proposed project is needed so that LADWP may meet commitments to supply an increased share of its electrical generation capacity from clean and renewable energy sources. LADWP has proposed a Renewable Portfolio Standard (RPS) intended to increase the amount of energy it produces from renewable power sources to 13 percent of its energy sales to retail customers by 2010 and to 20 percent by 2017. The 20 percent objective, although self-imposed by LADWP and the City of Los Angeles, is the same as that required of investor-owned utilities under state legislated mandates. This renewable energy commitment is intended to complement, not replace, LADWP's ongoing commitments to energy efficiency and solar programs. Programs such as demand side management (DSM), distributed generation (DG), re-powering of in-basin generation, and solar are complementary to the proposed project and will continue as planned whether or not the proposed project is implemented.

DSM programs are aimed at both a reduction in energy consumption for specific end uses (customer energy efficiency) and load management (a shifting of load to off-peak hours). To implement these programs, LADWP considered the unique energy use characteristics for each end user and divided its customer base into the following four sectors: large commercial, industrial, governmental, and residential/small business. To promote market transformation and energy savings for commercial rate customers, LADWP established the Commercial and Industrial energy efficiency programs, collectively known as Efficiency LA. Partnering with area contractors, manufacturers, and customers, LADWP's Efficiency LA programs provide cash incentives for the replacement of older, energy-wasting equipment with new energy efficient equipment, including heating, ventilating, and air conditioning systems (HVAC); chillers; and commercial lighting. The City of Los Angeles is one of LADWP's largest commercial customers in terms of both the number of facilities and its electrical energy consumption. As such, LADWP is focusing attention on improving the efficiency of existing City facilities, which include incentives for lighting, HVAC, and chiller retrofits of those facilities.

In 2002, LADWP launched a program providing consumer rebates for its residential customers. The Residential Consumer Rebate program provides cash incentives for customers who purchase and install qualifying high-efficiency equipment, including air conditioning equipment and controls, appliances, lighting products/ceiling fans, and high-efficiency pool pumps. The program has received wide support and has effectively promoted energy efficiency in the residential sector with over 25,000 rebates provided to LADWP customers. Additionally, the Residential Consumer Rebate Program has contributed to uniform utility rebates throughout California while promoting the use of high-efficiency equipment and appliances in the LADWP service territory.

These DSM programs are expected to result in 14 megawatts (MW) of peak demand reduction and over 500 gigawatt-hours (GWh) of energy savings over the life of the included measures. The average costs of achieving these savings are $482 per kilowatt and $0.013 per kilowatt (kW)-hour over the expected life of the installed efficiency measures. Based on a recommendation by a 2002 Controller's Office audit, the Total Resource Cost Test was used

to evaluate the cost-effectiveness of these programs. The results of that test show that each $1.00 spent on these programs yields $2.75 in societal benefits.

DG places small electric generators of various types at or near the point of demand. This provides energy to customers with reduced losses when compared to traditional central generation stations and distribution systems. DG systems include fuel cells, microturbines, and other engines. Currently, DG technology is more expensive than central station generation, but it is anticipated that costs will decline in the future. It is estimated that the DG programs will generate energy savings of approximately 17 MW by 2005 and 70 MW by 2010.

Repowering refers to the modernization of LADWP's large gas-fired generating stations located in the Los Angeles basin. This modernization entails the replacement of 10 aging and inefficient conventional steam boiler generating units with combined cycle generating systems (CCGSs), in which the exhaust heat from natural gas-fired turbines is recaptured and used to produce steam that in turn drives a steam turbine to produce additional electrical energy. The CCGSs are significantly more efficient than the traditional steam boiler generator units, resulting in an approximate 30 percent reduction in fuel consumption per unit of energy produced. This increased efficiency, along with modern air pollution control systems installed as a component of the CCGSs, will in turn lead to significant reductions in air pollutant and carbon dioxide emissions when compared to the existing generating stations. At present, four existing in-basin generating units have been replaced with CCGSs, another two units are currently being replaced, and the replacement of two additional units is in the planning stages.

LADWP's Solar Photovoltaic Incentive Program provides an incentive payment to LADWP customers that purchase and install their own solar power systems. The goal of the solar program is to support the generation of clean local renewable energy by providing incentives for the installation of solar photovoltaic systems throughout Los Angeles and to foster a self-sustaining solar photovoltaic industry by reducing the incentive amount over time. LADWP also provides an additional incentive payment for systems using photovoltaic modules manufactured in the City of Los Angeles. The goal of the Los Angeles Manufacturing Credit is to promote local economic development through manufacturing and job creation within the City of Los Angeles and to reduce costs through increased volume and competition.

To ensure broad and equitable distribution of incentive funds among all customer classes, the Solar Photovoltaic Incentive Program's available funding is allocated among small, medium, and large customer categories. Only permanently installed systems are eligible for incentives. Separate from the categories listed above, incentive funding is also available for qualifying affordable housing projects. Also, customers installing solar power systems are eligible for LADWP's Net Energy Metering program, which allows customers whose solar power systems generate more electricity than they use to receive an energy credit toward future energy use.

Initiated in 2000, LADWP's Solar Photovoltaic Incentive Program is now one of the largest programs of its kind available nationwide. The incentives offered through this program meet or exceed other incentive programs offered by municipally- as well as investor-owned utilities. At present, nearly 10 MW of solar energy have been added through the incentive

program and City facility installations. LADWP has extended the Solar Photovoltaic Incentive Program until June 2011, with a total commitment of $150 million.

As part of LADWP's ongoing commitment to initiatives that reduce energy use and improve air quality, LADWP launched its Trees for a Green LA program in 2002. Trees for a Green LA provides residential customers with knowledge to plant and care for shade trees around their homes. Residents are eligible to receive up to seven free shade trees. By providing natural urban shading, mature trees help reduce air conditioning use and associated costs at homes and other building by up to 20 percent. An independent analysis of Trees for a Green LA, conducted by the U.S. Department of Agriculture Forest Service's Center for Urban Forest Research, shows that the annual average energy savings per tree planted will total 81 kilowatt-hours. By reducing energy use, trees directly lessen the air pollution that comes from the generation of electricity. The analysis also indicates that, over the expected 30-year lifespan of the first 200,000 trees planted, the program will reduce the emission of smog-forming pollutants by more than 7,600 tons. By removing carbon dioxide from the atmosphere and reducing carbon dioxide emissions from electricity generation, trees help lower the rate of global warming. To date, over 28,260 shade trees have been planted through Trees for a Green LA. In addition to the Trees for a Green LA program, LADWP sponsors the Cool Schools program, under which over 8,260 shade trees have been planted to date on school campuses in the City.

5.2 The relocation of the proposed project as a means of reducing potential impacts associated with the development at the proposed project site was discussed in Section 3.13 (Alternatives to the Proposed Project) of the Draft EIR/EA. While many factors must be considered in the siting of wind energy projects, a primary factor is the adequacy of the wind resource to generate sufficient power in a cost-effective manner. As discussed in the Draft EIR/EA, the California Energy Commission has identified several areas of high wind resource potential in Southern California. In addition to offshore areas around the Channel Islands, relatively large areas have been identified in the southwestern corner of Imperial County, along the border with Mexico; in the Cajon Pass area in southwestern San Bernardino County; west of the cities of Palmdale and Lancaster in northern Los Angeles County; in the San Gorgonio Pass area near Palm Springs in Riverside County; and in the Tehachapi WRA, within which the proposed project is located. San Gorgonio and Tehachapi are the most highly rated of these resource areas in terms of wind energy production capability. This is evidenced by the fact that virtually all wind energy development in Southern California has occurred within these WRAs, representing approximately 2,000 GWh of annual energy output. As the demand for renewable energy rises and as improved technologies increase the efficiency and effectiveness of wind power generation, it is likely that additional wind energy projects may be developed in many or all of the resource areas identified above.

An analysis to determine the capability for wind energy generation, the availability of electrical transmission capacity, and the extent of potential environmental impacts related to wind energy development in these various areas located throughout the Southern California region is beyond the scope of this EIR/EA, which is project specific in nature. Such a broad analysis would more appropriately be accomplished in a Programmatic EIR and/or Environmental Impact Statement conducted by a lead agency with jurisdiction over energy and/or development policy at a regional or state level. Such a comprehensive analysis may require the formation of a Joint Powers Authority consisting of numerous agencies and local governments with an interest in wind development in Southern California. LADWP is

proposing the Pine Tree Wind Development Project to help meet its stated goals for renewable energy development, and the department will continue to develop renewable energy sources of all types, potentially including other specific wind energy projects in the region.

However, the Draft EIR/EA did consider an alternative location in the vicinity of the proposed project that has the potential to meet the project objectives relative to wind resources, generation capacity, consolidated private property holdings, and proximity to electrical transmission lines with available capacity (see Section 3.13 of the Draft EIR/EA). It was concluded that the alternative site would not eliminate or substantially lessen any of the impacts of the proposed project. While no other specific alternative sites were analyzed because of the limitations described above, no site would be free of environmental impacts in relation to the development of the proposed project. Recently proposed wind energy developments at lower elevations in the Antelope Valley have raised concerns about visual, recreation, and biological impacts related to the California Poppy Reserve. Likewise, development of the proposed project at lower elevations closer to the existing LADWP Inyo-Rinaldi transmission line adjacent to SR-14 would likely increase environmental impacts related to visual resources, sensitive desert tortoise and Mohave ground squirrel habitat, and critical military aviation training and testing missions.

LADWP is currently preparing an on-site mitigation plan with respect to native habitats to compensate for the impacts associated with the construction of the proposed project. Once approved by agencies such as California Department of Fish and Game and federal Bureau of Land Management, the plan would be implemented and monitored, including monitoring by the regulatory agencies themselves, pursuant to the conditions established for the permit (monitoring usually occurs for a period of 3 to 5 years). The monitoring period assures that the restoration achieves a predetermined level of success over the monitoring period and achieves a good likelihood of permanent success.

5.3 The direct observations of the project site and the information contained in the Draft EIR/EA have not led to conclusion that the site is outside of the path of avian migration. The surveys over the past 2 years, including the formal avian surveys, lead us to the conclusion that the project site (where turbines would be located) lacks substantial activity by either raptors or songbirds during migratory periods. This does not mean that no migration occurs through and over the site. The spring avian survey report notes that, "No large numbers of passerines were observed in this location [a riparian area of the site near observation point 2A], although individuals were observed foraging in the trees that were probably migrating through the area (e.g., hermit warbler, black-throated gray warbler, yellow-rumped warbler, ruby-crowned kinglet)." The lack of evidence of substantial use of the site does allow us to deduce that there is minimal avian activity where turbines are proposed, and hence less than significant potential for impact.

There is no doubt that the southern Sierra Nevada Mountains, including the Tehachapi Mountains and the adjacent desert and foothills, experience significant migration during both spring and fall. In relation to the location of Butterbredt Springs, located approximately 8 miles to the northeast of the project site, the localized migration associated with it would pass well east of the proposed project turbine sites. The logical reasons for migrants to be attracted to the turbine areas on the Pine Tree project site would need to include good habitat surrounding riparian areas as well as dense and expansive cover in riparian areas. An

adequate source of water would also need to be present. However, these conditions are marginal on the site. Even if it were assumed that birds do travel up Jawbone Canyon (during the northerly spring migration), they would eventually be traveling in a southerly direction to disperse throughout the Pine Tree site, which would be contrary to their migratory route in spring. The proposed wind turbines would be located in the western end of Jawbone Canyon, some 10 miles from the mouth of the canyon, near SR-14. Anecdotal information from at least one Draft EIR/EA commenter and an unpublished report indicate that the localized spring migration in the area is from southeast to northwest and that the migration is captured in northwest-southeast trending canyons, such as the east portion of Jawbone Canyon. The Jawbone Canyon migration continues in a northwesterly direction up Alphie and Hoffman canyons through the topographic pinch point of Butterbredt Springs. This would take the localized migration well east of the proposed project property, which encompasses northeast-southwest trending portions of upper Jawbone Canyon. Our data based on extensive field observations show that there are no other logical reasons, such as good habitat or adequate cover and water, for a substantial number of birds to be loafing or resting in the proposed turbine areas. There is a reason that birds seek Butterbredt versus the proposed project site (i.e., a readily available source of water and its location along the local canyon migratory pathway).

The protocol for the avian study is responsive to the level of effort recommended in the National Wind Coordinating Committee (NWCC) Guidance Document (Anderson et al. 1999) and the recently released United States Fish and Wildlife Service (USFWS) Interim Guidelines. The NWCC Guidelines call for an initial reconnaissance survey. The goal is to identify locations or sites that have a high probability of substantial bird fatalities. Reconnaissance surveys are composed of several site visits, a literature survey, analysis of unpublished data, interviews with local experts, and other information that might be available. From the reconnaissance survey, a Level 1 Survey may be recommended. The Level 1 Survey is designed to quantify the numbers, species, and activity of birds in the project area. Available avian mortality data indicate that individual turbines are often responsible for the majority of fatalities in a development because they are located where they may attract birds, such as near gullies or concentrations of prey. The survey protocol also addressed the potential for occurrence of bats. Specific pre-construction surveys are designed to site turbines such that minimal or no mitigation is required during facility operation. Both reconnaissance and Level 1 surveys have been completed at the Pine Tree project site, and avian studies are continuing at present.

The study protocols, observations, point counts, and statistical results of the avian survey, which included the important spring season, were presented in the Draft EIR/EA (with specifics included in Appendix F within Appendix D). It must be emphasized that these data are not derived from the Tehachapi WRA, Butterbredt Springs, or any other areas in the region. They are derived from direct observations and monitoring that occurred at the Pine Tree project site as required by the monitoring protocol. The use of avian data from the Tehachapi WRA was done to provide a comparison to test the reasonableness of the Pine Tree conclusions. The Tehachapi WRA is the closest to Pine Tree site of principal wind resource areas, has many of the same habitat types, and includes many of the same species of wildlife. While there are distinct differences between the project site and the Tehachapi WRA, there are also similarities that allow for such direct comparison, with qualification provided in the Pine Tree survey report.

5.4 LADWP plans to continue avian monitoring of the site through the construction period and for at least the first year of operations. That would provide at least 3 years of continuous avian monitoring and 5 years of biological resource investigation at the site. Night surveys would likely only reveal what is already known – that birds fly over the site at night. However, this fact by itself is not predictor of avian mortality, and it is a fact that some wind developments lie directly in areas that are known migration routes. Erickson et al. (2002) summarized the observed and likely potential impact of wind farms on passerine and other non-raptorial birds, including nocturnally migrating species. They found that nocturnal migrants are estimated to comprise approximately 50 percent of the fatalities at new wind projects (estimated range 34 to 59%), based on timing and species observed during standardized fatality monitoring. There has been no reported large episodic mortality event (e.g., >50 passerine birds during a single night) recorded at a U.S. wind plant. Two small nocturnal avian mortality events have been published at U.S. wind plants. Fourteen nocturnal migrating passerines at two turbines at Buffalo Ridge (Minnesota) were killed on one night during spring migration after a thunderstorm. At the Mountaineer Wind Energy Center, West Virginia, 33 (47.8%) of 69 passerine fatalities occurred on one night at a few turbines adjacent to a well-lit substation during spring migration (Kerns and Kerlinger 2004). The data suggest that sodium vapor lamps at the substation were the primary attractant, since fatality locations were correlated with the location of the substation, and the other turbines away from the substation had few fatalities documented the morning after the event. After the lights were turned off at the substation, no events occurred. Erickson et al. (2002) were not aware of any other mortality events greater than a few birds at single or adjacent turbines found during a single search at any U.S. wind plant.

Night surveys are of limited usefulness to the prediction of avian impact. Use of radar and other scanning techniques do not distinguish among species and it is difficult to tell whether the same bird or bat may pass through the scan more than once. Just knowing that there are bird species passing overhead has not been demonstrated as an accurate or reliable predictor of avian risk at wind power sites. The primary reason is that there have not been any wind power projects where night migration fatalities have been considered biologically significant. Most studies of North American bird migration using techniques such as radar have suggested that nocturnal migrants follow a broadfront migration pattern, flying at high altitudes, where they are not affected by variation in surface topography (e.g., Lowery and Newman 1966; Able 1972; Richardson 1972; Williams et al. 1977 in Williams et al. 2001). While there is some expected mortality of nighttime migrants, numbers of fatalities for individual species from the many fatality studies conducted in the West suggest levels inconsequential to the affected species (Erickson et al. 2002).

Morrison addressed observations of turkey vultures in his fall 2004 survey report. Dr. Morrison noted only a few turkey vultures at the site during the survey period. However, based on literature research, it is known that turkey vultures migrate through the area by the thousands each year (Anderson et al. 2004). They found, however, that even though the Tehachapi area may experience relatively high use periodically by turkey vultures, their fatality was low, suggesting they are not very susceptible to collisions. The fall 2004 and winter 2005 survey reports are provided at the end of Section 2.0 as Attachments A-1 and A-2, respectively, in this EA/Final EIR.

In other findings from the fall 2004 survey report, Morrison found no large movements or concentrations of non-raptorial birds (e.g., songbirds, quail) in the project area. The most

frequently observed songbirds were mixed flocks of white-crowned sparrows and golden-crowned sparrows, which were seen throughout the project area during fall. Additionally, large (approximately 50 individuals) flocks of California quail were frequently observed throughout the project area in grassland and shrubland. No information was gathered on the movement of birds at night. However, observations conducted during the day did not identify any large numbers of migratory species (e.g., warblers, vireos, sparrows) that appeared to be using the project area for foraging or loafing (i.e., as a daytime stopover location during migration).

Similarly, the winter 2005 survey shows that the project site does not serve as a major wintering area for raptors or other bird groups. Some species, such as the prairie falcon, appeared to spend a brief period of time in the project area and then depart. Other species, such as the red-tailed hawk, appeared to be both resident and transitory in the area in low numbers in winter. It also appeared that the abundance of certain species, such as meadowlarks and sparrows, declined as winter progressed.

5.5 The Pine Tree Wind Development Project Biological Technical Report and the avian surveys affirm that golden eagles were observed at the site and that the site is within their range. No nest of a golden eagle was found on site in spring 2004; one pair was seen occasionally on the eastern edge of the site. Golden eagles, like all other raptors that would be expected at the site, are distributed throughout the Tehachapi Mountains and Southern California. Thus, there is no local population, which by definition would require that the birds be almost completely isolated (for breeding/genetic purposes) from other populations. The loss of a golden eagle would not jeopardize the species or extirpate them from the general or local area.

5.6 Cumulative impacts were addressed consistent with the requirements of CEQA and NEPA. Accordingly, cumulative impacts are those impacts on the environment that may result from the incremental effects of the proposed project when they are added to the effects from other past, present, and reasonably foreseeable future projects. As required under CEQA and NEPA, Section 3.11 of the Draft EIR/EA, as revised in the EA/Final EIR (see Section 3.0, Changes to the Draft EIR/EA, in the EA/Final EIR), provides a discussion of the potential cumulative impacts of the proposed project. The CEQA Guidelines require that a cumulative impacts analysis identifies related projects in the area of the proposed project, summarizes the expected environmental effects of those related projects, and analyzes the cumulative impacts of the proposed and related projects. The Draft EIR/EA considered both temporary cumulative impacts, associated with the construction activities of the proposed and related projects in the area, and long-term cumulative impacts, associated with the permanent effects and continued operations of the proposed and related projects.

Specific to avian impacts, the results of Anderson et al. (2004) relative to the Tehachapi WRA were summarized and considered in quantifying avian risk at the project site. The avian mortality at Tehachapi was considerably less than that observed at many other Western wind resource areas. The Pine Tree project is predicted to add comparatively few additional mortalities given the relatively small number of turbines added. As such, there would not be a substantial cumulative effect. The determination of cumulative impact is one of biological magnitude, not mere addition, especially of generally small numbers. If this were not the case, any project that created any impact whatsoever, regardless of how insignificant, would need to be considered cumulatively significant simply because it added to an existing impact.

It is noted that the Tehachapi data have been used to assist with the quantification of avian impacts at the Pine Tree project site, but the combined mortality effects on avian species are only part of the avian mortality equation. There are many other reasons for avian mortality and evidence suggests that wind power is not a major source. For example, the American Wind Energy Association (AWEA) notes that the Deputy Director of the Fish and Wildlife Service, in a September 15, 2003, correspondence, states that, with limited exception, impacts on birds from wind farms in the U.S. are low compared to impacts on birds from communication towers, power lines, and building windows (American Wind Energy Association, Comments on Interim Avian Guidelines, 2004). This available information, coupled with the on-site observations, led to the conclusion that the proposed project would not have a significant cumulative impact.

LADWP would consider a future request by Kerncrest Audubon Society to make specific information on mortality available. However, LADWP cannot do this as an adjunct to the regulatory requirement.

5.7 LADWP has established extensive procedures for resource mitigation during construction that have the force of law. These procedures will be overseen by California Department of Fish and Game (CDFG) wardens and regulatory specialists, Bureau of Land Management resources specialists, independent consulting biologists and archaeologists, LADWP resource personnel, and Kern County staff. The mitigation measures specified in the EA/Final EIR are substantiated through several actions. Mitigation measures are enforced through CEQA's requirement for mitigation monitoring. The Mitigation Monitoring and Reporting Program is included in Appendix A of this EA/Final EIR. Responsibilities for monitoring each mitigation measure and the reporting requirements are established within the documentation. The mitigation measures will also be used to establish agreements for habitat removal, streambed alteration, and potential take of species covered by the federal and state Endangered Species Acts. The agreements entered into and permits issued have the force of law. During construction activities, monthly and final compliance reports would be provided to USFWS, CDFG, and other relevant regulatory agencies documenting the effectiveness of mitigation measures and the level of take associated with the project.

Since the project is carried out by a public agency and there is substantial public agency oversight of construction and operations, the public would have access to the information. In fact, the public agency oversight of this project would be more extensive than for any other project in the Tehachapi WRA, since those have generally been private ventures.

5.8 Mitigation Measures 2.5-3 and 5.4-6 include the requirement for use of weed-free native seed mixes for restoration. The mixes to be used would be first approved by CDFG and BLM.

5.9 As discussed in the Draft EIR/EA, no lighting, except that required by the FAA, is proposed for the turbines or electrical transmission towers (e.g., area lighting at each turbine site). However, because the project turbines and meteorological towers would exceed 200 feet in height, a Notice of Proposed Construction or Alteration (Form 7460-1) would need to be filed with the FAA. Accordingly, the FAA will review the proposed project prior to construction and may recommend that tower markings or lighting be installed for aviation safety. In accordance with Mitigation Measure 5.14-3 in the Draft EIR/EA, lighting required for aircraft safety purposes should be placed when practicable on meteorological towers, or

lights should be placed on towers with the least potential to attract birds but consistent with FAA lighting requirements.

5.10 LADWP is currently in negotiations with CDFG and USFWS to establish an on-site mitigation plan with respect to native habitat enhancement, exotics removal, and erosion control within disturbed areas of the project site. The basis of these agreements begins with the relevant mitigation measures contained in the EA/Final EIR (see Mitigation Measure 2.5-3 addressing exotic plant prevention and removal). Upon approval from the resource agencies, LADWP would implement the approved mitigation measures outlined in the plan. As with all mitigation plans, there will be an intense monitoring period that follows (usually 3 to 5 years) to ensure the restoration plan achieves the extent of growth and cover specified in the agency's permit authorization and has a good likelihood of establishing permanently.

5.11 As noted above in the response to comment 5.4, LADWP plans to continue avian monitoring of the site through the construction period and for at least the first year of operations. That would provide at least 3 years of continuous avian monitoring and up to 5 years of biological resource investigation at the site. Year-round monitoring for the life of the project is not warranted based on the data gathered to date at the site as well as the collective operating experience of the wind industry relative to passerine migrant mortality. The number of years of formal post-construction investigation should be contingent upon pre-construction assessments of risk and upon the significance of impacts occurring during the first year of operation. Because wind turbines have not been implicated in large-scale events that occur at regular intervals extending beyond a year, there is no reason to presume that one year of operational monitoring, coupled with 3 years of pre-operations site observations and existing information from other wind projects, is not sufficient to determine whether a project would have impacts different than portrayed in the environmental document. In addition to monitoring, LADWP has agreed to implement operational modifications of a turbine(s) that results in disproportionately high avian mortality when compared to other turbines on site.

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Letter 6

January 2, 2005

Ms. Tania Bonfiglio
Los Angeles Department of Water and Power
111 N. Hope Street, Room 1044
Los Angeles, CA 90012

Dear Ms. Bonfiglio,

The following are the comments of the Kern-Kaweah Chapter, Sierra Club, in response to the Draft Environmental Impact Report/Environmental Assessment (EIR/EA) for the Pine Tree Wind Development Project.

6.1 The project study area, ranging in elevation from 3,000 – 5,000 feet, is a highly scenic and biologically rich region with diverse vegetation communities and wildlife species. The project study area is primarily undeveloped and although it has suffered from overgrazing, it provides a relatively pristine habitat for the 114 wildlife species identified in the surveys. Of these 114 species, 46 sensitive wildlife species have been identified and are known to occur within the project vicinity. Two federally listed species in particular have been detected on-site: the Desert tortoise, and the Mohave ground squirrel.

6.2 The greater Tehachapi Wind Resource Area (WRA) covers an expansive area over a wide range in topographic relief and diverse vegetation communities. Much of this WRA has already been developed for wind generation facilities. While the Sierra Club supports and promotes alternative energy such as wind generation, some wind resource areas must be avoided due to sensitive biological resources and impacts that cannot be mitigated. The Pine Tree project proposes development in a fairly pristine habitat that is adjacent to existing wind energy facilities. The Draft EIR, though comprehensive, does not address cumulative environmental impacts of this project in relation to the other wind facilites within the Tehachapi WRA. The following are environmental concerns we have regarding the Pine Tree project.

6.3 WILDLIFE - There is a diverse array of wildlife species within the project study area, due to the large size, numerous vegetation communities, and mostly undeveloped nature of the study area. The region supports large and small mammals, reptiles, amphibians, birds, and insects, totaling 114 species. We have concerns for indigenous wildlife species due to direct and indirect impacts from wind generation activity causing wildlife displacement, injury, and even death. The proposed project will result in direct/indirect and temporary/permanent impacts to wildlife within the study area. The avoidance, minimization, and mitigation measures listed are extensive and thoughtfully presented. However, due to lack of long-term enforcement, most mitigation measures fail in protecting a sensitive resource. Complete avoidance in the most sensitive wildlife areas may be the only acceptable alternative. Of the 46 sensitive wildlife species potentially occurring both on-site and in the project vicinity, 22 were rated with a "low" or "not detected" probability of occurring on the project site. Were the field survey days adequate to assess detection?

6.4 Of greatest concern, are both federally listed, state listed, and numerous species listed with sensitive status with the California Department of Fish and Game (CDFG), Bureau of Land Management (BLM), and West Mojave Plan (WMP). The listed species having the potential to occur within the project vicinity are: desert tortoise, California condor, mountain plover, western

6.4 Cont'd

yellow-billed cuckoo, least Bell's vireo, bald eagle, California bighorn sheep, Tehachapi slender salamander, Swainson's hawk, American peregrine falcon, and Mohave ground squirrel.

The Executive Summary and the Biological Technical Report discuss the mitigation measures and residual impacts after mitigation. Of particular concern are the following wildlife species:

6.5

1. Desert tortoise – (Direct temporary and permanent impacts) We support the many mitigation measures listed, such as: on-site monitoring, pre-construction tortoise clearance surveys, contractor education program, on-site signage, speed limit restrictions, and no berms on road ways. However, permanent loss of habitat, high potential from vehicle strikes, and relocation should be considered as "significant" impacts, not "less than significant." The desert tortoise is in a serious population decline in the West Mohave desert. Project impacts will stress an already weak population in the area. Although Pine Tree Canyon and parts of Jawbone Canyon have been identified as suitable but marginal habitat, several tortoise burrows and a tortoise siting were made in both canyons.

6.6

2. Mohave ground squirrel – (Direct temporary and permanent impacts) One of the mitigations offered is "conservation of in-kind habitat of equal or greater value than that impacted..." It is not acceptable to displace/impact an existing population with the justification of protecting similar habitat elsewhere.

6.7

3. California condor – Habitat on the east slope of the Tehachapi Mountains is considered less suitable to condors, and based on low wild populations, this species is not expected to occur within the proposed project area. However, wild condor population numbers are increasing, and condors are known to fly up to 150 miles per day. Considering the existing wind generation facilities already covering potential habitat, the upper elevations of Pine Tree Canyon may serve as suitable condor habitat.

6.8

4. Raptors –(Direct and permanent impacts) Most of the project site is potential raptor habitat for foraging. Nesting sites have also been identified. There is a documented golden eagle nest on the north flank of Cross Mountain, which is directly east of the project area. Of particular concern are impacts from turbine collision and electrocution. A focused nesting survey conducted on May 30, 2004, determined that no raptor nests of any kind or of any age were located within the project area. We question a single day allotted for this type of survey.

6.9

5. Bats – (Direct and permanent impacts) There are a total of nine bat species potentially occurring on-site. Four are considered sensitive by the CDFG and BLM, and the remaining five are considered sensitive only by the BLM. Four of the nine species have a moderate potential and five have a low potential to occur on-site. What are the potential impacts on these bat species during migration?

6.10

AVIAN IMPACTS – In the Summary of Findings by Dr. Michael L. Morrison, Ph.D, Dr. Morrison concludes that "the proposed Pine Tree Wind Development Project would have no substantial impact on avian wildlife." We disagree with Dr. Morrison's conclusion regarding avian impacts that this proposed project would have on avian wildlife, both resident and migrant, within the project footprint.

6.11

1. Dr. Morrison does not consider the cumulative impacts on birds and bats within the greater Tehachapi WRA from this project.

6.12

2. Each of the 80 turbines within the project has the potential to injure/kill birds or bats. The Tehachapi Pass WRA Study (Oct. 1996 – May 1998) concluded that "there appears to be no single turbine or site sampled that has a very high mortality rate compared to the other turbines sampled." In other words, birds fly anywhere, and each individual turbine has the potential to kill birds or bats.

6.13

3. Turbines will disrupt passerine migration activity. The eastern Southern Sierra foothills are historic and critical migration corridors for passerine species. Migration "hot spots" in the area include Butterbredt Canyon and Butterbredt Spring, Alphie Canyon, Cottonwood Canyon, and Red Rock Canyon. Within the proposed project, Pine Tree Canyon, Jawbone Canyon, and the multitude of side canyons and ridgelines serve as important migration pathways. Dr. Morrison removed migrants from calculations to separate the influence of migrants from the remaining data set, for purposes of interpretation. Migrant avian species must be included in calculations to realistically assess impacts on migrant populations.

6.14

4. We question Dr. Morrison's conclusion that the proposed development is unlikely to have any negative impacts on local raptor populations. Regarding Red-tailed hawks, he states that "any kill in the Pine Tree Wind Development would not impact at the population level." While we agree that Red-tailed hawks are widely distributed in the Tehachapi WRA, the cumulative impacts of all wind generation facilities in the area have not been adequately addressed. The Tehachapi WRA is not "raptor-rich" like the Altamont Pass; therefore, the projected death of even 4 raptors per year on this site would be significant. In addition, Dr. Morrison states that he observed only 1 golden eagle during his formal survey counts. On July 15, 2004, during a field trip, we observed 2 soaring golden eagles over section 35 in the northern part of the project. This random, informal siting leads us to conclude that there must be more raptors nesting and foraging within and adjacent to the project site than are recorded.

6.15

5. We support a formal bat assessment to provide a baseline for future reference.

6.16

VEGETATION – Thirty-two vegetation communities have been identified within the project area. Five vegetation communities within the project area are considered to be of high priority for inventory in the California Natural Diversity Data Base (CNDDB). In addition, 26 sensitive plant species are known to occur within the project vicinity. Fifteen of these species were categorized as "moderate to high" probability of occurrence. Almost all 26 sensitive plant species are listed as California Native Plant Society (CNPS) 1B: considered rare, threatened, or endangered in California and elsewhere.

6.17

We have concerns for the impacts on native vegetation: IMPACT 5.1 – 1.23 acres of native perennial grassland considered sensitive by the CDFG, IMPACT 5.2 – 17.37 acres of wetland habitat and 1.96 acres of wetland habitat; how will restoration be implemented? IMPACT 5.3- acres of Joshua tree woodland vegetation community, IMPACT 5.4 – 131.83 acres of various habitat types and 105.60 acres of various habitat types, IMPACT 5.5 – Vegetation communities including sensitive habitats, and IMPACT 5.6 – approximately 150 Joshua trees removed.

6.18

There have been 3 wetland communities identified on-site: Mojave Desert Wash Scrub, Mojave Riparian Forest, and Southern Riparian Srub. A total of 17.37 acres of wetlands will be temporarily affected during project construction. Wetlands are very sensitive habitats and require complete avoidance if possible.

6.19

SOILS / HYDROLOGY – This proposed project will create both temporary and permanent soil disturbances. Of major concern, is the high potential for accelerated erosion A "less than significant" rating is given to many of the construction impacts. Pine Tree Canyon falls approximately 3,260 feet over the 12 mile long watercourse, with an average gradient of 5 percent, which reflects unstable flow conditions within the watershed. In general, the project area soils are rated moderate to highly permeable and non-cohesive, soil types that are vulnerable to erosion when disturbed.

6.20

CULTURAL RESOURCES – There have been 101 archaeological sites identified within the study area. Construction of the proposed project would potentially directly affect 20 of these sites. The large number of sites is evidence of the rich cultural resources located in the area. There is great concern for compromised sites through construction/maintenance activities and related human contact.

6.21

VISUAL / AUDIAL IMPACTS – We disagree with the "less than significant" residual impact from visual impacts. The Cache Peak Segment of the Pacific Crest National Trail (PCT) is located approximately 1-2 miles west of the proposed project boundary. Trail users have already directly experienced wind generation related structures and turbines for many miles south of the project site, beginning in the Oak Creek Segment, through the Cameron Canyon Segment, and finally the Cache Peak Segement. The Cache Peak Segment has been rated a Visual Class II, where the objective is to retain the existing character of the landscape, and not allow management activities to attract the attention of the casual observer. Turbines that are 340 feet tall will surely impact PCT user experience in an area already visually saturated with turbines. Last, we believe the visual simulations of wind turbines viewed from the PCT to be an unrealistic portrayal of the potential visual impacts.

CONCLUSION

6.22

Possible project alternatives may be to reduce the size of the project footprint or explore alternative sites, perhaps at lower and more developed elevations. We understand the need for increased power in Los Angeles. We expect that conservation and all possible energy-saving programs are being implemented. Instead of developing this site, the "green power" that Los Angeles seeks may be found by first re-powering the existing wind generation facilities in the Tehachapi area to their greatest potential. Using existing sites to their potential is preferable to developing large, relatively pristine tracts of land.

6.23

We are also concerned with the potential for wind facility expansion on public and private lands north of this proposed project.

6.24

Last, we are most concerned for the cumulative impacts of this proposed project and all wind generation facilities within the Tehachapi WRA. Each project alone does not create significant impacts; however; the combination of all projects in the region certainly contributes to the further fragmentation of the local south Sierran habitat.

We appreciate the opportunities we have had to comment on this project with the Los Angeles Department of Water and Power staff. We look forward to future communication in the planning process of the Pine Tree Wind Development Project.

Sincerely,

Georgette Theotig

Georgette Theotig,
Kern-Kaweah Chapter, Sierra Club
P.O. Box 38
Tehachapi, CA 93581

cc: Peter Graves, Bureau of Land Management

Response to Letter 6
Kern-Kaweah Chapter, Sierra Club, January 2, 2005

6.1 Comment noted. The species and habitats referred to in this paragraph are also addressed in the Draft EIR/EA. As a point of clarification, the Mohave ground squirrel is not a federally listed species; rather, it is listed as threatened by the State of California. Also, since the Mohave ground squirrel was assumed to occur on site; no focused protocol-level surveys were conducted for this species. Therefore, the Mohave ground squirrel was not actually detected on site, as the commenter states.

6.2 Cumulative impacts were addressed consistent with the requirements of CEQA and NEPA. Accordingly, cumulative impacts are those impacts on the environment that may result from the incremental effects of the proposed project when they are added to the effects from other past, present, and reasonably foreseeable future projects. As required under CEQA and NEPA, Section 3.11 of the Draft EIR/EA, as revised in the EA/Final EIR (see Section 3.0, Changes to the Draft EIR/EA, in the EA/Final EIR), provides a discussion of the potential cumulative impacts of the proposed project. The CEQA Guidelines require that a cumulative impacts analysis identifies related projects in the area of the proposed project, summarizes the expected environmental effects of those related projects, and analyzes the cumulative impacts of the proposed and related projects. The Draft EIR/EA considered both temporary cumulative impacts, associated with the construction activities of the proposed and related projects in the area, and long-term cumulative impacts, associated with the permanent effects and continued operations of the proposed and related projects.

As discussed in Section 3.11 of the Draft EIR/EA, because of the nature, scale, location, and/or schedule of related projects that may be under construction in the general area at the same time as the proposed project construction, it was determined that the project, when considered in conjunction with the related projects, would not generally create any temporary individually significant impacts that would be regarded as cumulatively significant. The only exception to this, as discussed in the Draft EIR/EA, is a temporary but unavoidable significant impact to air quality during the construction phase of the project related to significance thresholds for air pollutant emissions recently enacted by the County of Kern. Because of the location of the proposed project in relation to other wind energy developments in the Tehachapi WRA, the level of impact created by the proposed project relative to the WRA, and the implementation of zoning guidelines that establish requirements for future wind energy development in Kern County, it was determined that the project, when considered in the context of the entire WRA, would not create any long-term individually significant or significant impacts that would be regarded as cumulatively significant.

6.3 One of the concerns expressed in this comment is that the avoidance, minimization, and mitigation measures listed in the Draft EIR/EA, though thoughtfully presented, would not be enforced over the long term and that complete avoidance may be necessary to protect resources. LADWP has established extensive procedures for resource mitigation during construction that have the force of law. These procedures will be overseen by California Department of Fish and Game (CDFG) wardens and regulatory specialists, Bureau of Land Management resources specialists, independent consulting biologists and archaeologists, LADWP resource personnel, and Kern County staff. The mitigation measures specified in

the EA/Final EIR are substantiated through several actions. Mitigation measures are enforced through CEQA's requirement for mitigation monitoring. The Mitigation Monitoring and Reporting Program is included in Appendix A of this EA/Final EIR. Responsibilities for monitoring each mitigation measure and the reporting requirements are established within the documentation. The mitigation measures will also be used to establish agreements for habitat removal, streambed alteration, and potential take of species covered by the federal and state Endangered Species Acts. The agreements entered into and permits issued have the force of law. During construction activities, monthly and final compliance reports would be provided to U.S. Fish and Wildlife Service, CDFG, and other relevant regulatory agencies documenting the effectiveness of mitigation measures and the level of take associated with the project.

Since the project is carried out by a public agency and there is substantial public agency oversight of construction and operations, the public would have access to the information. In fact, the public agency oversight of this project would be more extensive than for any other project in the Tehachapi WRA, since those have generally been private ventures.

Relative to the adequacy of field surveys, the Pine Tree project studies were approached in a manner widely accepted for complex biological analysis, following a phased progression of study that builds a basis of general information followed by progressively more detailed work. The methodologies, protocols, and extent of these surveys were documented in the Draft EIR/EA in the biological resources section. To summarize, studies were initiated in December of 2002 with a general biological habitat assessment over (at that time) a 33-square-mile project study area. Existing vegetation communities were delineated, potential habitats for sensitive plants and wildlife associations within those communities were mapped, and searches for sign of sensitive plant and wildlife species were completed. Based on the results of the December 2002 habitat assessment, and considering a list of sensitive species with the potential to occur within the project area assembled through literature review, focused surveys were conducted in the spring and summer of 2003 for both plants and animals. These surveys, including the specific protocol surveys conducted, are delineated in the Biological Technical Report and summarized in the Draft EIR/EA. In addition to the general wildlife surveys over the entire project site, specific surveys of the proposed disturbance areas (i.e., turbines, access roads, appurtenant facilities, and transmission line) were made. The characterization of wildlife usage of the site included direct observations as well as research from previous applicable survey reports and documentation. The amount of time spent in the field, including protocol surveys, was consistent with biological survey practice for wildlife characterization and was accomplished by professional biologists with significant experience with Southern California desert and mountain habitats. Field work was also supplemented with research of published literature applicable to the region.

6.4 All of the species listed in this comment have been addressed in the Draft EIR/EA relative to potential to occur on the site. However, based upon extensive field surveys at the proposed project site, it was concluded that, of the species listed in the comment, only the desert tortoise and Mohave ground squirrel were present, with mountain plover and American peregrine falcon not detected but with some potential to occur.

6.5 The Draft EIR/EA and the supporting Biological Technical Report state that these impacts to the desert tortoise do have the potential to significantly impact the species. However, with the proper implementation of impact avoidance, minimization, and mitigation measures, the

project's effects on the desert tortoise would be reduced to below a level of significance. It was never stated that vehicle strikes, loss of habitat, etc., would be considered as less than significant without any mitigation measures being implemented.

Further, the characterization of the desert tortoise population as "weak" gives an incorrect impression about the species at the project site. According to the Draft West Mojave Plan, the habitat in this area is designated Class III habitat, which is lowest category in relation to the maintenance of a viable tortoise population in the region. Habitat maps prepared for the Draft West Mojave Plan also show that the project site is on the extreme western end of the species' range. Population densities at the fringe of the range are expected to be naturally lower than in the prime or critical habitat portions of the range. Most of the Pine Tree project site is actually outside of the range. Only the portions of the project at the mouths of Pine Tree and Jawbone canyons and easterly of Barren Ridge are within the range at all, but in Class III areas. The tortoise sighting and other signs of tortoise were actually made in these flat desert fan areas, not within the canyons themselves.

LADWP is confident that the tortoise avoidance and minimization measures are enforceable and in fact are practiced regularly by LADWP at other facilities that occur in tortoise habitat areas.

6.6 In the Biological Technical Report, which was written to support the EIR/EA, the mitigation measures for impacts to potential Mohave ground squirrel habitat is the conservation of the species' habitat at a ratio approved by the wildlife agency, construction monitoring, plus in-place habitat restoration within the project area. All of these measures are commonly accepted by wildlife resource agencies, and together they address the potential impacts to the Mohave ground squirrel.

6.7 No condors have been killed in the Tehachapi WRA after years of operations, and the species is not likely to visit the project site (as the commenter notes and the Draft EIR/EA discusses). Further, no project facilities would be located in upper Pine Tree Canyon.

6.8 The information presented in the Draft EIR/EA and Biological Technical Report stated that no nest sites were identified on the project property. These documents also assess impacts from turbine collisions and potential for electrocution. To clarify, the focused nest survey was a follow-up visit from previous observations. All avian field days included making behavioral observations of raptors (during the 30-minute counts and while driving and walking the site). This single date noted in the comment was used to look for a potential nest of a single bird that was seen regularly in a specific portion of the site and was sufficient to make a determination.

6.9 Most bat fatalities found at wind plants outside California in the West and Midwest have been migratory bats, with hoary, silver-haired bats and red bats being the most prevalent fatalities. At the Buffalo Ridge Wind Plant, Minnesota, based on a 2-year study, bat mortality was estimated to be 2.05 bats per turbine per year (Johnson et al. 2003a). At the Foote Creek Rim Wind Plant, based on 3+ years of study, bat mortality was estimated at 1.34 bats per turbine per year (Young et al. 2003). At the Vansycle Ridge Wind Plant in Oregon, bat mortality was estimated at 0.74 bats per turbine for the first year of operation (Erickson et al. 2000). At the Klondike Wind Project, in Oregon, bat mortality was estimated at 1.16 bat fatalities per turbine per year (Johnson et al. 2003b). At the Stateline Wind Project, bat

mortality was estimated at approximately 1.5 fatalities per turbine per year (Erickson et al. 2004) from July 2001 through December 31, 2002. At the Nine Canyon Wind Project, bat mortality was estimated at approximately three fatalities per turbine per year (Erickson, Gritski, and Kronner 2003). Species observed at wind projects in California have consisted primarily of hoary and Mexican free-tail bats, both common species.

Bat research at other wind projects indicates that some bat species are at some risk of collision with wind turbines, mostly during the late summer and fall migration season (Johnson et al. 2003a). Very few bats have been reported as fatalities at older wind projects in California, including the Altamont, San Gorgonio, and Tehachapi Pass WRAs, although most studies have focused on documenting raptor fatalities, and most studies have been conducted on shorter turbines than those proposed for the project. Though the geographic location is different than the Pine Tree project site, during the first 11 months of monitoring at the High Winds Project in Solano County, 71 bat fatalities were reported, including primarily hoary and Mexican free-tailed bats, with most of the fatalities documented in August and September.

Operation of the proposed project would result in some bat mortality from collision with wind turbines. Given the low habitat value for bats determined from site surveys, and the typical rates of mortality experienced at other Western operating sites described above, it is estimated that bat mortality would be on the low end of the observed mortality from projects listed above, that is, approximately 0 to 2 fatalities per turbine per year. This level of mortality includes potential effects on migrants. This would not be considered a significant impact in relation to the total populations of the various bat species found in the area, which are numerically very large.

6.10 Comment noted. See response to comments 6.11 through 6.15 for specific response to the various points.

6.11 As noted in the response to comment 6.2, the Draft EIR/EA did address cumulative impacts and concluded that (with the exception of a temporary impact to air quality in relation to County of Kern significance thresholds) the project, when considered in conjunction with the related projects, would not create any temporary or long-term impacts that would be regarded as cumulatively significant.

Specific to avian impacts, the results of Anderson et al. (2004) relative to the Tehachapi WRA were summarized and considered in quantifying avian risk at the project site. The avian mortality at Tehachapi was considerably less than that observed at many other Western wind resource areas. The Pine Tree project is predicted to add comparatively few additional mortalities given the small number of turbines added. As such, there would not be a substantial cumulative effect. The determination of cumulative impact is one of biological magnitude, not mere addition, especially of generally small numbers.

It is noted that the Tehachapi data have been used to assist with the quantification of avian impacts at the Pine Tree project site, but the combined mortality effects on avian species are only part of the avian mortality equation. There are many other reasons for avian mortality and evidence suggests that wind power is not a major source. For example, the American Wind Energy Association (AWEA) notes that the Deputy Director of the Fish and Wildlife Service, in a September 15, 2003, correspondence, states that, with limited exception,

impacts on birds from wind farms in the U.S. are low compared to impacts on birds from communication towers, power lines, and building windows (American Wind Energy Association, Comments on Interim Avian Guidelines, 2004). AWEA also notes that, "A report for the Bonneville Power Administration (BPA) published December 5, 2002, 'Final Synthesis and Comparison of Baseline Avian and Bat Use, Raptor Nesting and Mortality Information from Proposed and Existing Wind Developments,' which is the most comprehensive review of available information on wind power and birds ever published in the U.S., helps put this issue in context. The BPA study compared both avian and bat use with mortality, using data from more than 30 study areas at 15 wind projects. The most important conclusion is that raptor mortality has been low or absent at new wind projects."

This information, coupled with the on-site observations, led to the conclusion that the proposed project would not have a significant cumulative impact.

6.12 The Draft EIR/EA does not imply that no birds or bats would be killed or injured by the project; rather, it predicts low and less than significant mortality rates based on the combined consideration of site research, avian observations, and the results of other studies such as the Tehachapi WRA study. Also, there was no particular pattern to the mortality identified at Tehachapi. This may be due in large part to the relatively few number of mortalities in comparison to other WRAs.

6.13 Based on a comparison of the use of the Pine Tree project site by birds relative to other existing wind developments, fatalities are predicted to be at the low end of that quantified elsewhere for both raptors and songbirds. In spite of the fact that some wind developments lie directly in areas that are known migration routes, Erickson et al. (2002) summarized the observed and likely potential impact of wind farms on passerine and other non-raptorial birds, including nocturnally migrating species. They found that nocturnal migrants are estimated to comprise approximately 50 percent of the fatalities at new wind projects (estimated range 34 to 59%) based on timing and species observed during standardized fatality monitoring. There has been no reported large episodic mortality event (e.g., >50 passerine birds during a single night) recorded at a U.S. wind plant. Two small nocturnal avian mortality events have been published at U.S. wind plants. Fourteen nocturnal migrating passerines at two turbines at Buffalo Ridge (Minnesota) were killed on one night during spring migration after a thunderstorm. At the Mountaineer Wind Energy Center, West Virginia, 33 (47.8%) of 69 passerine fatalities occurred on one night at a few turbines adjacent to a well-lit substation during spring migration (Kerns and Kerlinger 2004). The data suggest that sodium vapor lamps at the substation were the primary attractant, since fatality locations were correlated with the location of the substation, and the other turbines away from the substation had few fatalities documented the morning after the event. After the lights were turned off at the substation, no events occurred. Erickson et al. (2002) were not aware of any other mortality events greater than a few birds at single or adjacent turbines found during a single search at any U.S. wind plant.

Several studies have been published regarding extrapolated bird passage rates (McCrary et al. 1983; Mabee and Cooper 2004; Mabee and Cooper 2001; Johnson et al. 2002). We are aware of only a few studies that have attempted to compare fatality rates to bird passage rates. McCrary et al. (1986) estimated approximately 6,800 annual bird fatalities at the San Gorgonio wind project in California, with an estimate of approximately 75 million migrants passing through during fall and spring migration. McCrary et al. (1986) believed the

mortality levels were biologically insignificant. Radar studies conducted in the vicinity of the Buffalo Ridge wind project (over 400 turbines) in Minnesota suggested that as many as 3.5 million birds may migrate over the wind development area, and fatality studies suggest only a few hundred migrating songbirds are killed each spring. Radar studies at the Stateline Wind Project, a large facility (454 turbines) with its northern boundary located within 1.5 miles of the Columbia River, indicate a large number of birds migrate over that facility (several hundred thousand to over a million) during spring migration, and the fatality studies suggest a very small number result in collisions (Erickson et al. 2004). A similar pattern was observed for the nearby Nine Canyon facility (Cooper and Mabee 2001; Erickson et al. 2003b).

Based on this information, the mortality rate for passerines is estimated at 0 to 2 individuals per turbine per year. These rates would be inclusive of any migration. The rates are also relatively low compared to all sources of avian mortality and are statistically not significant.

The site data continue to support the conclusion that the Pine Tree project site (where turbines would be located) does not serve as a major pathway or stopover area for migrating birds. In addition, the few instances in which relatively large numbers of migrating passerine birds have been killed in wind developments have been apparently due to a combination of poor weather and lights reflecting off of a low cloud ceiling. The proposed wind turbines are to be located in the western end of Jawbone Canyon, some 10 miles from the mouth of the canyon, near SR-14. Anecdotal information from at least one Draft EIR/EA commenter and an unpublished report indicate that the localized spring migration in the area is from southeast to northwest and that the migration is captured in northwest-southeast trending canyons, such as the east portion of Jawbone Canyon. The Jawbone Canyon migration continues in a northwesterly direction up Alphie and Hoffman canyons through the topographic pinch point of Butterbredt Springs. This would take the localized migration well east of the proposed project property, which encompasses northeast-southwest trending portions of upper Jawbone Canyon. Our data show that there are no other logical reasons, such as good habitat or adequate cover and water, for a substantial number of birds to be loafing or resting in the proposed turbine area. LADWP, through the continuation of avian surveys, is building upon the base of resource information that has been collected over the past 2 years. LADWP has not dismissed the potential effects on birds and bats but has determined that significant mortality is not likely.

6.14 The predicted rate of mortality of raptors at Pine Tree and the rate of mortality that was found in the Tehachapi WRA were determined by Dr. Morrison to be less than significant. The raptor population is continuous, not isolated, throughout the Tehachapi Mountains, so the few additional potential fatalities predicted for the Pine Tree project would not be critical to the broader population.

The Pine Tree Wind Development Project Biological Technical Report and the avian surveys affirm that golden eagles were observed at the site and that the site is within their range. No nest of a golden eagle was found on site in spring 2004; one pair was seen occasionally on the eastern edge of the site. Golden eagles, like all other raptors that would be expected at the site, are distributed throughout the Tehachapi Mountains and Southern California. Thus, there is no local population, which by definition would require that the birds be almost completely isolated (for breeding/genetic purposes) from other populations.

The observations made on July 15, 2004, were also noted by Dr. Morrison, who attended that field trip. The avian protocol developed for this project is responsive to the level of effort recommended in the National Wind Coordinating Committee (NWCC) Guidance Document (Anderson et al. 1999) and the recently released United States Fish and Wildlife Service (USFWS) Interim Guidelines. The NWCC Guidelines call for an initial reconnaissance survey. The goal is to identify locations or sites that have a high probability of substantial bird fatalities. Reconnaissance surveys are composed of several site visits, a literature survey, analysis of unpublished data, interviews with local experts, and other information that might be available. Assuming no significant biological issues are raised following the reconnaissance survey, a Level 1 Survey is initiated. The Level 1 Survey is designed to quantify the numbers, species, and activity of birds in the project area. Available avian mortality data indicate that individual turbines are often responsible for the majority of fatalities in a development because they are located in areas that attract birds, such as near gullies or concentrations of prey. The survey protocol also addressed the potential for occurrence of bats. Specific pre-construction surveys are designed to site turbines such that minimal or no mitigation is required during facility operation. Level 2 Surveys, which include detailed assessment of population effects due to avian fatalities, are seldom needed, especially if reconnaissance and Level 1 Surveys were implemented properly. Only the high mortality rate of golden eagles at the Altamont Pass Wind Resource Area (WRA) has resulted in a Level 2 Study to date.

The study protocols, observations, point counts, and statistical results of the avian survey, which included the important spring season, were presented in the Draft EIR/EA (with specifics included in Appendix F within Appendix D). It must be emphasized that these data are not derived from the Tehachapi WRA, Butterbredt Springs, or any other areas in the region. They are derived from direct observations and monitoring that occurred over a 2-year period of time at the Pine Tree project site. These study observations provide a more accurate prediction of use by raptors and potential impacts than the single random sighting on July 15, 2004.

6.15 As noted in the response to Comment 6.9, operation of the proposed project would result in some bat mortality from collision with wind turbines. Given the low habitat value for bats at the proposed project site, determined from site surveys, and the typical rates of mortality experienced at other Western operating sites described above, it is estimated that bat mortality would be on the low end of the observed mortality at other Western wind projects, that is, approximately 0 to 2 bats per turbine per year. This level of mortality includes potential effects on migrants. This would not be considered a significant impact in relation to the total population of the various bat species, which are numerically large.

6.16 Comment noted. The commenter is summarizing information presented in the Draft EIR/EA.

6.17 Extensive mitigation measures were included in the Draft EIR/EA to address all but one of the impacts to native vegetation mentioned in the comment through avoidance, preservation, or revegetation on site, or replacement of habitat at a ratio to be determined by CDFG. A new mitigation measure to provide replacement for 1.23 acres of native grassland permanently disturbed by the proposed project has been added to the EA/Final EIR. LADWP is currently in negotiations with CDFG and USFWS to establish an on-site mitigation plan with respect to native habitat enhancement and replacement. Upon approval from the resource agencies, LADWP would implement the approved mitigation measures

outlined in the plan. As with all mitigation plans, there will be an intense monitoring period that follows (usually 3 to 5 years) to ensure the restoration plan achieves the extent of growth and cover specified in the agency's permit authorization and has a good likelihood of establishing permanently.

6.18 Complete avoidance of these habitats is not possible nor is it necessary due to the existence of vegetation that is rare, threatened, or endangered. As noted in the Draft EIR/EA, the disturbance of these habitats has been reduced to the extent possible by using existing access roads. LADWP is currently preparing mitigation plans with respect to native wetland habitats. These plans will be subject to approval of and monitoring by the CDFG.

6.19 The prevention and control of runoff, erosion, and sedimentation related to the construction and operations of the proposed project was one of the primary concerns in the development of the project plans and the assessment of potential project impacts in the Draft EIR/EA. Detailed grading plans at a 2-foot contour interval have been prepared for the project roads and facility pads to minimize quantities of cut and fill necessary for the transport and installation of project components, to ensure stabilization of drainageways, and to control and direct runoff to minimize erosion. With the exception of the transmission line towers, none of the project components would be located within the Pine Tree Canyon watershed.

As discussed in the Draft EIR/EA in Sections 2.0 (Description of the Proposed Project), 3.2 (Geology and Soils), and 3.3 (Hydrology and Water Quality), the drainage concept for the project has been developed with the goal of retaining runoff flows at pre-development levels. The objective is to eliminate and/or minimize drainage course changes and to incorporate erosion and sedimentation control systems and devices such as rock riprap, detention basins, revegetation, and other control devices on disturbed areas. No impervious surfaces are proposed for the project, and permanent disturbance of the surface would only occur in those areas that are in actual use for ongoing project maintenance and operations.

The plan provides that drainage waters would be returned to their original courses in the same magnitude as that prior to the project. Wind turbine sites are to include detention basins designed to reduce any peak discharge rates to pre-project values and to provide silt capture. Incidental roadway drainage intercepted from side-slope cuts is to be returned to natural courses at frequent intervals to reduce concentration. Areas of disturbance to the natural ground cover for side-slopes and unused graded portions of the project are to be replanted with native cover. Cover is to be re-established with species similar to those that existed prior to the construction disturbance. Grading of roadways and turbine sites are to adhere to the following design concepts.

- Rerouting of drainage to another discharge point in a different water course is to be avoided.
- Whenever possible, grading is to be designed to evenly distribute runoff rather than concentrate it.
- Regular use of over-side drains should be implemented to avoid longitudinal concentration of drainage along the roadways.
- Exiting points of culverts and over-side drains are to be protected with rock riprap.
- Minor stilling basins are to be created by elevating grated inlets above flow line grade so as to minimize silt transport and detain drainage waters.

- Detention basins for peak flow reduction are to be used at the turbine sites when drainage has the potential to increase runoff to any one watershed.

A Storm Water Pollution Prevention Plan (SWPPP) will be developed and implemented for the project to minimize erosion and the potential for discharge of pollutants from the site due to clearing, grading, and other construction activities. The SWPPP will be prepared along with the project grading plan. The SWPPP and grading plan will be prepared in accordance with County of Kern requirements. In addition, LADWP has committed to drainage and erosion control standards for the project based on the Federal Highway Administration's Best Management Practices for Erosion and Sediment Control (FHWA FLP-94-005, 1995), which in many instances exceeds County guidelines. Site-specific Best Management Practices (BMPs) will be developed and implemented emphasizing the control of erosion and sedimentation through such measures as retaining the original vegetative cover where possible; reducing the velocity of surface runoff and directing it away from disturbed areas; and promptly stabilizing disturbed areas through revegetation or the use of inert materials, such as straw mulching or erosion control matting. Silt fences and sediment barriers would be maintained throughout construction and beyond until disturbed areas have been fully stabilized with vegetation. Check structures, such as rock dams, hay bale check dams (consisting of weed-free rice straw or other certified weed-free straw), dikes, and swales, would be used where appropriate to reduce runoff velocity as well as to direct surface runoff away from disturbed areas.

LADWP, which would own, operate, and maintain the proposed project rather than simply enter into purchase agreement for power produced by the project, is committed to long-term maintenance of the roads and other graded areas in the project property. Numerous specific mitigation measures related to the control of runoff, erosion, and sedimentation were established for the proposed project in the Draft EIR/EA (see Sections 3.2, Geology and Soils, and 3.3, Hydrology and Water Quality, of the Draft EIR/EA). With implementation of the grading and drainage concept discussed above, including preparation of the SWPPP and adherence to the SWPPP, County ordinances, and FHWA guidelines, the proposed project would not result in significant adverse impacts related to erosion.

6.20 The proposed project includes adequate safeguards to protect cultural resources during construction and operations. A Historic Properties Treatment Plan prepared for the project will mitigate impacts to the seven archaeological sites determined eligible for nomination to the National Register of Historic Places (NRHP). Cultural resources specialists who direct the mitigation efforts will meet or exceed the Secretary of the Interior's professional standards presented in 36 CFR Part 61. Mitigation measures are spelled out in detail in the Historic Properties Treatment Plan, prepared to the specifications of BLM, which is the lead agency under Section 106 of the National Historic Preservation Act. Prior to initiation of construction activities, a discovery plan will be prepared specifying that, should any unanticipated cultural materials be identified during construction, work activities would be redirected elsewhere on the project until the significance of the find is evaluated by a qualified archaeologist and an appropriate course of action is identified. The discovery plan will also address actions to be taken in the event of the discovery of human remains, including provisions for contacting the Native American Heritage Commission and appropriate Tribes.

6.21 Visual resource classifications along the Pacific Crest Trail refer to designations that may be assigned to property adjacent to the trail by land and resource management agencies that have jurisdiction over that property. Such classifications are typically used to establish objectives for the management of activities located on the property to control impacts to visual resources. Class II generally refers to a designation under the Visual Resource Inventory system of BLM, which administers land through which portions of the Pacific Crest Trail pass, approximately 2.5 miles southwest of the southwestern project property boundary and approximately 1.5 miles west of the northwestern project property boundary. This BLM property is located within the California Desert Conservation Area (CDCA) Plan boundaries. As discussed in Section 3.9 of the Draft EIR/EA (Visual Resources), a Visual Resource Inventory has not yet been conducted for the BLM property within the CDCA. Based on previous BLM Resource Management Plans that have been superseded by the CDCA Plan, much of the BLM-administered property located in the area of the proposed project may have been classified as Class II. However, no facilities associated with the proposed project would be located on BLM property within view of the Pacific Crest Trail. Furthermore, because the trail is located along the west slope of the Sweet Ridge ridgeline as it crosses through the BLM property near the proposed project, views to the project elements from these portions of the trail would be effectively blocked.

As the Pacific Crest Trail passes to the east of Cache Peak and the west of the project property, it crosses to the east side of the Sweet Ridge ridgeline and would provide intermittent views of some project wind turbines. However, in this segment, the trail is located entirely on private property, for which the County of Kern, which has land management jurisdiction, has established no visual resource classifications similar to the BLM Visual Resource Inventory system. However, the potential visual impact of the project to the trail in this area was nonetheless assessed in the Draft EIR/EA employing County and CEQA guidelines for aesthetics. As discussed in the Draft EIR/EA, the trail in this area passes relatively close to numerous existing Sky River Ranch wind turbines in several places. These turbines are clearly visible in the foreground distance zone from numerous locations along the trail, including those locations from which the proposed project turbines would be visible. Based on this context of the trail within an existing wind turbine development, it was determined that relatively distant views of the project turbines would not generally further detract from the quality of the views in this area. The view of the proposed wind turbines would also be intermittent, based on the changing conditions as the viewer moves along the trail, primarily related to the relative locations of the viewer, the turbines, and the intervening terrain and vegetation. Based on the distance of the proposed turbines from potential viewers (approximately 2.5 to 5 miles), the backdrop setting of the turbines, the intervening terrain, the intermittent nature of the view, and the trail's relationship to existing wind turbines, the proposed project would not exceed the County or CEQA thresholds of significance for adverse effects to visual resources. Therefore, it was determined that the visual impacts from the proposed project from viewpoints along this section of the Pacific Crest Trail would be considered less than significant.

The visual simulations of the proposed wind turbines were carefully constructed to ensure an accurate portrayal of the wind turbines as they would appear from locations along the Pacific Crest Trail. As discussed in the Draft EIR/EA, these simulations were prepared using visual simulation software, including the precise placement of terrain features and project components within photographs of the existing site. The simulations accurately depict the

location, distance, scale, and appearance of the project components within the landscape setting of the proposed project as they would be seen from the selected viewpoints.

More specifically, this process involved importing geographic information system (GIS) data sets for the project area, including a USGS 10-meter digital elevation model (DEM) and the Pacific Crest Trail alignment, into Virtual Nature Studio, a GIS-aware 3-D terrain modeler. Photos taken from the trail of the proposed turbine sites were stitched together into a panorama using PTGui (a panorama stitching software) to remove spherical distortion and parallax error and to improve the positional accuracy of the turbines. The photos were also color corrected and blended into a seamless image. Correlation between the site photos and the DEM was achieved through matching of terrain features. The project turbines were modeled using Kinetic 3D Studio Max based on drawings provided by the manufacturer. The height of the turbines at the top of the turbine blade rotation was set at 340 feet. The turbines were positioned within the DEM based on data point locations from the proposed project site plans. All turbines were oriented west (i.e., facing the trail). Images were initially rendered with the turbines and terrain model only to verify positional and scale accuracy. The turbines were then rendered onto the panoramic photo of the existing site to create the simulated image.

To compensate for atmospheric conditions that may tend to obscure visibility and to conservatively simulate the appearance of the proposed project, the brightness and contrast of the simulated image were adjusted to enhance the visibility of the proposed turbines. Because of obvious limitations related to the field of view that can be represented distortion-free on a two-dimensional image, the simulations do not include the existing Sky River Ranch turbines that are located in the foreground view to the left and/or right of the simulated image frame.

6.22 Based on the wind characteristics at the project property and the spacing requirements of the proposed project wind turbines (Section 2.2.4 of the Draft EIR/EA discusses the proposed spacing between turbines of 1.4 rotor diameters, which is the minimum that is technically feasible), a further reduction in the overall project footprint would also entail a simultaneous reduction in the number of wind turbines. To significantly lessen potential impacts of the proposed project, the necessary reduction in the overall footprint (and the attendant reduction in turbines) would decrease the electrical power-generating capacity substantially below the energy production objectives of the proposed project.

As discussed in Section 3.13 (Alternatives to the Proposed Project) of the Draft EIR/EA, the plan for the proposed project was developed based on a comprehensive planning process that considered numerous factors within a broader study area than is currently reflected by the boundaries of the project property. This study area consisted of approximately 21,500 acres, which encompass the approximately 8,000-acre project property and include additional land located to the southwest, south, and southeast of the property. Within the study area, extensive surveys and data gathering were conducted to establish a framework for analysis and decision making relative to the proposed project facility siting and construction. This included an analysis of wind, biological, cultural, visual, and soils resources; topography; and land use. This analysis included an investigation of approximately 125 turbine sites, which, along with the associated road network and other project facilities, encompassed a total footprint that extended over most of the 21,500-acre study area.

A goal of the planning analysis was to reduce the overall footprint of the proposed project to achieve a balance between attaining the project energy production objectives and minimizing environmental impacts. A primary consideration in the siting of the proposed project facilities was the avoidance or minimization of impacts to several resources and uses located in the southwestern, southern, and southeastern portions of the broader project study area. These included designated military aviation routes used in critical training and testing missions; potentially significant biological resources, including raptor nesting areas and more developed forest communities; potentially significant archaeological resources, including habitation sites and temporary camps; steep terrain that would have entailed significant grading to provide road access and structural pads for project facilities; and the Pacific Crest National Scenic Trail, which traverses the far southwestern corner of the study area.

Based on avoidance of impacts to these resources and uses, the boundaries of the project property were narrowed to their present configuration, encompassing approximately 8,000 acres located in the north-central part of the study area. Within these narrowed boundaries, the intent of the project plan, while continuing to minimize or mitigate significant environmental impacts, was to optimize wind energy production to achieve the project objectives based on a cost-benefit analysis that balanced construction, operations, and maintenance considerations with the anticipated output of each turbine. Therefore, even within the 8,000-acre project property, the proposed plan represents a significant consolidation of the wind turbine sites, roads, and other project facilities that make up the overall project footprint than had originally been considered and analyzed. As mentioned above, a further reduction in this project footprint, especially one that would substantially lessen potential environmental impacts, would reduce power output significantly below the project objectives relative to energy production.

The relocation of the proposed project as a means of reducing potential impacts associated with the development at the proposed project site was discussed in Section 3.13 (Alternatives to the Proposed Project) of the Draft EIR/EA. While many factors must be considered in the siting of wind energy projects, a primary factor is the adequacy of the wind resource to generate sufficient power in a cost-effective manner. As discussed in the Draft EIR/EA, the California Energy Commission has identified several areas of high wind resource potential in Southern California. In addition to offshore areas around the Channel Islands, relatively large areas have been identified in the southwestern corner of Imperial County, along the border with Mexico; in the Cajon Pass area in southwestern San Bernardino County; west of the cities of Palmdale and Lancaster in northern Los Angeles County; in the San Gorgonio Pass area near Palm Springs in Riverside County; and in the Tehachapi WRA, within which the proposed project is located. San Gorgonio and Tehachapi are the most highly rated of these resource areas in terms of wind energy production capability. This is evidenced by the fact that virtually all wind energy development in Southern California has occurred within these WRAs, representing approximately 2,000 GWh of annual energy output. As the demand for renewable energy rises and as improved technologies increase the efficiency and effectiveness of wind power generation, it is likely that additional wind energy projects may be developed in many or all of the resource areas identified above.

An analysis to determine the capability for wind energy generation, the availability of electrical transmission capacity, and the extent of potential environmental impacts related to wind energy development in these various areas located throughout the Southern California region is beyond the scope of this EIR/EA, which is project specific in nature. Such a broad

analysis would more appropriately be accomplished in a Programmatic EIR and/or Environmental Impact Statement conducted by a lead agency with jurisdiction over energy and development policy at a regional or state level. Such a comprehensive analysis may require the formation of a Joint Powers Authority consisting of numerous agencies and local governments with an interest in wind development in Southern California. LADWP is proposing the Pine Tree Wind Development Project to help meet its stated goals for renewable energy development, and the department will continue to develop renewable energy sources of all types, potentially including other specific wind energy projects in the region.

However, the Draft EIR/EA did consider an alternative location in the vicinity of the proposed project that has the potential to meet the project objectives relative to wind resources, generation capacity, consolidated private property holdings, and proximity to electrical transmission lines with available capacity (see Section 3.13 of the Draft EIR/EA). It was concluded that the alternative site would not eliminate or substantially lessen any of the impacts of the proposed project. While no other specific alternative sites were analyzed because of the limitations described above, no site would be free of environmental impacts in relation to the development of the proposed project. Recently proposed wind energy developments at lower elevations in the Antelope Valley have raised concerns about visual, recreation, and biological impacts related to the California Poppy Reserve. Likewise, development of the proposed project at lower elevations closer to the existing LADWP Inyo-Rinaldi transmission line adjacent to SR-14 would likely increase environmental impacts related to visual resources, sensitive desert tortoise and Mohave ground squirrel habitat, and critical military aviation training and testing missions.

Repowering an existing wind turbine site in the Tehachapi Pass Area was considered in Section 3.13 (Alternatives to the Proposed Project) of the Draft EIR/EA. As mentioned by the commenter and as discussed in the EIR/EA, the intent of this alternative would be to reduce environmental effects associated with the construction and operations of the proposed project by building at a site already impacted by existing wind turbine development as opposed to new construction in a currently undeveloped area. This repowering would entail replacing aging, inefficient, and/or inoperable turbines with the proposed project turbines, which would be more reliable, efficient, and productive.

As discussed in the Draft EIR/EA, the Tehachapi WRA consists of approximately 30 separate wind turbine projects, with a total capacity of over 600 MW and an estimated annual energy output of 1,200 GWh. Excluding the Sky River Ranch project, which is located on Sweet Ridge to the west of the proposed project property, the Tehachapi WRA includes over 3,300 individual turbines, located primarily in the Tehachapi Pass area. The Tehachapi WRA projects are under the ownership of approximately 12 different entities.

To implement a repowering, existing wind turbines would need to be demolished, potentially including below-grade elements, such as foundations and electrical collection systems. The grading of some new roads and foundation pads would also be necessary because the proposed project turbines have different area and spacing requirements than existing turbines in Tehachapi Pass. A new underground electrical collection system would be required. Since limited capacity is currently available to transmit power generated in the Tehachapi WRA, this alternative would include the construction of a new transmission line that would connect to the existing LADWP Inyo-Rinaldi line, which runs roughly parallel to and west of

SR-14. The exact alignment and length of this new line would be dependent on the location of the turbine repowering site. Repowering would also include a new substation to convert the voltage of the electrical energy generated by the wind turbines so that it could be transmitted over the Inyo-Rinaldi line.

To accomplish a repowering and achieve the power generation objectives of the project in an efficient and cost-effective manner, relatively consolidated property large enough to accommodate the proposed number of turbines would be required to avoid segregating the project into potentially widely separated areas. The existing wind energy projects in the vicinity of Tehachapi Pass extend over a total area of approximately 20 square miles. The proposed project property consists of approximately 12.5 square miles, and while the project facilities themselves do not actually cover this entire area, based on the wind resource and terrain characteristics of the site and the requirements of the proposed turbines, the overall footprint of the project extends over the majority of the project property. Even assuming that significantly greater efficiency in wind turbine configuration could be achieved in the Tehachapi Pass area than at the proposed project site, a repowering project would still require the acquisition of a large proportion of the existing wind turbine developments, potentially under the ownership of several different entities.

Along with the acquisition of large portions of existing Tehachapi WRA wind projects, energy contracts associated with these projects would hinder implementation of a repowering alternative for the LADWP project. Southern California Edison currently has purchase agreements for the power produced at nearly all the wind projects in the Tehachapi WRA. The only exception to this is a power purchase agreement held by San Diego Gas and Electric for the power produced at a single recently constructed new wind project in Tehachapi Pass. These agreements are generally long term, extending up to 30 years. While repowering of wind energy projects could be a valid means to reduce potential project impacts, the current power purchase agreements limit the availability of the existing wind developments for repowering to meet LADWP's project objectives of increasing the amount of energy it generates or acquires from renewable power sources. Because of the limitations imposed by these contracts, the acquisition of a relatively consolidated area that would be large enough to accommodate the proposed project is essentially infeasible at this time.

6.23 Development of a wind energy project similar in scope to the proposed project on private property located north of and adjacent to the proposed project property was considered in Section 3.13 of Draft EIR/EA (Alternatives to the Proposed Project) as a possible approach to reducing any potential environmental impacts of the proposed project. As discussed in the Draft EIR/EA, this alternative site has similar wind resource, real estate, and transmission access characteristics to those found at the proposed project property. However, because this alternative site is also similar in character to the proposed project property in terms of terrain, soils, vegetation, wildlife, and cultural resources, potential environmental impacts related to project construction and operations would generally be expected to be comparable to those generated at the proposed project site. It was therefore determined that development of a wind energy project at this alternative site would not eliminate or substantially lessen any of the impacts associated with the proposed project.

Portions of the property located north of the proposed project have been studied in the past for their potential for wind energy generation, but there are currently no wind energy development projects planned for this area. However, as was discussed in Section 3.11 of the

Draft EIR/EA (Cumulative Impacts), as the demand for renewable energy rises in California and as improved technologies increase the efficiency and effectiveness of wind power generation, additional wind energy projects may be developed within the Tehachapi WRA in the future, including the property north of the proposed project. If a specific project were to be proposed at this site in the future, further analysis would need to be conducted at that time to evaluate the merits and the potential environmental impacts of that project.

6.24 As noted in the response to Comments 6.2 and 6.11, the Draft EIR/EA did address cumulative impacts and concluded that (with the exception of a temporary impact to air quality in relation to County of Kern significance thresholds) the project, when considered in conjunction with the related projects, would not create any temporary or long-term impacts that would be regarded as cumulatively significant. The proposed project's direct temporary and permanent impacts affect approximately 238 acres of habitat out of 8,000 acres within the project property (or 21,500 acres when considering the broader project study area). Clearly, this project does not contribute substantially to habitat fragmentation.

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Letter 7

RECEIVED

JAN 07 2005

TANIA S. BONFIGLIO

santa monica bay audubon society

January 4, 2005

Ms Tania Bonfiglio
Los Angeles Department of Water and Power
111 North Hope Street, Room 1044
Los Angeles, California 90012

Re: Comments on the Pine Tree Wind Development Project Draft Environmental Impact Report/Environmental Assessment (DEIR/EA) Issued November 9, 2004, by LADWP and BLM.

Dear Ms. Bonfiglio,

7.1 As an advocate for environmental protection, opposition to this project seems to suggest opposition to clean, renewable energy, which is far from the case. However, TOTAL environmental costs must be assessed versus the relatively minor contribution of 1.5% annual increase in energy production for LADWP customers that this project may be able to supply. Further, the monetary costs of this project to DWP customers ought to be balanced against alternatives such as a campaign for "energy conservation" (wasteful use is obvious and rampant), or for development of a requirement for widespread installation on new construction of solar energy units. Re-locating the project to a less sensitive area adjacent to existing

7.2 transmission lines and related facilities would be the most acceptable solution.

7.3 The real purpose of the proposed 80 wind turbines suggests they would be an energy source justification for further housing developments projected in the Antelope Valley and Tehachapi areas. The acreage of desert land destroyed in such developments is yet another huge, permanent loss to the environment, the economic benefits being temporary and minimal.
(Los Angeles should promote new growth as vertical structures, preserving open space for recreation, plants, and wildlife habitat).

7.4 Widening and cutting the many roads required for access and maintenance of this installation would permanently impact acres of habitat. The plants, birds and animals at risk are enumerated in the EA, but the Assessment severely understates the numbers and consequences, first, because the periods of assessment for birds and wildlife were very limited in time, cursory at best, did not take place with view to the migration of birds or bats, which largely happens at night and at certain periods of the year. Strike counts did not allow for the rapid disappearance of carcasses of smaller species. The study extrapolates data-estimates from the Tehachapi Wind Project to predict 4 raptor deaths per year in the Lone Pine Tree Development. That may not be a valid reference considering the difference in habitat of the Lone Pine Tree's undeveloped area and wildlife resources, but, in any case, the kill is not tolerable, especially if one or two of those losses were the Golden Eagle. If the nation-wide population of Golden Eagles would not noticeably be impacted, the local population would certainly be devastated. Raptors range widely. Two eagle nests, at least, are known within a few miles of the project. An eagle was sighted during the survey. Red-tailed Hawks are numerous. Great-horned and other owls breeding in this zone would be at risk and are frequent victims of strikes elsewhere. Passerines were scarcely considered but are undoubtedly

7.4 Cont'd

frequent turbine victims and very familiar to those of us who bird in the Jawbone-Butterbredt Area of Critical Concern.

7.5

Besides local residents, thousands of migrating birds pass through the canyons and over ridges en-rout to Kelso Valley, the Kern River Preserve and the Kern Plateau. They cannot be presumed to confine themselves to Butterbredt Canyon where they are observed and counted. Nor is lack of nesting proximity to turbines a valid indicator of potential bird strikes. Apparently, no consideration has been given to the known migration of thousands of Turkey Vultures that pass over these ridges to reach the Kern Valley.

7.6

In enumerating State Endangered plants such as the Mojave Tar Plant, known to be present within the project area, they would certainly be at risk for destruction, especially if the Jawbone Canyon access is used. Restoring topsoil and re-vegetating would not ensure re-establishment of original flora or ground appearance. Disturbed desert soils are notoriously slow to return to original vegetation and structure. Re-planting could take repeated efforts over several years, which seems an unlikely scenario in this case.

7.7

Further, the use of Jawbone Canyon for access to this project is highly contrary to the public's interests. Enormous dust, air pollution, noise, collision hazards, traffic delays and road deconstruction would effectively prevent would-be hikers, campers, bird watchers, motorcyclists, and residents from using this route for a year or more after the beginning of development, with no benefit accruing to themselves. Warning signs and flagmen would not make passage easy or feasible. This public road would essentially be destroyed due to heavy loads and equipment passing and the necessity of widening the road. Promise of restoration and repaving really do not mitigate the process. No part of the BLM lands should be dedicated for this type of use. It would be a violation of the rights of the many other users for the benefit of a single agency. Residents and recreationalists would be prevented from passing through and enjoying this scenic canyon. Hikers on the project-adjacent backbone trail would be aware of decidedly unnatural noises and unsuitable activity of heavy equipment on their wilderness journey.

7.8

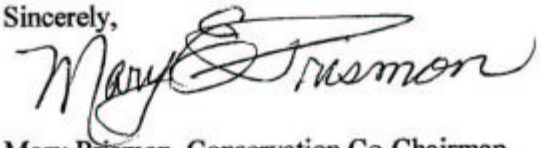
In summary, the following alternative are recommended:

1 - No project
5 - Relocate proposed project
7A - Use Pine Tree Road as (sole) primary project access
7B - Use Sky River Ranch as primary project access.

These appear to be the feasible and only alternatives that are not objectionable on many of the grounds mentioned above.

Thank you for considering this comment letter.

Sincerely,



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cc: Peter Graves, BLM
Hector Villalobos, Ridgecrest, BLM
Keith Axelson, Sageland Ranch, Weldon CA

Responses to Letter 7
Santa Monica Bay Audubon Society, January 4, 2005

7.1 As discussed in Section 1.2 of the EIR, the proposed project is needed so that LADWP may meet commitments to supply an increased share of its electrical generation capacity from clean and renewable energy sources. LADWP has proposed a Renewable Portfolio Standard (RPS) intended to increase the amount of energy it produces from renewable power sources to 13 percent of its energy sales to retail customers by 2010 and to 20 percent by 2017. The 20 percent objective, although self-imposed by LADWP and the City of Los Angeles, is the same as that required of investor-owned utilities under state legislated mandates. This renewable energy commitment is intended to complement, not replace, LADWP's ongoing commitments to energy efficiency and solar programs. Programs such as demand side management (DSM), distributed generation (DG), repowering of in-basin generation, and solar are complementary to the proposed project and will continue as planned whether or not the proposed project is implemented.

DSM programs are aimed at both a reduction in energy consumption for specific end uses (customer energy efficiency) and load management (a shifting of load to off-peak hours). To implement these programs, LADWP considered the unique energy use characteristics for each end user and divided its customer base into the following four sectors: large commercial, industrial, governmental, and residential/small business. To promote market transformation and energy savings for commercial rate customers, LADWP established the Commercial and Industrial energy efficiency programs, collectively known as Efficiency LA. Partnering with area contractors, manufacturers, and customers, LADWP's Efficiency LA programs provide cash incentives for the replacement of older, energy-wasting equipment with new energy efficient equipment, including heating, ventilating, and air conditioning systems (HVAC); chillers; and commercial lighting. The City of Los Angeles is one of LADWP's largest commercial customers in terms of both the number of facilities and its electrical energy consumption. As such, LADWP is focusing attention on improving the efficiency of existing City facilities, which include incentives for lighting, HVAC, and chiller retrofits of those facilities.

In 2002, LADWP launched a program providing consumer rebates for its residential customers. The Residential Consumer Rebate Program provides cash incentives for customers who purchase and install qualifying high-efficiency equipment, including air-conditioning equipment and controls, appliances, lighting products/ceiling fans, and high-efficiency pool pumps. The program has received wide support and has effectively promoted energy efficiency in the residential sector with over 25,000 rebates provided to LADWP customers. Additionally, the Residential Consumer Rebate Program has contributed to uniform utility rebates throughout California while promoting the use of high-efficiency equipment and appliances in the LADWP service territory.

These DSM programs are expected to result in 14 megawatts (MW) of peak demand reduction and over 500 gigawatt-hours of energy savings over the life of the included measures. The average costs of achieving these savings are $482 per kilowatt (kW) and $0.013 per kW-hour over the expected life of the installed efficiency measures. Based on a recommendation by a 2002 Controller's Office audit, the Total Resource Cost Test was used

to evaluate the cost-effectiveness of these programs. The results of that test show that each $1.00 spent on these programs yields $2.75 in societal benefits.

DG places small electric generators of various types at or near the point of demand. This provides energy to customers with reduced losses when compared to traditional central generation stations and distribution systems. DG systems include fuel cells, microturbines, and other engines. Currently, DG technology is more expensive than central station generation, but it is anticipated that costs will decline in the future. It is estimated that the DG programs will generate energy savings of approximately 17 MW by 2005 and 70 MW by 2010.

Repowering refers to the modernization of LADWP's large gas-fired generating stations located in the Los Angeles basin. This modernization entails the replacement of 10 aging and inefficient conventional steam boiler generating units with combined cycle generating systems (CCGSs), in which the exhaust heat from natural gas-fired turbines is recaptured and used to produce steam that in turn drives a steam turbine to produce additional electrical energy. The CCGSs are significantly more efficient than the traditional steam boiler generator units, resulting in an approximate 30 percent reduction in fuel consumption per unit of energy produced. This increased efficiency, along with modern air pollution control systems installed as a component of the CCGSs, will in turn lead to significant reductions in air pollutant and carbon dioxide emissions when compared to the existing generating stations. At present, four existing in-basin generating units have been replaced with CCGSs, another two units are currently being replaced, and the replacement of two additional units is in the planning stages.

LADWP's Solar Photovoltaic Incentive Program provides an incentive payment to LADWP customers that purchase and install their own solar power systems. The goal of the solar program is to support the generation of clean local renewable energy by providing incentives for the installation of solar photovoltaic systems throughout Los Angeles and to foster a self-sustaining solar photovoltaic industry by reducing the incentive amount over time. LADWP also provides an additional incentive payment for systems using photovoltaic modules manufactured in the City of Los Angeles. The goal of the Los Angeles Manufacturing Credit is to promote local economic development through manufacturing and job creation within the City of Los Angeles and to reduce costs through increased volume and competition.

To ensure broad and equitable distribution of incentive funds among all customer classes, the Solar Photovoltaic Incentive Program's available funding is allocated among small, medium, and large customer categories. Only permanently installed systems are eligible for incentives. Separate from the categories listed above, incentive funding is also available for qualifying affordable housing projects. Also, customers installing solar power systems are eligible for LADWP's Net Energy Metering program, which allows customers whose solar power systems generate more electricity than they use to receive an energy credit toward future energy use.

Initiated in 2000, LADWP's Solar Photovoltaic Incentive Program is now one of the largest programs of its kind available nationwide. The incentives offered through this program meet or exceed other incentive programs offered by municipally- as well as investor-owned utilities. At present, nearly 10 MW of solar energy have been added through the incentive

program and City facility installations. LADWP has extended the Solar Photovoltaic Incentive Program until June 2011, with a total commitment of $150 million.

As part of LADWP's ongoing commitment to initiatives that reduce energy use and improve air quality, LADWP launched its Trees for a Green LA program in 2002. Trees for a Green LA provides residential customers with knowledge to plant and care for shade trees around their homes. Residents are eligible to receive up to seven free shade trees. By providing natural urban shading, mature trees help reduce air conditioning use and associated costs at homes and other building by up to 20 percent. An independent analysis of Trees for a Green LA, conducted by the U.S. Department of Agriculture Forest Service's Center for Urban Forest Research, shows that the annual average energy savings per tree planted will total 81 kilowatt-hours. By reducing energy use, trees directly lessen the air pollution that comes from the generation of electricity. The analysis also indicates that, over the expected 30-year lifespan of the first 200,000 trees planted, the program will reduce the emission of smog-forming pollutants by more than 7,600 tons. By removing carbon dioxide from the atmosphere and reducing carbon dioxide emissions from electricity generation, trees help lower the rate of global warming. To date, over 28,260 shade trees have been planted through Trees for a Green LA. In addition to the Trees for a Green LA program, LADWP sponsors the Cool Schools program, under which over 8,260 shade trees have been planted to date on school campuses in the City.

7.2 The relocation of the proposed project as a means of reducing potential impacts associated with the development at the proposed project site was discussed in Section 3.13 (Alternatives to the Proposed Project) of the Draft EIR/EA. While many factors must be considered in the siting of wind energy projects, a primary factor is the adequacy of the wind resource to generate sufficient power in a cost-effective manner. As discussed in the Draft EIR/EA, the California Energy Commission has identified several areas of high wind resource potential in Southern California. In addition to offshore areas around the Channel Islands, relatively large areas have been identified in the southwestern corner of Imperial County, along the border with Mexico; in the Cajon Pass area in southwestern San Bernardino County; west of the cities of Palmdale and Lancaster in northern Los Angeles County; in the San Gorgonio Pass area near Palm Springs in Riverside County; and in the Tehachapi WRA, within which the proposed project is located. San Gorgonio and Tehachapi are the most highly rated of these resource areas in terms of wind energy production capability. This is evidenced by the fact that virtually all wind energy development in Southern California has occurred within these WRAs, representing approximately 2,000 GWh of annual energy output. As the demand for renewable energy rises and as improved technologies increase the efficiency and effectiveness of wind power generation, it is likely that additional wind energy projects may be developed in many or all of the resource areas identified above.

An analysis to determine the capability for wind energy generation, the availability of electrical transmission capacity, and the extent of potential environmental impacts related to wind energy development in these various areas located throughout the Southern California region is beyond the scope of this EIR/EA, which is project specific in nature. Such a broad analysis would more appropriately be accomplished in a Programmatic EIR and/or Environmental Impact Statement conducted by a lead agency with jurisdiction over energy and/or development policy at a regional or state level. Such a comprehensive analysis may require the formation of a Joint Powers Authority consisting of numerous agencies and local governments with an interest in wind development in Southern California. LADWP is

proposing the Pine Tree Wind Development Project to help meet its stated goals for renewable energy development, and the department will continue to develop renewable energy sources of all types, potentially including other specific wind energy projects in the region.

However, the Draft EIR/EA did consider an alternative location in the vicinity of the proposed project that has the potential to meet the project objectives relative to wind resources, generation capacity, consolidated private property holdings, and proximity to electrical transmission lines with available capacity (see Section 3.13 of the Draft EIR/EA). It was concluded that the alternative site would not eliminate or substantially lessen any of the impacts of the proposed project. While no other specific alternative sites were analyzed because of the limitations described above, no site would be free of environmental impacts in relation to the development of the proposed project. Recently proposed wind energy developments at lower elevations in the Antelope Valley have raised concerns about visual, recreation, and biological impacts related to the California Poppy Reserve. Likewise, development of the proposed project at lower elevations closer to the existing LADWP Inyo-Rinaldi transmission line adjacent to SR-14 would likely increase environmental impacts related to visual resources, sensitive desert tortoise and Mohave ground squirrel habitat, and critical military aviation training and testing missions.

7.3 The proposed project would not support the energy needs for further housing development in the Antelope Valley and Tehachapi areas, nor does LADWP possess the authority to supply power to such development outside the Los Angeles City limits. Unlike investor-owned electrical utilities, which may market their services for power supply to communities throughout the state, LADWP, in accordance with the Los Angeles City Charter, is responsible for providing a reliable supply of electrical power to residential, commercial, government, and other customers located within the boundaries of the City of Los Angeles. The objective of the proposed project is not to create surplus energy for the open marketplace but to help meet the projected electrical energy demands of City of Los Angeles customers while increasing the share of the power used by LADWP that is generated from clean and renewable energy sources.

7.4 The biological studies at the proposed project site were initiated over 2 years ago, and avian studies are continuing at present and would continue through the first year of operations. The Pine Tree studies were approached in a manner widely accepted for complex biological analysis, following a phased progression of study that builds a basis of general information followed by progressively more detailed work. The methodologies, protocols, and extent of these surveys were documented in the Draft EIR/EA in the biological resources section. To summarize, studies were initiated in December of 2002 with a general biological habitat assessment over (at that time) a 33-square-mile project study area. Existing vegetation communities were delineated, potential habitats for sensitive plants and wildlife associations within those communities were mapped, and searches for sign of sensitive plant and wildlife species were completed. Based on the results of the December 2002 habitat assessment, and considering a list of sensitive species with the potential to occur within the project area assembled through literature review, focused surveys were conducted in the spring and summer of 2003. The characterization of wildlife usage of the site included direct observations of avian species as well as research regarding avian species likely to occur. The amount of time spent in the field was consistent with biological survey practice for wildlife characterization and was accomplished by professional biologists with significant experience

with Southern California desert and mountain habitats. Field work was supplemented with research of published literature applicable to the region.

During these initial field visits to the site, which included the spring 2003 season, a remarkable characteristic of the site was the lack of observed bird activity, particularly raptors. A higher level of use by raptors typically would be expected. The biological survey team also noted a low level of riparian and songbird activity. Relative to song birds and riparian activity, California Department of Fish and Game wildlife biologists visiting the site confirmed this lack of activity and commented that the riparian areas appeared to not be well enough developed or extensive enough to be attractive to nesting riparian birds, including sensitive species like Southwestern willow flycatcher, yellow-billed cuckoo, and least Bell's vireo.

Under most circumstances, the relative absence of observed avian activity during spring would lead to the conclusion that the potential for significant impact would be low. In spite of this, and in consideration of the comments on the Notice of Preparation suggesting that one year of avian baseline information should be collected, LADWP decided to initiate a formal avian protocol survey. Dr. Michael Morrison, a nationally recognized avian biologist, was retained to develop a survey protocol and conduct the studies.

The avian protocol developed for this project is responsive to the level of effort recommended in the National Wind Coordinating Committee (NWCC) Guidance Document (Anderson et al. 1999) and the recently released United States Fish and Wildlife Service (USFWS) Interim Guidelines. The NWCC Guidelines call for an initial reconnaissance survey. The goal is to identify locations or sites that have a high probability of substantial bird fatalities. Reconnaissance surveys are composed of several site visits, a literature survey, analysis of unpublished data, interviews with local experts, and other information that might be available. Assuming no significant biological issues are raised following the reconnaissance survey, a Level 1 Survey is initiated. The Level 1 Survey is designed to quantify the numbers, species, and activity of birds in the project area. Available avian mortality data indicate that individual turbines are often responsible for the majority of fatalities in a development because they are located in locations that attract birds, such as near gullies or concentrations of prey. The survey protocol also addressed the potential for occurrence of bats. Specific pre-construction surveys are designed to site turbines such that minimal or no mitigation is required during facility operation. Level 2 Surveys, which include detailed assessment of population effects due to avian fatalities, are seldom needed, especially if reconnaissance and Level 1 Surveys were implemented properly. Only the high mortality rate of golden eagles at the Altamont Pass Wind Resource Area (WRA) has resulted in a Level 2 Study to date.

The study protocols, observations, point counts, and statistical results of the avian survey, which included the important spring season, were presented in the Draft EIR/EA (with specifics included in Appendix F within Appendix D). It must be emphasized that these data are not derived from Tehachapi WRA or any other areas in the region. They are derived from direct observations and monitoring that occurred over a 2-year period of time at the Pine Tree project site. The use of avian data from the Tehachapi WRA was done only to provide a comparison to test the reasonableness of the Pine Tree conclusions. While there are distinct differences between the project site and the Tehachapi WRA, there are also

similarities that allow for such direct comparison, with qualification provided in the Pine Tree survey report.

Based on a comparison of the use of Pine Tree by birds relative to other existing wind developments, fatalities are predicted to be at the low end of that which is quantified elsewhere for both raptors and songbirds. In spite of the fact that some wind developments lie directly in areas that are known migration routes, Erickson et al. (2002) summarized the observed and likely potential impact of wind farms on passerine and other non-raptorial birds, including nocturnally migrating species. They found that nocturnal migrants are estimated to comprise approximately 50 percent of the fatalities at new wind projects (estimated range 34 to 59%) based on timing and species observed during standardized fatality monitoring. There has been no reported large episodic mortality event (e.g., >50 passerine birds during a single night) recorded at a U.S. wind plant. Two small nocturnal avian mortality events have been published at U.S. wind plants. Fourteen nocturnal migrating passerines at two turbines at Buffalo Ridge (Minnesota) were killed on one night during spring migration after a thunderstorm. At the Mountaineer Wind Energy Center, West Virginia, 33 (47.8%) of 69 passerine fatalities occurred on one night at a few turbines adjacent to a well-lit substation during spring migration (Kerns and Kerlinger 2004). The data suggest that sodium vapor lamps at the substation were the primary attractant, since fatality locations were correlated with the location of the substation, and the other turbines away from the substation had few fatalities documented the morning after the event. After the lights were turned off at the substation, no events occurred. Erickson et al. (2002) were not aware of any other mortality events greater than a few birds at single or adjacent turbines found during a single search at any U.S. wind plant.

Several studies have been published regarding extrapolated bird passage rates (McCrary et al. 1983; Mabee and Cooper 2004; Mabee and Cooper 2001; Johnson et al. 2002). We are aware of only a few studies that have attempted to compare fatality rates to bird passage rates. McCrary et al. (1986) estimated approximately 6,800 annual bird fatalities at the San Gorgonio wind project in California, with an estimate of approximately 75 million migrants passing through during fall and spring migration. McCrary et al. (1986) believed the mortality levels were biologically insignificant. Radar studies conducted in the vicinity of the Buffalo Ridge wind project (over 400 turbines) in Minnesota suggested that as many as 3.5 million birds may migrate over the wind development area, and fatality studies suggest only a few hundred migrating songbirds are killed each spring. Radar studies at the Stateline Wind Project, a large facility (454 turbines) with its northern boundary located within 1.5 miles of the Columbia River, indicate a large number of birds migrate over that facility (several hundred thousand to over a million) during spring migration, and the fatality studies suggest a very small number result in collisions (Erickson et al. 2004). A similar pattern was observed for the nearby Nine Canyon facility (Cooper and Mabee 2001; Erickson et al. 2003b).

Rappole (1995) reviewed the behavior of migrating passerine birds including activities during stopovers. Most passerines migrate at night and rest and forage during the day. He noted that migrating flocks would sometimes spend several days in a location before continuing migration, while others would leave the evening of their arrival day. He thought that differences in stopover time were likely related to the physiological condition of individual birds, given that poor weather was not the reason for remaining at a location. He

also noted that habitat selection was species specific, ranging from highly selective to very broad, and was at least partially based on a bird's energetic state.

Most studies of North American bird migration using techniques such as radar have suggested that nocturnal migrants follow a broadfront migration pattern, flying at high altitudes, where they are not affected by variation in surface topography (e.g., Lowery and Newman 1966; Able 1972; Richardson 1972; Williams et al. 1977 *in* Williams et al. 2001). While there is some expected mortality of nighttime migrants, numbers of fatalities for individual species from the many fatality studies conducted in the West suggest levels inconsequential to the affected species (Erickson et al. 2002).

As the fall 2004 and winter 2005 avian surveys continued, Dr. Morrison did not encounter large numbers of migratory birds using the proposed project site for foraging and resting; no large flocks of migrating raptors or passerines were observed.

In summary, the data continue to support the conclusion that the Pine Tree project site does not serve as a major pathway or stopover area for migrating birds. The few instances in which relatively large numbers of migrating passerine birds have been killed in wind developments have been apparently due to a combination of poor weather and lights reflecting off of a low cloud ceiling. The proposed wind turbines would be located in the western end of Jawbone Canyon, some 10 miles from the mouth of the canyon, near SR-14. Anecdotal information from at least one Draft EIR/EA commenter and an unpublished report indicate that the localized spring migration in the area is from southeast to northwest and that some of the migration is captured in northwest-southeast trending canyons, such as the east portion of Jawbone Canyon. The Jawbone Canyon migration continues in a northwesterly direction up Alphie and Hoffman canyons through the topographic pinch point of Butterbredt Springs. This would take the localized migration well east of the proposed project property, which encompasses northeast-southwest trending portions of upper Jawbone Canyon. Our data based on extensive field observations show that there are no other logical reasons, such as good habitat or adequate cover and water, for a substantial number of birds to be loafing or resting in the proposed turbine areas.

The Pine Tree Wind Project Biological Technical Report and the avian surveys affirm that golden eagles were observed at the site and that the site is within their range. No nest of a golden eagle was found on site in spring 2004; one pair was seen occasionally on the eastern edge of the site. Golden eagles, like all other raptors that would be expected at the site, are distributed throughout the Tehachapi Mountains and Southern California. Thus, there is no local population, which by definition would require that the birds be almost completely isolated (for breeding/genetic purposes) from other populations. The loss of a golden eagle would not jeopardize the species or extirpate them from the general or local area.

7.5 Please see response to Comment 7.4 with respect to migrating birds and wind turbine mortality. In addition, the project's avian survey sampled raptors including turkey vultures. Few were seen (although they do migrate through the general area to the west), and data from numerous Western wind developments show that vultures (for not completely understood reasons) are seldom killed by wind turbines. This includes the Tehachapi area, where Anderson et al. (2004) found that even though the area may experience relatively high use periodically by turkey vultures, their fatality was low, suggesting they are not very susceptible to collisions.

7.6 Although the Draft EIR/EA listed numerous species within whose general range the proposed project site is located, site-specific sensitive plant surveys were conducted by qualified biologists at the appropriate time of year based on known growth cycles to confirm either the presence or absence of these species. No sensitive plant populations or individuals were observed along Jawbone Canyon Road or in the areas of the project site within the project footprint. Many of the sensitive plant surveys were conducted in spring 2003 following record winter rains. No sensitive plants were located within the areas of proposed disturbance.

7.7 The Draft EIR/EA recognizes the intense use that the Jawbone Canyon Open Area can receive from off-highway vehicle users as well as other recreation users. The level of this use varies markedly, depending on the season, the day of the week, and holiday periods. During the summer season and even on non-holiday weekdays in the winter season, the use of the Open Area is generally very light. However, during late fall, winter, and spring, many thousands of people may visit and use the Open Area for camping and off-highway vehicle recreation on a single holiday weekend. In Section 3.7 (Transportation), the Draft EIR/EA identifies the conflict relative to use and safety in the Open Area during these high use periods related to project construction vehicle traffic on Jawbone Canyon Road as it traverses the Open Area.

The proposed project construction is expected to last approximately 10 months. The 2,100 truck trips projected for the proposed project construction represent 1,050 deliveries to the site. Each inbound (laden) and each outbound (unladen) truck trip was counted separately for traffic analysis purposes, resulting in a total of 2,100 one-way trips (1,050 round trips) on Jawbone Canyon Road. Based on a conservative assumption that 80 percent of these estimated truck trips would occur over a 6-month period (rather than being evenly distributed over the entire 10-month construction schedule), an average of approximately 11 truck trips per day on Jawbone Canyon Road would be expected. This would represent an average of slightly over one trip per hour over a 10-hour workday, with each incoming truck and each outgoing truck representing a single trip. Since this number is an average, more or fewer trips may actually occur in a given day or hour, but the average figure nonetheless helps place the level of expected construction traffic on Jawbone Canyon Road in context, and, in general, it is not likely to contribute to significant traffic delays on the road. In addition, based on the currently projected construction schedule, many of these deliveries would occur outside the seasonal timeframe of heaviest recreation use in the Jawbone Open Area, which occurs from late fall to late spring. Most would also occur on days of the week when there is little or no recreation activity in the Open Area. This traffic would be temporary in nature, related only to the 10-month construction period of the project. The long-term operations of the project would require approximately 10 to 12 employees and only occasional truck deliveries on Jawbone Canyon Road.

However, as discussed in Section 3.7 of the Draft EIR/EA, even taking into account the level, timing, and temporary nature of traffic as discussed above, the impact caused by construction-related traffic to the recreation use in the Jawbone Canyon Open Area would be considered significant if not mitigated. Accordingly, Mitigation Measure 7.4 of the Draft EIR/EA requires the development of a transportation safety plan for construction traffic on Jawbone Canyon Road. The intent of this plan is to eliminate or substantially reduce the potential conflicts between the construction traffic and recreation users in the Open Area. The plan is to be developed in coordination with the Kern County Roads Department and

BLM (including, as appropriate, Steering Committee representatives) as part of the County road permit and BLM right-of-way grant processes. The plan would become a condition of these permits and grants. The plan will provide rules, physical controls, and enforcement provisions for construction traffic to minimize conflicts. However, most significantly, the plan will establish time periods (related to the high recreation use periods of the Open Area) during which no deliveries of equipment or materials would be allowed on Jawbone Canyon Road and during which construction workers would be shuttled to and from the project site in multi-passenger vehicles. As mentioned above, the transportation safety plan is to be prepared as part of the County roads permit and BLM right-of-way grant processes. However, Mitigation Measure 7.4 of the Draft EIR/EA has been modified to more specifically indicate the types of provisions and limitations that will be minimally included in the plan. Please see Section 3.0 (Changes to the Draft EIR/EA) of the EA/Final EIR for the complete revised text of MM 7.4.

While some improvements to Jawbone Canyon Road are required (e.g., near the eastern end of the road to improve drainage and wet weather access and where the road crosses the Los Angeles Aqueducts), no widening of the road within the Open Area is planned. The timing of these road improvements would avoid high recreation use periods in the Open Area. Mitigation Measure 7.3 of the Draft EIR/EA provides that Jawbone Canyon Road will be kept in safe operating condition during the project construction period and completely repaired at the conclusion of construction to ensure safety of travel by users. In addition, video records of the road will be created prior to the start of construction and be made available upon request to allow assessment of any damage to the roads from construction traffic. Any damage will be repaired in accordance with County specifications.

Although a right-of-way grant is required to cross BLM land for project construction and operations access, Jawbone Canyon Road is a County-maintained public road within the entire Open Area. The Open Area consists of roughly equal portions of public (BLM) and private land, and Jawbone Canyon Road as it crosses the Open Area is likewise equally situated on public and private land. The proposed project is utilizing this public road, not the Open Area itself, to provide access to the project property. As discussed in Section 1.0 (Introduction) of the Draft EIR/EA, the use of Jawbone Canyon Road for project access is consistent with BLM land management policies that promote the appropriate development of wind energy. In accordance with the BLM's Interim Wind Energy Development Policy (IM2003-020), rights-of-way should be managed to encourage the development of wind energy in acceptable areas while minimizing impacts to natural, cultural, and visual resources on the public lands. With the implementation of the proposed transportation safety plan as a condition of the road permits and right-of-way grants, including provisions for periods of time during which no deliveries or individual construction worker trips would be allowed on Jawbone Canyon Road, the potential impacts to existing recreation land use would be less than significant and the proposed project would be consistent with both BLM land use and wind energy development policy.

7.8 Section 15126.6 (a) of the State CEQA Guidelines provides that project alternatives should focus on those that "would feasibly attain most of the basic objectives of the project." The No Project Alternative would not attain any of the project objectives. However, an evaluation of a No Project Alternative is nonetheless required under CEQA and NEPA. According to the CEQA Guidelines, the No Project Alternative is intended to "allow decision makers to compare the impacts of approving the proposed project with the impacts of not

approving the proposed project." As discussed in Section 3.13 (Alternatives to the Proposed Project) of the Draft EIR/EA, the No Project Alternative would obviously avoid the site-specific impacts associated with the proposed project since no construction activities or long-term operations would occur at the project site. However, because it would not provide any renewable energy sources for the production of electrical power, the No Project Alternative would result in a continued dependence on fossil fuels to generate the power that would have been realized from the proposed wind turbines. Likewise, there would be a continuation in the air pollutant emissions and greenhouse gases associated with the sustained use of these fossil fuels.

The relocation of the proposed project as a means of reducing potential impacts associated with the development at the proposed project site was also discussed in Section 3.13 of the Draft EIR/EA. While many factors must be considered in the siting of wind energy projects, a primary factor is the adequacy of the wind resource to generate sufficient power in a cost-effective manner. As discussed in the Draft EIR/EA, the California Energy Commission has identified several areas of high wind resource potential in Southern California. In addition to offshore areas around the Channel Islands, relatively large areas have been identified in the southwestern corner of Imperial County, along the border with Mexico; in the Cajon Pass area in southwestern San Bernardino County; west of the cities of Palmdale and Lancaster in northern Los Angeles County; in the San Gorgonio Pass area near Palm Springs in Riverside County; and in the Tehachapi WRA, within which the proposed project is located. San Gorgonio and Tehachapi are the most highly rated of these resource areas in terms of wind energy production capability. This is evidenced by the fact that virtually all wind energy development in Southern California has occurred within these WRAs, representing approximately 2,000 GWh of annual energy output. As the demand for renewable energy rises and as improved technologies increase the efficiency and effectiveness of wind power generation, it is likely that additional wind energy projects may be developed in many or all of the resource areas identified above.

An analysis to determine the capability for wind energy generation, the availability of electrical transmission capacity, and the extent of potential environmental impacts related to wind energy development in these various areas located throughout the Southern California region is beyond the scope of this EIR/EA, which is project specific in nature. Such a broad analysis would more appropriately be accomplished in a Programmatic EIR and/or Environmental Impact Statement conducted by a lead agency with jurisdiction over energy and development policy at a regional or state level. Such a comprehensive analysis may require the formation of a Joint Powers Authority consisting of numerous agencies and local governments with an interest in wind development in Southern California. LADWP is proposing the Pine Tree Wind Development Project to help meet its stated goals for renewable energy development, and the department will continue to develop renewable energy sources of all types, potentially including other specific wind energy projects in the region.

Nonetheless, the Draft EIR/EA did consider an alternative location in the vicinity of the proposed project that has the potential to meet the project objectives relative to wind resources, generation capacity, consolidated private property holdings, and proximity to electrical transmission lines with available capacity (Alternative 5). However, as discussed in Section 3.13 of the EIR/EA, because this alternative site has similar terrain, vegetation, and resources as the proposed project site, the potential environmental impacts related to

project construction and operations would generally be expected to be comparable to those generated by the proposed project.

As discussed in Section 3.13 of the Draft EIR/EA, Alternative 7A would cause additional significant impacts to archaeological resources that would not be created by the proposed project. The existing Pine Tree Canyon Road, at approximately 15 feet wide as it enters the project property from the southeast, crosses over a relatively large site of significant prehistoric cultural remains, including bedrock milling sites and lithic scatter, indicating a potential habitation site or temporary camp. Because of the width and vertical alignment required for the project access roads and the topography surrounding Pine Tree Canyon Road in the area of these archaeological resources, substantial ground disturbance related to road construction may occur and significant impacts to the resources might not be avoidable. Improvements to Pine Tree Canyon Road and the use of the road by construction vehicles would also increase potential impacts related to the endangered desert tortoise and Mohave ground squirrel and the disturbance of their habitat and impacts to sensitive Joshua Tree woodland plant communities located in the lower reaches of the canyon. In addition, because of the relative steepness and narrowness of Pine Tree Canyon Road as it approaches the project property when compared to Jawbone Canyon Road, Alternative 7A would require large areas of disturbance to accommodate the vertical alignment of the road and the associated quantities of cut and fill, resulting in additional impacts related to erosion, runoff, and stream crossings.

Because of the impacts associated with the Pine Tree Canyon access route and because the potential impacts related to traffic safety in the Open Area could be mitigated to a less than significant level with the implementation of the transportation safety plan discussed above, Alternative 7A is not considered environmentally superior to the proposed project.

As discussed in Section 3.13 of the Draft EIR/EA, Alternative 7B would also cause impacts from project construction traffic and traffic-related noise and dust. To utilize this alternative access route to the proposed project site, construction traffic would need to reach the Sky River Ranch property from Highway 58 at Tehachapi Pass to the south. This would route construction traffic through the rural residential areas located in Sand Canyon and Horse Canyon, to the southwest of the project property, creating potentially significant conflicts. In addition, to access the project property through Horse and Sand canyons, the route would need to cross private property prior to reaching the Sky River Ranch wind development property. Agreements to allow such crossings may not be achievable.

Perhaps the most significant impact related to this route would be the substantial amount of grading that would be required to construct access roads through the steep and rugged terrain between Sky River Ranch and the proposed project turbine sites. This would entail a descent of approximately 1,000 feet in elevation from Sweet Ridge to the project property, potentially requiring large areas of habitat disturbance to accommodate the vertical alignment of the road and the associated quantities of cut and fill. These necessary road improvements would be considerably more extensive than those required for the Jawbone Canyon Road access to the property, and they would, as discussed in the Draft EIR/EA, significantly increase impacts related to erosion, runoff, and stream crossings. This area between Sky River Ranch and the currently proposed project turbine sites was part of the broader study area for the proposed project. However, it was avoided at least partially because of steep terrain (and the

associated impacts of grading) and potential impacts to more developed forest plant communities and to the Pacific Crest Trail, which generally parallels the Sky River Ranch project.

Because of these impacts associated with the Sky River Ranch access route and because the potential impacts related to traffic safety in the Open Area could be mitigated to a less than significant level with the implementation of the transportation safety plan discussed above, Alternative 7B is likewise not considered environmentally superior to the proposed project.

STATE OF CALIFORNIA — THE RESOURCES AGENCY
ARNOLD SCHWARZENEGGER, Governor

CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512

Letter 8

January 7, 2005

Mr. Charles Holloway
Los Angeles Department of Water and Power
111 North Hope Street, Room 1044
Los Angeles, California 90012-2694

RE: Pine Tree Wind Development Project Draft Environmental Impact Report / Environmental Assessment (State Clearinghouse No. 2004041076)

Dear Mr. Holloway:

The California Energy Commission has reviewed the Draft Environmental Impact Report / Environmental Assessment (EIR/EA) for the proposed Pine Tree Wind Development Project. We offer the following comments in the areas of biological and cultural resources.

Biological Resources

8.1 On page 3.5-25 of the Draft EIR/EA there is a summary of the draft results from the avian studies that were done from 1996-1998 (Anderson et al.). The final report is published and available electronically at http://www.osti.gov/bridge/search.results.jsp?queryId=3&start=0& (Anderson et al. Avian Monitoring and Risk Assessment at the Tehachapi Pass Wind Resource Area; Period of Performance: October 2, 1996 - May 27, 1998. National Renewable Energy Laboratory).

8.2 The Tehachapi Pass area covered by the study did not include the proposed project site. Because this is a new site, we recommended in our comment letter on the Notice of Preparation that one year of baseline monitoring of the project site should be conducted following established protocol. The Draft EIR/EA includes baseline monitoring from April 2004, but monitoring should continue for the whole year in order to have information on the seasonal differences of bird use. This information can only be gathered prior to the construction of the wind turbines.

8.3 Dr. Morrison calculates that approximately four raptors per year would be killed by the new wind farm, based on information presented in the Tehachapi draft study (Anderson et al.). Because the area studied did not include the proposed site and the studied wind turbines are not comparable to the proposed wind turbines, the data presented in that study cannot be applied to the proposed project area. One year of baseline monitoring should be conducted instead.

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8.4 Page 3.5-32 of the Draft EIR/EA states that construction of the proposed project would directly and permanently impact approximately 1.23 acres of native perennial grassland considered sensitive by California Department of Fish and Game. Because the loss is relatively small, the impact is considered less than significant and no mitigation and/or avoidance measures are proposed in the Draft EIR/EA. If sensitive habitat is being permanently lost, then habitat compensation should be purchased to offset the loss. The Final EIR/EA should provide mitigation for at least 1.23 acres of native perennial grassland.

8.5 Mitigation measures are listed on pages 3.5-40 through 3.5-43 (Section 3.5.4) of the Draft EIR/EA. Restoration and revegetation is identified as mitigation for temporary and permanent indirect impacts to vegetation communities and sensitive species habitat. Desert habitats are slow to revegetate and in many cases, even after 50 or 60 years do not restore to predisturbed levels. Habitat compensation should be purchased for all disturbed habitat that is slow to recover.

8.6 We recommend that the Final EIR/EA require the following mitigation measures:

- use baseline bird use survey results (minimum of one year) to site wind turbines in areas that avoid the highest bird use;
- require bird use monitoring and dead bird searches during operation to determine the level of bird fatalities; and
- require a contingency plan to remove or re-locate turbines determined to be causing greater than expected numbers of bird fatalities.

8.7 In the discussion of decommissioning, we recommend that the Final EIR/EA require the removal of derelict turbines as soon as they become inoperable and include the terms of turbine removal in the permit as part of project closure or repower requirements.

8.8 Figure 4 of Technical Appendix D shows the locations of the proposed turbines on a topographical map; however, the scale is too small to effectively read what the elevations are at the proposed turbine locations. We suggest that the Final EIR/EA include a figure depicting the proposed locations of the turbines on a topographic map at a larger scale (i.e. 1 inch=6000 feet).

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Cont'd.

Cultural Resources

8.9 The cultural resources section of the Draft EIR/EA (page 3.8-2) discusses compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (1999). Since the Los Angeles Department of Water and Power is the lead agency responsible for CEQA, it would be useful to explain how the document also demonstrates compliance with CEQA.

8.10 We agree that the proposed data recovery plan (Mitigation Measure MM 8.2) would mitigate impacts to cultural resources at the seven sites recommended as eligible to the National Register of Historic Resources. We suggest that the Final EIR/EA explain that cultural resources specialists who would conduct or oversee this work would meet the Secretary of the Interior professional standards (Code of Federal Regulations, 36 CFR Part 61 (48 FR 44716), revised July 1, 2003). It is also appropriate to evaluate historic resources for eligibility to the California Register of Historic Resources. CEQA requires that findings of eligibility and mitigation be determined by the lead agency. The requirements for inclusion on the state register differ slightly from the eligibility requirements for the national register.

8.11 According to the Draft EIR/EA, 90 cultural resources sites were identified in the project area, 70 of which would be avoided given the current project configuration. CEQA states that the lead agency should make provisions for historical or unique archaeological resources accidentally discovered (California Code of Regulations (CCR) section 15064.5 (f)). We recommend development of a mitigation and monitoring plan that includes, but would not necessarily be limited to, the following measures:

- Cultural resources monitoring during ground-disturbing activities by monitors who meet, or work under the direction of a cultural resources professional who meets, the Secretary of the Interior standards. Monitors would ensure avoidance and provide onsite direction to deal with new discoveries.
- Native American monitors to ensure that the Native American perspective regarding the significance of artifacts and sites is included in any cultural resources evaluation.
- The procedures to be followed if there is an unanticipated discovery of cultural material.
- Because disturbance of Native American burials is likely, an agreement between Native American tribes identified by the Native American Heritage Commission for treatment and disposition of human remains and any associated items pursuant to CCR section 15064.5 (d).

Letter 8
Cont'd.

8.12

To complete mitigation begun by data recovery, arrangements need to be made to curate the artifacts and information that is recovered. Information regarding curation (e.g., the facility selected for curation) should be included in the Final EIR/EA and in the monitoring and mitigation plan.

Thank you for the opportunity to comment on the Draft EIR/EA. If you have any questions regarding our comments, please contact Eric Knight, Energy Facilities Siting Project Manager at (916) 653-1850 or email at eknight@energy.state.ca.us.

Sincerely,

ROGER E. JOHNSON, Manager
Siting Office

Response to Letter 8
California Energy Commission, January 7, 2005

8.1 Comment noted. LADWP is aware that the report was finalized and it is now correctly cited in the Reference section of the Draft EIR/EA (Section 5.0, see reference 5).

8.2 LADWP considered CEC's comments on the Notice of Preparation. The biological studies at the proposed project site were initiated over 2 years ago, and avian studies are ongoing and will continue through the first year of operations. The Pine Tree studies were approached in a manner widely accepted for complex biological analysis, following a phased progression of study that builds a basis of general information followed by progressively more detailed work. The methodologies, protocols, and extent of these surveys were documented in the Draft EIR/EA in the biological resources section. To summarize, studies were initiated in December of 2002 with a general biological habitat assessment over (at that time) a 33-square-mile project study area. Existing vegetation communities were delineated, potential habitats for sensitive plants and wildlife associations within those communities were mapped, and searches for sign of sensitive plant and wildlife species were completed. Based on the results of the December 2002 habitat assessment, and considering a list of sensitive species with the potential to occur within the project area assembled through literature review, focused surveys were conducted in the spring and summer of 2003. The characterization of wildlife usage of the site included direct observations of avian species as well as research regarding avian species likely to occur. The amount of time spent in the field was consistent with biological survey practices for wildlife characterization and was accomplished by professional biologists with significant experience with Southern California desert and mountain habitats. Field work was supplemented with research of published literature applicable to the region.

During these initial field visits to the site, which included the spring 2003 season, a remarkable characteristic of the site was the lack of observed bird activity, particularly raptors. A higher level of use by raptors typically would be expected. The biological survey team also noted a low level of riparian and songbird activity. Relative to song birds and riparian activity, California Department of Fish and Game wildlife biologists visiting the site confirmed this lack of activity and commented that the riparian areas appeared to not be well enough developed or extensive enough to be attractive to nesting riparian birds, including sensitive species like Southwestern willow flycatcher, yellow-billed cuckoo, and least Bell's vireo.

Under most circumstances, the relative absence of observed avian activity during spring would lead to the conclusion that the potential for significant impacts would be low. In spite of this, and in consideration of the comments on the Notice of Preparation suggesting that one year of avian baseline information should be collected, LADWP decided to initiate a formal avian protocol survey. Dr. Michael Morrison, a nationally recognized avian biologist, was retained to develop a survey protocol and conduct the studies.

The avian protocol developed for this project is responsive to the level of effort recommended in the National Wind Coordinating Committee (NWCC) Guidance Document (Anderson et al. 1999) and the recently released United States Fish and Wildlife Service

(USFWS) Interim Guidelines. The NWCC Guidelines call for an initial reconnaissance survey. The goal is to identify locations or sites that have a high probability of substantial bird fatalities. Reconnaissance surveys are composed of several site visits, a literature survey, analysis of unpublished data, interviews with local experts, and other information that might be available. Assuming no significant biological issues are raised following the reconnaissance survey, a Level 1 Survey is initiated. The Level 1 Survey is designed to quantify the numbers, species, and activity of birds in the project area. Available avian mortality data indicate that individual turbines are often responsible for the majority of fatalities in a development because they are located in locations that attract birds, such as near gullies or concentrations of prey. The survey protocol also addressed the potential for occurrence of bats. Specific pre-construction surveys are designed to site turbines such that minimal or no mitigation is required during facility operation. Level 2 Surveys, which include detailed assessment of population effects due to avian fatalities, are seldom needed, especially if reconnaissance and Level 1 Surveys were implemented properly. Only the high mortality rate of golden eagles at the Altamont Pass Wind Resource Area (WRA) has resulted in a Level 2 Study to date.

The study protocols, observations, point counts, and statistical results of the avian survey, which included the important spring season, were presented in the Draft EIR/EA (with specifics included in Appendix F within Appendix D). It must be emphasized that these data are not derived from Tehachapi WRA, Butterbredt Springs, or any other areas in the region. They are derived from direct observations and monitoring that occurred over a 2-year period of time at the Pine Tree project site. The use of avian data from the Tehachapi WRA was done only to provide a comparison to test the reasonableness of the Pine Tree conclusions. While there are distinct differences between the project site and the Tehachapi WRA, there are also similarities that allow for such direct comparison, with qualification provided in the Pine Tree survey report. Many published papers in the scientific literature have concluded that 3 point counts, usually of 5-10 minute duration each, will adequately quantify the species composition and relative abundance of birds in an area during breeding. The Pine Tree sampling protocol exceeds these standards both in terms of number of counts (5) and duration (30 minutes each). The 30-minute duration was chosen to count raptors but is more than adequate for songbirds. The fact that counts were conducted during the spring migration period and failed to locate any substantial number of songbirds using the riparian area in Jawbone Canyon (that portion within the wind turbine siting area), indicates that the area was likely not used in 2004 for resting and foraging by large numbers of migrating songbirds.

Based on these findings, it is reasonable for LADWP to proceed with planning and approval of the proposed project. However, protocol avian surveys continued for a fall 2004 season and a winter 2005 season (and will continue after that as well). The fall and winter survey reports are included at the end of Section 2.0 as Attachments A-1 and A-2, respectively, in the EA/Final EIR. These studies will serve to substantiate previous findings concerning impacts, add to the overall knowledge concerning avian use in relation to southern Sierra wind power projects, and provide one year of baseline avian monitoring plus over 3 years of biological analysis of the project, prior to any turbines being constructed.

8.3 As noted above in response to Comment 8.2, the use of avian data from the Tehachapi WRA was to provide a comparison to test the reasonableness of the conclusions related to the operations of the proposed project. A valid method of predicting mortality (potential risk) at the Pine Tree project site is to provide a relation to the most appropriate operating wind

development. Otherwise, there is no basis on which risk can be determined. We are using the observed occurrence of birds at the project site to relate to other nearby developments where bird use and mortality have been measured. The baseline data for the proposed project are not derived from the Tehachapi study but from direct observations at the project site. It is acknowledged that the turbine type to be placed at Pine Tree has a longer blade diameter and will be placed on a taller tower than at any existing Tehachapi WRA site. However, recent analyses from the Altamont Pass WRA indicates that, while there are apparently some differences in fatality rates between turbine types, these differences are not substantial (Smallwood and Thelander 2004). Additionally, analyses from Altamont indicate that turbine position on the landscape has a greater impact than turbine type (Smallwood and Neher 2004). As such, there is no indication that the different type of turbine at Pine Tree negates making generalized estimates of potential risk based on results from the Tehachapi study, along with field observation data from the project site.

8.4 LADWP intends to mitigate the impact to perennial grassland habitat subject to consultation with the California Department of Fish and Game. A measure stipulating that this mitigation be implemented has been added to the EA/Final EIR.

8.5 Comment noted. The habitat mitigation plans are being prepared and will be processed with the appropriate resource agencies during the permit and mitigation plan review process. All mitigation measures will be monitored for appropriate time frames subject to permit conditions.

8.6 Relative to the suggested mitigation measures,

- One year of baseline surveys will be conducted to confirm that the turbine sites are not located in high bird use areas. The winter surveys that represent the final season to complete these surveys, which began in spring of 2004, are currently near completion. Initial conclusions based on general and protocol surveys have not identified any substantial bird use areas at proposed turbine sites.

- LADWP plans to continue avian monitoring of the site through the construction period and for at least the first year of operations. That would provide at least 3 years of continuous avian monitoring and up to 5 years of biological resource investigation at the site. Year-round monitoring beyond this period is not currently indicated based on the data gathered to date at the site as well as the collective operating experience of the wind industry relative to passerine migrant mortality. The number of years of formal post-construction investigation should be contingent upon pre-construction assessments of risk and upon the significance of impacts occurring during the first year of operation. Because wind turbines have not been implicated in large-scale events that occur at regular intervals extending beyond a year, there is no reason to presume that one year of operational monitoring, coupled with 3 years of pre-operations site observations and existing information from other wind projects, is not sufficient to determine whether a project would have impacts different than what is portrayed in the environmental document.

- A mitigation measure has been added that would result in operational modifications of a turbine(s) that results in a disproportionately high avian mortality when compared to other turbines on site.

8.7 Recently enacted provisions of the Kern County Zoning Ordinance for the Wind Energy (WE) Combining District establish strict guidelines regarding the maintenance and abandonment of wind turbines. Among the provisions are terms establishing that a turbine will be considered abandoned if it is not in operational condition for a period of 12 consecutive months and the requirement for removal of all aboveground structures associated with any turbine deemed to be abandoned within 60 days of written notice from the County. These provisions, as well as all provisions related to the WE Combining District, would apply to the proposed project as part of the zone change approval required for project implementation.

8.8 The purpose of Figure 4 in Technical Appendix D was to indicate the broad pattern of vegetation communities across the entire approximately 21,500-acre project study area and within the proposed project access routes. A series of five detailed maps (at 1 inch = 1600 feet, with 40-foot contour intervals) located at the end of Technical Appendix C (Hydrology Study) clearly indicate the elevation of each turbine site.

8.9 The proposed analysis meets the criteria for CEQA evaluation since resources were evaluated for potential for listing under both the National Register of Historic Places (NRHP) as well as the California Register of Historical Resources (CRHR). The evaluation is discussed further in response to Comment 8.10 below.

8.10 The CEC agrees that implementation of the Historic Properties Treatment Plan prepared for the Project will mitigate impacts to the seven archaeological sites determined eligible for nomination to the NRHP. Cultural resources specialists who direct the mitigation efforts will meet or exceed the Secretary of the Interior's professional standards presented in 36 CFR Part 61. In addition, we note that resource eligibility determinations presented in the Cultural Resources Technical Report and summarized in the draft environmental document have been designed to address eligibility to both the NRHP and the CRHR. We recognize that requirements for listing differ slightly between the national and state registers. Given this, we followed the procedures outlined in the California Office of Historic Preservation Technical Assistance Series No. 6 bulletin, which provides guidance for addressing significance under the CRHR. Based on this guidance, resources were first evaluated for eligibility under NRHP criteria. Resources found ineligible under this process were evaluated against CRHR criteria. No resources found ineligible under NRHP criteria were determined to meet CRHR criteria.

8.11 Mitigation measures are spelled out in detail in the Historic Properties Treatment Plan, prepared to the specifications of BLM, the lead agency under Section 106 of the National Historic Preservation Act. Prior to initiation of construction activities, a discovery plan will be prepared and approved by BLM specifying that should any unanticipated cultural materials be identified during construction, work activities would be redirected elsewhere on the project until the significance of the find is evaluated by a qualified archaeologist and an appropriate course of action identified. The discovery plan will also address actions to be taken in the event of the discovery of human remains, including provisions for contacting the Native American Heritage Commission and appropriate Tribes.

The Historic Properties Treatment Plan will contain provisions to address discovery of resources during construction. Native American consultation has been undertaken by BLM. Where appropriate, Native American monitors will work closely with cultural resources

specialists during mitigation activities. We disagree that disturbance of burials is likely, based on comprehensive field surveys of the proposed project site. Project design and the subsequent treatment plans have been developed with the objective of avoidance and minimal impact. However, the project will be conducted in accordance with relevant regulations, including CCR section 15064.5(d) if appropriate.

8.12 A curation agreement is included as an appendix to the Cultural Resources Technical Report in the Draft EIR/EA.

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Letter 9

R-2508 COMPLEX SUSTAINABILITY OFFICE

Naval Air Systems Command Weapons Division

7 January 2005

Sustainability Office, Code 52F000E
575 I Avenue, Suite 1
Point Mugu, California 93042-5049

Ms. Tania Bonfiglio
City of Los Angeles, Department of Water and Power
111 N. Hope Street, Room 1250
Los Angeles CA 90012

Dear Ms. Bonfiglio:

Thank you for the opportunity to comment on the Draft Environmental Impact Report/Environmental Assessment for the Pine Tree Wind Development Project. This project is being proposed in the middle of several military air routes and special use airspace known as the R-2508 Complex. Any such placement of a project of this size will affect the utility of such routes and airspace. However, in specific cases these impacts can be mitigated. The Pine Tree Project is one of those cases where limiting the overall blade tip height to 400' above ground level and reducing the overall footprint of the project helps mitigate the impacts. Based on this information, we do not anticipate significant mission impacts from this project on the military operations in the area.

In general, the document adequately addresses potential impacts on military mission in the R-2508 Complex. However, we do have some specific comments, which are listed on the attached.

The R-2508 Complex Sustainability Office (CSO) appreciates the continued efforts of the Los Angeles Department of Water and Power in assuring compatible land use in this region. If the R-2508 CSO can be of any assistance to you in the future, please contact Dwight Deakin at (661) 277-2412, Tony Parisi at (805) 989-9209, or Ray Marler (760) 380-3035.

Sincerely

Anthony M. Parisi, PE
Complex Sustainability Officer

Letter 9
Cont'd.

R-2508 Complex Sustainability Office
Comments on Pine Tree DEIR/DEIS

9.1 Page ES-10: The Naval Weapons Station China Lake is an outdated name. Also, other military activities are responsible for MTRs in the area. Lastly, wind turbines can cause radar interference in addition to being obstructions to aviation navigation. We recommend changing the text to read, "Naval Air Systems Command Weapons Division and Edwards Air Force Base, as well as other military activities, maintain low-altitude MTRs and Special Use Airspace (SUA) that overlay portions of the project property to conduct aviation training and testing missions. Structures that penetrate an MTR or SUA may represent obstructions to aviation navigation. Wind turbines also can cause radar interference that negatively impacts critical testing of aviation systems."

9.2 Page ES-28: The Naval Weapons Station China Lake is an outdated name. We recommend changing the text in MM6.3.1 to read, "During project planning and construction, LADWP shall consult with representatives at EAFB and Naval Air Systems Command Weapons Division (NAVAIR WD) regarding any changes, if necessary, to proposed wind turbine locations."

9.3 Page 2-8: The Naval Weapons Station China Lake is an outdated name. Also, other military activities are responsible for MTRs in the area. Lastly, wind turbines can cause radar interference in addition to being obstructions to aviation navigation. We recommend changing the text to read, "The project area is located within the Joint Service Restricted R-2508 airspace complex, and both Edwards Air Force Base (EAFB) and Naval Air Systems Command Weapons Division (NAVAIR WD), as well as other military activities, maintain MTRs and SUA that overlay the vicinity of the proposed project. The military is concerned about any vertical obstructions located within the boundaries of the MTRs and radar interference caused by wind turbines because of the potential impact they may have on critical testing and training missions. The proposed project has been closely coordinated with representatives from both EAFB and NAVAIR WD, and significant constraints on turbine siting within the broader project study area have been identified."

9.4 Page 2-9, Figure 2-3, Siting of Project Components: We recommend that this figure include a military airspace overlay, i.e. MTRs and SUA.

9.5 Page 3.6-3, SPECIAL USES: The Naval Weapons Station China Lake is an outdated name. Also, other military activities are responsible for MTRs in the area. Lastly, wind turbines can cause radar interference in addition to being obstructions to aviation navigation. We recommend changing the text to read, "EAFB is located approximately 20 miles south of the project site and the Naval Air Weapons Station China Lake is located approximately 35 miles northeast of the project site. The Naval Air Systems Command Weapons Division and EAFB, as well as other military activities, maintain MTRs and SUA that overlay the vicinity of the project property to conduct aviation training and testing missions. The property is within the Joint Service Restricted R-2508 airspace complex. MTRs and SUA within the R-2508 Complex have an altitude floor of 200 feet above ground level (AGL). Structures taller than 200 feet that penetrate the MTR may represent obstructions to aviation exercises. Wind turbines also can cause radar interference that negatively impacts critical testing of aviation systems."
Comment:

9.6 Page 3.6-5: The project has potential impacts on military testing as well as training. We recommend changing the text to read, "In addition, the Department of Defense R-2508 Complex

9.6 Cont'd

Sustainability Office was consulted regarding military flight testing and training requirements and potential air space conflicts associated with the proposed project."

9.7

Page 3.6-6: The Naval Weapons Station China Lake is an outdated name. Also, other military activities are responsible for MTRs in the area. Lastly, wind turbines can cause radar interference in addition to being obstructions to aviation navigation. We recommend changing the text to read:

"The project site, including the transmission line corridor, is located in an area overlain by military use airspace, and the FAA has designated the airspace over this region as a military operations area. The area is within the Joint Service Restricted R-2508 airspace complex. The designated flight paths over the project site involve numerous MTRs and SUA starting at 200 feet AGL and increasing in height up to 10,000 feet above sea level. These MTRs and SUA are primarily associated with testing and training conducted by EAFB NAVAIR WD and other military activities. The total height of each turbine at the highest point of the rotor blade's rotation is approximately 340 feet. At this height, the wind turbines would extend into the lower elevations of flight corridors above the site, creating a potential navigation hazard related to MTRs. Wind turbines also can cause radar interference that negatively impacts critical testing of aviation systems.

LADWP has consulted with both EAFB and NAVAIR WD and has developed a configuration of wind turbines that resolves the potential for interference with military testing and training. The military reviewed the site plan and found that the plan as currently proposed would avoid potentially significant impacts. As long as the blade heights of the turbines remain below 400 feet AGL, the project would not compromise the training and testing mission of the affected installations. (See Appendix A for copy of written confirmation of project suitability from the Department of Defense R-2508 Complex Sustainability Office.) However, this limitation places restrictions on moving the location of proposed turbines on site or adding new turbines on the property. The military would need to review and approve such actions to change the location of turbines (see MM 6.3-1), and evidence of any reviews and approvals by the military for project facilities would need to be submitted to Kern County (see MM 6.3-2). In addition, the military requests that the transmission line be limited to 100-foot-tall towers if the towers are located within 1 mile from the centerline of the military training corridor entry point. With these limitations observed, no conflicts with military special use airspace would occur.

9.8

Page 3.11-3: Potential cumulative impacts on the military are not addressed. Expansion of windfarms in this area will have an impact on military testing and training but those impacts will be less than significant if the Red-Yellow-Green (RYG) concept that is expected to be incorporated into the Kern County zoning ordinance is followed. We recommend that the RYG concept be described and incorporated into the EIR/EIS.

Response to Letter 9
R-2508 Complex Sustainability Office, January 7, 2005

9.1 The suggested changes on page ES-10 have been incorporated by reference in the Draft EIR/EA. Please see Section 3.0 (Changes to the Draft EIR/EA) in the EA/Final EIR.

9.2 The suggested change on page ES-28 has been incorporated by reference in the Draft EIR/EA. Please see Section 3.0 (Changes to the Draft EIR/EA) in the EA/Final EIR.

9.3 The suggested changes on page 2-8 have been incorporated by reference in the Draft EIR/EA. Please see Section 3.0 (Changes to the Draft EIR/EA) in the EA/Final EIR.

9.4 A map indicating the military aviation corridors and use areas (Figure 2-3A) has been included in the EA/Final EIR. It has been cited by reference on page 2-8 of the Draft EIR/EA. Please see Section 3.0 (Changes to the Draft EIR/EA) in the EA/Final EIR.

9.5 The suggested changes on page 3.6-3 have been incorporated by reference in the Draft EIR/EA. Please see Section 3.0 (Changes to the Draft EIR/EA) in the EA/Final EIR.

9.6 The suggested change on page 3.6-5 has been incorporated by reference in the Draft EIR/EA. Please see Section 3.0 (Changes to the Draft EIR/EA) in the EA/Final EIR.

9.7 The suggested changes on page 3.6-6 have been incorporated by reference in the Draft EIR/EA. Please see Section 3.0 (Changes to the Draft EIR/EA) in the EA/Final EIR.

9.8 A discussion of the cumulative impacts of the proposed project within the context of the entire Tehachapi WRA and existing and future projects has been incorporated by reference in the Draft EIR/EA. Please see Section 3.0 (Changes to the Draft EIR/EA) in the EA/Final EIR.

Letter 10

CONSULTING PRACTICE

Environment - Culture - Energy

William L. Nelson
Prof. Consultant
785 Tucker Road, #G-424
Tehachapi, California 93561
Tel: (661) 822-7087

January 7, 2005

Charles C. Holloway, Supervisor of Environmental Assessment
Ms. Tania Bonfiglio

Los Angeles Dept. of Water and Power
City of Los Angeles
111 North Hope Street, Room 1044
Los Angeles, CA 90012-2607

RE: RESPONSE TO 11-19-04 DRAFT EIR/EA
PINE TREE WIND DEVELOPMENT PROJECT

REQUEST TO EXTEND PUBLIC COMMENT PERIOD 45 DAYS:
REQUEST TO CONDUCT TEHACHAPI-AREA PUBLIC MEETING

Dear Mr. Holloway and Ms. Bonfiglio:

Thank you for furnishing the DEIR/EA on the referenced project, an important effort at expanding LADWP's renewable energy portfolio, and one that it can exercise direct control over.

10.1 I am hereby requesting the LADWP as the Lead Agency for the project and DEIR/EA, **extend the public comment and review period 45 days beyond the January 7, 2005 deadline.** The justifications for this are three, at minimum:

1) the scope and significance of project;
2) the initial review period extended over three major holidays, Thanksgiving, Christmas, and New Year's; and
3) I did not receive materials until December 9, 2004, even though I had previously been an active commenter of record, had requested notification, and attended briefing meetings.

10.2 I have not found the DEIR/EA responsive to a number of my comments at scoping stage, submitted by writing of May 18, 2004. I believe a meeting with you would be useful in those regards.

Letter 10
Cont'd.

COMMENTS (cont'd)

10.3 In addition, I am concerned that LADWP conducting public outreach meetings for the DEIR/EA did not sufficiently capture the record of comments, and therefore the response to those comments will be hindered. This shortcoming can be ameliorated by the extended public review period, as well **as conducting a public meeting on the DEIR/EA in Tehachapi during the next 45 days.**

10.4 Lastly, as a specific comment on potential impacts to avian species. The DEIR/EA does not adequately characterize avian migratory routes for the project area and its context. The routes and dynamics need better baseline characterization in order to more optimally manage mitigations in this respect. In this regard it will be noted that on the DEIR/EA's **p. 3.5-20,** in the section **"Wildlife Corridors,"** that brief paragraph is put forth in justifying no further disclosure of wildlife corridor study. This aspect is regarded as inadequate disclosure, and a more diligent approach is requisite, both for avian as well as other species.

Thank you for this opportunity to communicate, and I look forward to future meetings.

Sincerely,

William L. Nelson

Response to Letter 10
William L. Nelson Consulting Practice, January 7, 2005

10.1 The request for an extension of the public review and comment period beyond the January 7, 2005, closing date was responded to in a separate letter (dated January 11, 2005, and included as Attachment B to Section 2.2 of the EA/Final EIR). In the letter, it was discussed why the review period would not be extended, but the commenter was encouraged to submit any additional comments as soon as possible so that they might be included in the EA/Final EIR. It was indicated that any such comments would, at a minimum, be included as part of the Administrative Record for consideration by the Water and Power Board of Commissioners at the time the environmental document is presented for certification.

10.2 Since the commenter was not specific regarding which of his comments from the scoping stage were inadequately addressed in the Draft EIR/EA, it is not possible to respond specifically to this comment. However, following is a brief discussion of the various issues presented in the commenter's May 18, 2004, letter in response to the Draft EIR/EA Notice of Preparation.

Need for a Program EIR

The validity of a Program-level EIR was discussed in the Draft EIR/EA in Section 3.13 (Alternatives to the Proposed Project). However, as discussed in the Draft EIR/EA and as the commenter also noted, such an EIR would be beyond the jurisdiction of LADWP and the scope of the proposed project-specific effort. A Programmatic EIR might involve an analysis to determine the capability for wind energy generation, the availability of electrical transmission capacity, and the extent of potential environmental impacts related to wind energy development in areas located throughout Kern County or a broader region in Southern California. Such a broad analysis would more appropriately be conducted by a lead agency with jurisdiction over energy and development policy at a regional or state level. Such a comprehensive analysis may require the formation of a Joint Powers Authority consisting of numerous agencies and local governments with an interest in wind development in Southern California. However, in accordance with Section 15051 of the State CEQA Guidelines, LADWP is the appropriate lead agency for the project-specific Pine Tree Wind Development EIR. LADWP is proposing the project to help meet its stated goals for renewable energy development, and the department will continue to develop renewable energy sources of all types, potentially including other specific wind energy projects in the region.

Military Airspace-Land Use Compatibility

Issues related to military airspace were analyzed in detail in the development of the project plan and the Draft EIR/EA. As discussed in the EIR/EA, the project site, including the transmission line corridor, is located in an area overlain by military use airspace, and the FAA has designated the airspace over this region as a military operations area. The area is within the Joint Service Restricted R-2508 airspace complex. The designated flight paths over the project site involve numerous military training routes (MTRs) and special use airspace (SUA) starting at 200 feet above ground level (AGL) and increasing in height up to 10,000 feet above sea level. These MTRs and SUA are primarily associated with testing and

training conducted by Edwards Air Force Base (EAFB), Naval Air Systems Command Weapons Division (NAVAIR WD), and other military activities. The total height of each turbine at the highest point of the rotor blade's rotation is approximately 340 feet. At this height, the wind turbines would extend into the lower elevations of flight corridors above the site, creating a potential navigation hazard related to MTRs. Wind turbines also can cause radar interference that negatively impacts critical testing of aviation systems.

LADWP has consulted with both EAFB and NAVAIR WD and has developed a configuration of wind turbines that resolves the potential for interference with military testing and training. The military reviewed the site plan and found that the plan as currently proposed would avoid potentially significant impacts on the MTRs. As long as the blade heights of the turbines remain below 400 feet AGL, the project would not compromise the training and testing mission of the affected installations. (See Appendix A of the Draft EIR/EA for copy of written confirmation of project suitability from the Department of Defense R-2508 Complex Sustainability Office.) However, this limitation places restrictions on moving the location of proposed turbines on site or adding new turbines on the property. The military would need to review and approve such actions to change the location of turbines (see MM 6.3-1 of the Draft EIR/EA), and evidence of any reviews and approvals by the military for project facilities would need to be submitted to Kern County (see MM 6.3-2 of the Draft EIR/EA). In addition, the military requests that the transmission line be limited to 100-foot-tall towers if the towers are located within 1 mile from the centerline of the military training corridor entry point. With these limitations observed, no conflicts with military SUA would occur.

The military airspace issues were also closely coordinated with Kern County Planning Department, which has recently enacted new provisions to the zoning ordinance that establish more definitive review requirement procedures by the appropriate military agency of the height of proposed structures, including wind turbines. The review process followed for the proposed project was consistent with these new provisions.

A map indicating the MTRs in the region of the proposed project has been included in the EA/Final EIR. See Section 3.0 (Changes to the EA and Draft EIR) in the EA/Final EIR. In addition, the R-2508 Complex Sustainability Office has provided a comment letter based on review of the Draft EIR/EA that reiterates that the proposed project would not create significant mission impacts to military operations in the area.

Optimization of Output

As discussed in Section 3.13 (Alternatives to the Proposed Project) of the Draft EIR/EA, the plan for the proposed project was developed based on a comprehensive planning process that considered numerous factors within a broader study area than is currently reflected by the boundaries of the project property. This study area consisted of approximately 21,500 acres, which encompass the approximately 8,000-acre project property and include additional land located to the southwest, south, and southeast of the property. Within the study area, extensive surveys and data gathering were conducted to establish a framework for analysis and decision making relative to the proposed project facility siting and construction. This included an analysis of wind, biological, cultural, visual, and soils resources, topography, and land use. This analysis included an investigation of approximately 125 turbine sites, which,

along with the associated road network and other project facilities, encompassed a total footprint that extended over most of the 21,500-acre study area.

A goal of the planning analysis was to reduce the overall footprint of the proposed project to achieve a balance between attaining the project energy production objectives and minimizing environmental impacts. A primary consideration in the siting of the proposed project facilities was the avoidance or minimization of impacts to several resources and uses located in the southwestern, southern, and southeastern portions of the broader project study area. These included designated military aviation routes used in critical training and testing missions; potentially significant biological resources, including raptor nesting areas and more developed forest communities; potentially significant archaeological resources, including habitation sites and temporary camps; steep terrain that would have entailed significant grading to provide road access and structural pads for project facilities; and the Pacific Crest National Scenic Trail, which traverses the far southwestern corner of the study area.

Based on avoidance of impacts to these resources and uses, the boundaries of the project property were narrowed to their present configuration, encompassing approximately 8,000 acres located in the north-central part of the study area. Within these narrowed boundaries, the intent of the project plan, while continuing to minimize or mitigate significant environmental impacts, was to optimize wind energy production to achieve the project objectives based on a cost-benefit analysis that balanced construction, operations, and maintenance considerations with the anticipated output of each turbine. Therefore, even within the 8,000-acre project property, the proposed plan represents a significant consolidation of the wind turbine sites, roads, and other project facilities that make up the overall project footprint than had originally been considered and analyzed.

Soil-Watershed Impacts

The prevention and control of runoff, erosion, and sedimentation related to the construction and operations of the proposed project was one of the primary concerns in the development of the project plans and the assessment of potential project impacts in the Draft EIR/EA. Detailed grading plans at a 2-foot contour interval have been prepared for the project roads and facility pads to minimize quantities of cut and fill necessary for the transport and installation of project components, to ensure stabilization of drainageways, and to control and direct runoff to minimize erosion.

As discussed in the Draft EIR/EA in Sections 2.0 (Description of the Proposed Project), 3.2 (Geology and Soils), and 3.3 (Hydrology and Water Quality), the drainage concept for the project has been developed with the goal of retaining runoff flows at pre-development levels. The objective is to eliminate and/or minimize drainage course changes and to incorporate erosion and sedimentation control systems and devices such as rock riprap, detention basins, revegetation, and other control devices on disturbed areas. No impervious surfaces are proposed for the project, and permanent disturbance of the surface would only occur in those areas that are in actual use for ongoing project maintenance and operations.

The plan provides that drainage waters would be returned to their original courses in the same magnitude as that prior to the project. Wind turbine sites are to include detention basins designed to reduce any peak discharge rates to pre-project values and to provide silt capture. Incidental roadway drainage intercepted from side-slope cuts is to be returned to

natural courses at frequent intervals to reduce concentration. Areas of disturbance to the natural ground cover for side-slopes and unused graded portions of the project are to be replanted with native cover. Cover is to be re-established with species similar to those that existed prior to the construction disturbance. Grading of roadways and turbine sites is to adhere to the following design concepts.

- Rerouting of drainage to another discharge point in a different water course is to be avoided.
- Whenever possible, grading is to be designed to evenly distribute runoff rather than concentrate it.
- Regular use of over-side drains should be implemented to avoid longitudinal concentration of drainage along the roadways.
- Exiting points of culverts and over-side drains are to be protected with rock riprap.
- Minor stilling basins are to be created by elevating grated inlets above flow line grade so as to minimize silt transport and detain drainage waters.
- Detention basins for peak flow reduction are to be used at the turbine sites when drainage has the potential to increase runoff to any one watershed.

A Storm Water Pollution Prevention Plan (SWPPP) will be developed and implemented for the project to minimize erosion and the potential for discharge of pollutants from the site due to clearing, grading, and other construction activities. The SWPPP will be prepared along with the project grading plan. The SWPPP and grading plan will be prepared in accordance with County of Kern requirements. In addition, LADWP has committed to drainage and erosion control standards for the project based on the Federal Highway Administration's Best Management Practices for Erosion and Sediment Control (FHWA FLP-94-005, 1995), which in many instances exceeds County guidelines. Site-specific Best Management Practices (BMPs) will be developed and implemented emphasizing the control of erosion and sedimentation through such measures as retaining the original vegetative cover where possible; reducing the velocity of surface runoff and directing it away from disturbed areas; and promptly stabilizing disturbed areas through revegetation or the use of inert materials, such as straw mulching or erosion control matting. Silt fences and sediment barriers would be maintained throughout construction and beyond until disturbed areas have been fully stabilized with vegetation. Check structures, such as rock dams, hay bale check dams (consisting of weed-free rice straw or other certified weed-free straw), dikes, and swales, would be used where appropriate to reduce runoff velocity as well as to direct surface runoff away from disturbed areas.

LADWP, which would own, operate, and maintain the proposed project rather than simply enter into purchase agreement for power produced by the project, is committed to long-term maintenance of the roads and other graded areas in the project property. Numerous specific mitigation measures related to the control of runoff, erosion, and sedimentation were established for the proposed project in the Draft EIR/EA (see Sections 3.2, Geology and Soils, and 3.3, Hydrology and Water Quality, of the Draft EIR/EA).

Project Alternatives

A range of alternatives to the proposed project was presented in Section 3.13 of the Draft EIR/EA. These included:

- One that proposes that no project be implemented (Alternative 1);
- One that considers the development of alternative energy sources to replace the project's power generation capacity (Alternative 2);
- One that considers resiting the project turbines within the project study area (Alternative 3);
- Two that consider the use of different turbines than those proposed for the project (Alternatives 4A and 4B);
- One that considers relocating the project outside the current project study area (Alternative 5);
- One that considers repowering of an existing wind project versus new construction (Alternative 6);
- Three that consider alternative routes for the project access road and transmission line (Alternatives 7A, 7B, and 7C); and
- One that considers roadless construction for the project (Alternative 8).

In relation to alternatives that considered different intensities of project development, as discussed above, the plan for the proposed project was developed based on a comprehensive planning process that considered numerous factors within a broader 21,500-acre study area, which originally included approximately 125 turbine sites, along with the associated road network and other project facilities. Based on avoidance of impacts to resources and other uses, the boundaries of the project property were narrowed to their present configuration, encompassing approximately 8,000 acres located in the north-central part of the study area. In this sense, the project already reflects a reduced level of intensity of development. Based on the wind characteristics at the project property and the spacing requirements of the proposed project wind turbines, a further reduction in intensity that would significantly lessen any potential impacts of the proposed project would also decrease the electrical power generating capacity substantially below the energy production objectives of the proposed project. Therefore such alternatives were not considered. However, two alternatives that utilized smaller turbines than the proposed project turbines as a means of reducing project impacts were considered in the Draft EIR/EA.

In relation to alternatives that considered other locations for the proposed project, as was discussed in the Draft EIR/EA, there are several areas of high wind resource potential located throughout Southern California. As the demand for renewable energy rises and as improved technologies increase the efficiency and effectiveness of wind power generation, it is likely that additional wind energy projects may be developed in many or all of these resource areas, including Kern County and Northern Los Angeles County. However, as was discussed above, an analysis to determine the capability for wind energy generation, the availability of electrical transmission capacity, and the extent of potential environmental impacts related to wind energy development in this region is beyond the scope of this EIR/EA, which is project specific in nature. As has been discussed, such a broad analysis would more appropriately be accomplished in a Programmatic EIR and/or Environmental Impact Statement conducted by a lead agency with jurisdiction over energy and development policy at a regional or state level. LADWP is proposing the Pine Tree Wind Development Project to help meet its stated goals for renewable energy development, and the department will continue to develop renewable energy sources of all types, potentially including other specific wind energy projects in the region. However, although a region-wide analysis of potential alternative locations for the proposed project is not feasible within the scope of this EIR/EA, an

alternative location within the vicinity of the proposed project and capable of meeting the project objectives was considered in the Draft EIR/EA.

In relation to alternatives that consider procurement of wind-generated power from existing non-LADWP sites, as was discussed in the Draft EIR/EA, Southern California Edison currently has purchase agreements for the power produced at nearly all the existing wind projects in the Tehachapi WRA. The only exception to this is a single power purchase agreement recently entered into by San Diego Gas and Electric (SDG&E). However, to make this SDG&E procurement possible, the construction of a new 60-megawatt (MW) wind energy project in the Tehachapi Pass area was required. LADWP has proposed its Renewable Portfolio Standard (RPS) to increase the amount of energy it produces from renewable energy sources. Renewable resources under development or consideration by LADWP include small hydroelectric (30 MW or less), biomass, digester gas, waste gas, landfill gas, solar thermal, geothermal, photovoltaics, fuel cells with renewable fuels, ocean wave technologies, wind, and other sources. The proposed wind turbine development is only one component of the renewable energy resources program. It would represent approximately 1.5 percent of LADWP's total electrical energy generation and about 7.5 percent of the RPS objective of 20 percent power generation from renewable resources. The acquisition of additional renewable resources of all types, possibly including both capital improvement projects and procurement on the open market, will be required to meet the renewable power generation objectives established in the RPS.

In relation to alternatives that consider joint development of transmission facilities with other entities, as discussed in the Draft EIR/EA, an objective of the proposed project is to utilize existing transmission lines that are controlled by LADWP and have available capacity to accommodate the power generated by the project. Using existing transmission lines with available capacity to deliver power to the LADWP service area would avoid the significant cost and potentially significant environmental impacts associated with the construction of new transmission lines. Using LADWP transmission facilities would guarantee access for the proposed project and allow the proposed wind turbines to operate at peak efficiency with no restrictions related to insufficient transmission capacity. Accordingly, the proposed project would tie into LADWP's existing Inyo-Rinaldi transmission line, which generally parallels SR-14 and has sufficient capacity to accommodate the power generated by the project.

Growth-Inducing Impacts

As discussed in the Draft EIR/EA, the generation capacity from the proposed project is needed to help meet the future electrical energy demands of the LADWP service area, which has grown at a steady, moderate pace since the early 1990s. According to the LADWP Integrated Resource Plan, annual growth in demand in Los Angeles is expected to average about 1.5 percent, or an average of about 80 MW per year, over the next 16 years. It is estimated that between the years 2004 and 2010, the net peak demand for electricity in the city will grow by 450 MW, or approximately 7.5 percent (from 5,920 MW to 6,370 MW). The proposed project would provide a wind energy electrical generation facility with an annual generating capacity of approximately 330 gigawatt hours, enough to provide power for approximately 56,000 homes annually. Based on wind characteristics at the project site, periods of peak generation for the proposed project are expected to coincide with periods of peak demand for electricity in Southern California, during the summer months. Generation

of electricity from the proposed project would produce no air pollutant emissions and would offset the need to provide an equivalent quantity of power through combustion of fossil fuels.

Cumulative Impacts

The proposed project would supply electrical power to residential, commercial, government, and other customers located within the LADWP service area. It would not be used to facilitate the artificial movement of water in any manner, including the delivery of water to LADWP water storage or transmission facilities outside the Los Angeles City boundaries.

Community Benefits

The EIR/EA for the proposed project has been prepared to address potential effects to the environment that may be caused by the project. Issues related to community benefits from the proposed project are generally a consideration beyond the scope of the EIR/EA, unless such benefits provide mitigation related to a potentially significant impact of the project. Various mitigation measures have been proposed throughout the document to eliminate significant impacts or reduce them to a less than significant level, and compensation and/or measures that do not address specific environmental impacts are not applicable under CEQA or NEPA.

Data-Sharing

As a component of its on going O&M at the proposed project site, LADWP would continue to monitor issues and factors such as wind characteristics, erosion control and maintenance, and avian and bat mortality related to the project operations. This information would be recorded and made available to interested parties to establish guidelines for the future development of wind energy projects to help balance the need for additional renewable energy sources with the values of sensitive resources in the Tehachapi region and in other wind resource areas.

10.3 The project presentation meetings held in Ridgecrest on December 8, 2004, and Mojave on December 9, 2004, were neither a requirement under CEQA or NEPA nor were they formal public hearings held by a public decision-making body regarding a determination about the Draft EIR/EA or an approval of the project itself. Consistent with CEQA's intent to encourage public involvement and provide meaningful public disclosure, the meetings were held to offer a presentation of the proposed project during the Draft EIR/EA public review period to assist interested agencies, organizations, and individuals. Because of the nature and purpose of these meetings, no formal testimony was taken, although the meetings were open to comment by the attendees, and an open exchange of information was an objective of the meetings. Although no formal testimony was received or recorded, notes summarizing the comments, questions, and concerns of the attendees were taken. All those in attendance at the meetings, especially those who offered comment, were strongly encouraged to submit their concerns in writing as a formal response to the Draft EIR/EA by the close of the review period. Accordingly, numerous comment letters, from those in attendance as well as other agencies, organizations, and individuals, were received in response to the Draft EIR/EA. These written comments accurately and in detail reflect the oral comments and input that were received at the Ridgecrest and Mojave public meetings.

10.4 The biological studies at the Pine Tree site were initiated over 2 years ago, and the avian studies are ongoing and would continue through the first year of operations. The Pine Tree studies were approached in a manner widely accepted for complex biological analysis, following a phased progression of study that builds a basis of general information followed by progressively more detailed work. The methodologies, protocols, and extent of these surveys were documented in the Draft EIR/EA in the biological resources section. To summarize, studies were initiated in December of 2002 with a general biological habitat assessment over (at that time) a 33-square-mile project study area. Existing vegetation communities were delineated, potential habitats for sensitive plants and wildlife associations within those communities were mapped, and searches for sign of sensitive plant and wildlife species were completed. Based on the results of the December 2002 habitat assessment, and considering a list of sensitive species with the potential to occur within the project area assembled through literature review, focused surveys were conducted in the spring and summer of 2003. The characterization of wildlife usage of the site included direct observations of avian species as well as research regarding avian species likely to occur. The amount of time spent in the field was consistent with biological survey practice for wildlife characterization and was accomplished by professional biologists with significant experience with Southern California desert and mountain habitats. Field work was supplemented with research of published literature applicable to the region.

During these initial field visits to the site, which included the spring 2003 season, a remarkable characteristic of the site was the lack of observed bird activity, particularly raptors. A higher level of use by raptors typically would be expected. The biological survey team also noted a low level of riparian and songbird activity. Relative to song birds and riparian activity, California Department of Fish and Game wildlife biologists visiting the site confirmed this lack of activity and commented that the riparian areas appeared to not be well enough developed or extensive enough to be attractive to nesting riparian birds, including sensitive species like Southwestern willow flycatcher, yellow-billed cuckoo, and least Bell's vireo.

Under most circumstances, the relative absence of observed avian activity during spring would lead to the conclusion that the potential for significant impact would be low. In spite of this, and in consideration of the comments on the Notice of Preparation suggesting that one year of avian baseline information should be collected, LADWP decided to initiate a formal avian protocol survey. Dr. Michael Morrison, a nationally recognized avian biologist, was retained to develop a survey protocol and conduct the studies.

The avian protocol developed for this project is responsive to the level of effort recommended in the National Wind Coordinating Committee (NWCC) Guidance Document (Anderson et al. 1999) and the recently released United States Fish and Wildlife Service (USFWS) Interim Guidelines. The NWCC Guidelines call for an initial reconnaissance survey. The goal is to identify locations or sites that have a high probability of substantial bird fatalities. Reconnaissance surveys are composed of several site visits, a literature survey, analysis of unpublished data, interviews with local experts, and other information that might be available. Assuming no significant biological issues are raised following the reconnaissance survey, a Level 1 Survey is initiated. The Level 1 Survey is designed to quantify the numbers, species, and activity of birds in the project area. Available avian mortality data indicate that individual turbines are often responsible for the majority of fatalities in a development because they are located in locations that attract birds, such as

near gullies or concentrations of prey. The survey protocol also addressed the potential for occurrence of bats. Specific pre-construction surveys are designed to site turbines such that minimal or no mitigation is required during facility operation. Level 2 Surveys, which include detailed assessment of population effects due to avian fatalities, are seldom needed, especially if reconnaissance and Level 1 Surveys were implemented properly. Only the high mortality rate of golden eagles at the Altamont Pass Wind Resource Area (WRA) has resulted in a Level 2 Study to date.

The study protocols, observations, point counts, and statistical results of the avian survey, which included the important spring season, were presented in the Draft EIR/EA (with specifics included in Appendix F within Appendix D). It must be emphasized that these data are derived from direct observations and monitoring that occurred over a 2-year period of time at the Pine Tree project site.

Based on a comparison of the use of the Pine Tree project site by birds relative to other existing wind developments, fatalities are predicted to be at the low end of that quantified elsewhere for both raptors and songbirds. In spite of the fact that some wind developments lie directly in areas that are known migration routes, Erickson et al. (2002) summarized the observed and likely potential impact of wind farms on passerine and other non-raptorial birds, including nocturnally migrating species. They found that nocturnal migrants are estimated to comprise approximately 50 percent of the fatalities at new wind projects (estimated range 34 to 59%), based on timing and species observed during standardized fatality monitoring. There has been no reported large episodic mortality event (e.g., >50 passerine birds during a single night) recorded at a U.S. wind plant. Two small nocturnal avian mortality events have been published at U.S. wind plants. Fourteen nocturnal migrating passerines at two turbines at Buffalo Ridge (Minn.) were killed on one night during spring migration after a thunderstorm. At the Mountaineer Wind Energy Center, West Virginia, 33 (47.8%) of 69 passerine fatalities occurred on one night at a few turbines adjacent to a well lit substation during spring migration (Kerns and Kerlinger 2004). The data suggest that sodium vapor lamps at the substation were the primary attractant, since fatality locations were correlated with the location of the substation, and the other turbines away from the substation had few fatalities documented the morning after the event. After the lights were turned off at the substation, no events occurred. Erickson et al. (2002) were not aware of any other mortality events greater than a few birds at single or adjacent turbines found during a single search at any U.S. wind plant.

Several studies have been published regarding extrapolated bird passage rates (McCrary et al. 1983; Mabee and Cooper 2004; Mabee and Cooper 2001; Johnson et al. 2002). We are aware of only a few studies that have attempted to compare fatality rates to bird passage rates. McCrary et al. (1986) estimated approximately 6,800 annual bird fatalities at the San Gorgonio wind project in California, with an estimate of approximately 75 million migrants passing through during fall and spring migration. McCrary et al. (1986) believed the mortality levels were biologically insignificant. Radar studies conducted in the vicinity of the Buffalo Ridge wind project (over 400 turbines) in Minnesota suggested that as many as 3.5 million birds may migrate over the wind development area, and fatality studies suggest only a few hundred migrating songbirds are killed each spring. Radar studies at the Stateline Wind Project, a large facility (454 turbines) with its northern boundary located within 1.5 miles of the Columbia River, indicate a large number of birds migrate over that facility (several hundred thousand to over a million) during spring migration, and the fatality studies

suggest a very small number result in collisions (Erickson et al. 2004). A similar pattern was observed for the nearby Nine Canyon facility (Cooper and Mabee 2001; Erickson et al. 2003b).

Rappole (1995) reviewed the behavior of migrating passerine birds including activities during stopovers. Most passerines migrate at night and rest and forage during the day. He noted that migrating flocks would sometimes spend several days in a location before continuing migration, while others would leave the evening of their arrival day. He thought that differences in stopover time were likely related to the physiological condition of individual birds, given that poor weather was not the reason for remaining at a location. He also noted that habitat selection was species specific, ranging from highly selective to very broad, and was at least partially based on a bird's energetic state.

As the fall 2004 and winter 2005 avian surveys continued, Dr. Morrison did not encounter large numbers of migratory birds using the proposed project site for foraging and resting; no large flocks of migrating raptors were observed. Most studies of North American bird migration using techniques such as radar have suggested that nocturnal migrants follow a broadfront migration pattern, flying at high altitudes, where they are not affected by variation in surface topography (e.g., Lowery and Newman 1966; Able 1972; Richardson 1972; Williams et al. 1977 *in* Williams et al. 2001). While there is some expected mortality of nighttime migrants, numbers of fatalities for individual species from the many fatality studies conducted in the West suggest levels inconsequential to the affected species (Erickson et al. 2002).

In summary, the data continue to support the conclusion that the Pine Tree project site does not serve as a major pathway or stopover area for migrating birds. In addition, the few instances in which relatively large numbers of migrating passerine birds have been killed in wind developments have been apparently due to a combination of poor weather and lights reflecting off of a low cloud ceiling. The proposed wind turbines would be located in the western end of Jawbone Canyon, some 10 miles from the mouth of the canyon, near SR-14. Anecdotal information from at least one Draft EIR/EA commenter and an unpublished report indicate that the localized spring migration in the area is from southeast to northwest and that some of the migration is captured in northwest-southeast trending canyons, such as the east portion of Jawbone Canyon. The Jawbone Canyon migration continues in a northwesterly direction up Alphie and Hoffman Canyons through the topographic pinch point of Butterbredt Springs. This would take the localized migration well east of the proposed project property, which encompasses northeast-southwest trending portions of upper Jawbone Canyon. Our data based on extensive field observations show that there are no other logical reasons, such as good habitat or adequate cover and water, for a substantial number of birds to be loafing or resting in the proposed turbine areas.

Relative to wildlife corridors, the professional biologists who conducted the project wildlife surveys did not observe wildlife movements that were confined to particular corridors in or through the site. Some wildlife occurrence is habitat specific, but the characteristic of wildlife movement corridors was not observed. As noted in the Draft EIR/EA, the site contains abundant and contiguous open habitat, thus wildlife can move essentially freely throughout the site. The roadways, structures, and limited fencing to be developed in the context of the greater project property would not significantly inhibit or confine wildlife movement.

Letter 11

RECEIVED
BUREAU OF LAND MANAGEMENT
2005 JAN 10 AM 11: 35
RIDGECREST RESOURCE AREA
RIDGECREST, CA.

January 7, 2005

Mr. Peter Graves
Bureau of Land Management
300 S Richmond Road
Ridgecrest, California 93555

Re: Comments on Draft EIR/EA for the Pine Tree Wind Development Project

Dear Mr. Graves,

In general, I support the project and recognize the importance of its impact on how our energy needs will be met in the future. I also support the right-of-way being sought by the LADWP for the transmission line in Pine Canyon.

11.1 Although I did supply input into the initial draft, I now support Alternative 7B as an alternate access route for the primary project access.

11.2 1. Sections 3,6 fail to identify numerous impacts on recreation. Environmental impacts will be felt as others seek to recreate to avoid the projected 2100 construction truck trips on the Jawbone Canyon Road. At first I thought that by having these truck trips occur in daylight hours and not on weekend that less impact would occur on the users. However, with the numbers of projected trips, it will have significant impact.

This road is a corridor along a rugged mountainous area that provides access to OHV users. The misplaced OHV users will move to Kelso Valley, the Rand, El Paso and Red Mountain and make more of an impact in these areas. Adequate mitigation measures must be developed to address this issue.

11.3 2. This project will also impact the Jawbone Visitor Center. The Visitors Center is expected to play a role during the construction process by interfacing with the public. However, the Jawbone Visitor Center and staff receive their pay from grants from the OHV Trust Fund. The OHV users would be horrified to find out that they are expected to pay the cost for this. This cost is clearly LADWP's responsibility.

11.4 3. Section 3.6.3 identifies impact 6.4 regarding conflicts with the CDCA Plan, however, no corresponding mitigation measure is offered in Section 3.6.4. The BLM's management objective for Class I area in the mouth of Jawbone Canyon is to enhance opportunities for OHV recreation, not to enhance opportunities for development. Adequate mitigation measures must be developed to address this conflict.

11.5 4. Jawbone Canyon Road is Eastern Kern County's access point for users such as camping, picnicking, hiking, mineral collectors, etc. All their activities will be curtailed during this time.

11.6

In conclusion, I don't believe that the mitigation measures contained in MM 7.4 are consistent with the existing recreational use patterns. The project fails to consider the safety of children riding OHV's with 2100 truck trips. The older and more experienced riders will be further away from the construction site, not the children. Alternative 7B using Sky Ranch as the primary project area will not impact biological, cultural and recreational use patterns and is already being used to serve the wind industry and has precedent.

Sincerely,

Sophia Anne Merk
2062 S Mike's Trail Road
Ridgecrest, California 93555
760-375-3181

Response to Letter 11
Sophia Anne Merk, January 7, 2005

11.1 Comment noted.

11.2 The Draft EIR/EA recognizes the intense use that the Jawbone Canyon Open Area can receive from off-highway vehicle users as well as other recreation users. The level of this use varies markedly, depending on the season, the day of the week, and holiday periods. During the summer season and even on non-holiday weekdays in the winter season, the use of the Open Area is generally very light. However, during late fall, winter, and spring, many thousands of people may visit and use the Open Area for camping and off-highway vehicle recreation on a single holiday weekend. In Section 3.7 (Transportation), the Draft EIR/EA identifies the conflict relative to use and safety in the Open Area during these high use periods related to project construction vehicle traffic on Jawbone Canyon Road as it traverses the Open Area.

The 2,100 truck trips projected for the proposed project construction represent 1,050 deliveries to the site. Each inbound (laden) and each outbound (unladen) truck trip was counted separately for traffic analysis purposes, resulting in a total of 2,100 one-way trips (1,050 round trips) on Jawbone Canyon Road. Based on a conservative assumption that 80 percent of these estimated truck trips would occur over a 6-month period (rather than being evenly distributed over the entire 10-month construction schedule), an average of approximately 11 trucks trips per day on Jawbone Canyon Road would be expected. This would represent an average of slightly over one trip per hour over a 10-hour workday, with each incoming truck and each outgoing truck representing a single trip. Since this number is an average, more or fewer trips may actually occur in a given day or hour, but the average figure nonetheless helps place the level of expected construction traffic on Jawbone Canyon Road in context. In addition, based on the currently projected construction schedule, many of these deliveries would occur outside the seasonal timeframe of heaviest recreation use in the Jawbone Open Area, which occurs from late fall to late spring. Most would also occur on days of the week when there is little or no recreation activity in the Open Area. This traffic would be temporary in nature, related only to the 10-month construction period of the project. The long-term operations of the project would require approximately 10 to 12 employees and only occasional truck deliveries on Jawbone Canyon Road.

However, as discussed in Section 3.7 of the Draft EIR/EA, even taking into account the level, timing, and temporary nature of traffic as discussed above, the impact caused by construction related traffic to the recreation use in the Jawbone Canyon Open Area would be considered significant if not mitigated. Accordingly, Mitigation Measure 7.4 of the Draft EIR/EA requires the development of a transportation safety plan for construction traffic on Jawbone Canyon Road. The intent of this plan is to eliminate or substantially reduce the potential conflicts between the construction traffic and recreation users in the Open Area. The plan is to be developed in coordination with the Kern County Roads Department and BLM (including, as appropriate, Steering Committee representatives) as part of the County road permit and BLM right-of-way grant processes. The plan would become a condition of these permits and grants. The plan will provide rules, physical controls, and enforcement provisions for construction traffic to minimize conflicts. However, most significantly, the

plan will establish time periods (related to the high recreation use periods of the Open Area) during which no deliveries of equipment or materials would be allowed on Jawbone Canyon Road. Among the closure times would be periods associated with the Veterans Day, Thanksgiving, Christmas, New Years, Martin Luther King Day, Presidents Day, Easter, and Memorial Day holidays. With at least four weeks notification to LADWP, BLM may also prohibit construction deliveries on additional sanctioned event weekends in the Jawbone Canyon Open Area. In addition, on weekends and holiday periods during the high-use recreation season in the Jawbone Canyon Open Area (late fall to late spring), construction workers shall be prohibited from travel in individual vehicles on Jawbone Canyon Road and shall be shuttled to and from the project site in multi-person vehicles beginning on the day preceding the weekend or holiday. This limitation on the use of vehicles does not include conducting limited critical activities associated with minimal security and safety monitoring and construction management. This provision of the transportation safety plan would essentially eliminate construction traffic impacts during the times of greatest potential conflict with recreation users in the Open Area.

As mentioned above, the transportation safety plan is to be prepared as part of the County roads permit and BLM right-of-way grant processes. However, Mitigation Measure 7.4 of the Draft EIR/EA has been modified to more specifically indicate the types of provisions and limitations that will be minimally included in the plan. Please see Section 3.0 (Changes to the Draft EIR/EA) of the EA/Final EIR for the complete revised text of MM 7.4.

The commenter's point that the potential conflicts caused by the project construction-related traffic might force recreation users to seek locations other than Jawbone Canyon, thereby increasing the use of and impacts on other recreation areas in the region, is acknowledged. However, with the implementation of the proposed transportation safety plan as a condition of the road permits and right-of-way grants, including provisions for periods of time during which no deliveries or individual construction worker trips would be allowed on Jawbone Canyon Road, the use and safety conflicts would be reduced to a less than significant level, minimizing the displacement of Open Area users to other surrounding recreation areas.

11.3 A new mitigation measure has been added to the EA/Final EIR that requires LADWP to provide funding to support an additional staff member at the Jawbone Visitors Center during the project construction period to mitigate the impact to the Center staff and budget caused by project construction-related traffic. In addition, the mitigation measure provides for the funding of a BLM ranger position during high recreation use periods in the Open Area to help enforce traffic controls and prevent or resolve disputes. These positions would be funded subject to a Memorandum of Agreement between LADWP and BLM. Please see Section 3.0 (Changes to the Draft EIR/EA) in the EA/Final EIR for the language of this new mitigation measure. With the implementation of this mitigation measure, the impact to the staff and budget of the Jawbone Visitors Center would be less than significant.

11.4 Although a right-of-way grant is required to cross BLM land for project construction and operations access, Jawbone Canyon Road is a County-maintained public road within the entire Open Area. The Open Area consists of roughly equal portions of public (BLM) and private land, and Jawbone Canyon Road as it crosses the Open Area is likewise equally situated on public and private land. The proposed project is utilizing this public road, not the Open Area itself, to provide access to the project property. Nonetheless, the commenter's point that the BLM's management objective within the California Desert Conservation Area

(CDCA) Plan for the Open Area is to enhance off-road recreation opportunities is acknowledged. However, as discussed in Section 1.0 (Introduction) of the Draft EIR/EA, the use of Jawbone Canyon Road for project access is also consistent with broader BLM land management policies that promote the appropriate development of wind energy. In accordance with BLM's Interim Wind Energy Development Policy (IM2003-020), rights-of-way should be managed to encourage the development of wind energy in acceptable areas while minimizing impacts to natural, cultural, and visual resources on the public lands. With the implementation of the proposed transportation safety plan as a condition of the road permits and right-of-way grants, including provisions for periods of time during which no deliveries or individual construction worker trips would be allowed on Jawbone Canyon Road, the potential impacts to existing recreation land use would be less than significant and the proposed project would be consistent with both the BLM CDCA Plan and Wind Energy Development Policy.

11.5 The commenter's point that Jawbone Canyon is used for recreation opportunities other than off-highway vehicle use is acknowledged. However, the general low intensity of these other uses should minimize potential for conflicts resulting from project construction-related traffic. In addition, with the implementation of the proposed transportation safety plan as a condition of the road permits and right-of-way grants, including provisions that establish strict rules and procedures for travel on the road for the purpose of project access, the use and safety conflicts with recreation users would be reduced to a less than significant level.

11.6 As discussed in Section 3.13 (Alternatives to the Proposed Project) of the Draft EIR/EA, Alternative 7B would also cause impacts from project construction traffic and traffic-related noise and dust. To utilize this alternative access route to the proposed project site, construction traffic would need to reach the Sky River Ranch property from Highway 58 at Tehachapi Pass to the south. This would route construction traffic through the rural residential areas located in Sand Canyon and Horse Canyon, to the southwest of the project property, creating potentially significant conflicts. In addition, to access the project property through Horse and Sand canyons, the route would need to cross private property prior to reaching the Sky River Ranch wind development property. Agreements to allow such crossings may not be achievable, and while this route is currently used as access for the Sky River Ranch project, this is for generally very low-level operational traffic similar to that which would be required for the proposed project after construction was completed.

However, perhaps the most significant impact related to this route would be the substantial amount of grading that would be required to construct access roads through the steep and rugged terrain between Sky River Ranch and the proposed project turbine sites. This would entail a descent of approximately 1,000 feet in elevation from Sweet Ridge to the project property, potentially requiring large areas of habitat disturbance to accommodate the vertical alignment of the road and the associated quantities of cut and fill. These necessary road improvements would be considerably more extensive than those required for the Jawbone Canyon Road access to the property, and they would, as discussed in the Draft EIR/EA, significantly increase impacts related to erosion, runoff, and stream crossings. This area between Sky River Ranch and the currently proposed project turbine sites was part of the broader study area for the proposed project. However, it was avoided at least partially because of steep terrain (and the associated impacts of grading) and potential impacts to more developed forest plant communities and to the Pacific Crest Trail, which generally parallels

the Sky River Ranch project and is itself an important recreation use in the vicinity of the proposed project.

Because of these impacts associated with the Sky River Ranch access route and because the potential impacts related to traffic safety in the Open Area could be mitigated to a less than significant level with the implementation of the transportation safety plan discussed above, Alternative 7B is not considered environmentally superior to the proposed project.

Letter 12

JAN 14 2005

TANIA S. BONFIGLIO

January 7, 2005

Ms. Tania Bonfiglio
Los Angeles Department of Water and Power
111 N. Hope Street, Room 1044
Los Angeles, Ca 90012

Regarding: the Pine Tree Wind Development Project

Dear Ms. Bonfiglio:

I am writing in response to the Draft Environmental Impact Report/Environmental Assessment of the above project.

I am familiar with the impacted area and know its **incredible diversity**, both in **plant and animal life**, plus it is **a known major corridor for bird migrations.**

12.1 **Sensitive species of both flora and fauna will be impacted adversely, some totally destroyed. Because our weather patterns are changing there is little change of recovery.**

12.2 Dr. Morrison states that the impact of dead birds is minimal. I strongly object and disagree. **There are several wind turbine projects in Tehachapi and if everyone kills "only 4 Red Tail Hawks" it is a significant amount.**
This applies to all birds, not just the raptors.

12.3 The area is also Condor territory, loss of one condor is tragic loss.

12.4 The erosion downstream on steep slopes and mountain sides has historically been a huge impact on the environment. **Silting in canyons and devastating non-mitigated gullies have caused devastation every time wind energy has been building access roads, pads and maintenance roads in the past.** I have visited sites where the gullies are so huge a truck would disappear in them. Some downhill erosion wiped out entire plant communities.

The only Wind Energy Plant thus far having done mitigation and maintained a higher standard of land stewardship is Oak Creek Energy in Tehachapi.

Letter 12
Cont'd.

I suggest that the "green energy" begins acting like one.

Here are my suggestions:

12.5
12.6
12.7
12.8
12.9
12.10
12.11
12.12

1. Avoid the areas of concentrated vegetations listed as rare, threatened or endangered.
2. Avoid impacting any of the wetland communities.
3. Do not build any turbines in the path of migration or shut down the turbines during migration as they do in Gibraltar in Spain. (After the turbines nearly wiped out all the migrating birds on that route!)
4. Study the cumulative impact of bird, raptor and bat kill from all wind energy industry combined in the Tehachapi mountains.
5. Minimize the building of all roads.
6. Build the roads that are necessary according to new grading guidelines. (See Oak Creek Energy Roads.)
7. Employ an independent erosion expert like the Tehachapi Resource Conservation District to assist in planning, mitigation as well in the process of re vegetation and continued monitoring sensitive sites and the project in general. Funds for this will have to come from the benefactor/owner of the Pine Tree Project.
8. Consider re-powering some of the existing Tehachapi wind power facilities. It certainly will be a "greener" approach than impacting yet whole environments.

I am looking forward to your response to my concerns.
Cordially,

Solveig A. Thompson
29200 Woodview Court
Tehachapi, Ca 93561
661-821-5567 x 223

Response to Letter 12
Solveig A. Thompson, January 7, 2005

12.1 Although the Draft EIR/EA listed numerous species within whose general range the proposed project site is located, site-specific sensitive plant surveys were conducted by qualified biologists at the appropriate time of year based on known growth cycles to confirm either the presence or absence of these species. No sensitive plant populations or individuals were observed in the areas of the project site within the project footprint. Many of the sensitive plant surveys were conducted in spring 2003 following record winter rains. No sensitive plants were located within the areas of proposed disturbance. There has not been a sensitive animal species or population identified within the project site that would be destroyed by the project; mitigation for the impacts that do occur are provided. All potentially significant impacts have been addressed, with proposed impact avoidance, minimization, or mitigation measures developed through discussions between LADWP and the pertinent resource agencies. All mitigation measures will be approved by these resource agencies, will provide adequate compensation for impacts to sensitive biological resources, and will be enforced through permit conditions that have the force of law.

12.2 The predicted rate of mortality of raptors at Pine Tree and the rate of mortality that was found in the Tehachapi WRA were determined by Dr. Morrison to be less than significant. The raptor population is continuous throughout the Tehachapi Mountains, so the few additional potential fatalities predicted for the Pine Tree project would not be critical to the population, or even adversely affect the population. There is no local population, which by definition would require that the birds be almost completely isolated (for breeding/genetic purposes) from other populations.

Similarly, based on a comparison of the use of the Pine Tree project site by birds relative to other existing wind developments, fatalities are predicted to be at the low end of that which is quantified elsewhere for both raptors and songbirds. The mortality rate for passerines is estimated at 0 to 2 individuals per turbine per year. These rates would be inclusive of any migration. The rates are also relatively low compared to all sources of avian mortality and are statistically not significant in relation to the total species population.

The site data continue to support the conclusion that the Pine Tree project site (where turbines would be located) does not serve as a major pathway or stopover area for migrating birds. LADWP, through its continuation of avian studies, is building upon the base of resource information that it has collected over the past 2 years. LADWP has not dismissed the potential effects on birds but has determined that significant mortality is not likely.

12.3 As documented in the Biological Technical Report, written as a supporting document to the Draft EIR/EA and included as Appendix D, the California condor does not occupy any portion of the site. Further, the California Department of Fish and Game (CDFG) has stated that the condor currently ranges on the west slope of the Tehachapi Mountains and not on the east slope where the project site is located. Therefore, no California condor territories occur within the study area, and no impact to the condor would occur from the proposed project.

12.4 Comment noted. Please see responses to Comments 12.9, 12.10, and 12.11.

12.5 All plants designated as rare, threatened, or endangered are avoided by the proposed project plan. All other sensitive plants and vegetation communities, including wetlands, have been avoided to the extent feasible through careful project design. The potential project impacts would be mitigated through the measures proposed and through the approved mitigation ratios and requirements set forth by the resource agencies in permits required to implement the project.

12.6 Complete avoidance of wetland habitats is not possible, but as noted in the Draft EIR/EA, the disturbance of these habitats has been reduced to the extent possible by using existing access roads and minimizing crossing of other stream channels. LADWP is currently preparing mitigation plans with respect to natural wetland habitats. These plans will be subject to the approval of and monitoring by CDFG.

12.7 As mentioned above, based on a comparison of the use of the Pine Tree project site by birds relative to other existing wind developments, fatalities are predicted to be at the low end of that quantified elsewhere for both raptors and songbirds. Even so, the occurrence of migration would not mean that significant mortality would occur since some wind developments lie directly in areas that are known migration routes. Erickson et al. (2002) summarized the observed and likely potential impact of wind farms on passerine and other non-raptorial birds, including nocturnally migrating species. They found that nocturnal migrants are estimated to comprise approximately 50 percent of the fatalities at new wind projects (estimated range 34 to 59%) based on timing and species observed during standardized fatality monitoring. There has been no reported large episodic mortality event (e.g., >50 passerine birds during a single night) recorded at a U.S. wind plant. Two small nocturnal avian mortality events have been published at U.S. wind plants. Fourteen nocturnal migrating passerines at two turbines at Buffalo Ridge (Minnesota) were killed on one night during spring migration after a thunderstorm. At the Mountaineer Wind Energy Center, West Virginia, 33 (47.8%) of 69 passerine fatalities occurred on one night at a few turbines adjacent to a well-lit substation during spring migration (Kerns and Kerlinger 2004). The data suggest that sodium vapor lamps at the substation were the primary attractant, since fatality locations were correlated with the location of the substation, and the other turbines away from the substation had few fatalities documented the morning after the event. After the lights were turned off at the substation, no events occurred. Erickson et al. (2002) were not aware of any other mortality events greater than a few birds at single or adjacent turbines found during a single search at any U.S. wind plant.

Several studies have been published regarding extrapolated bird passage rates (McCrary et al. 1983; Mabee and Cooper 2004; Mabee and Cooper 2001; Johnson et al. 2002). We are aware of only a few studies that have attempted to compare fatality rates to bird passage rates. McCrary et al. (1986) estimated approximately 6,800 annual bird fatalities at the San Gorgonio wind project in California, with an estimate of approximately 75 million migrants passing through during fall and spring migration. McCrary et al. (1986) believed the mortality levels were biologically insignificant. Radar studies conducted in the vicinity of the Buffalo Ridge wind project (over 400 turbines) in Minnesota suggested that as many as 3.5 million birds may migrate over the wind development area, and fatality studies suggest only a few hundred migrating songbirds are killed each spring. Radar studies at the Stateline Wind Project, a large facility (454 turbines) with its northern boundary located within 1.5

miles of the Columbia River, indicate a large number of birds migrate over that facility (several hundred thousand to over a million) during spring migration, and the fatality studies suggest a very small number result in collisions (Erickson et al. 2004). A similar pattern was observed for the nearby Nine Canyon facility (Cooper and Mabee 2001; Erickson et al. 2003b).

As the fall 2004 and winter 2005 avian surveys continued, Dr. Morrison did not encounter large numbers of migratory birds using Pine Tree for foraging and resting; no large flocks of migrating raptors or passerines were observed.

The data continue to support the conclusion that Pine Tree does not serve as a major pathway or stopover area for migrating birds. The few instances in which relatively large numbers of migrating passerine birds have been killed in wind developments have been apparently due to a combination of poor weather and lights reflecting off of a low cloud ceiling. The proposed wind turbines are to be located in the western end of Jawbone Canyon, some 10 miles from the mouth of the canyon near SR-14. Anecdotal information from at least one EIR commenter and at least one unpublished report indicate that the localized spring migration in the area is from southeast to northwest and that some of the migration is captured in northwest-southeast trending canyons, such as the east portion of Jawbone Canyon. The Jawbone Canyon migration continues in a northwesterly direction up Alphie and Hoffman canyons through the topographic pinch point of Butterbredt Springs. This would take the localized migration well east of the proposed project property, which encompasses northeast-southwest trending portions of upper Jawbone Canyon. Our data show that there are no other logical reasons, such as good habitat or adequate cover and water, for a substantial number of birds to be loafing or resting in the proposed turbine areas. A mitigation measure has been added to the EA/Final EIR that would provide for operational modifications of a turbine(s) that results in a disproportionately high avian mortality when compared to other turbines on site (see MM 5.14-2 in Section 3, Changes to the Draft EIR/EA).

12.8 Cumulative impacts were addressed consistent with the requirements of CEQA and NEPA. Accordingly, cumulative impacts are those impacts on the environment that may result from the incremental effects of the proposed project when they are added to the effects from other past, present, and reasonably foreseeable future projects. As required under CEQA and NEPA, Section 3.11 of the Draft EIR/EA, as revised in the EA/Final EIR (see Section 3.0, Changes to the EA and Draft EIR, in the EA/Final EIR), provides a discussion of the potential cumulative impacts of the proposed project. The CEQA Guidelines require that a cumulative impacts analysis identifies related projects in the area of the proposed project, summarizes the expected environmental effects of those related projects, and analyzes the cumulative impacts of the proposed and related projects. The Draft EIR/EA considered both temporary cumulative impacts, associated with the construction activities of the proposed and related projects in the area, and long-term cumulative impacts, associated with the permanent effects and continued operations of the proposed and related projects.

As discussed in Section 3.11 of the Draft EIR/EA, because of the nature, scale, location, and/or schedule of related projects that may be under construction in the general area at the same time as the proposed project construction, it was determined that the project, when considered in conjunction with the related projects, would not generally create any temporary individually significant impacts that would be regarded as cumulatively significant. The only exception to this, as discussed in the Draft EIR/EA, is a temporary but unavoidable

significant impact to air quality during the construction phase of the project related to significance thresholds for air pollutant emissions recently enacted by the County of Kern. Because of the location of the proposed project in relation to other wind energy developments in the Tehachapi WRA, the level of impact created by the proposed project relative to the WRA, and the implementation of zoning guidelines that establish requirements for future wind energy development in Kern County, it was determined that the project, when considered in the context of the entire WRA, would not create any long-term individually significant or significant impacts that would be regarded as cumulatively significant.

Specific to avian impacts, the results of Anderson, et al. (2004) relative to the Tehachapi WRA were summarized and considered in quantifying avian risk at the project site. The avian mortality at Tehachapi was considerably less than that observed at many other Western wind resource areas. The Pine Tree project is predicted to add comparatively few additional bird or bat mortalities given the relatively small number of turbines added. As such, there would not be a substantial cumulative impact. The determination of cumulative impact is one of biological magnitude, not mere addition, especially of generally small numbers.

12.9 The roads and other graded and cleared areas that are planned for the proposed project are those that are minimally required for the delivery and installation of project components. Once the final wind turbine siting was established within the 8,000-acre project property (narrowed significantly from the original 21,500-acre project study area), the length of roads necessary for the project was reduced by nearly 4 miles during refinement of the project plan. As noted in the Draft EIR/EA, an extensive network of roads currently exists on the project property, and, to the extent possible, the project plan utilizes these existing roads. Although some improvements and/or widening would be required, approximately two-thirds of the roads proposed for the project follow existing road alignments, helping to minimize the construction of new roads.

12.10 Detailed grading plans at a 2-foot contour interval have been prepared for the project roads and facility pads to minimize quantities of cut and fill necessary for the transport and installation of project components, to ensure stabilization of drainageways, and to control and direct runoff to minimize erosion. These plans have been developed in accordance with County of Kern grading requirements. The entire project will also be subject to the drainage and erosion control standards contained in the Federal Highway Administration's Best Management Practices for Erosion and Sediment Control (FHWA FLP-94-005, 1995), which exceed County guidelines in many instances. LADWP has committed to adherence to the FHWA standards even though this is not a requirement for the non-federal lands involved in the proposed project.

12.11 The prevention and control of runoff, erosion, and sedimentation related to the construction and operations of the proposed project was one of the primary concerns in the development of the project plans and the assessment of potential project impacts in the Draft EIR/EA. As discussed in the Draft EIR/EA in Sections 2.0 (Description of the Proposed Project), 3.2 (Geology and Soils), and 3.3 (Hydrology and Water Quality), the drainage concept for the project has been developed with the goal of retaining runoff flows at pre-development levels. The objective is to eliminate and/or minimize drainage course changes and to incorporate erosion and sedimentation control systems and devices such as rock riprap, detention basins, revegetation, and other control devices on disturbed areas. No impervious surfaces are

proposed for the project, and permanent disturbance of the surface would only occur in those areas that are in actual use for ongoing project maintenance and operations.

The plan provides that drainage waters would be returned to their original courses in the same magnitude as that prior to the project. Wind turbine sites are to include detention basins designed to reduce any peak discharge rates to pre-project values and to provide silt capture. Incidental roadway drainage intercepted from side-slope cuts is to be returned to natural courses at frequent intervals to reduce concentration. Areas of disturbance to the natural ground cover for side-slopes and unused graded portions of the project are to be replanted with native cover. Cover is to be re-established with species similar to those that existed prior to the construction disturbance. Grading of roadways and turbine sites are to adhere to the following design concepts.

- Rerouting of drainage to another discharge point in a different water course is to be avoided.
- Whenever possible, grading is to be designed to evenly distribute runoff rather than concentrate it.
- Regular use of over-side drains should be implemented to avoid longitudinal concentration of drainage along the roadways.
- Exiting points of culverts and over-side drains are to be protected with rock riprap.
- Minor stilling basins are to be created by elevating grated inlets above flow line grade so as to minimize silt transport and detain drainage waters.
- Detention basins for peak flow reduction are to be used at the turbine sites when drainage has the potential to increase runoff to any one watershed.

A Storm Water Pollution Prevention Plan (SWPPP) will be developed and implemented for the project to minimize erosion and the potential for discharge of pollutants from the site due to clearing, grading, and other construction activities. The SWPPP will be prepared along with the project grading plan. Site-specific Best Management Practices (BMPs) will be developed and implemented emphasizing the control of erosion and sedimentation through such measures as retaining the original vegetative cover where possible; reducing the velocity of surface runoff and directing it away from disturbed areas; and promptly stabilizing disturbed areas through revegetation or the use of inert materials, such as straw mulching or erosion control matting. Silt fences and sediment barriers would be maintained throughout construction and beyond until disturbed areas have been fully stabilized with vegetation. Check structures, such as rock dams, hay bale check dams (consisting of weed-free rice straw or other certified weed-free straw), dikes, and swales, would be used where appropriate to reduce runoff velocity as well as to direct surface runoff away from disturbed areas.

LADWP, which would own, operate, and maintain the proposed project rather than simply enter into purchase agreement for power produced by the project, is committed to long-term maintenance of the roads and other graded areas in the project property. Numerous specific mitigation measures related to the control of runoff, erosion, and sedimentation were established for the proposed project in the Draft EIR/EA (see Sections 3.2, Geology and Soils, and 3.3, Hydrology and Water Quality, of the Draft EIR/EA).

Based on this grading and drainage concept, including adherence to the SWPPP, County ordinances, FHWA guidelines, and the project mitigation measures, an independent erosion control expert is not required for the planning of the proposed project. However, LADWP

would accept any information regarding erosion control in the project region that the Tehachapi Resource Conservation District would provide.

12.12 Repowering an existing wind turbine site in the Tehachapi Pass Area was considered in Section 3.13 (Alternatives to the Proposed Project) of the Draft EIR/EA. As mentioned by the commenter and as discussed in the EIR/EA, the intent of this alternative would be to reduce environmental effects associated with the construction and operations of the proposed project by building at a site already impacted by existing wind turbine development as opposed to new construction in a currently undeveloped area. This repowering would entail replacing aging, inefficient, and/or inoperable turbines with the proposed project turbines, which would be more reliable, efficient, and productive.

As discussed in the Draft EIR/EA, the Tehachapi WRA consists of approximately 30 separate wind turbine projects, with a total capacity of over 600 MW and an estimated annual energy output of 1,200 GWh. Excluding the Sky River Ranch project, which is located on Sweet Ridge to the west of the proposed project property, the Tehachapi WRA includes over 3,300 individual turbines, located primarily in the Tehachapi Pass area. The Tehachapi WRA projects are under the ownership of approximately 12 different entities.

To implement a repowering, existing wind turbines would need to be demolished, potentially including below-grade elements, such as foundations and electrical collection systems. The grading of some new roads and foundations pads would also be necessary because the proposed project turbines have different area and spacing requirements than existing turbines in Tehachapi Pass. A new underground electrical collection system would be required. Since limited capacity is currently available to transmit power generated in the Tehachapi WRA, this alternative would include the construction of a new transmission line that would connect to the existing LADWP Inyo-Rinaldi line, which runs roughly parallel to and west of SR-14. The exact alignment and length of this new line would be dependent on the location of the turbine repowering site. Repowering would also include a new substation to convert the voltage of the electrical energy generated by the wind turbines so that it could be transmitted over the Inyo-Rinaldi line.

To accomplish a repowering and achieve the power generation objectives of the project in an efficient and cost-effective manner, relatively consolidated property large enough to accommodate the proposed number of turbines would be required to avoid segregating the project into potentially widely separated areas. The existing wind energy projects in the vicinity of Tehachapi Pass extend over a total area of approximately 20 square miles. The proposed project property consists of approximately 12.5 square miles, and while the project facilities themselves do not actually cover this entire area, based on the wind resource and terrain characteristics of the site and the requirements of the proposed turbines, the overall footprint of the project extends over the majority of the project property. Even assuming that significantly greater efficiency in wind turbine configuration could be achieved in the Tehachapi Pass area than at the proposed project site, a repowering project would still require the acquisition of a large proportion of the existing wind turbine developments, potentially under the ownership of several different entities.

Along with the acquisition of large portions of existing Tehachapi WRA wind projects, energy contracts associated with these projects would hinder implementation of a repowering alternative for the LADWP project. Southern California Edison currently has purchase

agreements for the power produced at nearly all the wind projects in the Tehachapi WRA. The only exception to this is a power purchase agreement held by San Diego Gas and Electric for the power produced at a single recently constructed new wind project in the Tehachapi Pass. These agreements are generally long-term, extending up to 30 years. While repowering of wind energy projects could be a valid means to reduce potential project impacts, the current power purchase agreements limit the availability of the existing wind developments for repowering to meet LADWP's project objectives of increasing the amount of energy it generates or acquires from renewable power sources. Because of the limitations imposed by these contracts, the acquisition of a relatively consolidated area that would be large enough to accommodate the proposed project is essentially infeasible at this time.

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Letter 13

January 6, 2005

Mr. Peter Graves
Bureau of Land Management
300 S. Richmond Road
Ridgecrest, CA 93555

RE: Comments on Draft EIR/EA for the Pine Tree Wind Development Project

Dear Mr. Graves,

Kindly consider my comments below on the Draft Environmental Impact Report/Environmental Assessment (DEIR/EA) for the Pine Tree Wind Development Project. They focus primarily on the unsuitability of the Jawbone Canyon Road for construction traffic, and how the Draft EIR/EA failed to adequately identify and mitigate the effects on the recreation community.

In general, I support the project and recognize the importance of its impact on how our energy needs will be met in the near future. I appreciate that this project will result in no road or trail closures and that access to public lands will not be affected. I'm satisfied that the project's location will affect the viewshied only minimally, a difficult but well mitigated tradeoff for the benefits of renewable energy. I also support the right-of-way being sought by the LADWP for the transmission line in Pine Canyon.

13.1

I do strongly object to the use of Jawbone Canyon Road for project construction traffic as put forth in the DEIR/EA for the reasons below. Instead, I wholeheartedly support Alternative 7B, the use of Sky River Ranch as an alternate access route for primary project access.

A. *Sections 3.6 Fails to Identity Numerous Impacts on Recreation*

13.2

1. Contrary to the DEIR/EA and the CEQA Initial Study, the project will indeed increase the use of other existing recreational lands such that substantial physical deterioration of public lands would occur or be accelerated. Environmental impacts will be felt as users seek other areas to recreate to avoid the projected 2100 construction truck trips on the Jawbone Canyon Road.

The DEIR/EA does not note that the road is actually a corridor along which users congregate, and within which much of the actual OHV activities occur. Whereas the outlying portions of the OHV area consist of rugged, mountainous trails, within the canyon corridor are the campsites, gathering spots, and childrens' riding areas.

Campers and RV'ers will seek other locations to avoid the noise and dust generated by heavy equipment hauling trucks. Those with children will not want them riding in the commonly used, family-oriented areas along both sides of Jawbone Canyon Road out of concerns for their safety. Many users will move to other areas to get away from the large construction vehicles, areas outside the OHV area boundaries.

Disbursing significant numbers of OHV users into surrounding public lands will yield negative impacts to areas already stressed by OHV use, such as Kelso Valley, the Rand, El Paso and Red mountains, and areas in and around the communities of Randsburg and Red Mountain. Users who are not familiar with the rules of limited use areas will behave as if they were in the OHV area and cause unnecessary harm to environmentally sensitive areas and neighboring communities by driving off established routes. This would result in considerable and undesirable management issues for the Ridgecrest Field Office, whose resources are already stretched too thin.

These consequences are foreseeable, yet unidentified and unmitigated in this DEIR/EA.

13.3

2. Also contrary to the DEIR/EA and the CEQA Initial Study, the project does involve a recreational facility: the Jawbone Visitors Center. Ignored in the DEIR/EA and the CEQA Initial Study are the impacts that will be felt on this facility, although the project clearly relies on it to play a role during the construction process.

The Visitors Center will become the main focal point for interfacing with the public and minimizing on-the-ground conflicts with users. However, the Visitors Center has a limited staff and budget, and instead relies upon several volunteers and grants from the California Off-Highway Motor Vehicle Division's OHV Trust Fund.

Already the Visitors Center receives up to several hundred guests in a day, and that number can be expected to increase as project construction begins. It is not appropriate for the project to be subsidized by the OHV Trust Fund, but the DEIR/EA fails to identify this problem or offer mitigation for this foreseeable consequence.

13.4

3. Although the Impact Analysis of Section 3.6.3 identifies Impact 6.4 regarding conflicts with the CDCA Plan management objectives, no corresponding mitigation measure is offered in Section 3.6.4

The BLM's management objective for the Class I area in the mouth of Jawbone Canyon is to enhance opportunities for OHV recreation, not to enhance opportunities for development. Because this area involves almost half of the right-of-way grant being sought by the project, adequate mitigation measures must be developed to address this admitted conflict.

13.5

4. Lastly, the DEIR/EA and the CEQA Initial Study ignore the importance of Jawbone Canyon Road to the greater recreation community, instead focusing solely on OHV use.

Jawbone Canyon Road is more than just an OHV area. Rather, the road is arguably Eastern Kern County's most important access point for outdoor recreational activities of many kinds, including rock hounding, hunting, hiking, sight seeing, wildlife watching, picnicing, day-touring, history enthusiasm, and even landscape painting by artists. Such users may have to curtail their activities during the construction period or seek other destinations.

Such impacts on these recreational activities were not analyzed and, therefore, remain unmitigated.

B. Section 3.7 Fails to Adequately Mitigate Impacts on Recreation Users

13.6

I believe that the suggested mitigation measures contained MM 7.4 are paltry and will be ineffective. However, I don't believe that all of the impacts of using Jawbone Canyon Road for construction traffic CAN be adequately mitigated, as this use is simply inconsistent with existing recreational use patterns.

C. Section 3.10 Fails to Identify Economic Impact on Local Business

13.7

Section 3.10.3 states that no businesses would be temporarily displaced as a result of construction activities associated with the project. However, should the OHV area experience lower than usual use levels during this time, the historic and important Jawbone Store would suffer considerable financial harm as a result.

The DEIR/EA needs to consider this impact and, if necessary, offer measures to mitigate against the financial displacement of the Jawbone Store.

D. Section 3.10 Fails to Meet Executive Order 13045

13.8

As described in the DEIR/EA, this Executive Order requires the identification and assessment of safety risks that may disproportionately affect children. However, the project fails to specifically consider the risks of co-mingling the large number of children riding OHV's with 2,100 truck trips during construction.

It is the older, more experienced OHV users that utilize the mountainous trails in the outlying areas of the OHV area, away from the truck traffic. Within the Jawbone Canyon corridor, however, is where younger, less experienced OHV users generally ride. Children riding OHV's follow unpredictable patterns and often dart out into the roadway without warning and without looking. The safety risks posed by large equipment hauling trucks on Jawbone Canyon Road is disproportionately higher for children OHV users than other users and, therefore, must be specifically mitigated.

Recommendation

Fortunately, the DEIR/EA offers two alternatives for the project access route. Alternative 7A, using Pine Tree Canyon Road as primary project access, describes well the enormous difficulties in mitigating the serious impacts on biological and cultural resources of this remote and rather pristine canyon.

Alternative 7B, using Sky River Ranch as primary project access, however, does not impact sensitive biological and cultural resources, nor would such use dangerously impact well-established recreational use patterns.

13.9

I do not believe that the impacts of construction traffic over Highway 58 and turning on to Sand Canyon and/or Horse Canyon roads would be any more difficult to mitigate than via Highway 14 and the turnoff at Jawbone Canyon Road.

Road work that would be necessary to improve this route for construction traffic is similar to that required by the Jawbone Canyon Road alternative, which would also create mitigable impacts related to erosion, runoff, and stream crossings.

I also do not believe that the challenges of interfacing with local residents are as difficult to mitigate as would be contending with OHV and other recreation traffic. Although the DEIR/EA is silent on how many residents Alternative 7B, consider that the entire Census Track 60.04, which covers approximately 600 square miles including the Sand Canyon and Horse Canyon residents, has a population of only 1,302. Even if all of Census Track 60.04 residents were affected, this number is still less than the number of people that will be impacted by the use of Jawbone Canyon Road for project access.

Traffic patterns in these tiny communities are predictable whereas OHV traffic in an open area is random, inexplicable, and sometimes even careless, particularly when the use of alcohol is involved. Furthermore, many residents are working rather than at home during the daytime, thereby reducing the impact of project traffic on these communities.

Lastly, the route suggested in Alternative 7B is already being used to serve the wind industry, and the use of this route is established and with precedent. I'm certain that objections raised by Sky Ranch can be resolved, as they typically are among the several cooperative wind projects in the Tehachapi Pass area.

Conclusion

13.10

Therefore, I conclude by offering my qualified support for the Pine Tree Wind Development Project, dependent upon the adoption of Alternative 7B, using Sky River Ranch rather than Jawbone Canyon Road for primary project access. I urge project planners to avoid the uncertain and problematic difficulties associated with co-mingling heavy truck traffic and OHV users and other recreationists within the Jawbone Canyon corridor, and instead choose a route more appropriate for the project's construction traffic, such as that in Alternative 7B.

Letter 13
Cont'd.

I'd like to offer my thanks to the project proponents for their outstanding public outreach during this project.

Sincerely,

Randy Banis
Editor, DeathValley.com
Access Representative, Ridgecrest Steering Committee

cc: Tanya Bonfiglio, Los Angeles DWP
Hector Villalobos, Ridgecrest Field Office Manager, BLM
Ed Waldheim, President, Friends of Jawbone
Robert Strub, Chairman, BLM Ridgecrest Steering Committee
Ron Schiller, Recreation Representative, BLM Desert District Advisory Committee

Response to Letter 13
Randy Banis, January 6, 2005

13.1 Comment noted. See response to Comment 13.9.

13.2 The Draft EIR/EA recognizes the intense use that the Jawbone Canyon Open Area can receive from off-highway vehicle users as well as other recreation users during certain periods. The level of this use varies markedly, depending on the season, the day of the week, and holiday periods. During the summer season and even on non-holiday weekdays in the winter season, the use of the Open Area is generally very light. However, during late fall, winter, and spring, many thousands of people may visit and use the Open Area for camping and off-highway vehicle recreation on a single holiday weekend. In Section 3.7 (Transportation), the Draft EIR/EA identifies the conflict relative to use and safety in the Open Area during these high use periods related to project construction vehicle traffic on Jawbone Canyon Road as it traverses the Open Area.

The 2,100 truck trips projected for the proposed project construction represent 1,050 deliveries to the site. Each inbound (laden) and each outbound (unladen) truck trip was counted separately for traffic analysis purposes, resulting in a total of 2,100 one-way trips (1,050 round trips) on Jawbone Canyon Road. Based on a conservative assumption that 80 percent of these estimated truck trips would occur over a 6-month period (rather than being evenly distributed over the entire 10-month construction schedule), an average of approximately 11 trucks trips per day on Jawbone Canyon Road would be expected. This would represent an average of slightly over one trip per hour over a 10-hour workday, with each incoming truck and each outgoing truck representing a single trip. Since this number is an average, more or fewer trips may actually occur in a given day or hour, but the average figure nonetheless helps place the level of expected construction traffic on Jawbone Canyon Road in context. In addition, based on the currently projected construction schedule, many of these deliveries would occur outside the seasonal timeframe of heaviest recreation use in the Jawbone Open Area, which occurs from late fall to late spring. Most would also occur on days of the week when there is little or no recreation activity in the Open Area. This traffic would be temporary in nature, related only to the 10-month construction period of the project. The long-term operations of the project would require approximately 10 to 12 employees and only occasional truck deliveries on Jawbone Canyon Road.

However, as discussed in Section 3.7 of the Draft EIR/EA, even taking into account the level, timing, and temporary nature of traffic as discussed above, the impact caused by construction-related traffic to the recreation use in the Jawbone Canyon Open Area would be considered significant if not mitigated. Accordingly, Mitigation Measure 7.4 of the Draft EIR/EA requires the development of a transportation safety plan for construction traffic on Jawbone Canyon Road. The intent of this plan is to eliminate or substantially reduce the potential conflicts between the construction traffic and recreation users in the Open Area. The plan is to be developed in coordination with the Kern County Roads Department and BLM (including, as appropriate, Steering Committee representatives) as part of the County road permit and BLM right-of-way grant processes. The plan would become a condition of these permits and grants. The plan will provide rules, physical controls, and enforcement provisions for construction traffic to minimize conflicts. However, most significantly, the

plan will establish time periods (related to the high recreation use periods of the Open Area) during which no deliveries of equipment or materials would be allowed on Jawbone Canyon Road. Among the closure times would be periods associated with the Veterans Day, Thanksgiving, Christmas, New Years, Martin Luther King Day, Presidents Day, Easter, and Memorial Day holidays. With at least four weeks notification to LADWP, BLM may also prohibit construction deliveries on additional sanctioned event weekends in the Jawbone Canyon Open Area. In addition, on weekends and holiday periods during the high-use recreation season in the Jawbone Canyon Open Area (late fall to late spring), construction workers shall be prohibited from travel in individual vehicles on Jawbone Canyon Road and shall be shuttled to and from the project site in multi-person vehicles beginning on the day preceding the weekend or holiday. This limitation on the use of vehicles does not include conducting limited critical activities associated with minimal security and safety monitoring and construction management. This provision of the transportation safety plan would essentially eliminate construction traffic impacts during the times of greatest potential conflict with recreation users in the Open Area.

As mentioned above, the transportation safety plan is to be prepared as part of the County roads permit and BLM right-of-way grant processes. However, Mitigation Measure 7.4 of the Draft EIR/EA has been modified to more specifically indicate the types of provisions and limitations that will be minimally included in the plan. Please see Section 3.0 (Changes to the Draft EIR/EA) of the EA/Final EIR for the complete revised text of MM 7.4.

The commenter's point that the potential conflicts caused by the project construction-related traffic might force recreation users to seek locations other than Jawbone Canyon, thereby increasing the use of and impacts on other recreation areas in the region, is acknowledged. However, with the implementation of the proposed transportation safety plan as a condition of the road permits and right-of-way grants, including provisions for periods of time during which no deliveries or individual construction worker trips would be allowed on Jawbone Canyon Road, the use and safety conflicts would be reduced to a less than significant level, minimizing the displacement of Open Area users to other surrounding recreation areas.

13.3 A new mitigation measure has been added to the EA/Final EIR that requires LADWP to provide funding to support an additional staff member at the Jawbone Visitors Center during the project construction period to mitigate the impact to the Center staff and budget caused by project construction related traffic. In addition, the mitigation measure provides for the funding of a BLM ranger position during high recreation use periods in the Open Area to help enforce traffic controls and prevent or resolve disputes. These positions would be funded subject to a Memorandum of Agreement between LADWP and BLM. Please see Section 3.0 (Changes to the Draft EIR/EA) in the EA/Final EIR for the language of this new mitigation measure. With the implementation of this mitigation measure, the impact to the staff and budget of the Jawbone Visitors Center would be less than significant.

13.4 Although a right-of-way grant is required to cross BLM land for project construction and operations access, Jawbone Canyon Road is a County-maintained public road within the entire Open Area. The Open Area consists of roughly equal portions of public (BLM) and private land, and Jawbone Canyon Road as it crosses the Open Area is likewise equally situated on public and private land. The proposed project is utilizing this public road, not the Open Area itself, to provide access to the project property. Nonetheless, the commenter's point that the BLM's management objective within the California Desert Conservation Area

(CDCA) Plan for the Open Area is to enhance off-road recreation opportunities is acknowledged. However, as discussed in Section 1.0 (Introduction) of the Draft EIR/EA, the use of Jawbone Canyon Road for project access is also consistent with broader BLM land management policies that promote the appropriate development of wind energy. In accordance with the BLM's Interim Wind Energy Development Policy (IM2003-020), rights-of-way should be managed to encourage the development of wind energy in acceptable areas while minimizing impacts to natural, cultural, and visual resources on the public lands. With the implementation of the proposed transportation safety plan as a condition of the road permits and right-of-way grants, including provisions for periods of time during which no deliveries or individual construction worker trips would be allowed on Jawbone Canyon Road, the potential impacts to existing recreation land use would be less than significant and the proposed project would be consistent with both the BLM CDCA Plan and Wind Energy Development Policy.

13.5 The commenter's point that Jawbone Canyon is used for recreation opportunities other than off-highway vehicle use is acknowledged. However, the general low intensity of these other uses should minimize potential for conflicts resulting from project construction-related traffic. In addition, with the implementation of the proposed transportation safety plan as a condition of the road permits and right-of-way grants, including provisions that establish strict rules and procedures for travel on the road for the purpose of project access, the use and safety conflicts with recreation users would be reduced to a less than significant level.

13.6 The primary element of MM 7.4 is the requirement to develop a transportation safety plan to mitigate the potential safety conflicts related to project construction traffic in the Jawbone Open Area. The specific components listed in the measure in the Draft EIR/EA are examples of the types of elements that would be included in the plan, but they are not meant to be all-inclusive. As discussed above in the response to Comment 13.2, the intent of this plan is to eliminate or substantially reduce the potential conflicts between the construction traffic and recreation users in the Open Area. As discussed above, it would include specific measures to minimize conflicts, including establishment of time periods (related to the high recreation use periods of the Open Area) during which no deliverires of equipment or materials would be allowed on Jawbone Canyon Road. Among the closure times would be periods associated with the Veterans Day, Thanksgiving, Christmas, New Years, Martin Luther King Day, Presidents Day, Easter, and Memorial Day holidays. With at least four weeks notification to LADWP, BLM may also prohibit construction deliveries on additional sanctioned event weekends in the Jawbone Canyon Open Area. In addition, on weekends and holiday periods during the high-use recreation season in the Jawbone Canyon Open Area (late fall to late spring), construction workers shall be prohibited from travel in individual vehicles on Jawbone Canyon Road and shall be shuttled to and from the project site in multi-person vehicles beginning on the day preceding the weekend or holiday. This limitation on the use of vehicles does not include conducting limited critical activities associated with minimal security and safety monitoring and construction management. This provision of the transportation safety plan would essentially eliminate construction traffic impacts during the times of greatest potential conflict with recreation users in the Open Area.

The transportation safety plan is to be prepared as part of the County road permit and BLM right-of-way grant processes. However, MM 7.4 of the Draft EIR/EA has been modified to more specifically indicate the types of provisions and limitations that will be minimally included in the transportation safety plan. Please see Section 3.0 (Changes to the Draft

EIR/EA) of the EA/Final EIR for the complete revised text of MM 7.4. With the implementation of the proposed transportation safety plan as a condition of the road permits and right-of-way grants, including provisions for periods of time during which no deliveries or individual construction worker trips would be allowed on Jawbone Canyon Road, the potential impacts to existing recreation use in the Open Area would be less than significant.

13.7 With the implementation of the transportation safety plan as described above, the Jawbone Canyon Open Area should not experience significant reductions in use related to project construction. Therefore, the Jawbone Store would not be adversely affected. Furthermore, with a daily influx of workers to the project site, the Jawbone Store may actually experience an increase of business during those periods when recreation use of the Open Area would typically be low.

13.8 Specifically, Executive Order 13045 calls for the identification and assessment of environmental health risks and safety risks that may disproportionately affect children. "Environmental health risks and safety risks," in the context of the Executive Order, "mean risks to health or to safety that are attributable to products or substances that the child is likely to come in contact with or ingest (such as the air we breath, the food we eat, the water we drink or use for recreation, the soil we live on, and the products we use or are exposed to)." In this sense, Executive Order 13045 does not apply to potential safety conflicts that may arise from project construction-related traffic on Jawbone Canyon Road.

Nonetheless, as discussed in the Draft EIR/EA, there is a potential safety hazard from construction-related traffic in relation to the recreation use of the Jawbone Canyon Open Area. However, with the implementation of the proposed transportation safety plan as a condition of the road permits and right-of-way grants, including provisions for periods of time during which no deliveries or individual construction worker trips would be allowed on Jawbone Canyon Road, the potential impacts related to traffic safety in the Open Area would be less than significant.

13.9 Weighing the significance of potential impacts created by construction-related traffic to the rural residential areas of Horse Canyon and Sand Canyon against the impacts to recreation use in the Jawbone Canyon Open Area is arguable. While it is true that fewer individuals permanently reside in these rural areas than may be found in the Open Area on a single busy holiday weekend, residents would be present throughout the construction period. Conversely, the Open Area experiences significant periods of relatively light use, especially in the summer season and even on weekdays in the fall and winter, during which times impacts from construction traffic to recreation would be minimal. In addition, as discussed in Section 3.13 (Alternatives to the Proposed Project) of the Draft EIR/EA, to access the project property through Horse and Sand canyons, the route would need to cross private property prior to reaching the Sky River Ranch wind development property. Agreements to allow such crossings may not be achievable, and while this route is currently used as access for the Sky River Ranch project, this is for generally very low-level operational traffic similar to that which would be required for the proposed project after construction was completed.

However, while agreements to use Sky River Ranch property itself may well be achievable, perhaps the most significant impact related to this route would be the substantial amount of grading that would be required to construct access roads through the steep and rugged terrain between Sky River Ranch and the proposed project turbine sites. This would entail a descent

of approximately 1,000 feet in elevation from Sweet Ridge to the project property, potentially requiring large areas of habitat disturbance to accommodate the vertical alignment of the road and the associated quantities of cut and fill. These necessary road improvements would be considerably more extensive than those required for the Jawbone Canyon Road access to the property, and they would, as discussed in the Draft EIR/EA, significantly increase impacts related to erosion, runoff, and stream crossings. This area between Sky River Ranch and the currently proposed project turbine sites was part of the broader study area for the proposed project. However, it was avoided at least partially because of steep terrain (and the associated impacts of grading) and potential impacts to more developed forest plant communities and to the Pacific Crest Trail, which generally parallels the Sky River Ranch project and is itself an important recreation use in the vicinity of the proposed project.

Because of these impacts associated with the Sky River Ranch access route and because the potential impacts related to traffic safety in the Open Area could be mitigated to a less than significant level with the implementation of the transportation safety plan discussed above, Alternative 7B is not considered environmentally superior to the proposed project.

13.10 Comment noted.

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Arnold Schwarzenegger
Governor

Jan Boel
Acting Director

Letter 14

January 6, 2005

Charles Holloway
Los Angeles County Dept of Water and Power
111 North Hope Street, Room 1044
Los Angeles, CA 90012-2694

Subject: Pine Tree Wind Development Project
SCH#: 2004041076

Dear Charles Holloway:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. The review period closed on January 5, 2005, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Terry Roberts

Terry Roberts
Director, State Clearinghouse

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Document Details Report
State Clearinghouse Data Base

Letter 14
Cont'd.

SCH# 2004041076
Project Title Pine Tree Wind Development Project
Lead Agency Los Angeles County Department of Water and Power

Type EIR Draft EIR

Description Development of 80, 1.5-megawatt (MW) wind turbine generators, several meteorological towers, an underground and overhead electical collection system, a substation, a 8-mile-long, 230 kilovolt (KV) transmission line to connect with the regional electrical grid, an operations and maintenance (O&M) building, as well as access roads.

Lead Agency Contact

Name Charles Holloway
Agency Los Angeles County Dept of Water and Power
Phone (213) 367-0285 **Fax**
email
Address 111 North Hope Street, Room 1044
City Los Angeles **State** CA **Zip** 90012-2694

Project Location

County Kern
City Mojave, Tehachapi, California City
Region
Cross Streets Jawbone Canyon Road / SR 14
Parcel No.
Township 30S, **Range** 35E, **Section** 34, 35 **Base** MDBM

Proximity to:

Highways 14
Airports
Railways
Waterways
Schools
Land Use Natural Reserve and Agriculture / Estate, 20-acre min. / Extensive Agriculture and Extensive Agriculture / Steep Slope

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Cumulative Effects; Drainage/Absorption; Economics/Jobs; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Growth Inducing; Landuse; Noise; Public Services; Septic System; Soil Erosion/Compaction/Grading; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Wildlife

Reviewing Agencies Resources Agency; Regional Water Quality Control Bd., Region 5 (Fresno); Department of Parks and Recreation; Native American Heritage Commission; Public Utilities Commission; Office of Historic Preservation; Department of Forestry and Fire Protection; Department of Fish and Game, Region 4; Department of Water Resources; Department of Conservation; California Energy Commission; California Highway Patrol; Caltrans, District 9; Caltrans, Division of Aeronautics

Date Received 11/22/2004 **Start of Review** 11/22/2004 **End of Review** 01/05/2005

Note: Blanks in data fields result from insufficient information provided by lead agency.

Response to Letter 14
State Clearinghouse and Planning Units, January 6, 2005

No responses required.

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Letter 15

February 18, 2005

Mr. Charles C. Holloway
Supervisor of Environmental Assessment
Los Angeles Department of Water and Power
111 N. Hope Street, Room 1044
Los Angeles, CA 90012

Pine Tree Wind Development
Draft Environmental Impact Report/Environmental Assessment

Dear Mr. Holloway:

15.1 The Center for Energy Efficiency and Renewable Technologies (CEERT), a nonprofit coalition of the leading environmental groups and renewable energy providers, respectfully requests the opportunity to submit this letter into the public record of the Pine Tree Wind Development Draft Environmental Impact Report and Environmental Assessment (EIR/EA), SCH#2004041076, BLM#CA-650-2005-13.

The proposed Pine Tree Wind Development project (Pine Tree) is significant to the City of Los Angeles, the Southern California region and the State of California. Pine Tree Wind Development is the largest wind energy system proposed in the Western United States since passage of California's landmark Renewable Energy Portfolio Standard (RPS) mandate (SB 1078), which required the City of Los Angeles to implement its own RPS. Pine Tree is Los Angeles' first renewable energy project since it established its City RPS policy in 2004. It is also Los Angeles' first major commitment to procure renewable energy in the utility's history.

L.A.'s commitment to develop Pine Tree signals consumers, renewable energy developers and decision-makers that Los Angeles is leading the implementation of the RPS. Moreover, Pine Tree is an excellent project model for a municipal utility--to engage private, experienced developers to build and transfer ownership to the City of a large wind project that provides reliable, cost-effective and environmentally-preferable energy to City ratepayers.

Bringing Pine Tree online in an environmentally-responsible manner will bring several majors benefits: it will provide enough clean, renewable energy to power over 120,000 homes, it will displace significant levels of smog and air pollutants that would otherwise be generated with fossil resources, and it will create many high-wage jobs for the region. Lastly, Pine Tree will be an asset owned by the people and City of Los Angeles.

100% recycled paper

Center for Energy Efficiency and Renewable Technologies

1100 11th Street, Suite 311 Sacramento, California 95814 V 916/442-7785 F 916/447-2940 email: info@ceert.org Web site: www.cleanpower.org

Letter 15 Cont.

Pine Tree involves the construction of 80 wind turbines, several towers, a substation, a transmission line and switching station, access roads, outlying buildings and other related equipment. The EIR/EA shows that LADWP, BLM and EDAW conducted a thorough evaluation of the impacts of this large project, including biological and cultural resources. We appreciate that the surveys were conducted to follow or exceed the protocols called for by the National Wind Coordinating Committee and the United States Fish and Wildlife Service Interim Guidelines.

15.2 In order to ensure the results of your avian studies are consistent with your expectations and to be a responsible member of the community, primarily as it relates to its natural resources, we encourage LADWP to continue to evaluate the evaluation of the avian impacts for the first year of operations.

CEERT looks forward to the timely and efficient progress of this EIR/EA and the development of the Pine Tree project in a manner that satisfies the public interest, in order to provide Los Angeles with clean, reliable wind energy.

Please contact us with any questions. Thank you.

Sincerely,

V. John White

V. John White
Executive Director

Response to Letter 15
Center for Energy Efficiency and Renewable Technologies, February 18, 2005

15.1 Comments noted.

15.2 Two new mitigation measures have been added to the EA/Final EIR stipulating that baseline avian monitoring shall be conducted for the first year of operations (see MM 5.14-1 and 5.14-2).

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Attachment A-1
Fall 2004 Avian Survey Report

PINE TREE AVIAN ASSESSMENT—FALL 2004

Prepared by:

Michael L. Morrison

13 December 2004

Fall wildlife surveys were conducted to assist with ongoing assessment of the use by birds of the proposed Pine Tree Wind Development Project. Although these surveys concentrated on birds, other animal species were also recorded. The avian protocol developed for this project is responsive to the level of effort recommended in the National Wind Coordinating Committee (NWCC) Guidance Document (Anderson et al. 1999) and the recently released United States Fish and Wildlife Service (USFWS) Interim Guidelines. The goal of this work is to survey site conditions relative to avian use (Morrison 1998).

Methods

The goal of fall surveys was to quantify the species composition and relative abundance of birds in the project area, including those migrating through. The result will provide a better understanding of the bird community that moves through the project area during fall migration. The 10 observation stations established and monitored in spring 2004 were sampled. These observation stations were used primarily for quantifying the occurrence and abundance of raptors, although the presence of other birds was recorded. Following the protocol used during spring, birds were observed at each point for 30 minutes. The observer then drove to the next scheduled point, but recorded any bird species observed during the transit between points. Additionally, the observer walked a transect that ran through the main riparian corridor in Jawbone Canyon, beginning at the abandoned ranch buildings location and continuing for about 2 miles downstream. These data thus identify the raptor and songbird communities during fall migration. One complete survey of observation points and riparian transects was completed every approximately ten days from mid-September through the end of November. Surveys were conducted throughout all parts of the day (morning, mid-day, and late afternoon/early evening) to capture any temporal variation in bird activity.

Results and Discussion

Raptors

The highest abundance of raptors was observed between the end of October and end of November, with a peak in mid-November (Table 1). A pair of golden eagles was seen on two dates near the east end of the project area. Red-tailed hawks were observed on all except one sampling date: single individuals were usually observed, although two to three individuals were seen towards the end of the sampling period. Accipters—sharp-shinned hawk and Cooper's

hawk—were seen primarily in riparian vegetation along Jawbone Canyon and in juniper woodland. Northern harriers and rough-legged hawks were present but infrequently observed.

Erickson et al (2002) summarized raptor use data from numerous active or proposed wind developments. They standardized raptor use data by the number of birds observed in a 20-minute observation period (observation periods across studies usually range between 5 and 30 minutes). In native landscapes and for all raptor species and vultures combined, they reported a mean use rate of 0.426 birds/20 minutes. Converting the use rate observed in this study (Table 1) to a 20-minute observation period results in a rate of 0.21 birds. For comparison, the use rate for raptors and vultures observed at Altamont Pass WRA was 2.424; most use rates at other active or proposed wind developments were less than 0.5. Rates of use at Tehachapi Pass WRA averaged 0.36 across the three sub-areas analyzed (range = 0.06-0.725). Thus, raptor and vulture use at Pine Tree was approximately 50% lower than the average use found at other active or proposed developments, approximately 40% lower than the average at Tehachapi WRA, and approximately 90% lower than that observed at Altamont Pass WRA.

Migratory Birds

No large movements or concentrations of non-raptorial birds (e.g., songbirds, quail) were observed in the project area. The most frequently observed songbirds were mixed flocked of white-crowned sparrows and golden-crowned sparrows, which were seen throughout the project area during fall. Additionally, large (approximately 50 individuals) flocks of California quail were frequently observed throughout the project area in grassland and shrubland. No information was gathered on the movement of birds at night. However, observations conducted during the day did not identify any large numbers of migratory species (e.g., warblers, vireos, sparrows) that appeared to be using the project area for foraging or loafing (i.e., as a daytime stopover location during migration).

Anderson et al. (2004) noted that the majority of vegetation at the Tehachapi WRA is annual and perennial grasslands or grassland with shrub or sub-shrub components. They found that ground dwelling resident bird species used these habitats for forage and nesting, whereas migratory species used it for foraging habitat while passing through the area on their migration to summer and/or winter areas. Both diurnal and nocturnal resident and migrant species were present in the Tehachapi WRA. Anderson et al. (2004) found that passerine abundance was highest during fall and lowest during summer with similar values for spring and winter. Of the 75 fatalities found on search plots the most commonly found avian group was “other birds” (40.0%, mostly unidentified birds) followed by raptors (34.7%), passerines (20.0%), and corvids (5.3%). Passerine species with the most fatalities were the western meadowlark (6), horned lark (3), European starling (3), white-crowned sparrow (2), and dark-eyed junco (2). Other passerine fatalities consisted of one each of the chipping sparrow, Brewer's blackbird, hermit thrush, rock wren, yellow-rumped warbler, loggerhead shrike and unidentified sparrow in addition to four unidentified passerine fatalities. “Other birds” comprised 46 (36.3%) of the fatalities. Other bird species with fatalities included the rock dove (11), mourning dove (6), red-shafted flicker (3), greater roadrunner (2), chukar (2), and California quail (2). Thus, Anderson et al. (2004) did not find any substantial mortality of passerines, and only a few individuals of migratory species were killed during their study.

Erickson et al. (2002) summarized the observed and likely potential impact of wind farms on passerine and other non-raptorial birds, including nocturnally migrating species. They found that nocturnal migrants are estimated to comprise approximately 50% of the fatalities at new wind projects (estimated range 34 to 59%) based on timing and species. Some nighttime surveys using radar equipment have been conducted at wind plants and results have been compared to fatalities. Radar studies at Buffalo Ridge indicated that as many as 3.5 million birds per year may migrate over the wind development area. Fourteen nocturnal migrating passerines at two turbines at Buffalo Ridge (Minn.) were killed during spring migration. At the Mountaineer Wind Energy Center, West Virginia, 33 (47.8%) of 69 passerine fatalities occurred on one night during spring migration (Kerns and Kerlinger 2004). Kerns and Kerlinger (2004) attributed this fatality event to nocturnally migrating being attracted to a light on a building reflecting off of fog. Erickson et al. (2002) were not aware of any other mortality events greater than a few birds at single or adjacent turbines found during a single search at any U.S. wind plant.

Three seasons of nocturnal radar surveys at the Stateline (Ore/Wash) and Vansycle wind plants (Ore) indicated moderate passage rates compared to other studies, with about 90% of the radar targets (flocks of birds) estimated flying above the turbine blades. Low passerine mortality was observed at the Vansycle Ridge wind plant, with a few likely nocturnal migrant fatalities observed. The last season of radar data was gathered concurrently with the recent Stateline mortality data, providing some evidence that mortality relative to passage rates is very low. The low avian mortality due to wind turbines compared with communication towers can probably be attributed to the fact that the majority of wind turbines currently range from 200-400 feet (60-133 m) in height, whereas television and radio communication towers are generally much taller. Many of the existing communication towers are guyed structures, whereas nearly all of the newer generation wind turbines are unguyed structures. While there have been numerous single fatality events recorded at communication structures that document several hundred avian fatalities in one night, there have been only two events reported, both reasonably small, at U.S. wind generation facilities (Erickson et al. 2002, Anderson et al. 2004).

During fall 2004 I did not encounter large numbers of migratory birds using Pine Tree for foraging and resting; no large flocks of migrating raptors were observed. Anderson et al. (2004) noted that little is known about nocturnal and migratory bird movements through the Tehachapi area except that turkey vultures migrate through the area by the thousands each year. They found, however, that turkey vultures had low fatality, and relatively high use, suggesting they are not very susceptible to collisions.

Rappole (1995) reviewed the behavior of migrating passerine birds including activities during stopovers. Most passerines migrate at night and rest and forage during the day. He noted that migrating flocks would sometimes spend several days in a location before continuing migration, while others would leave the evening of their arrival day. He thought that differences in stopover time were likely related to the physiological condition of individual birds, given that poor weather was not the reason for remaining at a location. He also noted that habitat selection was species specific, ranging from highly selective to very broad, and was at least partially based on a bird's energetic state.

Thus, the importance of habitat at Pine Tree to migrating birds will likely vary depending on the physiological condition of birds that pass through the area. A bird's physiological state will be, in part, based on the environmental conditions (e.g., weather, food availability) encountered prior to reaching Pine Tree. As such, the number of birds using Pine Tree during migration will vary based on both on-site and off-site conditions that will vary temporally and spatially.

In summary, it does not appear that Pine Tree serves as a major pathway or stopover area for migrating birds. The few instances in which relatively large numbers of migrating passerine birds have been killed in wind developments have been apparently due to a combination of poor weather and lights reflecting off of a low cloud ceiling. The results of the fall avian survey corroborate the conclusion that, with the implementation of mitigation measures as described in the EIR/EA, the proposed project would not create biologically significant impacts to avian resources.

Literature Cited

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PINE TREE AVIAN SAMPLING—Fall 2004

Observations
Species observed during Fall 2004 sampling at Pine Tree.

Uplands:
Sharp-shinned hawk: see results
Cooper's hawk: see results
Rough-legged hawk: see results
Red-tailed hawk: see results
Golden eagle: see results
Northern harrier: see results
Loggerhead shrike: a few scattered around site
California quail: numerous large coveys throughout
Spotted towhee: present in riparian thicket
White-crowned towhee: scattered throughout site in mixed flocks with GCSP
Golden-crowned sparrow: scattered throughout site in mixed flocks with WCSP
Scrub jay: throughout
Mountain chickadee: a few in junipers
Common raven: scattered throughout site but not in high numbers or large flocks
Western kingbird: scattered individuals throughout
Lark sparrow: a few seen on east end site
Chukar: a few small groups seen throughout
Mourning dove: small groups throughout
Dark-eyed junco: small flocks throughout
Rock wren: throughout in uplands
Oak titmouse: scattered in oaks
Brown towhee: throughout
Northern flicker: in riparian
Northern mockingbird: 1 seen near eastern gate
House finch: a few scattered flocks
Crissal thrasher: Not positive ID given brief sighting but ~75% positive
Bewick's wren: scattered throughout in riparian
Mountain bluebird: small flock in glassland
Western meadowlark: small flocks throughout
Chukar: A few seen

Riparian transect:
Brewer's blackbird: a few
House finch: flock
Brown towhee: scattered throughout
Yellow-rumped warbler: a few in cottonwood
Say's phoebe: a few present
California quail: a few
Ruby-crowned kinglet: a few at ranch

Song sparrow: a few seen
House wren: a few seen
Bishtit: flock downstream from ranch
Bewick's wren: present
Black phoebe: a few present
Northern flicker: a few seen at Ranch
Scrub jay: a few seen
White-crowned sparrow: scattered throughout with GCSP
Golden-crowned sparrow: scattered throughout with WCSP

Other:
Rabbits: very few seen
Bear tracks: fresh in road at GE gate up canyon
Gopher snake: on road basking
Mule deer: a few seen at upper end of site
White-tailed antelope ground squirrel: Only a few individuals seen
California ground squirrel: some active near Observation Point 34A
Coyote: adult seen near old ranch buildings

Table 1. Count of raptors observed at Observation Points, Pine Tree, Fall 2004.

	27-Sep	3-Oct	11-Oct	18-Oct	29-Oct	8-Nov	16-Nov	30-Nov	Mean
Sharp-shinned hawk	1				1		2		0.5
Cooper's hawk							1	1	0.25
Red-tailed hawk	1		1	1	1	1	3	2	1.25
Rough-legged hawk		1					1		0.25
Golden eagle					2			2	0.25
Northern harrier	1				1	1			0.38
American kestrel									0
Total count	3	1	1	1	5	2	7	5	
Index (no./point)	0.3	0.1	0.1	0.1	0.5	0.2	0.7	0.5	0.31

Attachment A-2
Winter 2004-2005 Avian Survey Report

PINE TREE AVIAN ASSESSMENT—WINTER 2004-2005

Prepared by:

Michael L. Morrison

9 March 2005

Winter wildlife surveys were conducted to assist with ongoing assessment of the use by birds of the proposed Pine Tree Wind Development Project. Although these surveys concentrated on birds, other animal species were also recorded. The avian protocol developed for this project is responsive to the level of effort recommended in the National Wind Coordinating Committee (NWCC) Guidance Document (Anderson et al. 1999) and the recently released United States Fish and Wildlife Service (USFWS) Interim Guidelines. The goal of this work is to survey site conditions relative to avian use (Morrison 1998).

Methods

The goal of winter surveys was to quantify the species composition and relative abundance of birds in the project area. The result will provide a better understanding of the bird community that uses the project area during winter.

An attempt was made to monitor the 10 observation stations that were established and monitored in spring 2004. These observation stations were used primarily for quantifying the occurrence and abundance of raptors, although the presence of other birds was recorded. Following the protocol used during spring, birds were observed at each point for 30 minutes. The observer then drove to the next scheduled point, but recorded any bird species observed during the transit between points. Because of unusually heavy rainfall throughout the winter sampling period, however, access to all parts of the project area were restricted because of impassable roads. Thus, visiting all 10 observations points, especially those at the higher elevation, was logistically infeasible. However, all parts of the project area were scanned from alternative observations points attained by hiking to ensure that no concentrations of raptors was missed.

Additionally, the observer walked a transect that ran through the main riparian corridor in Jawbone Canyon, beginning at the abandoned ranch buildings location and continuing for about 2 miles downstream. Access was usually possible to this riparian transect. These data thus identify the raptor and songbird communities during winter. The project area was visited about every approximately 14 days from mid-December through early March 2005. Surveys were conducted throughout all parts of the day (morning, mid-day, and late afternoon/early evening) to capture any temporal variation in bird activity.

Results and Discussion

A description of each sampling visit and resulting species list is given in Appendix 1. A summary of the species observed during winter 2004-2005 is given in Appendix 2. The following is a summary and discussion of observations made in winter 2004-2005.

Raptors

The highest abundance of raptors was observed in late January, and no trend in abundance was evident (Table 1). Rather, the variation in total raptor count—between one and five per visit—was due primarily to a changing occurrence of red-tailed hawks. Single individuals of red-tailed hawks were observed on three sampling dates, whereas four individuals were seen on two sampling dates (Table 1). These birds were usually observed flying across (directional) a portion of the study area rather than concentrating activity in one location. Additionally, some of the observations were of birds perched on rock ridges along the edge of the project area.

Table 1. Count of raptors observed at Observation Points, Pine Tree, Winter 2004-2005.

	22-Dec	2-Jan	17-Jan	30-Jan	14-Feb	8-Mar	Mean
Prairie falcon	1	1					0.33
Sharp-shinned hawk				1		1	0.33
Cooper's hawk						1	0.17
Red-tailed hawk	1	4	1	4	2	1	2.17
Golden eagle	1						0.17
American kestrel						1	0.17
Total count	3	5	1	5	2	2	3
Index (no./point)	0.3	0.5	0.1	0.5	0.2	0.2	0.3

No golden eagles were observed after later December in the project area. A prairie falcon was observed in the same location in late December and early January, but was absent thereafter. Single sharp-shinned hawks were observed in late January and early March and a single Cooper’s hawk was seen in early March. An American kestrel was observed on the project area in early March (an American kestrel was seen on occasion outside of the project area), and great horned owls were observed on several occasions in Jawbone Canyon and in upland juniper.

Erickson et al (2002; see also 2001) summarized raptor use data from numerous active or proposed wind developments. They standardized raptor use data by the number of birds observed in a 20-minute observation period (observation periods across studies usually range between 5 and 30 minutes). In native landscapes and for all raptor species and vultures combined, they reported a mean use rate of 0.426 birds/20 minutes. Converting the use rate observed in this study (Table 1) to a 20-minute observation period results in a rate of 0.20 birds per 20 minutes of observation. For comparison, the use rate for raptors and vultures observed at Altamont Pass WRA was 2.424; most use rates at other active or proposed wind developments were less than 0.5. Rates of use at Tehachapi Pass WRA averaged 0.36 across the three sub-areas analyzed (range = 0.06-0.725). Thus, raptor use at Pine Tree was approximately 50% lower than the average use found at other active or proposed developments, approximately 40% lower than the

average at Tehachapi WRA, and approximately 90% lower than that observed at Altamont Pass WRA.

Other Birds

No substantial concentrations of non-raptorial birds (e.g., songbirds, quail) were observed in the project area during winter. The most frequently encountered birds throughout the winter were large flocks (approximately 30-50 individuals) of California quail and flocks (approximately 10-20 individuals) of dark-eyed juncos, which were scattered throughout the project area. Small, mixed flocks of white-crowned sparrows and golden-crowned sparrows were seen throughout the winter but declined in occurrence and size as the winter sampling progressed. Small to moderate (approximately 20-30) sized flocks of western meadowlarks were seen early in winter, but only a few individuals were seen throughout the project area in mid-to late winter. Only a few individuals of other species were observed during winter.

Resident birds and early migrants into the project area began singing in early March, indicating that breeding was commencing. For example, great roadrunner, mountain quail, California quail, lark sparrow, green-tailed towhee, western meadowlark, northern mockingbird, Bewick's wren, and a few other species were singing on the 8 March sampling visit (although singing was not intense).

Anderson et al. (2004) noted found that passerine abundance was highest during fall and lowest during summer with similar values for spring and winter at Tehachapi Pass WRA. Of the 75 fatalities found on search plots the most commonly found avian group was "other birds" (40.0%, mostly unidentified birds) followed by raptors (34.7%), passerines (20.0%), and corvids (5.3%). Passerine species with the most fatalities were the western meadowlark (6), horned lark (3), European starling (3), white-crowned sparrow (2), and dark-eyed junco (2). Other passerine fatalities consisted of one each of the chipping sparrow, Brewer's blackbird, hermit thrush, rock wren, yellow-rumped warbler, loggerhead shrike, and unidentified sparrow in addition to four unidentified passerine fatalities. "Other birds" comprised 46 (36.3%) of the fatalities. Other bird species with fatalities included the rock dove (11), mourning dove (6), red-shafted flicker (3), greater roadrunner (2), chukar (2), and California quail (2). Thus, Anderson et al. (2004) did not find any substantial kills of passerines. It is interesting to note, however, that several of the species that Anderson et al. recovered as fatalities—meadowlark, white-crowned sparrow, and junco—were the most commonly observed bird at Pine Tree during winter. Thus, it appears that the observations made at Tehachapi Pass WRA should serve as a good predictor of the condition, and potential fatalities, at Pine Tree.

In summary, it does not appear that Pine Tree serves as a major wintering area for raptors or other bird groups. Some species, such as the prairie falcon, appeared to spend a brief period of time in the project area and then depart. Other species, such as the red-tailed hawk, appeared to be both resident and transitory in the area in low numbers in winter. It also appeared that the abundance of certain species, such as meadowlarks and sparrows, declined as winter progressed. The results of the winter avian survey corroborate the conclusion that, with the implementation of mitigation measures as described in the EIR/EA, the proposed project would not create biologically significant impacts to avian resources.

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Appendix 1

PINE TREE AVIAN SAMPLING—Winter 2004-2005

Observations

Species observed during Winter 2004-2005 sampling at Pine Tree.

Uplands:

Prairie falcon: see results
American kestrel: see results
Sharp-shinned hawk: see results
Red-tailed hawk: see results
Golden eagle: see results
Great horned owl: see results
California quail: numerous large coveys throughout
Western meadowlark: small flocks throughout
Scrub jay: throughout
Dark-eyed junco: small to moderate sized flocks throughout
Common raven: scattered throughout site but only a few present
White-crowned towhee: scattered throughout site in mixed flocks with GCSP
Golden-crowned sparrow: scattered throughout site in mixed flocks with WCSP
Rock wren: throughout in uplands
Oak titmouse: scattered in oaks
Mountain chickadee: a few in oaks and junipers
Spotted towhee: present in riparian thicket
Northern flicker: scattered throughout site in low numbers
Phainopepla: one male seen in oaks (17 Jan); pair seen in March
Crissal thrasher: seen/heard edge of riparian
Ruby-crowned kinglet: scattered individuals
Hairy woodpecker: a few along edge of riparian
Brown towhee: scattered throughout
Say's phoebe: a few seen
Bewick's wren: throughout
House finch: occasionally seen
Mountain quail: occasional call
Loggerhead shrike: rare
Bushtit: flocks seen on occasion
Common raven: only scattered individuals
Western bluebird: observed in March only (last count)
Green-tailed towhee: a few seen late winter only (March)
Lark sparrow: a few seen/singing late winter only (March)
Greater roadrunner: started calling in March throughout
Lesser goldfinch: rarely seen in winter
Northern mockingbird: scattered throughout in junipers

Riparian:
Sharp-shinned hawk: see results
Cooper's hawk: see results
Brown towhee: scattered throughout
California quail: a few; often near ranch
White-crowned sparrow: scattered throughout with GCSP but few in number
Golden-crowned sparrow: scattered throughout with WCSP but few in number
Spotted towhee: a few present
Song sparrow: a few seen
House finch: only a few individuals
Bewick's wren: present
Dark-eyed junco: always present in small numbers
Northern mockingbird: a few individuals
Scrub jay: a few seen
Hairy woodpecker: a few in cottonwood
Nuttall's woodpecker: male seen on one occasion
Ladder-backed woodpecker: seen on occasion in cottonwood
Ruby-crowned kinglet: a few throughout riparian
Oak titmouse: a few in oaks
Crissal thrasher: seen and heard
Northern flicker: scattered throughout riparian
European starling: flock of 10-25 always near ranch buildings
American robin: a few observed
Bushtit: a flock seen on occasion
Great horned owl: seen on one occasion in cottonwood near ranch
Black phoebe: rarely seen
Killdeer: rarely seen

Other:
Mountain lion: tracks along road about 100 m below ranch
Coyote: tracks seen throughout project area
California ground squirrel: seen on occasion but most activity near Observation Point 34A; became active throughout early March
Rabbits: very few seen; active in March
Chipmunk: mostly inactive; one heard (no species identification) 17 Jan.
Deer tracks: few seen but present throughout winter
White-tailed antelope ground squirrel: not active in winter
Black bear: tracks seen near GE gate in early March only

Appendix 2

PINE TREE AVIAN SAMPLING

Fall 2004 and Winter 2004-2005

27 SEPTEMBER 2004

Clear, light wind (increasing into morning), warming into high 80s F

Drove site to survey for raptors; visited at or near all established observation points. Also walked through riparian area at and below Sky River Ranch.

Observations
Loggerhead shrike: a few scattered around site
California quail: numerous large coveys throughout
Spotted towhee: present in riparian thicket
White-crowned towhee: scattered throughout site in mixed flocks with GCSP
Golden-crowned sparrow: scattered throughout site in mixed flocks with WCSP
Scrub jay: throughout
Mountain chickadee: a few in junipers
Common raven: scattered throughout site but not in high numbers or large flocks
Western kingbird: scattered individuals throughout
Lark sparrow: a few seen on east end site
Chukar: a few small groups seen throughout
Mourning dove: small groups throughout
Dark-eyed junco: a few seen
Cooper's hawk: Female carrying quail; in juniper ~400 m south of Turbine site 2-5
Red-tailed hawk: Adult (female?) soaring ~500 m south of Turbine site 13-6
Rock wren: a few throughout
Northern harrier: Adult foraging over grassland ~400 m southwest of Turbine site 34-4. In area ~10 min and then left over hills to the west.

Riparian transect:
Brewer's blackbird: a few
House finch: flock
Brown towhee: scattered throughout
Yellow-rumped warbler: a few in cottonwood
Say's phoebe: one present

Ground squirrels: very few seen throughout site; only a few antelope ground squirrels, no California's observed active. No rabbits observed (some fresh scat seen, however)

3 OCTOBER 2004

Clear, light wind (increasing into afternoon), warming into mid 70s F

Drove site to survey for raptors; visited at or near all established observation points. Also walked through riparian area at and below Sky Ranch.

Observations
Meadowlark: flock of ~35 seen ~25 m high @ 35-B1 going north
Rough-legged hawk: soaring/perched on ridge @ 3-2 and in area (grassland) to west.
Scrub jay: flocking in groups of 3-10
Common raven: small groups (2-4) throughout site; no large groups
Oak titmouse: scattered in oaks (Wilderness Ranch)
California quail: large flocks now present (up to 30 birds)
Western kingbird: a few in eastern areas
White-crowned sparrow: a few around with GCSP
Golden-crowned sparrow: a few around with WCSP
Brown towhee
Northern flicker: in riparian at Sky Ranch

Ground squirrels: none seen
Rabbits: One cottontail seen east end
Bear tracks: fresh in road at GE gate up canyon (as before)

11 OCTOBER 2004

Clear, light wind to moderate (increasing into afternoon), warming into mid 70s F

Drove site to survey for raptors; visited at or near all established observation points. Also walked through riparian area at and below Sky River Ranch.

Observations
California quail: a few coveys seen
White-crowned sparrow: a few small flocks mixed with GCSP
Golden-crowned sparrow: a few individuals in mixed flocks with WCSP
Scrub jay: a few throughout
Common raven: a few scattered throughout site, especially near northwest cliffs
Western kingbird: scattered individuals throughout
Mourning dove: one small group seen
Dark-eyed junco: a few small flocks seen
Red-tailed hawk: Adult soared over ridge; seen briefly ~300 m northwest of Turbine site 13-6
Western kingbird: one seen

Riparian transect:
Brewer's blackbird: a few scattered

House finch: a few small flocks and individuals, especially around buildings
Brown towhee: scattered throughout in low numbers
Yellow-rumped warbler: a few seen/heard in cottonwood and willow

Ground squirrels: no California ground squirrels observed active. Only one rabbit seen.

18 OCTOBER 2004

Clear, light wind with scattered clouds with some mist; cool (~60sF). Rained previous 24 hours but no flooding (ground saturated but no standing water)

Drove site to survey for raptors; visited at or near established observation points on eastern half of area (higher elevations shrouded in clouds). Also walked through riparian area at and below Sky River Ranch.

Observations

Dark-eyed junco: small flock seen
Brown towhee: a few present in scrub throughout site (seem more active than before)
Red-tailed hawk: soaring low over ridge (~50-200 m) ~200 m west of Turbine site 1-10 (for ~5 min).
Common raven: a few individuals or 2-3 seen primarily near ridges
Northern mockingbird: 1 seen near eastern gate

Riparian transect:
Yellow-rumped warbler: 1 heard below ranch
House finch: group of ~8 at ranch
Brown towhee: present in scrub
California quail: few seen this visit

Other
Gopher snake: on road basking

29 OCTOBER 2004

Partly cloudy, light wind, ~45 F and warming. Heavy rain previous 48 hours with moderate road flooding and scattered snow on highest ridges. Drove and walked sampling points.

Observations
California quail: large flocks throughout
House finch: a few scattered flocks
Scrub jay: singles and small flocks throughout
White-crowned sparrow: flocks with GCSP throughout
Golden-crowned sparrow: individuals with WCSP flocks
Northern harrier: Adult (male) low across ridge at turbine site 35-3

Crissal thrasher: Not positive ID given brief sighting but ~75% positive
Bewick's wren: scattered throughout in riparian
Rock wren: throughout along ridges
Mountain bluebird: small flock (~4) in glassland
Red-tailed hawk: Adult soaring over turbine site 2-1
Sharp-shinned hawk: Adult (female) crossing road ~50 m north of turbine site 3-8
Northern flicker: a few seen, including a flock of 3
Brown towhee: scattered individuals and pairs throughout
Western meadowlark: small flocks throughout
Golden eagle: Adult soaring high (~300-500 ft) near observation point 12A; moved off to southeast.
Loggerhead shrike: individuals scattered throughout
Chukar: A few seen

Riparian transect
Ruby-crowned kinglet: 1-2 at ranch
Song sparrow: a few seen
Brown towhee: several present
House wren: one seen
Bishtit: flock downstream from ranch
Yellow-rumped warbler: flock of ~6 downstream

Other
Mule deer: buck seen near turbine site 3-5
Mule deer: herd of 3 females seen on road near turbine site 14-4
Rabbits/hares: None seen active today
White-tailed antelope ground squirrel: Only a few individuals seen

8 NOVEMBER 2004
Partly cloudy, moderate wind, ~45 F and warming. Light rain previous 48 hours; storm expected later today. Drove and walked sampling points including riparian transects.

Observations
California quail: a few large flocks present, especially along Jawbone Canyon
House finch: a few individuals around Sky River Ranch
Scrub jay: singles and small flocks throughout
White-crowned sparrow: flocks with GCSP throughout
Golden-crowned sparrow: individuals with WCSP flocks
Northern harrier: Adult (male) low across ridge ~300 m north of turbine site 35-3
Rock wren: scattered throughout
Red-tailed hawk: Adult soaring over turbine site 1-17 and moving off to the southwest
Northern flicker: one seen at Ranch
Raven: A few individuals and pairs seen (not a lot of activity)
Brown towhee: scattered individuals and pairs throughout

Western meadowlark: small flocks throughout
Loggerhead shrike: only 1 individual seen (near east entrance

Riparian transect
Song sparrow: a few seen/heard
Brown towhee: several present
Yellow-rumped warbler: 2-3 individuals present at Ranch
Bewick's wren: present
Black phoebe: 1 present downstream

Other
Mule deer: numerous tracks seen near turbine site 1-15
Rabbits/hares: None seen active today
White-tailed antelope ground squirrel: Only 1 individual seen

16 NOVEMBER 2004
High overcast, calm to light wind; ~55 F. Drove and walked sampling points including riparian transects.

Observations
California quail: a few small flocks seen throughout
House finch: a few individuals around Sky River Ranch
Scrub jay: singles and small flocks throughout
White-crowned sparrow: a few small flocks with GCSP throughout
Golden-crowned sparrow: a few individuals with WCSP flocks
Rock wren: scattered throughout
Cooper's hawk: Apparent adult female soaring briefly over turbine location 14-1
Raven: A few individuals and pairs seen (not a lot of activity)
Red-tailed hawk: Adult soaring near turbine site 13-6 and to the south
Rough-legged hawk: Soaring low and then stooped above a **RTHA** (see next) perched in a dead pine. The **RLHA** flew from the direction of turbine location 2-4.
Red-tailed hawk: Perched on a dead pine ~300 m south of turbine location 3-8.
Sharp-shinned hawk: Adult female soaring low over sampling point 2A.
Sharp-shinned hawk: Adult male flying low over grassland ridge ~200 m south of turbine location 34-6.
Red-tailed hawk: Soaring low ~300 m southeast of turbine location 1-17.
Brown towhee: scattered individuals and pairs throughout
Loggerhead shrike: only 1 individual seen (just outside east entrance)
Dark-eyed junco: a few small flocks across site
Mountain bluebird: 1 seen
Mountain chickadee: a few heard calling

Riparian transect
Song sparrow: a few seen/heard
Northern flicker: one seen in riparian ~75 m below Ranch

Brown towhee: several present
Bewick's wren: present
Black phoebe: 1 present at Ranch

Other
Rabbits/hares: None seen active today
White-tailed antelope ground squirrel: None seen

30 NOVEMBER 2004
Partial high overcast, calm to light wind; ~40 F. Drove and walked sampling points including riparian transects.

Observations
California quail: several large (~50+) flocks seen
Scrub jay: a few birds seen
White-crowned sparrow: a few small flocks with GCSP throughout
Golden-crowned sparrow: a few individuals with WCSP flocks
Rock wren: one heard
Raven: Very few seen
Bewick's wren: a few heard
Red-tailed hawk: Adult soaring ~75-100 m high along ridge at turbine location 3-7 and 3-8
Northern flicker: a few individuals and pairs seen
Red-tailed hawk: Soaring ~100 m high over turbine location 35-7
Brown towhee: scattered individuals and pairs throughout
Dark-eyed junco: a few small flocks across site
Golden eagle: A pair soaring high (~300 m) over turbine location 35-B4.

Riparian transect
Northern flicker: one seen in riparian at Ranch
Brown towhee: several present
Bewick's wren: present
Cooper's hawk: Adult female perched in cottonwood in Jawbone Canyon ~0.5 mile below Ranch.
Scrub jay: one seen
White-crowned sparrow: scattered throughout riparian with GCSP

Other
California ground squirrel: 3-4 active along road south of Observation Point 34A
Coyote: adult seen near Ranch
Rabbits/hares: None seen active today
White-tailed antelope ground squirrel: None seen

22 December 2004 (first winter sampling period)
Partial high overcast, light to moderate wind; ~40-45 F. Drove and walked sampling points including riparian transects.

Observations
California quail: large flocks (50+) throughout
Western meadowlark: flock of 15 seen
Scrub jay: singles and pairs throughout
Dark-eyed junco: flocks of 10-20 throughout
Common raven: very few seen; only 3-4 all day
Prairie falcon: adult sitting on pole ~450 m south of observation point 34A (or 300 m sw of turbine site 34-6). Flew when GOEA flew over
Golden eagle: flew low (25 m high) heading east down canyon over perched PRFA. This is the location that is heavily grazed and with many ground squirrel burrows (squirrels active)
Red-tailed hawk: adult flew (30 m high) 40 m south of observation point 14A and perched in pine 50 m south of turbine site 14-4
White-crowned sparrow/golden-crowned sparrow: a few small mixed flocks; much less numerous than previous visits
Rock wren: a few seen in uplands
Oak titmouse: seen in oaks in small group (2-3)
Mountain chickadee: in association with titmice (1 nearby)

Riparian transect
Brown towhee: scattered
California quail: small flock
White-crowned sparrow/golden-crowned sparrow: a few only
Spotted towhee: a few heard
Song sparrow: seen
House finch: only 1-2 seen
Bewick's wren: several
Dark-eyed junco: several flocks
Northern mockingbird: 2 singing
Scrub jay: scattered
Hairy woodpecker: 1 foraging in cottonwood
Ruby-crowned kinglet: several seen/heard

Other
Mountain lion tracks: seen about 100 m below Sky River Ranch along road
Coyote tracks: seen along road at GE gate to upper area of site
Ground squirrel: California's active (see above), Antelope's not seen
Rabbits: none seen

2 January 2005
Mostly cloudy, calm early. Increasing and lowering clouds by afternoon with storm

approaching and wind increasing. Heavy rain and snow during past week with flooding. Snow on ground (~30% cover) at 4500 feet. Weather turning cold and windy with a bit of rain so left site; did cover all locations. ~35-40 F.

Observations
California quail: flocks (25+) throughout
Western meadowlark: 1 individual seen
Scrub jay: singles and pairs throughout
Dark-eyed junco: flocks of 10-20 throughout
Common raven: only 1 seen
Rock wren: 1 heard
Red-tailed hawk: on rock spire ~500 m SSW of turbine location 13-6
Red-tailed hawk: Adult on the large boulder ~150 m W of road split at E end of Airplane Flat; ~600 m S of turbine location 14-4 (RTHA above also present so different birds)
Red-tailed hawk: Adult perched in foothill pine ~400 m W of turbine location 3-4
Rufous-sided towhee: a few seen
Prairie falcon: adult sitting on gate post at road split at E end of laydown area ~400 m W of turbine location 34-6 (and ~400 m SW of observation point 34A). Flew E over hill towards location of PRFA seen on 22 December
White-crowned sparrow/golden-crowned sparrow: a few small mixed flocks; seem more abundant than previous visit
Northern flicker: scattered individuals

Riparian transect (water running in creek)
Red-tailed hawk: Immature (first year?) perched in cottonwood ~30 m below ranch
Oak titmouse: seen in oaks in small group (2-3)
Brown towhee: scattered
California quail: small flock
White-crowned sparrow/golden-crowned sparrow: a few only
Spotted towhee: 2 seen
Bewick's wren: 1 heard
Dark-eyed junco: several flocks
Crissal thrasher: seen and heard
Scrub jay: scattered
Northern flicker: 2 seen

Other
No mammals seen active

<u>17 January 2005</u>
Partly cloudy, light wind. Warming into 60s; nice day. Heavy rain last week with flooding; no snow on ground. Some roads washed out but was able to tour most of site.

Observations

[American kestrel: seen along road ~1 mile east of entry gate; not on site]
California quail: only a few flocks (25+) seen
Western meadowlark: a few seen
Scrub jay: singles and pairs throughout; groups of 5-6 in oaks
Dark-eyed junco: a few flocks of 10-20 throughout
Common raven: more seen today than previous visit, but still only 4-5 total
Phainopepla: one male seen in oaks
Bewick's wren: heard throughout
Ruby-crowned kinglet: scattered throughout
Hairy woodpecker: a few heard along riparian
Red-tailed hawk: on rock spire ~600 m W of turbine location 12-7 (and Observation point 12A)
Say's phoebe: one seen above GE gate
Brown towhee: scattered throughout
Northern flicker: scattered individuals
Oak titmouse: seen in oaks in small group (2-3)
White-crowned sparrow/golden-crowned sparrow: a few only
Crissal thrasher: seen and heard

Riparian transect (water running in creek); little activity (visited twice)
Brown towhee: a few scattered
California quail: one small flock
White-crowned sparrow/golden-crowned sparrow: a few individuals
Spotted towhee: 1 seen
Bewick's wren: 2 heard
Dark-eyed junco: a small flock
Scrub jay: scattered
Northern flicker: 1 seen

Other
Rabbit (cottontail) tracks: a few above GE gate
Coyote tracks: a few along roads
Deer tracks: on road above GE gate
Chipmunk: one heard in juniper above GE gate (not seen)

<u>30 January 2005</u>
Clear, light breeze increasing during the day; warming from ~32 to 55F. Jawbone creek running (few inches deep).

Common raven: a few around; total of ~5 seen
White-crowned sparrow/golden-crowned sparrow: only a few small flocks
Scrub jay: active throughout
Oak titmouse: seem more active than earlier; upland near riparian
Crissal thrasher: seen/heard
Dark-eyed junco: numerous flocks throughout

California quail: flocks of 30+ throughout, but especially along riparian edge
Sharp-shinned hawk (female): along road in junipers 300 m south of Jawbone site entry gate, and thus ~1600 m from nearest turbine location (1-1).
Red-tailed hawk: 1 on rock point ~600 m NE of turbine location 1-17.
Red-tailed hawk: 2 apparent adults on rock face ~1000 m NW of turbine location 34-1 (or ~1300 m NW of observation point 34A). This is the prominent rock face between Pine Tree and Tehachapi WRA. Also ~2 ravens flying along the face.
Red-tailed hawk: flying low over ridge between turbine location 13-3 and 13-4 and then to east and north out of sight. This ~400 m S from observation point 13A.

Riparian, Ranch up and down stream
Dark-eyed junco: large flocks
Oak titmouse: in cottonwood and juniper
Scrub jay: several
California quail: several flocks present in shrubs
Brown towhee: present throughout
Spotted towhee: several seen/heard
Bewick's wren: several heard
Song sparrow: a few
Northern flicker: a few heard
European starling: flock of 10-15 at Ranch
American robin: 1-2 heard
Bushtit: flock of ~10 seen

Other
Deer tracks: 2 sets above ranch
Coyote tracks: a few seen
Rabbits and squirrels: no activity; very few rabbit tracks anywhere

<u>14 February 2005</u>
Clear, calm; warming from ~40 to 65F. Jawbone creek running (few inches deep). Heavy rain last 48 hours.

Common raven: a few present; total of only ~3 seen
White-crowned sparrow/golden-crowned sparrow: only a few small flocks
Scrub jay: active throughout
Oak titmouse: not very active today; a few heard
Say's phoebe: 2 seen
Dark-eyed junco: numerous flocks throughout
California quail: flocks of 30+ throughout; much calling early
Red-tailed hawk: An adult flew west to east over turbine location 14-2 (or ~300 m N of observation point 14A) at ~300 m altitude; disappeared from view heading east.
Red-tailed hawk: Flying along bottom of canyon to the NW of turbine string 35 (parallel 35-6 to 35-3 then lost from sight); about ~300 m NW of string [average of ~500 m SE of Observation Point 35A]

Riparian, Ranch up and down stream
Dark-eyed junco: large flocks
Oak titmouse: in cottonwood and juniper
Scrub jay: several
California quail: several flocks present in shrubs; numerous at Ranch
Brown towhee: present throughout
Spotted towhee: several seen/heard
Bewick's wren: several heard
House finch: scattered pairs
Song sparrow: a few
Northern flicker: a few heard
Great Horned Owl: Adult (probably male) ~50 m below Ranch [~400 m SE of observation point 2A]
European starling: flock of ~10 at Ranch

Other
Coyote tracks: a few seen
Rabbits and squirrels: no activity; very few rabbit tracks anywhere

8 March 2005
Clear, calm, warming (~45-65 F). Area greening up; many flowers. Cottonwood beginning to leave out. Roads above GE gate not passable; hiked

Mountain quail: now calling in upland
California quail: large flocks (20-50) throughout
Loggerhead shrike: one seen near entry gate only
Bushtit: a few flocks seen
Scrub jay: throughout
Common raven: only a few seen
Western bluebird: single flock of ~8
Killdeer: one heard
Dark-eyed junco: scattered small flocks throughout
Greater roadrunner: now calling throughout
Northern mockingbird: a few singing
House finch: singing throughout
Scrub jay: scattered throughout
Brown towhee: throughout
Bewick's wren: many singing
Phainopepla: a pair seen in juniper
Western meadowlark: a few present and singing
Red-tailed hawk: Adult flying by Observation Point 14A heading to south
Great horned owl: Adult (likely male) sitting in juniper along road ~300 m south of Observation Point 14A
Common raven: only a few seen

Lesser goldfinch: a few heard
Lark sparrow: a few males singing throughout
Spotted towhee: a few singing
American kestrel: ~300 m south of Observation Point 3A

Riparian
Ladder-backed woodpecker: male in cottonwood at ranch
Nuttall's woodpecker: male in cottonwood near ranch
European starling: flock of ~25 at ranch
Bewick's wren: singing
House finch: flock of ~20 near ranch
Brown towhee: a few around
Sharp-shinned hawk: flew low over cottonwoods at ranch heading downstream
Black phoebe: one calling
Oak titmouse: a few singing
Northern flicker: a few seen/heard
Cooper's hawk: male sitting briefly in cottonwood ~500 m below ranch

Other
Chorus frogs calling
California ground squirrels now active throughout
Bear tracks below GE gate
A few deer tracks
Many coyote tracks throughout
Rabbits now more active; jackrabbits observed

Attachment B
LADWP's Response Letter to William Nelson

Department of Water and Power the City of Los Angeles

JAMES K. HAHN
Mayor

Commission
DOMINICK W. RUBALCAVA, *President*
SID C. STOLPER, *Vice president*
ANNIE E. CHO
GERARD McCALLUM II
SILVIA SAUCEDO
BARBARA E. MOSCHOS, *Secretary*

RONALD F. DEATON, *General Manager*

January 11, 2005

Mr. William L. Nelson
Consulting Practice
785 Tucker Road, #G-424
Tehachapi, CA 93561

Dear Mr. Nelson:

The Los Angeles Department of Water and Power is in receipt of your January 7, 2005 comment letter on the Draft Environmental Impact Report/Environmental Assessment (EIR/EA) for the proposed Pine Tree Wind Development Project. Your letter included a request that we extend the public comment period an additional 45 days and during that period conduct an additional Tehachapi-area public meeting.

Notices of Availability (of the EIR/EA) were mailed on November 19, 2004, notifying the public that the public review and comment period of the Draft EIR/EA extended from November 22, 2004 to January 7, 2005, for a total of 47 days, which is beyond the minimums required by the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). Although public meetings were not required under CEQA or NEPA, we also conducted two public meetings to present the EIR/EA to the public.

Our records indicate that you were mailed a Notice of Availability of the EIR/EA and notification of the public meetings on November 19, 2004, at the above address. Notice of the document's availability and the scheduled public hearings was also published in the *Tehachapi News* on November 24, 2004 and again on December 1, 2004 (as well as in several other newspapers). Copies of the EIR/EA were available at the Tehachapi branch library and the Bureau of Land Management (BLM) Ridgecrest field office. The EIR/EA was also posted on the LADWP and BLM websites.

As mentioned earlier, two public meetings were held during the public review and comment period to present the project EIR/EA. At the request of BLM, a public meeting was held on December 8, 2004, in Ridgecrest, and the second meeting was held on December 9, 2004, in Mojave. The decision to hold the second meeting in Mojave and not Tehachapi was to accommodate any interested parties traveling from the cities of Rosamond, Lancaster, Los Angeles, California City, and other areas between Mojave and Ridgecrest. Mojave appeared to be the most centrally located for all residents in the vicinity, including Tehachapi residents.

We have received several comment letters from other respondents on or before the January 7, 2005 deadline. There were no other requests for an extension of the review period or for additional public meetings.

In light of these events and because of schedule considerations, LADWP does not intend to formally extend the public review and comment period for the Pine Tree project or schedule another public meeting. However, I am responding to your request now so that if you would like to submit additional comments, we will endeavor to consider your comments and include them in the final document. At a minimum, they will be included as part of the Administrative Record for consideration by the Board of Water and Power Commissioners at the time the environmental document is presented for certification. We encourage you to submit any such comments as soon as possible.

We are in the process of evaluating all of the comments we have received and we will formally respond to them, including the comments contained in your January 7, 2005, letter.

If you have any questions or would like to discuss this matter further, please contact me at (213) 367-0285.

Sincerely,

Charles C. Holloway

Charles C. Holloway
Supervisor of Environmental Assessment

CCH:gc

SECTION 3.0 CHANGES TO THE DRAFT EIR/EA

3.1 INTRODUCTION

The text revisions and modifications included in this section have resulted from the comments on the Draft EIR/EA received from agencies, groups, and individuals during the 45-day review period. In some instances, recommendations and questions raised in the comments have necessitated revisions to the Draft EIR/EA text. Where appropriate, the response to comments (Section 2.2 of the EA/Final EIR) directs readers to a specific page or pages in the Draft EIR/EA. Changes made to the Draft EIR/EA text in response to comments are indicated in ~~strikeout~~ (deletion) and underlined (additions) text. The errata pages/exhibit(s), starting in Section 3.2, reflect these changes and modifications to the Draft EIR/EA.

It should be noted that the exhibit modifications are not shown with strikeout or highlighted text. The updated exhibits have been included in this section with a February 2005 date. The changes to the original text, which consist of completeness or accuracy edits, are being corrected at this time through errata as well. The changes to the Draft EIR/EA as they relate to issues contained within this section do not affect the overall conclusions of the environmental document relative to significance of impact.

3.2 ERRATA PAGES/EXHIBIT(S)

The last paragraph beginning on page ES-9 of the Draft EIR/EA is revised as follows:

A segment of the Pacific Crest National Scenic Trail is located on private property approximately 1 to 2 miles west of the western boundary of the project property. The Jawbone Canyon access road to the project passes through the Jawbone Canyon Open Area, designated off-highway vehicle use area managed by the BLM. Naval Air Systems Command Weapons Division (NAVAIR WD) ~~Naval Weapons Station China Lake~~ and Edwards Air Force Base (EAFB), as well as other military activities, ~~both~~ maintain low-altitude MTRs and Special Use Airspace (SUA) that overlay portions of the project property to conduct aviation training and testing missions. Structures ~~taller than 200 feet~~ that penetrate an MTR or SUA may represent obstructions to aviation navigation. Wind turbines also can cause radar interference that negatively impacts critical testing of aviation systems.

Mitigation Measure MM 2.5-3 in Table ES-1 on page ES-16 of the Draft EIR/EA is revised as follows:

MM 2.5-3: To mitigate the potential adverse effects of erosion, the LADWP shall prepare and implement an Erosion and Sedimentation Control Plan and SWPPP. The plan shall include BMPs identified in reference documents, including BMPs for construction of wind power projects on BLM lands, BMPs for Erosion and Sediment Control (FHWA FLP 94-005), Kern County Grading requirements, and measures provided in MM 2.5-1 and 2.5-2 above. In addition, the following shall be used as a guide to develop these plans.

- Restore disturbed areas to pre-construction contours to the extent feasible.
- Salvage, store, and use the highest quality soil for revegetation.

- Discourage noxious weed competition and control noxious weeds through physical or chemical removal and prevention (chemical removal on BLM lands requires specific authorization from BLM). In particular, efforts to prevent yellow starthistle from inhabiting the site shall include use of weed-free native seed mixes and prevention of noxious weeds from entering the site via vehicular sources. For instance, implement Trackclean or other method of vehicle cleaning for vehicles coming and going from the site. Earth-moving equipment shall be cleaned prior to transport to the project site. Weed-free rice straw or other certified weed-free straw shall be used for all hay employed for erosion control.
- Leave drainage gaps in topsoil and spoil piles to accommodate surface water runoff.
- Cease topsoil-stripping activities during significantly wet weather.
- For areas that require permanent erosion control structures, stepped footings or retaining walls designed to preserve the natural landforms should be used.
- Use bales and/or silt fencing as appropriate.
- Before seeding disturbed soils, work the topsoil to reduce compaction caused by construction vehicle traffic.
- Following completion of each zone of construction, weed-free mulch shall be applied to disturbed areas within 10 days in order to reduce the potential for short-term erosion.
- ~~Soils, other than access roads, shall not be left exposed~~ Erosion control measures shall be implemented during the rainy season in areas disturbed by construction activity.
- Establish provisions for construction operations during foul weather.
- Filter fences and catch basins shall be used to intercept sediment before it reaches stream channels.
- Spoil sites shall be located such that they do not drain directly towards a natural spring. At spoils sites draining toward a surface water feature, catch basins shall be constructed to intercept sediment before it reaches the feature. Spoil sites shall be graded and revegetated to reduce the potential for erosion.
- Sediment control measures shall be in place prior to the onset of the rainy season and shall be monitored and maintained in good working condition until disturbed areas have been revegetated.

Mitigation Measure MM 5.1 in Table ES-1 on page ES-19 of the Draft EIR/EA is added as follows:

MM 5.1: LADWP will mitigate the impact on perennial grassland by equivalent replacement, restoration, or compensation, subject to consultation with California Department of Fish and Game.

Mitigation Measure MM 5.4-4 in Table ES-1 on page ES-21 of the Draft EIR/EA is revised as follows:

MM 5.4-4: BMPs shall be employed to prevent further loss of habitat resulting from erosion caused by project-related impacts (i.e., grading or clearing for new roads). ~~All detected erosion shall be remedied within two days of discovery~~ Corrective action for erosion problems shall be taken within seven days after the problem is detected.

Mitigation Measure MM 5.12 in Table ES-1 on page ES-26 of the Draft EIR/EA is revised as follows:

MM 5.12: BMPs shall be employed to prevent further loss of habitat due to erosion caused by project-related impacts (i.e., grading or clearing for new roads). ~~All detected erosion shall be~~

~~remedied within two days of discovery~~ Corrective action for erosion problems shall be taken within seven days after the problem is detected.

Mitigation Measure MM 5.14-1 in Table ES-1 on page ES-26 of the Draft EIR/EA is revised as follows:

MM 5.14-1: To ensure that the predicted rates of raptor mortality due to collisions with wind turbines remain low and insignificant, avian and bat mortality associated with the proposed project shall be monitored. A qualified ornithologist will conduct bird mortality monitoring at the project site for one year following the first delivery of power. The species, number, location and distance from turbine, availability of raptor prey species, and apparent cause of bird and bat mortalities would be noted. All results will be provided to the Wildlife Response and Reporting System (WRRS) database and to California Department of Fish and Game. The monitoring will follow standardized guidelines outlined by the National Wind Coordinating Committee (Anderson et al. 1999). LADWP will maintain a record in accordance with USFWS guidance of avian injury and mortality that is observed on the project site during operations for the life of the project.

Mitigation Measure MM 5.14-2 in Table ES-1 on page ES-27 of the Draft EIR/EA is added as follows and the remaining MM 5.14 measures are renumbered:

MM 5.14-2: After one year of post-construction monitoring data has been obtained, LADWP shall review project operations to determine if any specific turbine(s) is responsible for disproportionately high levels of avian mortalities compared to other turbines on site. If so, LADWP shall implement operational modifications of the turbine(s) and conduct further study in consultation with CDFG or USFWS to evaluate the effectiveness of the modifications.

Mitigation Measure MM 6.3-1 in Table ES-1 on page ES-28 of the Draft EIR/EA is revised as follows:

MM 6.3-1: All turbines are limited to a height not to exceed 400 feet above ground level. During project planning and construction, LADWP shall consult with representatives at EAFB and NAVAIR WD ~~NWSCL~~ regarding any changes, if necessary, to proposed wind turbine locations.

Mitigation Measure MM 7.4 in Table ES-1 on page ES-30 of the Draft EIR/EA is revised as follows:

MM 7.4-1: LADWP will consult with BLM and the Kern County Roads Department to develop a transportation safety plan for construction traffic transiting the Jawbone Canyon Open Area. The plan will primarily address construction traffic but will also address operations traffic. The plan will become a condition of the County road permits and the BLM right-of-way grants. The plan will include, at a minimum, the following specific components:

- ~~Transportation of oversize or overweight loads will be minimized to the extent practicable on certain holidays and high use weekends, to be determined in consultation with BLM.~~
- ~~Signs shall be posted to warn visitors of potential construction activity and possible temporary facility/road closures. If a temporary closure for the County maintained portion of Jawbone~~

~~Canyon Road is allowed, it shall be in accordance with Kern County Roads Department policies and standards.~~

- ~~On weekends during the fall (peak use seasons), speed limits, pilot cars, warning signs, and flaggers shall be employed.~~
- ~~Prior to construction, LADWP shall notify the OHV community, off road groups, BLM Steering Committee, and nearby recreational facilities (such as Red Rock State Park and Jawbone Store) of the start date and anticipated duration of construction activities.~~
- ~~A copy of the transportation safety plan shall be posted at the Jawbone BLM station and on an information kiosk to be erected near Jawbone Canyon Road in the Open Area.~~

- Transporters shall follow Kern County regulations for the transportation of oversized and overweight loads on all county roads, including the 6 miles of Jawbone Canyon Road that would be utilized for access to the project. These regulations include provisions for time of day, pilot cars, law enforcement escorts, speed limits, flaggers, and warning lights.

- During project construction, delivery of equipment and materials shall be prohibited on Jawbone Canyon Road on the following holiday periods.

  - Veterans Day, from 12 pm on the preceding Thursday to the following Monday
  - Thanksgiving, from 12 pm on the preceding Wednesday to the following Monday
  - Christmas and New Years, from 12 pm on the Friday preceding Christmas to the Tuesday following New Years
  - Martin Luther King Day, from 12 pm on the preceding Friday to the following Tuesday
  - Presidents Day, from 12 pm on the preceding Friday to the following Tuesday
  - Easter, from 12 pm on the preceding Friday to the following Monday
  - Memorial Day, from 12 pm on the preceding Friday to the following Tuesday

  With at least four weeks notification to LADWP, BLM may also prohibit construction deliveries on additional sanctioned event weekends in the Jawbone Canyon Open Area.

- On weekends and holiday periods during the high-use recreation season in the Jawbone Canyon Open Area (late fall to late spring), construction workers shall be prohibited from travel in individual vehicles on Jawbone Canyon Road and shall be shuttled to and from the project site in multi-person vehicles beginning on the day preceding the weekend or holiday. This limitation on the use of vehicles does not include conducting limited critical activities associated with minimal security and safety monitoring and construction management.

- During the high-use recreation season in the Jawbone Canyon Open Area (late fall to late spring), the delivery of large loads on Jawbone Canyon Road shall be avoided to the extent practicable on weekends (in addition to those weekends during which project deliveries shall be prohibited). In addition, the transportation safety plan shall include time of day limitations during which no project-related traffic, except limited critical activities associated with minimal security and safety monitoring and construction management, shall be allowed on Jawbone Canyon Road. Transportation permits for oversized and overweight loads on County-maintained portions of Jawbone Canyon Road on high-use weekends shall be issued at the direction of the Kern County Roads Department.

- No construction activity related to road improvements on Jawbone Canyon Road shall be conducted during high-use recreation periods in the Jawbone Canyon Open Area. All road

improvements shall be completed in a manner and according to a schedule that provides uninterrupted access on Jawbone Canyon Road during high-use recreation periods in the Jawbone Canyon Open Area. If a temporary closure of the County-maintained portions of Jawbone Canyon Road is allowed, it shall be in accordance with Kern County Roads Department policies and standards.

- A training program regarding the rules and regulations for project-related travel shall be conducted with all project transporters and drivers. The program shall address such issues as speed limits, pilot vehicle requirements, and warnings regarding potential safety conflicts with recreation use in the Jawbone Canyon Open Area. All drivers shall be strictly monitored to ensure compliance with rules and regulations, and consequences (e.g., revocation of permission to deliver or drive for the project) shall be applied to individuals and/or the project for noncompliance. Enforcement measures shall be defined in the transportation safety plan.

- Traffic signs shall be provided to control traffic and ensure safety along Jawbone Canyon Road and at designated crossings of the road within the Jawbone Canyon Open Area. These signs shall adhere to the Federal Highway Administration Manual on Uniform Traffic Control devices and shall include regulatory signs (e.g., stop, speed limits, yield), warning signs (e.g., OHV road crossings), and construction signs (e.g., temporary lane closures, flaggers). All signs shall be maintained throughout the project construction.

- Project representatives shall continue to consult with the Friends of Jawbone, other recreation groups, the BLM, and Kern County Roads Department regarding concerns related to project construction traffic on Jawbone Canyon Road. LADWP shall notify the OHV groups, the BLM, and the County Roads Department of the date and anticipated duration of construction deliveries on Jawbone Canyon Road.

- An information kiosk shall be erected near Jawbone Station to provide current information about the project (including, if available, delivery schedules for Jawbone Canyon Road) to Jawbone Canyon Open Area users. A brochure describing the project and its construction shall be produced and made available for distribution at the Jawbone Station.

A copy of the transportation safety plan shall be posted at the information kiosk and made available at the Jawbone Station.

MM 7.4-2: LADWP shall provide funding to support an additional staff position at the Jawbone Visitors Center during the project construction phase. This staff member will serve as an interface with the public to respond to questions and provide information regarding the project construction and the related traffic issues. In addition, LADWP shall provide funding to support a BLM ranger position during periods of high recreation use in the Jawbone Canyon Open Area during the project construction phase. This ranger will help enforce traffic controls on Jawbone Canyon Road within the Open Area and assist in preventing or resolving disputes that arise from potential conflicts between recreation users and the use of the road for construction access. The funding for the two positions shall be established through a Memorandum of Agreement between LADWP and BLM.

The second paragraph on page 2-8 of the Draft EIR/EA is revised as follows:

The project area is located within the Joint Service Restricted R-2508 airspace complex, and both Edwards Air Force Base (EAFB) and Naval Air Systems Command Weapons Division (NAVAIR WD), ~~Naval Weapons Station China Lake (NWSCL)~~ as well as other military activities, maintain MTRs and Special Use Airspace (SUA) that overlay ~~overfly~~ the vicinity of the proposed project (Figure 2-3A). The military is concerned about any vertical obstructions located within the boundaries of the MTRs and radar interference caused by wind turbines because of the potential impact they may have on critical testing and training missions. The proposed project has been closely coordinated with representatives from both EAFB and NAVAIR WD ~~NWSCL~~, and significant ~~MTR related~~ constraints on turbine siting within the broader project study area have been identified. Among other considerations, the proposed turbine sites were selected considering these airspace constraints. (See Appendix A for copy of written confirmation of project suitability from the Department of Defense R-2508 Complex Sustainability Office.)

The third paragraph on page 2-20 of the Draft EIR/EA is revised as follows:

The drainage concept for the wind turbine site has been developed with the goal of retaining runoff flows at pre-development levels (See Section 3.3, Hydrology and Water Quality). Wind turbine sites are to include detention basins designed to reduce any peak discharge rates to pre-project values and to provide silt capture. Incidental roadway drainage intercepted from side-slope cuts is to be returned to natural courses at frequent intervals to reduce concentration. Grading of roadways will be performed in such a fashion as to distribute drainage back to its original courses. The use of berming and rock riprap will be necessary to minimize erosion. On both the upstream and downstream portions of the drainage crossings, riprap would be placed within the drainage up to the point where it meets the natural channel slope and grade (this concept is illustrated in a series of crossing designs included in Appendix C, Hydrology Study). Grading of roadways and turbine sites is to adhere to the following design concepts.

Mitigation Measure MM 2.5-3 on page 3.2-16 of the Draft EIR/EA is revised as follows:

MM 2.5-3: To mitigate the potential adverse effects of erosion, the LADWP shall prepare and implement an Erosion and Sedimentation Control Plan and SWPPP. The plan shall include BMPs identified in reference documents, including BMPs for construction of wind power projects on BLM lands, BMPs for Erosion and Sediment Control (FHWA FLP 94-005), Kern County Grading requirements, and measures provided in MM 2.5-1 and 2.5-2 above. In addition, the following shall be used as a guide to develop these plans.

- Restore disturbed areas to pre-construction contours to the extent feasible.
- Salvage, store, and use the highest quality soil for revegetation.
- Discourage noxious weed competition and control noxious weeds through physical or chemical removal and prevention (chemical removal on BLM lands requires specific authorization from BLM). In particular, efforts to prevent yellow starthistle from inhabiting the site shall include use of weed-free native seed mixes and prevention of noxious weeds from entering the site via vehicular sources. For instance, implement Trackclean or other method of vehicle cleaning for vehicles coming and going from the site. Earth-moving equipment shall be cleaned prior to

transport to the project site. Weed-free rice straw or other certified weed-free straw shall be used for all hay employed for erosion control.
- Leave drainage gaps in topsoil and spoil piles to accommodate surface water runoff.
- Cease topsoil-stripping activities during significantly wet weather.
- For areas that require permanent erosion control structures, stepped footings or retaining walls designed to preserve the natural landforms should be used.
- Use bales and/or silt fencing as appropriate.
- Before seeding disturbed soils, work the topsoil to reduce compaction caused by construction vehicle traffic.
- Following completion of each zone of construction, weed-free mulch shall be applied to disturbed areas within 10 days in order to reduce the potential for short-term erosion.
- ~~Soils, other than access roads, shall not be left exposed~~ Erosion control measures shall be implemented during the rainy season in areas disturbed by construction activity.
- Establish provisions for construction operations during foul weather.
- Filter fences and catch basins shall be used to intercept sediment before it reaches stream channels.
- Spoil sites shall be located such that they do not drain directly towards a natural spring. At spoils sites draining toward a surface water feature, catch basins shall be constructed to intercept sediment before it reaches the feature. Spoil sites shall be graded and revegetated to reduce the potential for erosion.
- Sediment control measures shall be in place prior to the onset of the rainy season and shall be monitored and maintained in good working condition until disturbed areas have been revegetated.

The last paragraph on page 3.3-3 of the Draft EIR/EA is revised as follows:

Hydrology calculations were performed in accordance with the Kern County Subdivision Standards and Hydrology Manual. The design parameters for local roadway crossings of drainageways would be the 10-year event (10 percent chance), known as the intermediate storm design discharge. The design parameters for arterial roadways owned and operated by the County of Kern would be the 100-year event (1 percent chance), known as the capital storm design discharge. These criteria for the county road would only apply if any changes to the existing water courses or road surface profile would be required to facilitate the project. Few improvements are proposed in the paved (County-controlled) areas of Jawbone Canyon Road. In the event culverts are needed in Jawbone Canyon Road, they will be designed to pass the 1 percent chance event with overtopping not to exceed that specified by the County Standards. Culverts within the County-maintained portion of Jawbone Canyon Road shall be installed under an encroachment permit issued by the Kern County Roads Department.

The last paragraph on page 3.5-32 of the Draft EIR/EA is revised as follows:

The habitat impacts would occur primarily as a result of road construction activities. The area of impact is relatively small, and comparable areas of perennial grassland occur elsewhere in the approximately 8,000-acre project property that would not be affected by project activities. This impact is considered ~~adverse but~~ less than significant~~, and no mitigation and/or avoidance measures are needed~~ since LADWP will provide replacement, restoration, or compensation for the acreage lost.

Mitigation Measure MM 5.1 on page 3.5-40 of the Draft EIR/EA is added as follows:

MM 5.1: LADWP will mitigate the impact on perennial grassland by equivalent replacement, restoration, or compensation, subject to consultation with California Department of Fish and Game.

Mitigation Measure MM 5.4-4 on page 3.5-41 of the Draft EIR/EA is revised as follows:

MM 5.4-4: BMPs shall be employed to prevent further loss of habitat resulting from erosion caused by project-related impacts (i.e., grading or clearing for new roads). ~~All detected erosion shall be remedied within two days of discovery~~ Corrective action for erosion problems shall be taken within seven days after the problem is detected.

Mitigation Measure MM 5.12 on page 3.5-43 of the Draft EIR/EA is revised as follows:

MM 5.12: BMPs shall be employed to prevent further loss of habitat due to erosion caused by project-related impacts (i.e., grading or clearing for new roads). ~~All detected erosion shall be remedied within two days of discovery~~ Corrective action for erosion problems shall be taken within seven days after the problem is detected.

Mitigation Measure MM 5.14-1 on page 3.5-43 of the Draft EIR/EA is revised as follows:

MM 5.14-1: To ensure that the predicted rates of raptor mortality due to collisions with wind turbines remain low and insignificant, avian and bat mortality associated with the proposed project shall be monitored. A qualified ornithologist will conduct bird mortality monitoring at the project site for one year following the first delivery of power. The species, number, location and distance from turbine, availability of raptor prey species, and apparent cause of bird and bat mortalities would be noted. All results will be provided to the Wildlife Response and Reporting System (WRRS) database and to California Department of Fish and Game. The monitoring will follow standardized guidelines outlined by the National Wind Coordinating Committee (Anderson et al. 1999). LADWP will maintain a record in accordance with USFWS guidance of avian injury and mortality that is observed on the project site during operations for the life of the project.

Mitigation Measure MM 5.14-2 on page 3.5-43 of the Draft EIR/EA is added as follows and the remaining MM 5.14 measures are renumbered:

MM 5.14-2: After one year of post-construction monitoring data has been obtained, LADWP shall review project operations to determine if any specific turbine(s) is responsible for disproportionately high levels of avian mortalities compared to other turbines on site. If so, LADWP shall implement operational modifications of the turbine(s) and conduct further study in consultation with CDFG or USFWS to evaluate the effectiveness of the modifications.

The first full paragraph on page 3.6-3 of the Draft EIR/EA is revised as follows:

EAFB is located approximately 20 miles south of the project site and Naval Weapons Station China Lake (NWSCL) is located approximately 35 miles northeast of the project site. NAVAIR WD ~~NWSCL~~ and EAFB, as well as other military activities, ~~both~~ maintain low-altitude MTRs and SUA that overlay portions of the project property to conduct aviation training and testing missions. The property is within the Joint Service Restricted R-2508 airspace complex. MTRs and SUA within the R-2508 Complex have an altitude floor of 200 feet above ground level (AGL). Structures taller than 200 feet that penetrate the MTRs may represent obstructions to aviation exercises. Wind Turbines also can cause radar interference that negatively impacts critical testing of aviation systems.

The first full paragraph on page 3.6-5 of the Draft EIR/EA is revised as follows:

LADWP, as CEQA lead agency, and BLM, as NEPA lead agency, have worked closely to identify and evaluate issues affecting the federal review and permitting of the project, including right-of-way grants and CDCA Plan conformance. In addition, the Department of Defense R-2508 Complex Sustainability Office was consulted regarding military flight testing and training requirements and potential air space conflicts associated with the proposed project.

The paragraphs below "Impact 6.3" on page 3.6-6 of the Draft EIR/EA are revised as follows:

The project site, including the transmission line corridor, is located in an area overlain by military use airspace, and the FAA has designated the airspace over this region as a military operations area. The area is within the Joint Service Restricted R-2508 airspace complex. The designated flight paths over the project site involve numerous MTRs and SUA starting at 200 feet AGL and increasing in height up to 10,000 feet above sea level. These MTRs and SUA are primarily associated with testing and training conducted by ~~at~~ EAFB, NAVAIR WD, and other military activities ~~NWSCL~~. The total height of each turbine at the highest point of the rotor blade's rotation is approximately 340 feet. At this height, the wind turbines would extend into the lower elevations of flight corridors above the site, creating a potential navigation hazard related to MTRs. Wind turbines also can cause radar interference that negatively impacts critical testing of aviation systems.

LADWP has consulted with both EAFB and NAVAIR WD ~~NWSCL~~ and has developed a configuration of wind turbines that resolves the potential for interference with military testing and training ~~the MTRs~~. The military reviewed the site plan and found that the plan as currently proposed would avoid potentially significant impacts on the MTRs. As long as the blade heights of the turbines remain below 400 feet AGL, the project would not compromise the training and testing mission of the affected installations. (See Appendix A for copy of written confirmation of project suitability from the Department of Defense R-2508 Complex Sustainability Office.) However, this limitation places restrictions on moving the location of proposed turbines on site or adding new turbines on the property. The military would need to review and approve such actions to change the location of turbines (see MM 6.3-1), and evidence of any reviews and approvals by the military for project facilities would need to be submitted to Kern County (see MM 6.3-2). In addition, the military requests that the transmission line be limited to 100-foot-tall towers if the towers are located within 1 mile from the centerline of the military training corridor entry point. With these limitations observed, no conflicts with military SUA ~~special use airspace~~ would occur.

Mitigation Measure MM 7.4 on page 3.7-8 of the Draft EIR/EA is revised as follows:

MM 7.4-1: LADWP will consult with BLM and the Kern County Roads Department to develop a transportation safety plan for construction traffic transiting the Jawbone Canyon Open Area. The plan will primarily address construction traffic but will also address operations traffic. The plan will become a condition of the County road permits and the BLM right-of-way grants. The plan will include, at a minimum, the following specific components:

- ~~Transportation of oversize or overweight loads will be minimized to the extent practicable on certain holidays and high use weekends, to be determined in consultation with BLM.~~
- ~~Signs shall be posted to warn visitors of potential construction activity and possible temporary facility/road closures. If a temporary closure for the County maintained portion of Jawbone Canyon Road is allowed, it shall be in accordance with Kern County Roads Department policies and standards.~~
- ~~On weekends during the fall (peak use seasons), speed limits, pilot cars, warning signs, and flaggers shall be employed.~~
- ~~Prior to construction, LADWP shall notify the OHV community, off road groups, BLM Steering Committee, and nearby recreational facilities (such as Red Rock State Park and Jawbone Store) of the start date and anticipated duration of construction activities.~~
- ~~A copy of the transportation safety plan shall be posted at the Jawbone BLM station and on an information kiosk to be erected near Jawbone Canyon Road in the Open Area.~~

- Transporters shall follow Kern County regulations for the transportation of oversized and overweight loads on all county roads, including the 6 miles of Jawbone Canyon Road that would be utilized for access to the project. These regulations include provisions for time of day, pilot cars, law enforcement escorts, speed limits, flaggers, and warning lights.

- During project construction, delivery of equipment and materials shall be prohibited on Jawbone Canyon Road on the following holiday periods.

  - Veterans Day, from 12 pm on the preceding Thursday to the following Monday
  - Thanksgiving, from 12 pm on the preceding Wednesday to the following Monday
  - Christmas and New Years, from 12 pm on the Friday preceding Christmas to the Tuesday following New Years
  - Martin Luther King Day, from 12 pm on the preceding Friday to the following Tuesday
  - Presidents Day, from 12 pm on the preceding Friday to the following Tuesday
  - Easter, from 12 pm on the preceding Friday to the following Monday
  - Memorial Day, from 12 pm on the preceding Friday to the following Tuesday

  With at least four weeks notification to LADWP, BLM may also prohibit construction deliveries on additional sanctioned event weekends in the Jawbone Canyon Open Area.

- On weekends and holiday periods during the high-use recreation season in the Jawbone Canyon Open Area (late fall to late spring), construction workers shall be prohibited from travel in individual vehicles on Jawbone Canyon Road and shall be shuttled to and from the project site in multi-person vehicles beginning on the day preceding the weekend or holiday. This limitation on the use of vehicles does not include conducting limited critical activities associated with minimal security and safety monitoring and construction management.

- During the high-use recreation season in the Jawbone Canyon Open Area (late fall to late spring), the delivery of large loads on Jawbone Canyon Road shall be avoided to the extent practicable on weekends (in addition to those weekends during which project deliveries shall be prohibited). In addition, the transportation safety plan shall include time of day limitations during which no project-related traffic, except limited critical activities associated with minimal security and safety monitoring and construction management, shall be allowed on Jawbone Canyon Road. Transportation permits for oversized and overweight loads on County-maintained portions of Jawbone Canyon Road on high-use weekends shall be issued at the direction of the Kern County Roads Department.

- No construction activity related to road improvements on Jawbone Canyon Road shall be conducted during high-use recreation periods in the Jawbone Canyon Open Area. All road improvements shall be completed in a manner and according to a schedule that provides uninterrupted access on Jawbone Canyon Road during high-use recreation periods in the Jawbone Canyon Open Area. If a temporary closure of the County-maintained portions of Jawbone Canyon Road is allowed, it shall be in accordance with Kern County Roads Department policies and standards.

- A training program regarding the rules and regulations for project-related travel shall be conducted with all project transporters and drivers. The program shall address such issues as speed limits, pilot vehicle requirements, and warnings regarding potential safety conflicts with recreation use in the Jawbone Canyon Open Area. All drivers shall be strictly monitored to ensure compliance with rules and regulations, and consequences (e.g., revocation of permission to deliver or drive for the project) shall be applied to individuals and/or the project for noncompliance. Enforcement measures shall be defined in the transportation safety plan.

- Traffic signs shall be provided to control traffic and ensure safety along Jawbone Canyon Road and at designated crossings of the road within the Jawbone Canyon Open Area. These signs shall adhere to the Federal Highway Administration Manual on Uniform Traffic Control devices and shall include regulatory signs (e.g., stop, speed limits, yield), warning signs (e.g., OHV road crossings), and construction signs (e.g., temporary lane closures, flaggers). All signs shall be maintained throughout the project construction.

- Project representatives shall continue to consult with the Friends of Jawbone, other recreation groups, the BLM, and Kern County Roads Department regarding concerns related to project construction traffic on Jawbone Canyon Road. LADWP shall notify the OHV groups, the BLM, and the County Roads Department of the date and anticipated duration of construction deliveries on Jawbone Canyon Road.

- An information kiosk shall be erected near Jawbone Station to provide current information about the project (including, if available, delivery schedules for Jawbone Canyon Road) to Jawbone Canyon Open Area users. A brochure describing the project and its construction shall be produced and made available for distribution at the Jawbone Station.

- A copy of the transportation safety plan shall be posted at the information kiosk and made available at the Jawbone Station.

MM 7.4-2: LADWP shall provide funding to support an additional staff position at the Jawbone Visitors Center during the project construction phase. This staff member will serve as an interface

with the public to respond to questions and provide information regarding the project construction and the related traffic issues. In addition, LADWP shall provide funding to support a BLM ranger position during periods of high recreation use in the Jawbone Canyon Open Area during the project construction phase. This ranger will help enforce traffic controls on Jawbone Canyon Road within the Open Area and assist in preventing or resolving disputes that arise from potential conflicts between recreation users and the use of the road for construction access. The funding for the two positions shall be established through a Memorandum of Agreement between LADWP and BLM.

The fifth paragraph on page 3.11-3 of the Draft EIR/EA is revised as follows:

While the operation of the proposed project, with the application of appropriate mitigation measures as specified in this EIR/EA, would not result in long-term environmental impacts that are individually significant, the incremental effect of these impacts must be evaluated to determine if they contribute to long-term impacts that may be cumulatively significant when considered in the context of the entire Tehachapi WRA, including both existing and planned wind energy projects. Such cumulative impacts would result from the collective effects from the operation of numerous individual wind projects located throughout the WRA. Impacts of particular concern to which the proposed project could make an incremental contribution to a cumulatively significant impact are those that may occur to visual resources, ~~and~~ avian wildlife, and military training and testing activities related to SUA.

The following paragraphs are inserted after the second full paragraph on page 3-11.4:

Cumulatively significant impacts to military aviation training and testing activities related to SUA could result from the combined effects of existing wind energy facilities and the continued development of future wind energy facilities within the boundaries of the Joint Service Restricted R-2508 airspace complex. Incompatible development and uses on property that lies outside the boundaries of military installations but contributes in some fashion to the fulfillment of the installation's training and/or testing mission has become a significant issue in locations that were previously unconstrained by such encroachment. Use of the R-2508 airspace complex for military training and testing has been modified and/or curtailed in response to such encroachment, but this has limited the options for aviation operations within the airspace. Based on current development patterns, including the proposed project, further encroachment by wind energy projects into the R-2508 airspace may severely affect the ability of the installations that share the airspace to conduct their missions.

However, recently enacted provisions of the Kern County Zoning Ordinance (Section 19.08.160, Height of Structures) provide that "the maximum permitted height of any portion of a structure, or any appurtenances thereof, in any zoning district including the WE combining district under a military low level flight route or corridor or any part of the R-2508 complex . . . shall be two hundred (200) feet unless the military authority responsible for operations in that flight area provides the county with written concurrence that the height of the proposed structure would create no significant military mission impacts." The ordinance furthermore states that, "In any zoning district including the WE combining district under a military low-level flight route or corridor or any part of the R-2508 complex . . ., building permit applicants shall give notice, using an approved form, to military authorities designated by the building official prior to permit issuance for proposed structures and appurtenances thereof exceeding one hundred (100) feet but not exceeding two hundred (200) feet."

Revisions to this section of the zoning ordinance have recently been enacted by the County. These revisions establish more definitive review requirement procedures by the appropriate military agency of the height of proposed structures, including wind turbines, throughout the County based on designated sectors that relate to patterns of military aviation activity (the so-called red-yellow-green [RYG] concept, after the color designation of these sectors). Based on input from the Department of Defense R-2508 Complex Sustainability Office, the cumulative impacts to military aviation training and testing activities from the proposed project, when considered in the context of the entire Tehachapi WRA and in conjunction with existing and future projects, would be considered less than significant with the enactment of the RYG guidelines.

The second full paragraph on page 3.13-5 of the Draft EIR/EA is revised as follows:

As discussed in the project description, the proposed project is located within the Joint Service Restricted R-2508 airspace complex, and both EAFB and ~~NWSCL~~NAVIAR WD, as well as other military activities, maintain numerous MTRs and SUA that overlay the vicinity. During the planning process related to resource assessment and turbine siting, the proposed project was closely coordinated with~~ EAFB and NWSCL~~ the Department of Defense R-2508 Complex Sustainability Office. Large portions of the project study area were eliminated from further consideration for turbine siting because of potentially significant impacts to critical military training and testing missions. Based on determinations by~~ EAFB and NWSCL~~ the R-2508 Complex Sustainability Office, the proposed project turbines could not be sited within the broader study area beyond the boundaries of the currently proposed project property. Under provisions of the Kern County zoning ordinance related to the height of structures, the WE zoning designation required for the wind turbine development will not be granted beneath~~ Special Use airspace~~ SUA unless project approval has been given by the military indicating that the development is compatible with aviation training and testing missions. Therefore, the resiting of the proposed wind turbines to other locations within the broader study area is not feasible.

The first full paragraph on page 3.13-9 of the Draft EIR/EA is revised as follows:

However, because this alternative site has similar terrain, vegetation, and resources as the proposed project site, potential environmental impacts related to project construction and operations would generally be expected to be comparable to those generated by the proposed project. Since the transmission line would be relocated to Jawbone Canyon, all impacts in Pine Tree Canyon would be eliminated; however, additional impacts related to the line would be expected in Jawbone Canyon. Depending on actual turbine siting, Alternative 5 may create additional impacts that would not be created by the proposed project. Some project components may be located relatively close to a publicly accessible road (Jawbone Canyon Road, to the north), which may increase the visual impacts caused by project components. Turbines in the ~~Jawbone/Butterbredt~~ alternative site may also be located relatively close to the Bendire's Thrasher Conservation Area identified in the CDAC Plan WMP amendment (located north of Jawbone Canyon Road), which may increase impacts to avian species.

The following additional references were cited and/or consulted in preparation of Section 2.0 of the EA/Final EIR and are added to the reference section of the Draft EIR/EA (Section 5.0).

Erickson, W.P., G.D. Johnson, M.D. Strickland, and K. Kronner. 2000. Avian and bat mortality associated with the Vansycle Wind Project, Umatilla County, Oregon: 1999 study year. Technical Report prepared by WEST, Inc. for Umatilla County Department of Resource Services and Development, Pendleton, Oregon. 21pp.

Erickson, W.P., J. Jeffrey, K. Kronner, and K. Bay. 2004 Stateline Wind Project Wildlife Monitoring Final Report, July 2001 – December 2003. Technical report submitted to FPL Energy, the Oregon Energy Facility Siting Council, and the Stateline Technical Advisory Committee.

Erickson, W.P., B. Gritski, and K. Kronner, 2003b. Nine Canyon Wind Power Project Avian and Bat Monitoring Report, September 2002 – August 2003. Technical report submitted to Energy Northwest and the Nine Canyon Technical Advisory Committee.

Gruver, J.C. 2002. Assessment of bat community structure and roosting habitat preferences for the hoary bat (*Lasiurus cinereus*) near Foote Creek Rim, Wyoming. M.S. Thesis, University of Wyoming, Laramie. 149pp.

Johnson, G.D., M. Perlik, W.P. Erickson, M.D. Strickland, D.A. Shepherd, and P. Sutherland, Jr. 2003a. Bat interactions with wind turbines at the Buffalo Ridge, Minnesota Wind Resource Area. Electric Power Research Institute, Concord, Calif.

Johnson, G.D., W.P. Erickson, and J. White. 2003b. Avian and bat mortality at the Klondike, Oregon Phase I Wind Plant. Technical report prepared for Northwestern Wind Power by WEST, Inc.

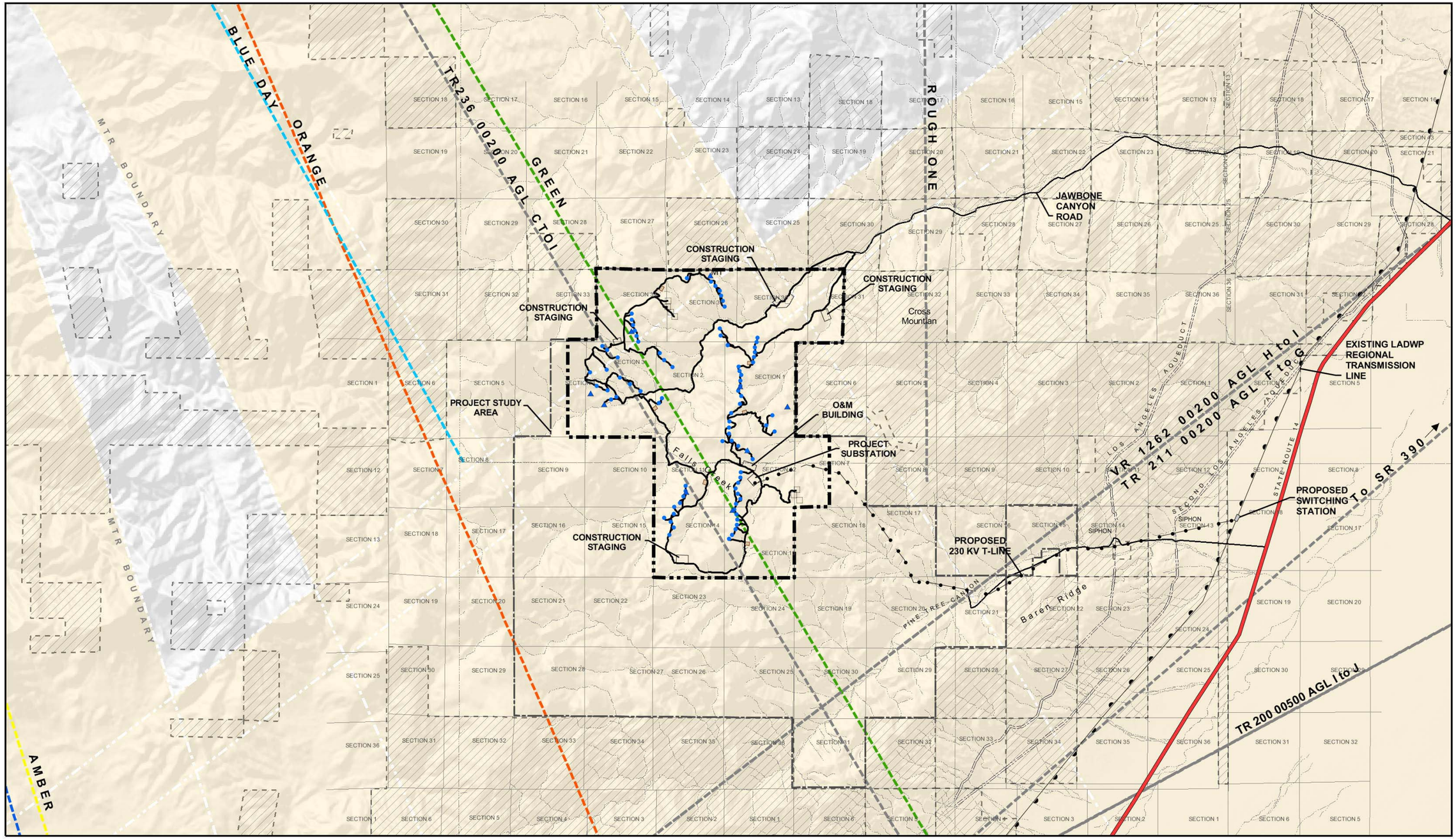
Mabee, T.J. and B.A. Cooper. 2001. Nocturnal bird migration at the Nine Canyon Wind Energy Project, Spring 2001. Technical report prepared for WEST, Inc. and Energy Northwest by ABR Inc, Forest Grove, OR. 11 pp.

Ralph, C.J., J.R. Sauer, and S. Droege (editors). 1995. Monitoring bird populations by point counts. Pacific Southwest Research Station, General Technical Report PSW-GTR-149.

Ralph, C.J., and J.M. Scott. 1981. Estimating the numbers of terrestrial birds. Studies in Avian Biology No. 6.

Sutherland, W.J. 1996. Ecological census techniques: a handbook. Cambridge University Press, Cambridge, U.K.

Young, D.P. Jr., W.P. Erickson, R.E. Good, M.D. Strickland, and G.D. Johnson. 2003. Avian and bat mortality associated with the initial phase of the Foote Creek Rim Windpower Project, Carbon County, Wyoming: November 1998 - June 2002. Technical Report prepared by WEST, Inc. for Pacificorp, Inc., SeaWest Windpower, Inc. and Bureau of Land Management. 35 pp.



Legend

- Project Propoerty
- BLM Parcel
- Temp. Spoil Area 2 AC (12 AC)
- Proposed 230 KV T-line
- SR 14
- Access Road
- Stream
- Aqueduct
- Proposed Turbine
- Alternate Turbine
- Meteorological Tower
- MTR Boundary
  (Note: The entire project property is within a special use airspace of 1 to 1500 ft AGL)

1 0 1 Miles

EDAW

Figure 2-3A
Military Aviation Corridors and Use Areas

APPENDIX A

MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)

APPENDIX A
MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)

Pine Tree Wind Development Project
Environmental Assessment /
Final Environmental Impact Report
(SCH#2004041076)
(BLM#CA-650-2005-13)

Introduction

This Mitigation Monitoring and Reporting Program (MMRP) has been prepared pursuant to State of California Public Resources Code Section 21081.6, which requires adoption of a MMRP for projects in which the Lead Agency has required changes or adopted mitigation to avoid significant environmental effects. The Los Angeles Department of Water and Power (LADWP) is the lead agency for the proposed Pine Tree Wind Development Project and, therefore, responsible for administrating and implementing the MMRP. The decision-makers must define specific reporting and/or monitoring requirements to be enforced during project implementation prior to final approval of the proposed project. The primary purpose of the MMRP is to ensure that the mitigation measures identified in the Pine Tree Wind Development Environmental Assessment/Final Environmental Impact Report (EA/Final EIR) are implemented to reduce or avoid identified environmental effects.

The purpose of discussing the MMRP in the EA/Final EIR is to appropriately assign the mitigation responsibilities for implementing the Pine Tree Wind Development Project. The mitigation measures listed in the MMRP are required by law or regulation and will be adopted by the LADWP Board of Water and Power Commissioners as a condition of the primary project approval. Certain elements of the project will be adopted or approved by others, including the federal Bureau of Land Management (BLM) (right-of-way grants), Kern County (zone change, grading and building permits), California Department of Fish and Game (CDFG) (Fish and Game Code Permits under Section 1602 and 2081), and U.S. Fish and Wildlife Service (USFWS) (Biological Opinion under Section 7 of the Endangered Species Act).

Mitigation is defined by both the California Environmental Quality Act (CEQA) – Section 15370 and the National Environmental Policy Act (NEPA) as a measure that:

- Avoids the impact altogether by not taking a certain action or parts of an action
- Minimizes impacts by limiting the degree or magnitude of the action and its implementation
- Rectifies the impact by repairing, rehabilitating, or restoring the impacted environment
- Reduces or eliminates the impact over time by preservation and maintenance activities during the life of the project
- Compensates for the impacts by replacing or providing substitute resources or environments

Mitigation measures provided in this MMRP were initially identified in Section 3, Affected Environment, Environmental Impacts, and Mitigation, of the Draft EIR/EA, as feasible and effective in mitigating project-related environmental impacts. As a result of comments received

during public review of the Draft EIR/EA, several of the measures have been revised and several measures have been added.

Basis for the Mitigation Monitoring and Reporting Program

The legal basis for the development and implementation of the MMRP lies within both CEQA (including the California Public Resources Code) and NEPA. Sections 21002 and 21002.1 of the California Public Resources Code state:

- Public agencies are not to approve projects as proposed if there are feasible alternatives or feasible mitigation measures available that would substantially lessen the significant environmental effects of such projects; and

- Each public agency shall mitigate or avoid the significant effects on the environment of projects that it carries out or approves whenever it is feasible to do so.

Section 21081.6 of the California Public Resources Code further requires that the public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance with mitigation measures during project implementation. The monitoring program must be adopted when a public agency makes its findings under CEQA so that the program can be made a condition of project approval in order to mitigate significant effects on the environment.

NEPA 40 CFR Sections 1502.14f requires:

- Agencies shall include appropriate mitigation measures not already included in the proposed action or alternatives.

Mitigation Monitoring and Reporting Program Procedures

The MMRP for the proposed project will be in place through all phases of the project, including design, prior to construction, construction, and operations. LADWP shall have primary responsibility for administrating the MMRP activities of staff, consultants, or contractors. However, County of Kern, BLM, and California Department of Fish and Game also monitor various elements of the project within their regulatory purview. LADWP has the responsibility of ensuring that monitoring is documented through periodic reports and that deficiencies are promptly corrected. LADWP's development partner, Wind Turbine Prometheus, LLC, has specific responsibilities for project construction that are substantiated through contract agreement. However, this MMRP gives LADWP the primary responsibility for documenting the monitoring of mitigation measures. LADWP's designated environmental monitor will track and document compliance with mitigation measures, note any problems that may result, and take appropriate action to remedy problems. Specific responsibilities of LADWP include:

- Coordination of all mitigation monitoring activities.
- Management of the preparation, approval, and filing of monitoring or permit compliance reports.
- Maintenance of records concerning the status of all approved mitigation measures.
- Quality control assurance of field monitoring personnel.

- Coordination with other agencies regarding compliance with mitigation or permit requirements.
- Reviewing and recommending acceptance and certification of implementation documentation.
- Acting as a contact for interested parties or surrounding property owners who wish to register complaints, observations of unsafe conditions, or environmental violations; verifying any such circumstances and developing any necessary corrective actions.

Resolution of Noncompliance Complaints

Any person or agency may file a complaint about noncompliance with the mitigation measures that were adopted as part of the approval process for the Pine Tree Wind Development Project. The complaint shall be directed to LADWP (111 N. Hope Street, Room 1044, Los Angeles, CA 90012), the BLM Ridgecrest Field Office (300 South Richmond Road, Ridgecrest, CA 93555), and/or the Kern County Planning Department (2700 "M" Street, Suite 100, Bakersfield, CA 93301-2370) in written form providing detailed information on the purported violation. Additionally, complaints can be made to BLM at Jawbone Station. LADWP, BLM, and Kern County will jointly or separately investigate any complaints filed to determine the validity of the complaint. If noncompliance with a mitigation measure is verified, LADWP shall take the necessary action(s) to remedy the violation. The complaint shall receive written confirmation indicating the results of the investigation or the final corrective action that was implemented in response to the specific noncompliance issue.

Mitigation Monitoring and Reporting Plan Matrix

The MMRP is organized in a matrix format. The first column identifies the mitigation measure number. The second column identifies the mitigation measures. The third column, entitled "Time Frame for Implementation," refers to when monitoring will occur. The timing for implementing mitigation measures and the definition of the approval process has been provided to assist staff from LADWP, BLM, and the County of Kern to plan for monitoring activities. The fourth column, entitled "Responsible Monitoring Agency," refers to the agency responsible for ensuring that the mitigation measure is implemented. The fifth column, entitled "Verification of Compliance," has subcolumns for Initials, Date, and Remarks. This last column will be used by the lead agency to document the person who verified the implementation of the mitigation measure, the date on which this verification occurred, and any other notable remarks.

MITIGATION MONITORING AND REPORTING PROGRAM

SCH # 2004041076 / BLM#CA-650-2005-13

PINE TREE WIND DEVELOPMENT PROJECT
ENVIRONMENTAL IMPACT REPORT

No.	Mitigation Measure	Time Frame for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
Geology and Soils						
2.1	To mitigate the exposure of people and structures to potential strong ground motion: • All habitable structures shall include engineered design and earthquake-resistant construction to increase safety of persons occupying the buildings. • A qualified professional engineer will design the wind turbine structures, including foundations, constructed on the site. • The minimum seismic design will comply with the Kern County Building Code, Chapter 17, and applicable California Building Codes.	Prior to Approval of Final Design Prior to Issuance of Building Permits	LADWP Kern County			
2.2	Any damage to the unpaved roads caused by exposure to liquefaction of underlying alluvium shall be repaired after the event. For the transmission line, mitigation shall consider densifying the soil in place with vibroreplacement (stone columns), compaction grouting, use of deeper than normal foundations, and/or other recommendations of the engineering geologist. Any damage caused to the power lines by liquefaction of underlying alluvium shall be repaired after the event.	During Construction During Operation	LADWP LADWP			

No.	Mitigation Measure	Time Frame for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
2.3	To mitigate the impacts associated with slope stability, landslides, and rock falls, geotechnical evaluations shall be performed to evaluate slope stability and provide recommendations for project construction. Specific recommendations for remedial actions shall be made and could include any of the following: • A qualified engineering geologist shall provide design recommendations to reduce potential for slope failure and to ensure proper placement and design of facilities, foundations, and remediation of unstable ground. • Grading will be conducted pursuant to Kern County Grading Codes, Chapter 17.28, and BMPs. • No project structures or grading shall occur in areas where potential for severe hazard exists that cannot be mitigated with engineering. • Measures to stabilize slopes shall consider retaining walls, soil nails, geofabric stabilized earth, wire retention devices, berms to deflect debris, and buttress fills. The construction manager shall implement the plans, and an engineering geologist shall certify that slopes have been properly stabilized. • At project abandonment, the project owner or successors will ensure ongoing stability. All fill slopes shall be engineered to provide long-term stability (drainage, reseeding, etc.). • To mitigate the potential soil corrosiveness impacts, appropriate	Prior to Approval of Final Design Prior to Issuance of Grading Permit	LADWP Kern County Engineering and Survey Services Department			

No.	Mitigation Measure	Time Frame for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
	concrete mix design shall be used to resist against sulfate attack, and appropriate cathodic protection or encapsulation of steel shall be employed. • Wind turbine sites where slopes exceed 4:1 will require specific consultation and approval by the Kern County Engineering and Survey Services Department, with site-specific mitigation measures implemented.					
2.4	The impacts associated with blasting are mitigated through compliance with local and state laws and by preparing and complying with a blasting plan approved by Kern County Planning Department, in consultation with Kern County Engineering and Survey Services Department, Kern County Fire Department, and Kern County Air Pollution Control District (KCAPCD). The blasting plan shall include the following essential elements: • The contractor performing blasting at the site shall comply with applicable regulations and standards established by the regulatory agencies, codes, and professional societies including the rules and regulations for storage, transportation, delivery, and use of explosives. • Blasting operations shall be conducted so as to prevent impact on special status plant and wildlife species and migratory birds. • Whenever blasting operations are in progress, explosives shall be stored,	Plan to be prepared prior to approval of Final Design Plan approved prior to Issuance of Grading Permit	LADWP Kern County Engineering and Survey Services Department			

No.	Mitigation Measure	Time Frame for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
	handled, and used as provided by law, including safety and health regulations for construction. • The contractor shall ensure that flyrock, air blast, and ground vibration are controlled so as not to affect the known archaeological and historical sites prior to data recovery.					
2.5-1	Measures shall be incorporated into the design of the project to minimize erosion and sedimentation. Turbine generator pads and roads should be graded to divert flow away from natural slopes and toward permanent culverts and swales leading to natural drainage courses. Depending on the slope, energy dissipaters and/or detention basins may be needed at the end of the culverts or swales. Road design shall consider opportunities to provide sheet flow drainage from surfaces where erosion can be avoided. Where roads cross streams, the crossing should be made at right angles to the stream to the extent possible, and engineered measures such as flow dissipaters, adequately sized culverts, and sediment traps shall be used to minimize erosion.	Prior to Approval of Final Design Prior to Issuance of Grading Permits	LADWP Kern County Engineering and Survey Services Department			
2.5-2	The following measures shall be implemented throughout construction to minimize the impacts of erosion to an acceptable level: • Areas where ground disturbance will need to occur shall be identified in advance of construction and limited to only those areas approved by LADWP.	During Construction During Construction	LADWP Kern County Engineering and Survey Services Department			

No.	Mitigation Measure	Time Frame for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
	• All construction vehicles shall be confined to the designated access routes, roads, and staging areas. • Site disturbance shall be limited to the minimum necessary to complete construction activities. • Consider crushing vegetation rather than blading in construction laydown areas. • Inform all supervisory construction personnel of environmental concerns, permit conditions, and final rehabilitation specifications. • Significantly weak soils may be stabilized with granular base with possible geotextile underlayment. • Where the soil is too wet such that ruts occur, restrict access to area or avoid by rerouting vehicles if possible.	During Construction	BLM on BLM Property			
2.5-3	To mitigate the potential adverse effects of erosion, the LADWP shall prepare and implement an Erosion and Sedimentation Control Plan and SWPPP. The plan shall include BMPs identified in reference documents, including BMPs for construction of wind power projects on BLM lands, BMPs for Erosion and Sediment Control (FHWA FLP 94-005), Kern County Grading requirements, and measures provided in MM 2.5-1 and 2.5-2 above. In addition, the following shall be used as a guide to develop these plans. • Restore disturbed areas to pre-construction contours to the extent feasible. • Salvage, store, and use the highest	Prior to Approval of Grading Prior to Issuance of Grading Permit Prior to Issuance of Right-of-Way Grants	LADWP Kern County BLM			

No.	Mitigation Measure	Time Frame for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
	quality soil for revegetation. • Discourage noxious weed competition and control noxious weeds through physical or chemical removal and prevention (chemical removal on BLM lands requires specific authorization from BLM). In particular, efforts to prevent yellow starthistle from inhabiting the site shall include use of weed-free native seed mixes and prevention of noxious weeds from entering the site via vehicular sources. For instance, implement Trackclean or other method of vehicle cleaning for vehicles coming and going from the site. Earth-moving equipment shall be cleaned prior to transport to the project site. Weed-free rice straw or other certified weed-free straw shall be used for all hay employed for erosion control. • Leave drainage gaps in topsoil and spoil piles to accommodate surface water runoff. • Cease topsoil-stripping activities during significantly wet weather. • For areas that require permanent erosion control structures, stepped footings or retaining walls designed to preserve the natural landforms should be used. • Use bales and/or silt fencing as appropriate. • Before seeding disturbed soils, work the topsoil to reduce compaction caused by construction vehicle traffic. • Following completion of each zone of					

No.	Mitigation Measure	Time Frame for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
	construction, weed-free mulch shall be applied to disturbed areas within ten days in order to reduce the potential for short-term erosion. • Erosion control measures shall be implemented during the rainy season in areas disturbed by construction activity. • Establish provisions for construction operations during foul weather. • Filter fences and catch basins shall be used to intercept sediment before it reaches stream channels. • Spoil sites shall be located such that they do not drain directly towards a natural spring. At spoils sites draining toward a surface water feature, catch basins shall be constructed to intercept sediment before it reaches the feature. Spoil sites shall be graded and revegetated to reduce the potential for erosion. • Sediment control measures shall be in place prior to the onset of the rainy season and shall be monitored and maintained in good working condition until disturbed areas have been revegetated.					
2.6	To mitigate potential long-term impacts of soil erosion and sedimentation, the project site access roads, turbine sites, and other structures and areas will be regularly monitored for erosion, sedimentation, and to ensure that drainage control features are in good working order. Drainage and erosion control devices will be repaired prior to start of each rainy season. Revegetated areas shall be monitored for a period of time as specified in the erosion control plan.	During the Project Construction Seasonally during Project Operation	LADWP / Kern County LADWP			

No.	Mitigation Measure	Time Frame for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
Hydrology and Groundwater						
3.1	All required approvals and permits, including drainage plan approval, shall be obtained from the Kern County Engineering and Survey Services Department prior to construction. For coordination purposes, materials, studies, and responses from the CDFG and the BLM regarding permitting of crossings or watercourses within the project limits shall be provided to the Kern County Engineering and Survey Services Department.	Prior to Construction	Kern County Engineering and Survey Services Department			
Air Quality						
4.1-1	To mitigate fugitive dust and PM_{10} emissions, all construction operations will be conducted in accordance with KCAPCD Rule 402, either the 2004 Final Draft version or a subsequently approved version, including use of an approved dust control plan. The dust control plan, to be approved by KCAPCD, shall incorporate the appropriate Reasonably Available Control Measures (RACMs) to minimize fugitive dust emissions. The dust control plan shall consider and/or incorporate the use of chemical dust suppressants, application of water, use of wind screens, speed controls on dirt roads, and other applicable methods as provided in Rule 402. Additionally, a method to prevent mud and dirt tracked out onto paved roads shall be provided for the Pine Tree and Jawbone canyons construction area egress points.	Prior to Approval of Dust Control Plan During Construction	Kern County LADWP			

No.	Mitigation Measure	Time Frame for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
	Relative to ROC and NO_x emissions, the most effective emissions reductions from diesel engines is a new technology using exhaust gas recirculation (EGR). Emission reductions with EGR are on the order of 40 percent for NO_x and 90 percent for ROC. Other new technologies include exhaust catalysts, which provide 20 percent NOx reduction and no ROC reduction. These technologies have been developed in response to USEPA regulations issued in 2002, requiring manufacturers to provide the cleaner engines beginning in 2004. While some EGR and catalyst equipment is available, it would not be reasonable to require complete use of the newer equipment in the near term. Therefore, MM 4.1-2 and 4.1-3 given below are incorporated into this EIR/EA.					
4.1-2	At least 10 percent of the diesel engine-driven construction equipment on site will be equipped with EGR or low NO_x exhaust catalytic equipment. This measure is not mandatory if it is demonstrated that this quantity of newer technology equipment would be unavailable for the expected construction window (July 2005 to May 2006).	During Construction	LADWP			
4.1-3	Use of aqueous diesel fuels in diesel-driven construction and long-haul equipment could reduce construction NO_x emission by up to 14 percent. Aqueous diesel fuel will be used in all project diesel engine-driven construction equipment if it is commercially available in the project area.	During Construction	LADWP			

No.	Mitigation Measure	Time Frame for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
Biological Resources						
5.1	LADWP will mitigate the impact on perennial grassland by equivalent replacement, restoration, or compensation, subject to consultation with California Department of Fish and Game.	During Construction	LADWP CDFG Concurrence			
5.2-1	Mitigation requirements for temporary direct impacts to wetland communities are generally met by restoring the wetland habitats in-place. Thus, restoration of 17.37 acres of wetland habitat in-place will be required to mitigate project-related impacts. Mitigation requirements for permanent direct impacts to wetland communities (1.96 acres) are to be met by a combination of wetland creation, restoration, or enhancement. A mitigation site shall be preserved at a suitable area near the impact area. Mitigation requirements for permanent impacts to wetlands resulting from project-related construction shall be provided at a ratio acceptable to CDFG and shall be finalized as part of a Streambed Alteration Agreement with CDFG.	Prior to Approval of Streambed Alteration Agreement During and after Construction	LADWP CDFG LADWP			
5.2-2	Mitigation requirements for permanent direct impacts to ephemeral drainages will require habitat creation, enhancement or restoration, and preservation at a location approved by CDFG and other relevant regulatory agencies. Mitigation compensation requirements for these impacts shall be finalized as part of a Streambed Alteration Agreement with CDFG.	Prior to Approval of Streambed Alteration Agreement During Construction	LADWP CDFG LADWP			

No.	Mitigation Measure	Time Frame for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
5.3-1	Mitigation requirements for permanent direct impacts to Joshua tree woodland (1.11 acres) and individual Joshua trees will be satisfied through either avoidance, salvage, or replacement of the existing habitat or trees at a ratio to be determined through discussions with CDFG and other relevant regulatory agencies. In addition, these agencies shall approve where the mitigation is to occur and whether preservation or restoration is the preferred method to mitigate for project impacts.	During and after Construction	LADWP Concurrence by CDFG Concurrence by BLM			
5.3-2	The construction crews and contractors shall be responsible for working around all shrubs and trees within the construction zone to the extent feasible. Particular avoidance shall be applied to Joshua trees and riparian trees (i.e., cottonwoods and willows). Shrubs and trees shall be flagged by a qualified botanist or arborist to indicate top priority for avoidance.	During Construction	LADWP			
5.4-1	The construction crew and any contractor(s) shall be informed of the biological constraints of the project through a contractor education program presented by a project biologist. The construction crews and contractor(s) shall be responsible for unauthorized impacts from construction activities to sensitive biological resources that are outside the areas ultimately approved for impacts by the County of Kern and resource agencies.	Prior to and during Construction Prior to and during Construction	LADWP Kern County			
5.4-2	The anticipated impact zones, including staging areas, equipment access, and	Prior to Construction	LADWP			

No.	Mitigation Measure	Time Frame for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
	disposal or temporary spoils areas, shall be delineated with stakes and flagging prior to construction to avoid impacts to natural resources where possible. Construction-related activities outside of the impact zone shall be avoided.					
5.4-3	Spoils shall be stockpiled in disturbed areas or other designated areas. Stockpile areas shall be marked to define the limits where stockpiling may occur. Topsoil shall be segregated from the other stockpiled material and shall be reapplied as the topsoil layer to assist revegetation.	During Construction	LADWP			
5.4-4	BMPs shall be employed to prevent further loss of habitat resulting from erosion caused by project-related impacts (i.e., grading or clearing for new roads). Corrective action for erosion problems shall be taken within seven days after the problem is detected.	During Construction	LADWP Kern County			
5.4-5	Fueling of equipment shall take place within designated construction areas or other approved parking areas and not within or adjacent to drainages or native habitats. Contractor equipment shall be checked for leaks prior to operation and repaired as necessary.	During Construction	LADWP			
5.4-6	Mitigation of potential permanent indirect impacts to vegetation communities will be achieved by applying an approved native seed mix in the bare areas after construction is complete to minimize the potential for exotic species introductions. The native seed mix shall be approved by CDFG and BLM and shall be dispersed in the fall, prior to winter rains.	After Construction – In the fall, prior to winter rains After Construction – In the fall, prior to winter rains	LADWP BLM on BLM land			

No.	Mitigation Measure	Time Frame for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
5.5	To mitigate for the potential permanent and temporary direct impacts on vegetation communities that could occur from changes in the project construction footprint, the following protocol will be implemented. 1. The construction manager and owner's representative (or design engineer) will assess the variance needed to complete the construction task. 2. The owner's representative will review the location and potential resources affected by variance. 3. Should conditions dictate, a qualified environmental monitor would be called to evaluate impacts and monitor construction activity. 4. Conditions warranting evaluation and observation by an environmental monitor include construction that is (a) within desert tortoise and Mohave ground squirrel habitat areas, (b) in a riparian community, streambed, or other sensitive communities such as Joshua tree or oak woodland, (c) within 50 feet of a known archaeological or historical site, and (d) more than 50 feet from the previously surveyed or staked area. 5. A report of the construction deviations shall be provided to the LADWP prior to the completion of construction for use in making any necessary adjustments to mitigation ratios, habitat compensation, and other mitigation requirements.	During Construction	LADWP Concurrence by CDFG			
5.7-1	Mitigation requirements for temporary direct impacts to desert tortoise habitat are	During Construction	LADWP			

No.	Mitigation Measure	Time Frame for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
	generally met by restoring the habitat in-place and through on-site monitoring of ground disturbance activities in all areas with the potential to support the species. Mitigation requirements for permanent direct impacts to habitats occupied or presumed to be occupied by the desert tortoise are met by conservation of in-kind habitat of equal or greater value than that impacted at the site at a ratio determined through consultation with USFWS and CDFG. Funding (as approved by USFWS and CDFG) for the long-term management of the preserved habitat shall also be provided.					
5.7-2	Mitigation requirements to avoid or minimize permanent direct impacts to the desert tortoise would include on-site monitoring of ground disturbance activities in desert tortoise habitat areas. A qualified biologist with extensive knowledge and experience with desert tortoise and who has a valid handling permit shall monitor ground disturbance activities. Because active tortoise burrows would be avoided to the extent feasible through project design features, the monitoring biologist would only handle a desert tortoise if a tortoise or an active burrow were discovered within the impact area. In this situation, the tortoise would be removed from the burrow and placed into an existing burrow outside of the area of impact. If no existing burrows are located, the monitoring biologist would construct a new burrow and place the tortoise inside. The monitoring biologist's duties shall include:	Prior to Construction During Construction	LADWP LADWP			

No.	Mitigation Measure	Time Frame for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
	• Implementation of a preconstruction contractor education program; • Pre-construction tortoise clearance surveys within the impact area; • Relocation of any desert tortoise located within the impact area to a location 100 feet from the impact area; • Burrow construction, if needed; and • Preparation of construction monitoring and desert tortoise relocation reports. During construction activities, monthly and final compliance reports shall be provided to USFWS, CDFG, and other relevant regulatory agencies documenting the effectiveness of mitigation measures and the level of take associated with this project.		Compliance reports sent to USFWS and CDFG			
5.7-3	Mitigation requirements for permanent indirect impacts to the desert tortoise resulting from habitat fragmentation shall include the implementation of a contractor education program, on-site signage, and speed limit restrictions along the access roads in the Pine Tree area. No berms shall be placed along dirt roads to ensure that tortoises are able to move between habitat fragments.	Prior to and during Construction	LADWP			
5.7-4	New and existing roads that are planned for either construction or widening shall not extend beyond the planned impact area. All vehicles passing or turning around shall do so within the planned impact area or in previously disturbed areas. Where new access is required outside of existing roads or the construction zone, the route shall be	Prior to Approval of Final Design Prior to and during Construction	Kern County LADWP			

No.	Mitigation Measure	Time Frame for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
	clearly marked (i.e., flagged and/or staked) prior to the onset of construction.					
5.8	Indirect impacts from vehicle strikes are minimized by employee education on the proper procedures upon encountering desert tortoises on roads, by maintaining safe speed limits on access/patrol roads, and by prohibiting travel off the established roadways.	Prior to and during Construction	LADWP			
5.10-1	Mitigation requirements for temporary direct impacts to Mohave ground squirrel habitat are generally met by restoring the habitat in-place and through on-site monitoring of ground disturbance activities in all areas with the potential to support the species. Mitigation requirements for permanent impacts to this species shall be met by conservation of in-kind habitat of equal or greater value than that impacted at a location and ratio approved by CDFG. Funding for the long-term management of the land preserved would also be provided as part of the mitigation measure.	During Construction	LADWP			
5.10-2	Mitigation requirements to avoid or minimize permanent direct impacts to the Mohave ground squirrel shall include on-site monitoring of ground disturbance activities by a qualified biologist in all areas with the potential to support the Mohave ground squirrel. During construction activities, monthly and final compliance reports shall be provided to CDFG and other relevant regulatory agencies documenting the effectiveness of mitigation measures and the level of take associated with this project.	During Construction	LADWP			

No.	Mitigation Measure	Time Frame for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
5.11	Indirect impacts from vehicle strikes are minimized by employee education on the proper procedures for operating vehicles on the site, including using proper vigilance to avoid wildlife, maintaining safe speed limits on access/patrol roads, and by prohibiting travel off the established roadways.	Prior to and during Construction	LADWP			
5.12	BMPs shall be employed to prevent further loss of habitat due to erosion caused by project-related impacts (i.e., grading or clearing for new roads). Corrective action for erosion problems shall be taken within seven days after the problem is detected.	During Construction During Construction	LADWP Kern County			
5.14-1	To ensure that the predicted rates of raptor mortality due to collisions with wind turbines remain low and insignificant, avian and bat mortality associated with the proposed project shall be monitored. A qualified ornithologist would conduct bird mortality monitoring at the project site for one year following the first delivery of power. The species, number, location and distance from turbine, availability of raptor prey species, and apparent cause of bird and bat mortalities would be noted. All results would be provided to the Wildlife Response and Reporting System (WRRS) database and to California Department of Fish and Game. The monitoring would follow standardized guidelines outlined by the National Wind Coordinating Committee (Anderson et al. 1999). LADWP will maintain a record in accordance with USFWS guidance of avian injury and mortality that is observed on the project site during operations for the life of the project.	During Project Operation	LADWP CDFG Concurrence USFWS Concurrence			

No.	Mitigation Measure	Time Frame for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
5.14-2	After one year of post-construction monitoring data has been obtained, LADWP shall review project operations to determine if any specific turbine(s) is responsible for disproportionately high levels of avian mortalities compared to other turbines on site. If so, LADWP shall implement operational modifications of the turbine(s) and conduct further study in consultation with California Department of Fish and Game and/or US Fish and Wildlife Service to evaluate the effectiveness of the modifications.	After First Year of Operations	LADWP CDFG Concurrence USFWS Concurrence			
5.14-3	LADWP will report, by telephone, injuries or mortalities of species listed in Table 3.5-3 as endangered or threatened (and any species listed in the future) to USFWS or CDFG within 24 hours following observation.	During the Project Operation	LADWP			
5.14-4	If lighting is used for aircraft safety purposes, lights should be placed when practicable on meteorological towers, or lights should be placed on towers with the least potential to attract birds, but consistent with FAA lighting requirements.	During Construction	LADWP			
5.15	The proposed project includes design features to protect birds from electrocution, including perch guards, adequate separation of conductors, line insulators, and monopole towers.	Prior to Approval of Final Design	LADWP			
5.16	To avoid or minimize impacts to birds covered under the Migratory Bird Treaty Act and/or Bald Eagle Protection Act, project-related construction activities shall not be conducted within 500 feet of an active nest.	Prior to and during Construction	LADWP			

No.	Mitigation Measure	Time Frame for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
	A preconstruction nest survey shall be performed to ensure that raptors have not inhabited the site.					
Land Use and Recreation						
6.2-1	During construction, the existing cattle guards shall be maintained and new cattle guards provided if none exist at entry gates on Jawbone Canyon Road to prevent livestock from entering the Jawbone Canyon Open Area. A staffed security station would be located at the Jawbone Canyon access road gate during times of project construction.	During Construction	LADWP			
6.3-1	All turbines are limited to a height not to exceed 400 feet above ground level. During project planning and construction, LADWP shall consult with representatives at EAFB and NAVAIR WD regarding any changes, if necessary, to proposed wind turbine locations.	Prior to Approval of Final Design	LADWP			
6.3-2	Prior to issuance of any permits, including grading, a letter shall be submitted to the Kern County Planning Department from all military authorities responsible for operations in the R-2508 airspace complex that provides written concurrence that the height of the proposed structures would create no significant impacts to military mission. The project shall comply with all provisions of Kern County Ordinance G-7130, if still in effect, and if not in effect, any other ordinances regarding structures under military low-level flight routes, and all provisions of the Zoning Ordinance that apply to the siting and height of wind turbines.	Prior to Issuance of Any Permits (including grading)	Kern County Planning Department			

No.	Mitigation Measure	Time Frame for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
Transportation						
7.2	To mitigate potential safety impacts caused by haul truck movements onto and off of Jawbone Canyon and Pine Tree Canyon roads, the following measures are proposed: • The contractor shall apply for encroachment permits with Caltrans and County of Kern and post warning signs in state and local road rights-of-way (State Route 14 and Jawbone Canyon Road) • The contractor shall discuss construction plans for truck movements with State and County transportation officials prior to the start of construction. • The contractor shall apply for installation of appropriate Caltrans warning signage for Jawbone and Pine Tree intersections. This could include Caltrans Warning Sign SW-40 Truck Crossing and/or Warning Sign SC-5 Special Event Ahead pursuant to State Highway Design Guidelines. • As required by state or local transportation departments, traffic control flaggers, pilot cars, and signage warning of construction activity shall be employed.	Prior to Issuance of Encroachment Permits Prior to Construction During Construction	Kern County LADWP LADWP			
7.3	While the project is under construction, the condition of Jawbone Canyon Road shall be monitored and the roadway shall be kept in a safe operating condition using generally accepted methods of maintenance. At the conclusion of construction, repair of damage	During Construction During	Kern County LADWP			

No.	Mitigation Measure	Time Frame for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
	to the roadway shall be completed to the satisfaction of the Kern County Roads Department.	Construction				
7.4-1	LADWP will consult with BLM and the Kern County Roads Department to develop a transportation safety plan for construction traffic transiting the Jawbone Canyon Open Area. The plan will primarily address construction traffic but will also address operations traffic. The plan will become a condition of the County road permits and the BLM right-of-way grants. The plan will include, at minimum, the following specific components: • Transporters shall follow Kern County regulations for the transportation of oversized and overweight loads on all county roads, including the 6 miles of Jawbone Canyon Road that would be utilized for access to the project. These regulations include provisions for time of day, pilot cars, law enforcement escorts, speed limits, flaggers, and warning lights. • During project construction, delivery of equipment and materials shall be prohibited on Jawbone Canyon Road on the following holiday periods. - Veterans Day, from 12 pm on the preceding Thursday to the following Monday - Thanksgiving, from 12 pm on the preceding Wednesday to the following Monday - Christmas and New Years, from 12 pm on the Friday preceding	Prior to Construction Prior to Construction Prior to Construction During Construction During Construction During Construction	LADWP BLM Kern County Roads Department LADWP BLM Kern County Roads Department			

No.	Mitigation Measure	Time Frame for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
	Christmas to the Tuesday following New Years - Martin Luther King Day, from 12 pm on the preceding Friday to the following Tuesday - Presidents Day, from 12 pm on the preceding Friday to the following Tuesday - Easter, from 12 pm on the preceding Friday to the following Monday - Memorial Day, from 12 pm on the preceding Friday to the following Tuesday With at least four weeks notification to LADWP, BLM may also prohibit construction deliveries on additional sanctioned event weekends in the Jawbone Canyon Open Area. • On weekends and holiday periods during the high-use recreation season in the Jawbone Canyon Open Area (late fall to late spring), construction workers shall be prohibited from travel in individual vehicles on Jawbone Canyon Road and shall be shuttled to and from the project site in multi-person vehicles beginning on the day preceding the weekend or holiday. This limitation on the use of vehicles does not include conducting limited critical activities associated with minimal security and safety monitoring and construction management. • During the high-use recreation season in the Jawbone Canyon Open Area (late					

No.	Mitigation Measure	Time Frame for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
	fall to late spring), the delivery of large loads on Jawbone Canyon Road shall be avoided to the extent practicable on weekends (in addition to those weekends during which project deliveries shall be prohibited). In addition, the transportation safety plan shall include time of day limitations during which no project-related traffic, except limited critical activities associated with minimal security and safety monitoring and construction management, shall be allowed on Jawbone Canyon Road. Transportation permits for oversized and overweight loads on County-maintained portions of Jawbone Canyon Road on high-use weekends shall be issued at the direction of the Kern County Roads Department. • No construction activity related to road improvements on Jawbone Canyon Road shall be conducted during high-use recreation periods in the Jawbone Canyon Open Area. All road improvements shall be completed in a manner and according to a schedule that provides uninterrupted access on Jawbone Canyon Road during high-use recreation periods in the Jawbone Canyon Open Area. If a temporary closure of the County-maintained portions of Jawbone Canyon Road is allowed, it shall be in accordance with Kern County Roads Department policies and standards.					

No.	Mitigation Measure	Time Frame for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
	• A training program regarding the rules and regulations for project-related travel shall be conducted with all project transporters and drivers. The program shall address such issues as speed limits, pilot vehicle requirements, and warnings regarding potential safety conflicts with recreation use in the Jawbone Canyon Open Area. All drivers shall be strictly monitored to ensure compliance with rules and regulations**,** and consequences (e.g., revocation of permission to deliver or drive for the project) shall be applied to individuals and/or the project for noncompliance. Enforcement measures shall be defined in the transportation safety plan. • Traffic signs shall be provided to control traffic and ensure safety along Jawbone Canyon Road and at designated crossings of the road within the Jawbone Canyon Open Area. These signs shall adhere to the Federal Highway Administration Manual on Uniform Traffic Control devices and shall include regulatory signs (e.g., stop, speed limits, yield), warning signs (e.g., OHV road crossings), and construction signs (e.g., temporary lane closures, flaggers). All signs shall be maintained throughout the project construction. • Project representatives shall continue to consult with the Friends of Jawbone, other recreation groups, the BLM, and Kern County Roads Department					

No.	Mitigation Measure	Time Frame for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
	regarding concerns related to project construction traffic on Jawbone Canyon Road. LADWP shall notify the OHV groups, the BLM, and the Kern County Roads Department of the date and anticipated duration of construction deliveries on Jawbone Canyon Road. • An information kiosk shall be erected near Jawbone Station to provide current information about the project (including, if available, delivery schedules for Jawbone Canyon Road) to Jawbone Canyon Open Area users. A brochure describing the project and its construction shall be produced and made available for distribution at the Jawbone Station. • A copy of the transportation safety plan shall be posted at the information kiosk and made available at the Jawbone Station.					
7.4-2	LADWP shall provide funding to support an additional staff position at the Jawbone Visitors Center during the project construction phase. This staff member will serve as an interface with the public to respond to questions and provide information regarding the project construction and the related traffic issues. In addition, LADWP shall provide funding to support a BLM ranger position during periods of high recreation use in the Jawbone Canyon Open Area during the project construction phase. This ranger will help enforce traffic controls on Jawbone Canyon Road within the Open Area and	During Construction During Construction	LADWP BLM			

No.	Mitigation Measure	Time Frame for Implementation	Responsible Monitoring Agency	Verification of Compliance		
				Initials	Date	Remarks
	assist in preventing or resolving disputes that arise from potential conflicts between recreation users and the use of the road for construction access. The funding for the two positions shall be established through a Memorandum of Agreement between LADWP and BLM.					
Cultural Resources						
8.2	Mitigation for the seven identified sites affected by project construction involves preparing and implementing a data recovery program that includes further investigations at each of the seven sites. The recommendations for each site are described in detail in the Cultural Resources Report (see Table 4-1 of Appendix F) and in Table 3.8-4 of the Draft EIR. The treatment strategy developed for the data recovery program incorporates a flexible program of surface reconnaissance, surface collection, surface transect units, controlled excavation, and laboratory studies to ensure the recovery of sufficient data before the site is affected by project activities.	Prior to and during Construction	LADWP BLM			

APPENDIX B

MAILING LIST FOR DRAFT EIR/EA

BLM STEERING COMMITTEE

NOA and EIR – Certified Mail
NOA Letter Only

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APPENDIX C

PROOFS OF PUBLICATION

SUPERIOR COURT OF THE STATE OF CALIFORNIA
FOR THE COUNTY OF KERN

Pine Tree Wind Dev. Project

Number

DECLARATION OF PUBLICATION

(2015.5 C.C.P.)

State of California, County of Kern, ss:

Declarant says:

That at all times herein mentioned declarant is and was a citizen of the United States, over the age of twenty-one years, and not a party to nor interested in the within matter; that declarant is the principal clerk of the printer and publisher of THE DAILY INDEPENDENT, a newspaper of general circulation printed and published daily in the City of Ridgecrest, Indian Wells Judicial District, County of Kern, State of California, which newspaper has been adjudged a newspaper of general circulation by the said Superior Court by order made and renewed July 8, 1952, in Civil Proceeding No. 58584 of said Court; that the instrument of which the annexed is a printed copy has been published in each regular and like issue of said newspaper (and not any supplement thereof) on the following dates, to-wit:

11-24-04 11-30-04 12-7-04
11-25-04 12-1-04 12-8-04
11-26-04 12-2-04 12-9-04
11-28-04 12-3-04
12-5-04

I declare under penalty of perjury that the foregoing is true and correct.

EXECUTED ON December 9th 2004, at Ridgecrest California.

Declarant Elaine M. Jones

(Space below

using clean and renewable energy sources and to help meet overall demand for electrical power in the Southern California area. Comments on the Draft EIR/EA must be submitted in writing and received no later than 5:00 p.m. on January 7, 2005.

Please address all comments to either: Ms. Tania Bonfiglio, Los Angeles Department of Water and Power, 111 N. Hope Street, Room 1044, Los Angeles, CA 90012; or Mr. Peter Graves, Bureau of Land Management, 300 S. Richmond Road, Ridgecrest, CA 93555.

Comments also may be faxed to Ms. Bonfiglio at (213) 367-4710 or Mr. Graves at (760) 384-5499. The document may be viewed at the following website addresses: http://www.ladwp.com/ladwp/cms/ladwp004156.jsp and at http://www.ca.blm.gov/ridgecrest (posting on BLM website will occur in early December).

Copies of the Draft EIR/EA are also available for review at the BLM Ridgecrest Field Office (300 S. Richmond Road in Ridgecrest, CA) and the Tehachapi Branch Library (450 West F Street in Tehachapi, CA). In addition, two public meetings will be held to discuss the project. The first meeting will be held on December 8, 2004 from 6:00 p.m. to 8:00 p.m. at the Kerr McGee Community Center (100 W. California Avenue in Ridgecrest, CA), and the second meeting will be held on December 9, 2004 from 6:00 p.m. to 8:00 p.m. at the Mojave Veterans Building (15580 "O" Street in Mojave, CA).
(11/24,11/25,11/26,11/28,12/1,12/2,12/3,12/5,12/7, 12/8,12/9,12/9,

The City of Los Angeles Department of Water and Power and the Department of Interior, Bureau of Land Management (BLM) have prepared a Draft Environmental Impact Report/Environmental Assessment (EIR/EA) for the proposed Pine Tree Wind Development Project located in the southern Sierra Nevada Mountains in Kern County, CA.

The proposed project involves the construction of 80, 1.5-megawatt wind turbine generators, an electrical collection system, and appurtenant facilities. The project is being undertaken to increase the amount of electrical power that is produced

LA City Clerk
200 N. Spring St., #224

Los Angeles, CA 90012

Affidavit of Publication

—of—

Classified Advertising

State of California, } *ss.*
County of Los Angeles

Terry Foldenauer *of said County and State being duly sworn, says:*

That he is and at all times herein mentioned was a citizen of the United States, over 21 years of age, and not a party to nor interested in the above entitled matter; that he is a principal clerk of the printers and publishers of the ***LOS ANGELES TIMES*** *a newspaper printed and published daily in the said Los Angeles County; that the*

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Michael D Serrano

Notary Public in and for the County of Los Angeles, State of California

MICHAEL D. SERRANO
Commission # 1354369
Notary Public - California
Los Angeles County
My Comm. Expires Apr 30, 2006

DRAFT EIRS

It has been determined that the following proposed projects have a significant effect on the environment and draft Environmental Impact Reports (EIRs) have been prepared. WP-028-04. The City of Los Angeles, Department of Water and Power and the Department of Interior, Bureau of Land Management have prepared a Draft Environmental Impact Report/Environmental Assessment (EIR/EA) for the proposed Pine Tree Wind Development Project located in the southern Sierra Nevada Mountains in Kern County, CA. The proposed project involves the construction of 80, 1.5-megawatt wind turbine generators, an electrical collection system, and appurtenant facilities. The project is being undertaken to increase the amount of electrical power that is produced using clean and renewable energy sources and to help meet overall demand for electrical power in the Southern California area. Comments on the Draft EIR/EA must be submitted in writing and received no later than 5:00 p.m. on January 7, 2005. Please address all comments to: Ms. Tania Bonfiglio, Los Angeles Department of Water and Power, 111 N. Hope Street, Room 1044, Los Angeles, CA 90012. Comments also may be faxed to Ms. Bonfiglio at (213) 367-4710. The document may be viewed at the following website address: http://www.ladwp.com/ladwp/cms/ladwp004156.jsp. Copies of the Draft EIR/EA are also available for review at the Bureau of Land Management Ridgecrest Field Office (300 S. Richmond Road in Ridgecrest, CA) and the Tehachapi Branch Library (450 West F Street in Tehachapi, CA). In addition, two public meetings will be held to discuss the project. The first meeting will be held on December 8, 2004 from 6:00 p.m. to 8:00 p.m. at the Kerr McGee Community Center (100 W. California Avenue in Ridgecrest, CA), and the second meeting will be held on December 9, 2004 from 6:00 p.m. to 8:00 p.m. at the Mojave Veterans Building (15580 "O" Street in Mojave, CA).

94-696

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partment of Interior, Bureau of Land
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MOJAVE DESERT NEWS

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County of Kern
State of California
Barbara Schultheiss

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following dates to wit:

November 25

December 2

I declare under penalty of perjury (under the laws of the State of California) that the above is a true and correct copy

B Schultheiss

Affidavit

Of

Publication

County of Kern
State of California

I, Donna Williams,
Of said county, being duly sworn, says he or she is over the age of eighteen years; that he or she is associated wit the publication of The News Review, an adjudicated weekly newspaper printed, published and circulated in the said county and state, the notice, of which the annexed is a true copy, was published in the above named newspaper on the following dates, to wit:

11/24, 12/1, 2004

DATE: 2/10/05

SIGNATURE: Donna Williams

PUBLIC NOTICE

The City of Los Angeles Department of Water and Power and the Department of Interior, Bureau of Land Management (BLM) have prepared a Draft Environmental Impact Report/ Environmental Assessment (EIR/EA) for the proposed **Pine Tree Wind Development Project** located in the southern Sierra Nevada Mountains in Kern County, CA. The proposed project involves the construction of 80, 1.5-megawatt wind turbine generators, an electrical collection system, and appurtenant facilities. The project is being undertaken to increase the amount of electrical power that is produced using clean and renewable energy sources and to help meet overall demand for electrical power in the Southern California area. **Comments on the Draft EIR/EA must be submitted in writing and received no later than 5:00 p.m. on January 7, 2005.** Please address all comments to: Ms. Tania Bonfiglio, Los Angeles Department of Water and Power, 111 N. Hope Street, Room 1044, Los Angeles, CA 90012; or Mr. Peter Graves, Bureau of Land Management, 300 S. Richmond Rd, Ridgecrest, CA 93555. Comments also may be faxed to Ms. Bonfiglio at (213) 367-4710 or Mr. Graves at (760) 384-5499. The document may be viewed at the following website addresses: http://www.ladwp.com/ladwp/cms/ladwp004156.jsp and at http://www.ca.blm.gov/ridgecrest (posting on BLM website will occur in early December). Copies of the Draft EIR/EA are also available for review at the BLM Ridgecrest Field Office (300 S. Richmond Road in Ridgecrest, CA) and the Tehachapi Branch Library (450 West F Street in Tehachapi, CA). In addition, two public meetings will be held to discuss the project. The first meeting will be held on December 8, 2004 from 6:00 p.m. to 8:00 p.m. at the Kerr McGee Community Center (100 W. California Avenue in Ridgecrest, CA), and the second meeting will be held on December 9, 2004 from 6:00 p.m. to 8:00 p.m. at the Mojave Veterans Building (15580 "O" Street in Mojave, CA.

Pub.: 11/24, 12/1/2004

PROOF OF PUBLICATION

(2015.5 C.C.P)

STATE OF CALIFORNIA,
County of Kern } ss.

I, the undersigned, am a citizen of the United States and a resident of the County aforesaid; I am over the age of eighteen years, and not a party to or interested in the above entitled matter. I am the chief clerk/publisher of **The Tehachapi News**, a newspaper of general circulation, printed and published weekly in the City of Tehachapi, County of Kern, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Kern; that the notice, of which the annexed is a printed copy, has been published in regular and entire issue of said newspaper and not in any supplement of thereof on the following dates, to wit:

11/24, 12/1, - 2004

I certify (or declare) under the penalty of perjury that the foregoing is true and correct.

Jessica León
(Signature)

Executed on December 1, 2004
at Tehachapi, California.

The TEHACHAPI NEWS
P.O. Box 1840 Phone 822-6828
TEHACHAPI, CALIFORNIA 93581

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