Executive Summary

ES-1 Overview

The purpose of the Executive Summary and impact summary tables is to provide the reader with a brief overview of the proposed Project, project alternatives, the anticipated environmental effects, and the potential mitigation measures that could reduce the severity of the impacts associated with the Project. The County of Santa Barbara (County), as lead agency under the California Environmental Quality Act (CEQA), has prepared this Environmental Impact Report (EIR) in accordance with CEQA, Public Resources Code Sections 21000 et seq., the State CEQA Guidelines, 14 CCR Sections 15000 et seq. and the County Guidelines for the Implementation of CEQA. It addresses the potential environmental impacts of the proposed Lompoc Wind Energy Project (Project). The majority of the Project falls within the ~~4th~~ 3rd Supervisorial District of the County.[1]

This EIR is an informational document that is being used by the general public, utility providers, and governmental agencies to review and evaluate the Project. The reader should not rely exclusively on the Executive Summary as the sole basis for judgment of the Project and alternatives. The complete EIR should be consulted for specific information about the environmental effects and the implementation of associated mitigation measures.

The Lompoc Wind Energy Facility (LWEF), the wind turbine generator (WTG) component of the Project, would be located on approximately 2,950 acres of rural, agriculturally zoned land on coastal ridges southwest of Lompoc, entirely within the inland area of the County. The LWEF would have a maximum electrical generating capacity of ~~120~~ 97.5 megawatts (MW), which could potentially supply up to 5~~6~~0,000 homes with electricity. The Applicant has initially contracted with Pacific Gas and Electric Company (PG&E) to deliver 82.5 MW of renewable energy and capacity under a long-term power purchase agreement via a direct interconnection with the PG&E transmission grid. The remainder of the planned capacity would be developed in up to two subsequent phases and installed upon securing additional long-term power purchase agreements with PG&E or others. ~~According to the Project application, t~~ The proposed wind farm could generate up to ~~350~~ 285 million kilowatt hours (kWh) of electricity annually. The target date for commercial operations is ~~October 1, 2008~~ the end of 2009. The anticipated operational life of the Project is approximately 30 years.

Following are the major Project components:

- ~~60 to 80~~ 65 1.5 MW WTGs
- New onsite access roads and road improvements

[1] The Project, including its power line, are mostly in the 3rd Supervisorial District, except for the northern portion of the power line that enters into the 4th District as it traverses southern Lompoc.

- A communication system
- Meteorological towers
- An operations and maintenance (O&M) facility
- Onsite electrical collection and distribution lines
- An onsite Project Substation
- A new ~~7.85~~ 8.7-mile, 115-kilovolt (kV) PG&E power line to the Lompoc area to interconnect with the PG&E electric grid
- Upgrades to existing PG&E facilities

Environmental Impact Report Scope

This EIR examines potential short-term and long-term impacts of the Project. These impacts were determined through a rigorous process mandated by CEQA in which existing conditions are compared and contrasted with conditions that would exist once the Project was implemented. The significance of each identified impact was determined using either County Thresholds of Significance (County, 2006) or CEQA thresholds where there is no County threshold. The following categories are used for classifying Project related impacts:

- *Class I* – Significant adverse impacts that cannot be feasibly mitigated or avoided. If the Project is approved, decision-makers are required to adopt a statement of overriding considerations, pursuant to CEQA Section 15093, explaining why Project benefits outweigh the unavoidable, adverse environmental effects.
- *Class II* – Significant adverse Impacts that can be feasibly mitigated or avoided. If the Project is approved, decision-makers are required to make findings pursuant to CEQA Section 15091, that impacts have been mitigated to the maximum extent feasible by implementing the recommended mitigations.
- *Class III* – Adverse impacts that are less than significant. These impacts do not require mitigation, nor do they require that CEQA findings be made.
- *Class IV* – Beneficial impacts; effects that are beneficial to the environment.

For each significant impact identified, mitigation measures that are designed to reduce impacts to less than significant levels are presented. The Applicant has proposed many mitigation measures as part of the Project application (see Section 2.8.4). In addition, Avoidance and Protection measures were identified to minimize impacts from construction and operation of the project power line by PG&E (see Section 2.8.5) ~~, and the County has supplemented them by refining the Applicant's measures and adding new measures as needed.~~ These measures were considered in the assessment of Project impacts to determine whether they would be mitigated and in the development of additional mitigation measures. In those instances in which mitigation measures cannot reduce such impacts to less than significant levels, the impacts are identified as *Class I*. In many cases, these mitigation measures would also further reduce adverse, but less than significant impacts (*Class III*).

The EIR also presents alternatives to the Project, including the "No Project" alternative, and a qualitative assessment of the impacts that would be associated with the implementation of each. Finally, the cumulative impacts of the Project when added to other local proposed or approved projects were also evaluated.

Notice of Preparation

On June 30, 2006, the County distributed a Notice of Preparation (NOP) describing the Project for review by affected state, county, and city agencies, utility providers, interested organizations, and the general public. In addition to obtaining written comments on the NOP, a public scoping meeting was held on July 17, 2006. The meeting provided an opportunity for affected public agencies and the public to express concerns about the project and issues that should be addressed in the project EIR. All comments (written, e-mail, and verbal) were considered as part of preparation of this EIR.

Summary of Project Impacts

The significance of each impact resulting from implementation of the Project has been determined according to either the County Thresholds and Guidelines Manual or CEQA thresholds. As discussed in the EIR, there are only three significant and unavoidable impacts associated with implementation of the Project:

1. Construction and operation of WTGs in the westernmost arrays of the Project area would create a significant visual impact during both daytime and nighttime periods to users of Jalama Beach County Park, which is approximately 4.5 miles distant. Based upon the generalized reasonable worst-case analysis (80 WTGs), three WTGs would be visible near the base of Tranquillon Mountain, and an estimated 10 would be visible in the southernmost WTG array along the ridgeline. In addition, up to four WTGs on the Larsen property would be visible to southbound travelers and recreationists along San Miguelito Road for a half mile as it approaches Miguelito County Park and one WTG would be visible from within the Park. Finally, several WTGs, the O&M facility, and substation would be visible from San Miguelito Road in the vicinity of the Project site.

2. Placement of a series of new power poles and associated power line in the area of State Route 1 (SR-1) would introduce a significant new visual impact along the ridgeline, which would silhouette against the skyline. However, implementation of Applicant proposed Power Line Alternative 1 (reroute power line to minimize visibility from SR-1) and Avoidance and Protection Measure Pl-5 (longer spans, shorter poles, etc.) would reduce this impact to a less than significant level of impact.

3. An unknown number of protected birds and bats may be killed through collisions with the WTGs over the duration of the Project.

The rest of the Project impacts have been found to be mitigatable to acceptable levels, adverse but less than significant, or they have been identified as beneficial impacts. Tables ES-1 through ES-4 (Summary of Impacts and Mitigation Measures), provided at the end of this section, present a summary of the environmental impacts that would result from the proposed Project. It is organized to correspond with the environmental

issues discussed in Section 3.0 Environmental Setting, Impacts, and Mitigation Measures.

Tables ES-1 through ES-4 are arranged in five columns: the identified impact under each EIR issue area; the project phase; the level of significance prior to mitigation; mitigation measures that would avoid or reduce the level of impacts; and the level of significance after implementation mitigation measures, as applicable. Where no mitigation is required, it is noted in the table.

Summary of Project Alternatives

Section 5.0 Alternatives provides an analysis of the Project alternatives ranging from alternative technologies, alternative sites, the No Project Alternative, and alternative LWEF layouts and power line routes. The alternatives analysis includes a discussion of alternatives that were dismissed from further consideration, as well as a comparative analysis of a reasonable range of potentially feasible Project alternatives.

The alternatives included in the comparative analysis include the following:

LWEF Alternative 1 (Limit WTGs on South/West Corridors)

This alternative (Figure 5.3-1) would be implemented on the same site as the Project and follow Project construction practices and regulatory requirements. Project components would be unchanged as well, with one exception—the number of WTGs would be reduced, or microsited in portions of the LWEF, in order to reduce significant impacts to views from Jalama Beach County Park and from within Miguelito County Park.

LWEF Alternative 2 (Phase I Only)

This alternative would limit the Project to the portion that would be completed under Phase I of the Project as proposed, consisting of construction and production of 82.5 MW of wind energy, which would fulfill the existing Power Purchase Agreement between the Applicant and PG&E. Additionally, this alternative would eliminate those WTGs that are visible from Jalama Beach County Park and from within Miguelito County Park, consistent with LWEF Alternative 1.

Power Line Alternative 1 (Re-routing to Minimize Visual Impacts)

This Applicant-proposed alternative power line route (Figure 5.3-2) was developed to minimize the significant and unavoidable visual impacts along SR-1 associated with the proposed power line route.

No Project Alternative

Under this alternative, the LWEF and associated power line would not be constructed and the underlying land uses at the Project sites would remain unchanged.

Environmentally Superior Alternative

As discussed in Section 5.0, the analysis contained in this EIR concluded that the proposed Project and all the alternatives considered, except the No Project Alternative, would result in significant and unavoidable (*Class I*) impacts from avian mortality

resulting from collisions with WTGs. The proposed Project would also result in significant and unavoidable (*Class I*) visual impacts from the degradation of scenic resources from the WTGs visible from Jalama Beach County Park and within Miguelito County Park, and southbound travelers and recreationists along San Miguelito Road for a half mile as it approaches Miguelito County Park and the southern end of San Miguelito Road as it approaches the project site. ~~and from~~ Finally, the power line route would be visible to travelers along SR-1.

In addition, the proposed Project and all the alternatives considered, except the No Project Alternative, would also result in significant, but mitigable (*Class II*) impacts on various resource areas including: aesthetics/visual resources, air quality, biological resources, cultural resources, fire protection and emergency services, geology/soils, land use, noise, paleontological resources, risk of accidents/hazardous materials/safety, transportation/circulation, and water resources.

Based upon the comparative analysis, the No Project Alternative would have the least significant impacts. However, the No Project Alternative would not meet the Project objectives presented in Section 1.3. Therefore, it was determined that the environmentally superior alternative that meets the Project objectives and minimizes or eliminates the environmental impacts of the Project is a combination of LWEF Alternative 2 (Phase I Only) and Power Line Route Alternative 1. LWEF Alternative 2 would be expected to result in the least short-term and long-term environmental effects due to the minimization of visual impacts to Jalama Beach County Park and from within Miguelito County Park, and reduction of impacts to most other resources, including reducing avian fatalities along the southwestern border of the LWEF. Power Line Route Alternative 1, with application of required Avoidance and Protection Measures (see Section 2.8.5), would be expected to result in the least short-term and long-term environmental effects due to the minimization of visual impacts to travelers along SR-1.

Note to reader: Table ES-1 presents a summary only of the Class I impacts (significant and unmitigable to a level of insignificance), identified for the Lompoc Wind Energy Project. For a detailed discussion of the impacts and the entirety of the mitigation measures, please refer to Sections 3.2 through 3.15. The entire mitigation measures are also available for review in Appendix D, Mitigation Monitoring Plan. Due to the substantial edits to and reordering of the biological resources impacts and mitigation measures, deletions are not shown in the table below.

TABLE ES-1
Summary of Class I Impacts and Mitigation Measures

Resource Area	Phase/Project Component[2]	Impact Summary	Mitigation Measure Summary	Residual Impact
BIO-10	Operations	Unknown numbers of special status and non-sensitive birds and bats are at risk of dying through collisions with the WTGs over the duration of the Project.	**BIO-15a: Siting**. The turbines shall be sited so that each tower is located at least 500 feet away from critical biological resources identified in preconstruction surveys, specifically: active raptor nest sites, active state or federally listed species' nests, open water which would attract birds or bats (including stock-ponds), thicker riparian habitat in Canada Honda and Miguelito creeks, eucalyptus tree groves, or vernal pools, if present. The turbines shall be sited so that each tower is located at least 250 feet from the un-named intermittent tributaries containing Central Coast Riparian Scrub habitat located up-gradient of major streams. Preconstruction surveys (described in MM Bio-11a) shall identify existing raptor nests and other sensitive resources. The Applicant shall, in consultation with the CDFG, attempt to dissuade raptors from building new nests within 500 feet of any turbine. **BIO-15b: Appropriate WTG and Project-Element Design**. To minimize the likelihood of collisions of birds with WTGs and onsite power poles and collection lines[3], the design features of all WTGs and project related facilities shall include the following: a) Underground (rather than overhead) collection lines shall be used to minimize perching locations and electrocution hazards to birds, except where undergrounding would create potential for serious erosion (e.g., crossing steep canyons) or other serious impacts that could be avoided with overhead lines. b) All overhead collection lines shall be spaced to minimize the potential for raptor electrocution using the latest APLIC (2006) guidelines for line spacing. Further, construction and work procedures shall be consistent with the APLIC guidelines "*Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006*." c) WTGs with low rotational speed (approximately 10 to 23 revolutions per	Significant

2 Where this table attributes impacts to the power line, it should be understood that power line related impacts would be less than significant with application of the Avoidance and Protection Measures (see Section 2.8.5).

3 Note: These provisions are applicable only to 34.5 KV collection lines at the project site. Avoidance and Protection Measures for the proposed 115 KV PG&E power line arecovered separately in Section 2.8.5.

TABLE ES-1
Summary of Class I Impacts and Mitigation Measures

Resource Area	Phase/Project Component[2]	Impact Summary	Mitigation Measure Summary	Residual Impact
			minute [RPM]) and tubular towers shall be used. WTG blades shall not rotate when the WTG is not in operation. d) All permanent meteorological towers shall be unguyed. **BIO-16a: Before-After/Control-impact (BACI) Study.** Conduct BACI surveys under direction of a County-approved biologist. The purpose of the BACI surveys is to compare pre- and post-construction bird use on the site; to assess the effects of the project on avian species; to assist in determining whether additional mitigation elements are necessary; and to collect research data to better understand wind power industry impacts and provide regulatory agencies with data for future projects. Study reports shall include estimates of average bird usage on the site and information on the location of species within the site, flight elevations and patterns of activity, and WTG avoidance behavior. The study data and reports shall be provided to the County for review. The surveys shall be conducted from the time of project approval through each project construction phase and for two years following first delivery of power for that phase. **BIO-16b: Bird/Bat Mortality Study.** Conduct a bird and bat mortality study under direction of a County-approved biologist. The purpose of mortality surveys is to estimate mortality rates for different species on the site attributable to collisions with WTGs and to identify individual WTGs or groups/strings of WTGs that cause unanticipated levels of mortality. The information will be used to determine whether the mortality thresholds of the Adaptive Management Plan (see AMP, below) have been reached. In addition, the collected data will add to the body of knowledge to provide regulatory agencies with data for future projects. Brief quarterly reports including tabulated search data and annual reports including analysis of the year's data shall be prepared. The study data and reports shall be provided to the County for review. Monitoring shall be conducted for the first full 2 years after all WTGs are in operation for each project construction phase. Additional years of monitoring could be required if the mortality of special status bird and bat species exceeded thresholds (see AMP, below). **BIO-16c:. Reduce Prey Base Near Turbines.** Conduct a program under direction of a County-approved biologist to reduce the densities of California ground squirrels, rabbits, and other small mammals in the Project area. Limiting the number of burrowing mammals is intended to reduce the attraction of raptors to the Project area, and thus lower the potential for mortality resulting from collisions with WTGs and power lines on the project site. The program plan should emphasize, but not be limited to existing, mapped small mammal colonies. The plan shall be subject to	

TABLE ES-1
Summary of Class I Impacts and Mitigation Measures

Resource Area	Phase/Project Component[2]	Impact Summary	Mitigation Measure Summary	Residual Impact
			County approval. Brief quarterly reports including the study data shall be provided to the County for review. The reports may be provided electronically. The program shall begin during the construction phase and continue for 2 years of Project operation. The County could modify or discontinue the program if new information indicates it is ineffective or harmful. **BIO-16d: Adaptive Management Plan (AMP).** Develop an Adaptive Management Plan (AMP) to be activated in the event that bird or bat mortality exceeds specified threshold levels. The AMP provides a structured framework to guide response, in case project operations result in excessive mortality that was unforeseeable at the time of EIR certification and project approval.	
VIS-1	Construction and Operations/ LWEF, Power Line[4]	WTGs and related structures have the potential to be visible in the vicinity of the Project.	**VIS-1: Materials Storage.** All construction materials and excavated materials shall be stored away from San Miguelito Road, whenever possible, to reduce impacts on mountain views. **VIS-2: Location of Construction Activities.** Construction activities and materials storage shall be confined to within the WTG corridors, staging areas, and the Project Substation and operations and maintenance (O&M) facility areas. **VIS-4: Landscape and Lighting Plan**: In accordance with the Santa Barbara County Land Use Element, Visual Resources Policies, Policy 1, the Applicant shall be required to submit a landscaping plan to the County for review and approval. In addition, any facility lighting shall be included. Measures to minimize the attraction of birds to facility lighting shall be developed and presented in the plan. See also **Mitigation Measure LU-1.**.	Significant
VIS-2	Construction and Operations/ LWEF	Westernmost WTGs would be visible to users of Jalama Beach County Park. Northeastern –most WTGs would be visible to users of Miguelito County Park.	VIS-3 Contribution to County Parks Fund. *T*he Applicant shall make a one-time $100,000 payment to the County. This money shall be used by the County Parks Department exclusively to preserve and enhance the natural beauty of Miguelito County Park and Jalama Beach County Park. See **Mitigation Measure LU-1.**	Significant

[4] Visual impacts of the 115 kV power line in the vicinity of the project would be less than significant.

TABLE ES-1
Summary of Class I Impacts and Mitigation Measures

Resource Area	Phase/Project Component[2]	Impact Summary	Mitigation Measure Summary	Residual Impact
VIS-4	Operations/ Power Line[3, 5]	Placement of the power line in the area of SR-1 introduces a significant new series of power poles that would silhouette against the skyline.	See Avoidance and Protection Measure PL-5, Section 2.8.5 ~~A-VIS-4: Power Line Relocation/Pole Height. At the southeast corner of the City of Lompoc, where the power line route would be visible from SR-1, the following measures shall be used, where technically feasible, to minimize visual impacts: longer spans between the poles; shorter poles; straddle ridgeline with two poles instead of a single pole on the ridge line.~~	Significant

5 Power Line Route Alternative 1 (see Section 5.3.2) would reduce visual impacts of the power line to less than significant.

Note to reader: Table ES-2 presents a summary only of the Class II impacts (significant but mitigable) identified for the Lompoc Wind Energy Project. For a detailed discussion of the impacts and the entirety of the mitigation measures, please refer to Sections 3.2 through 3.15. The entire mitigation measures are also available for review in Appendix D, Mitigation Monitoring Plan. Due to the substantial edits to and reordering of the biological resources impacts and mitigation measures, deletions are not shown in the table below.

TABLE ES-2
Summary of Class II Impacts and Mitigation Measures

Resource Area	Phase/Project Component[6]	Impact Summary	Mitigation Measure Summary	Residual Impact
AQ-2	Construction/ LWEF, Power Line	Particulate matter emissions during construction would result from soil disturbance, travel on unpaved roads, mobile source exhaust emissions, and concrete batch plants.	~~A~~ **AQ-2: Dust Control Plan.** A Dust Control Plan shall be prepared by the Applicant.	Less than Significant
BIO-1	Construction	Approximately 127 acres of vegetation and wildlife habitat will be temporarily impacted by construction, with an additional 43 acres being permanently disturbed (e.g., by construction of roads, pads, facilities sites).	**BIO-1: Worker Education and Awareness Program.** The Applicant shall fund a County-approved biologist to develop and implement a worker education and awareness program (WEAP) specific to the Project. The program shall be presented to all individuals involved in the construction and O&M phases of the Project. The program shall include information focused on sensitive habitats and species. **BIO-2: Ground Disturbance**. The Applicant shall minimize the amount of disturbance to the extent feasible including areas devoted to WTGs; power line poles; temporary and permanent access roads; stockpiles; staging, parking and lay down areas; areas where spoil shall be used to control erosion; and areas for associated facilities. Construction activities shall avoid sensitive areas, such as riparian zones, forests, etc., where feasible. Construction shall avoid all wetlands regulated by Santa Barbara County, CDFG, and USACE (see Mitigation Measure BIO-9) where feasible. Parking, lay down, storage areas, and other sites of superficial disturbance shall be located in previously disturbed areas or in annual grassland (except in Gaviota tarplant habitat) and will be mowed, versus graded, where feasible to keep root structures in place; thereby, facilitating future revegetation. Permanent access roads shall follow routes used for construction access to reduce the amount of new road construction. Vehicles and equipment access shall follow marked routes. Indiscriminant cross-country vehicle travel shall not be allowed.	Less than Significant

6 Where this table attributes impacts to the power line, it should be understood that power line related impacts would be less than significant with application of the Avoidance and Protection Measures (see Section 2.8.5).

TABLE ES-2
Summary of Class II Impacts and Mitigation Measures

Resource Area	Phase/Project Component[6]	Impact Summary	Mitigation Measure Summary	Residual Impact
			BIO-3: Site Restoration and Revegetation Plan. The Applicant shall retain a County-approved botanist to prepare and implement a site restoration and revegetation plan. **BIO-8: Native Perennial Bunchgrass**. The Applicant shall retain a County-approved botanist to resurvey the potentially affected area during the appropriate season and determine the total area with at least 10 percent cover by native grassland species on the site (=native grassland habitat). If the total area of native grassland habitat that would be permanently removed is less than 10 percent of the total area of native grassland habitat within the Project area, loss of native grasses shall be mitigated by seedbank salvage and replacement as described for Horkelia. **BIO-11b: Fencing.** To minimize the amount of disturbance to wildlife habitat, the Applicant shall clearly define in the field: the project construction areas, including areas devoted to WTGs; power line poles; temporary and permanent access roads; stockpiles; staging, parking and lay down areas; areas where spoil shall be used to control erosion; and areas for associated facilities. Project boundaries shall be clearly marked with fencing or staking that shall be replaced as needed. **BIO-11c: Biological monitoring.** The Applicant shall fund a County-approved, Environmental Monitor during Project construction to monitor construction activities and to ensure compliance with all mitigation measures. The Environmental Monitor shall be present onsite during all vegetation removal and during all of the initial ground disturbance activities for all aspects of the project, and shall regularly inspect the project site as needed after the initial ground disturbances to ensure that all mitigation measures are being implemented. The biologist shall ensure that wildlife do not become entrapped in the excavations during installation of the WTGs and associated underground collection system from the WTGs to the substation (i.e., open trenches). Safeguards shall be implemented during daytime periods of non-activity and overnight, such as a placing a platform over the entire excavation site, flush with the ground surface, or exclusionary fencing. A form of egress (such as a ramp) shall be placed within the excavated area to provide an exit to accidentally trapped wildlife. The biologist shall be responsible for ensuring these safeguards are in place on a daily basis. **BIO-11d: Monitoring Report.** On a bi-weekly basis, the County-approved, Environmental Monitor shall provide the County a Construction Monitoring and Biological Resources Mitigation Report. This report shall include a description of the activities that have occurred onsite, wildlife species encountered, relocation efforts, wildlife mortalities and injuries, violations or issues with construction activities, and	

TABLE ES-2
Summary of Class II Impacts and Mitigation Measures

Resource Area	Phase/Project Component[6]	Impact Summary	Mitigation Measure Summary	Residual Impact
			any project-related resolutions.	
BIO-2	Construction	Tree trimming or removal may be required during transport of WTGs or power line installation. A small portion of the proposed roadway network would affect tree-dominated vegetation; power line construction would occur close to wooded areas.	**BIO-4: Tree Protection and Replacement Plan**. The Applicant shall retain a County-approved botanist or arborist to design and implement a tree protection and replacement plan in order to protect existing native trees and minimize adverse effects of grading and construction. No ground disturbance, including grading for buildings, access ways, easements, and subsurface grading, shall occur within the critical root zone of any native tree unless specifically authorized by the approved tree protection and replacement plan. See also **Mitigation Measures BIO-1, BIO-2, BIO-3, and BIO-11c, d** above.	Less than Significant
BIO-3	Construction	Direct loss of wetlands and seeps would occur at creek crossings and the proposed O&M facility. Direct loss of wetlands and seeps within the WTG corridor are not expected; however, there is potential for loss should the project configuration change. Additionally, soil erosion or spills could reduce water quality during construction.	**BIO-9: Protection of Creeks, Springs, and Wetlands.** The Applicant shall make every effort to minimize the area and degree of impact to State and Federal wetlands and other Waters of the U.S. associated with placement of bridges, siting of the O&M facility, and other construction-related tasks. Additionally, all potential jurisdictional areas that may be disturbed by construction shall be delineated following all applicable standards associated with features regulated by the State of California, Santa Barbara County, and USACE for regulated wetlands, including documentation of specific surveys for presence of listed plant, invertebrate, or wildlife species that may occur there. A wetland avoidance and restoration shall be prepared to ensure protection to wetland areas, restoration of temporarily disturbed wetland areas, and 2:1 replacement of any wetlands permanently lost. See also **Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-10, BIO-11c, d, GEO-2, WAT-1, AND WAT-2.**	Less than Significant

TABLE ES-2
Summary of Class II Impacts and Mitigation Measures

Resource Area	Phase/Project Component[6]	Impact Summary	Mitigation Measure Summary	Residual Impact
BIO-5	Construction	Construction would result in 10.3 acres (8.1 % of site total) of permanent and 22.3 acres (17.4% of site total) of temporary loss or disturbance to Gaviota tarplant and its habitat.	**BIO-5: Pre-construction Plant Surveys.** The Applicant shall retain a County-approved botanist to conduct appropriately timed pre-construction surveys for sensitive native plant species, including lichens, in all areas to be disturbed, including power line pole locations and access roads. In the unlikely event that a federally listed plant species is found on or near an area to be disturbed by the project, the FWS will be notified and the project will be adjusted to avoid impact and other species protection measures recommended by the Service will be implemented. If a substantial portion of a "stand" of CNPS-listed or locally rare species would be removed for the Project and adjustment of the disturbance area boundaries to avoid the impact is not feasible, the loss will be mitigated by collection of seeds or other propagules from the plants during the appropriate time of the year. **BIO-6: Gaviota Tarplant Disturbance.** The Applicant shall retain a qualified botanist approved by CDFG and the County to address impacts to Gaviota tarplant and oversee flagging of the perimeter of all approved work areas in Gaviota tarplant habitat. Gaviota tarplant habitat will include all areas of previously identified habitat plus any additional areas that are discovered during preconstruction surveys prior to ground disturbance. Gaviota tarplant will be assumed to be present within all areas where it had been previously mapped even if it is not evident during preconstruction surveys (because seedbank may be present that could germinate and establish under different environmental conditions). The Project design shall continue to be refined to minimize Gaviota tarplant habitat disturbance, the size of temporary excavation areas, and the size of areas where permanent loss shall occur. A Gaviota tarplant restoration plan shall be prepared detailing measures for restoration of temporarily disturbed tarplant sites and measures to compensate for permanent losses. See also **Mitigation Measures BIO-1, BIO-2, BIO-3, and BIO-11c, d** above.	Less than Significant
	Operations	Occasional disturbance to small areas of Gaviota tarplant habitat may occur as a result of operations or maintenance activities involving clearing or vehicle operation in occupied habitat.		Less than Significant
BIO-6	Construction	A number of other special-status plant species may be present onsite or in the power line corridor and could be lost during construction.	**BIO-7: Kellogg's and Mesa Horkelia Habitats.** For Kellog's and Mesa Horkelia habitats identified during pre-construction surveys (see Mitigation Measure BIO-5, above), the Applicant shall track over Kellogg's and Mesa Horkelia habitat, where the terrain shall safely allow it, rather than widening roads beyond the permanent road width to minimize plant removal. The seedbank shall be salvaged and stockpiled separately from other spoil along roads and adjacent to other facilities constructed in Kellogg's and Mesa Horkelia habitat as described for Gaviota tarplant. Salvaged stockpiles shall be covered or sprayed with hydromulch and binder to crust the surface to minimize soil loss to wind erosion. Salvaged seedbank shall be spread over restored areas as described for Gaviota tarplant except that a normal mixture of mulch and binder shall be used. If the area is within	Less than Significant

TABLE ES-2
Summary of Class II Impacts and Mitigation Measures

Resource Area	Phase/Project Component[6]	Impact Summary	Mitigation Measure Summary	Residual Impact
			Gaviota tarplant habitat, methods for the latter shall be used. See also **Mitigation Measures BIO-1, BIO-2, BIO-3, BIO-5, and BIO-11c, d** above.	
BIO-8	Construction and Operations	Nesting birds could potentially lose nests through destruction or abandonment.	**BIO-11a: Pre-construction Wildlife Surveys.** The Applicant shall retain a County-approved biologist to perform a wildlife survey prior to the excavation of the WTG sites. The biologist shall survey the surrounding area out to a 300-foot radius from the WTG site, the WTG footings, access roads, and staging, parking, and lay down areas prior to grading or the use of any explosives. Surveys shall be completed within 3 days before the start of initial vegetation clearance or ground disturbance in any affected area. If any wildlife species are found, they shall be relocated to similar habitat at least 300 feet away from construction activity. **BIO-11b: Fencing.** To minimize the amount of disturbance to wildlife habitat, the Applicant shall clearly define in the field: the project construction areas, including areas devoted to WTGs; power line poles; temporary and permanent access roads; stockpiles; staging, parking and lay down areas; areas where spoil shall be used to control erosion; and areas for associated facilities. Project boundaries shall be clearly marked with fencing or staking that shall be replaced as needed. **BIO-12a. Schedule ground disturbance to avoid nesting season.** All construction-related activities that include vegetation removal and initial ground disturbances in habitats where biological monitor does not have a clear view of the ground, shall be scheduled, as feasible, to avoid the bird nesting season (February 1 through August 31) to reduce impacts to nesting birds in the project vicinity. If construction activities are scheduled to begin during the nesting season, the applicant shall still attempt to remove or mow vegetation before the onset of nesting season to reduce the threat of violating the Migratory Bird Treaty Act. **BIO-12b. Buffer Zones.** If ground disturbance or vegetation removal is scheduled to occur during the avian nesting or bat roosting season (from February 1 through August 31) the Applicant shall fund a County-approved biologist to survey for active avian nests and roosting bats immediately prior to the start of construction in a given area (including removal or trimming of trees and shrubs). The survey shall occur at the sites of construction activity, as well as up to 500 feet away. If an active raptor nest is found, no construction activity shall occur within 500 feet of the nest unless otherwise directed by CDFG. The County-approved biologist shall conduct a study to collect more detailed information on nesting raptors in the Project area. Areas of dense vegetation, including the riparian corridors along Miguelito Creek, the eucalyptus groves onsite, and mixed evergreen forest within 500 feet of	Less than Significant

TABLE ES-2
Summary of Class II Impacts and Mitigation Measures

Resource Area	Phase/Project Component[6]	Impact Summary	Mitigation Measure Summary	Residual Impact
			Project facilities shall be surveyed at weekly intervals to collect data on nesting activities. If any other active avian species nest or roosting bats are found, construction activity shall be limited to within 150 feet of the area or as directed by the County-approved biologist unless otherwise directed by CDFG. **BIO-14e: Sensitive Avian Species.** The County-approved biologist shall conduct a study in the spring season prior to the onset of construction activities to assess the density of special status passerines and other ground-nesting birds in areas of the project site potentially subject to disturbance. Plots shall be established in various habitats and checked at weekly intervals to monitor for new nests of ground-nesting birds that are sensitive species, including California horned lark, California rufous-crowned sparrow, grasshopper sparrow, and burrowing owls. The surveys shall be conducted as long as birds are nesting in the Project area between February 1 and August 31. The surveys shall be discontinued when it is apparent that nesting has ceased for the season. Surveys for burrowing owls shall be conducted prior to construction in the Project area, including areas within 300 feet of all Project facilities, WTG sites, and access roads. The survey shall be performed regardless of season of the year due to this species' being present in the winter. If construction is to occur between February 1 and August 31, all sites to be disturbed shall be surveyed for ground-nesting and shrub-nesting birds immediately prior to construction in a given area. If an active nest is found, no construction activity shall occur within 300 feet of the nest or as determined by the biological monitor and updated maps showing active nesting locations shall be distributed to the biological monitors, EQAP inspector, and crew foreman on a weekly basis. See also **Mitigation Measures BIO-1, BIO-2, and BIO-11c, d** above.	
BIO-9	Construction and Operations	Direct and indirect impacts may occur to special-status wildlife species. Those with higher potential for injury or fatalities by vehicles or equipment, loss of habitat, or disturbance of burrows and nests include reptiles, raptors, and passerines.	**BIO-13: Pre-construction Surveys and Conservation of El Segundo Blue Butterfly (ESBB).** The applicant shall retain a qualified, County-approved entomologist to conduct directed surveys for the ESBB during the flight season (approximately mid-June to August) within all areas of coast buckwheat known on the LWEP site, including areas that would be affected by construction, operation, or maintenance of the project. The surveys shall be documented including a description of methodology, description and maps of the surveyed areas, and identification of locations of any ESBB observed within the proposed Project area (including maps and GPS coordinates). Conditions the sites where ESBB are located shall be described by the entomologist including vegetation, soils, exposure, and other factors that may influence the occurrence of ESBB at that site.	Less than Significant

TABLE ES-2
Summary of Class II Impacts and Mitigation Measures

Resource Area	Phase/Project Component[6]	Impact Summary	Mitigation Measure Summary	Residual Impact
			A plan to restore and/or enhance ESBB habitat shall be prepared by a County-approved botanist with input from a County-approved entomologist. **BIO-14a: California Horned Lizard.** The Applicant shall fund a County-approved biologist to survey construction areas, including the sites of footings for WTGs and power poles, access roads, and staging, parking, and lay down areas, for California horned lizards. Surveys shall be completed within 3 days before the start of initial vegetation clearance or ground disturbance in any affected area. The survey may be done in conjunction with surveys for ground-nesting birds. However, the survey for horned lizards shall be performed regardless of season of the year. If horned lizards are found, they shall be relocated to similar habitat at least 300 feet away from construction activity. **BIO-14b: Silvery Legless Lizard**. The Applicant shall retain a County-approved biologist to survey for silvery legless lizards that could potentially occur in areas with Central Coast scrub and annual grassland with a shrub component. The biologist shall work with the equipment operator during initial vegetation clearance to identify those areas that would require legless lizard mitigation, and then to salvage and relocate exposed animals. **BIO-14c: San Diego Desert Woodrat**. The Applicant shall retain a County-approved biologist to survey the locations of WTGs and access routes prior to construction, as well as for a distance of 50 feet away for signs of the San Diego desert woodrat. If disturbance to a nest is likely to occur, the animal shall be live-trapped and relocated to a distance of 300 feet from Project activities and within similar habitat **BIO-14d: American Badger**. The Applicant shall retain a County-approved biologist to survey, prior to construction, for badger dens in the Project area, including areas within 250 feet of all Project facilities, WTG sites, and access roads. The survey shall be performed regardless of season of the year. If badger dens are found, each den shall be classified as inactive, potentially active, or definitely active. Measures shall be taken to discourage continued use of active dens, and the dens shall be excavated and backfilled aster confirming no badgers are trapped inside. See also **Mitigation Measures BIO-1, BIO-2, BIO-11a, b, c, d and BIO-14e** above.	
BIO-11	Operations	Birds and bats may collide with power poles and meteorological towers.	See **Mitigation Measures BIO-15a, b and BIO-16a, b, c, d** above.	Less than Significant

TABLE ES-2
Summary of Class II Impacts and Mitigation Measures

Resource Area	Phase/Project Component[6]	Impact Summary	Mitigation Measure Summary	Residual Impact
BIO-14	Construction and Operations	Invasive species carried from other work sites may establish on site and displace native plant species or interfere with revegetation; and topsoil removal and equipment operation may reduce the ability of soils to support vegetation.	**BIO-10: Riparian Habitat Restoration.** During consultation with the USACE and CDFG for impacts to Honda Creek (and other crossings, if applicable), a determination shall be made regarding whether a riparian habitat restoration plan will be required. If so, the Applicant shall retain a qualified ecologist to prepare and implement a site-specific creek restoration plan. See also **Mitigation Measures BIO-1, BIO-2, BIO-6 and BIO-11c, d** above.	Less than Significant
CULT-1	Construction and (potentially) Operations / LWEF, Power Line	Construction activities could result in significant impacts to ~~18~~ 20 prehistoric archaeological sites.	~~**A-**~~**CULT-1: Additional Archaeological~~~~Surveys~~ **Investigations.** If it is determined that a Project element requiring ground disturbance cannot be located at least ~~100~~ 500 feet from the mapped boundaries of an archaeological site, ~~a new Phase 1 survey of that specific location shall be conducted. If this survey confirms that ground disturbance would occur within 100 feet of a site boundary,~~ then an Extended Phase 1 investigation shall be conducted by employing a small number of shovel test units (STU). These STUs would be used to determine the actual subsurface boundary of the archaeological site relative to the proposed disturbance, and therefore verify whether or not the site would be affected by the disturbance. The STUs should be 20 inches in diameter and excavated in arbitrary 8-inch levels. If the presence of cultural materials is confirmed in areas that would be disturbed by Project construction, then Project construction activities should be reviewed and redesigned, to the greatest extent feasible, to avoid impacts on confirmed cultural resource sites (see Mitigation Measure CULT-7). If a recorded archaeological site can not be avoided through Project redesign, then Phase 2 subsurface testing shall be conducted to evaluate the nature, extent, and significance of the cultural resources. This evaluation program shall be designed to assess each archaeological site consistent with County Archaeological Guidelines. Should this program determine that the affected archaeological sites are significant, Phase 3 mitigation in the form of data recovery excavation shall be implemented consistent with County Archaeological Guidelines. ~~**A-**~~**CULT-2: Archaeological Isolates.** In the case where ground disturbance is proposed within ~~30~~ 100 feet of Archaeological Isolates LWF Iso-1, Iso-8, Iso-9, Iso-10, and Iso-11, a single STU should be excavated within 3 feet of the isolate in order to determine if there are subsurface deposits present. If the isolate cannot be	Less than Significant

TABLE ES-2
Summary of Class II Impacts and Mitigation Measures

Resource Area	Phase/Project Component[6]	Impact Summary	Mitigation Measure Summary	Residual Impact
			relocated, the STU should be placed in the general vicinity of its mapped location. If subsurface cultural deposits are identified, they should be assessed and characterized in accordance with Mitigation Measure A-CULT-1. ~~**A-CULT-3: Road Preparation.** Where existing graded ranch roads pass through an archaeological site, such roads may be utilized and widened through the site area by surfacing them with a 6-inch layer of imported gravel or soil that is free of cultural materials and recognizably different from the site soils. Surfacing the road with gravel should also occur for a distance of 100 feet beyond the mapped boundary of a site, except in cases where the boundary has been established through subsurface testing. Gravel from site LWF-111 should not be used for this purpose because it contains cultural material.~~ ~~**A-CULT-5**~~**CULT-4: Archaeological and Native American Monitors.** A County-approved archaeologist and Native American monitor shall monitor all ground disturbances ~~in all areas containing known archaeological materials~~ to ensure that any previously unidentified cultural resources are recorded. **CULT-~~1~~6: Avoidance of Cultural Resources.** Avoidance of cultural resource sites is the preferred measure, and all impacts to CRHR eligible sites shall be avoided to the greatest extent feasible ~~possible~~. **CULT-7~~2~~: Final Plan Notification.** The Applicant shall include a note on a separate informational sheet to be recorded with the final plans for each construction phase designating the known archaeological sites as unbuildable areas, unless the archaeological site is formally evaluated by a County- approved archaeologist as ineligible for the CRHR or a Phase 3 data recovery program has been implemented. The areas shall not be identified as archaeological sites on the informational sheet. **CULT-8~~3~~: Temporary Fencing.** Known unevaluated or determined significant archaeological sites and 50-foot buffer areas shall be temporarily fenced with chain link flagged with color or other material authorized by the County where ground disturbance is proposed within ~~100~~500 feet of the site and a buffer.	

TABLE ES-2
Summary of Class II Impacts and Mitigation Measures

Resource Area	Phase/Project Component[6]	Impact Summary	Mitigation Measure Summary	Residual Impact
CULT-2	Construction/ LWEF, Power Line	Impacts to unidentified subsurface archaeological resources may occur as a result of earth-disturbing activities	~~A-CULT-4~~**CULT-3: Unanticipated Discoveries.** Should human remains, historic or prehistoric artifacts, or other potentially important cultural materials be unearthed or otherwise discovered at any time during activities associated with the development of the Project area, work in the immediate vicinity of the discovery shall be suspended until a County- approved archaeologist and Native American representative are retained by the Applicant to evaluate the significance of the find pursuant to Phase 2 investigations as specified in the County Guidelines (County, 1993). If the cultural resources are found to be significant, they shall be subject to a Phase 3 mitigation program consistent with County Cultural Resource Guidelines and funded by the Applicant. In the event that suspected human remains are discovered, the County Coroner shall be contacted in accordance with state law. See **Mitigation Measure ~~A-CULT-5~~ CULT-4** above.	Less than Significant
CULT-3	Construction/ LWEF, Power Line	Impacts to known and unidentified archaeological resources may occur as a result of increased public access via new or improved roads.	~~A-CULT-6~~**CULT-5: Pre-construction Workshop.** The County shall conduct a pre-construction workshop with cultural resource specialists, Native American monitors, and construction workers and personnel, stressing the importance of cultural resources and discussing penalties for their illicit disturbance.	Less than Significant
FPES-1	Construction and Operations/ LWEF, Power Line	The Project could result in an increased risk of wildland fires that could spread to more developed areas. Fire risks include vehicle exhaust, sparks, welding, parking on dry grass, and fuel tanks.	~~A-~~**FPES-1: Fire Protection Plan.** The Applicant shall prepare a Fire Protection Plan that meets SBCFD requirements. The plan shall contain (but not be limited to) the following provisions: a. All construction equipment shall be equipped with appropriate spark arrestors and carry fire extinguishers. b. A fire watch with appropriate fire fighting equipment shall be available at the Project site at all times when welding activities are taking place. Welding shall not occur when sustained winds exceed that set forth by the SBCFD unless a SBCFD-approved wind shield is onsite. c. A vegetation management plan shall be prepared to address vegetation clearance around all WTGs and a regularly scheduled brush clearance of vegetation on and adjacent to all access roads and other facilities. d. Operational fire water tanks shall be installed prior to construction. e. Provisions for fire/emergency services access if roadway blockage occurs due to large loads during construction and operation.	Less than Significant

TABLE ES-2
Summary of Class II Impacts and Mitigation Measures

Resource Area	Phase/Project Component[6]	Impact Summary	Mitigation Measure Summary	Residual Impact
			f. Cleared, maintained parking areas shall be designated; no parking shall be allowed in non-designated areas. g. The need for and/or use of dedicated repeaters for emergency services. ~~A-~~**FPES-2: Smoking and Open Fires.** Smoking and open fires shall be prohibited at the Project site during construction and operations.	
FPES-2	Construction and Operations/ LWEF	Although the Project contains many elements that would reduce potential for severe fires, fire risks would be increased through operation of the WTGs, Project Substation, power lines, and access roads. The O&M facility would include fire suppression infrastructure.	**FPES-~~1~~4: Access Roads.** Access roads shall remain passable by emergency vehicles for the duration of the Project. ~~To the extent practicable, no access roads shall exceed a 12 percent grade. In the event an access road is unable to meet this requirement, the access road shall be constructed such that the portion of the roadway segment that exceeds the 12 percent grade is as short as possible. All roadways exceeding a 10 percent grade shall be paved or covered with aggregate acceptable to SBCFD.~~ Turn-around requirements at the terminus of access roads shall be included in roadway designs. The final design shall be approved by the SBCFD, and the final access road map (including topographic map) shall be provided to both the SBCFD and the City of Lompoc Fire Department. ~~A-~~**FPES-3: Install Gravel around Substation.** Gravel shall be placed around the perimeter of the Project Substation as a fire prevention measure. **FPES-5: Water Supply.** The Applicant shall demonstrate to the County that sufficient water can be obtained from the new shallow well or existing spring on the property and/or by trucking in from offsite supplies to adequately supply the O&M facility needs while maintaining 5,000 gallons of stored water for fire-fighting purposes. See **Mitigation Measures ~~A-~~FPES-1 and ~~A-~~FPES-2** above.	Less than Significant
FPES-3	Construction and Operations/ LWEF, Power Line	The Project would have the potential to increase demand for fire protection services.	See **Mitigation Measures ~~A-~~FPES-1 and ~~A-~~FPES-2** above.	Less than Significant
FPES-5	Construction and Operations/ LWEF, Power Line	The Project would introduce tall towers and a new power line into an Extreme Fire Hazard Area. In the event that controlled burns are required in	See **Mitigation Measure FPES-~~1~~4** above.	Less than Significant

TABLE ES-2
Summary of Class II Impacts and Mitigation Measures

Resource Area	Phase/Project Component[6]	Impact Summary	Mitigation Measure Summary	Residual Impact
		the Project area, fire fighters would need to take the new structures into consideration.		
GEO-3	Construction/ LWEF, Power Line	Construction activities could increase the potential for landslides and cause or reactivate existing landslides.	~~A.~~**GEO-2: Grading and Drainage Plan.** The Applicant shall prepare a final Grading and Drainage Plan, designed to minimize erosion and landslides.	Less than Significant
LU-5	Operations/ LWEF	~~The Project would result in increased noise levels during construction.~~ Noise from WTG operation would impact quality of life of certain residences near the turbine corridors.	See **Mitigation Measure NOI-7** below.	Less than Significant
NOI-1	Construction/ LWEF	Some types of construction equipment would generate short-term noise impacts (Class II) to nonparticipating residences less than 2,000 feet from a construction area.	~~A.~~**NOI-1: WTG Maintenance**. The Applicant shall maintain all WTGs in excellent working order to minimize operational noise impacts. **NOI-2: Construction Hours.** All Project construction activities, including those that involve use of heavy equipment (i.e., greater than 2-axle vehicles) along San Miguelito Road, shall be limited to between the hours of 7:00 a.m. to 10:00 p.m., Monday through Friday, unless otherwise approved by the County, except that construction at the project site within 1,600 feet of non-participating residences shall be limited to 7:00 a.m. to 6:00 p.m. Work may occur within the WTG sites after hours or on weekend and holidays, subject to at least 48 hours written authorization from the County, and shall be limited to 8:00 a.m. to 5:00 p.m. Requests for weekend and holiday work shall be submitted to the County for approval in advance and shall include a description of the activity to occur, including equipment usage and duration. All complaints received regarding weekend and holiday work shall be immediately submitted to the County.~~All Project construction activities shall be limited to between the hours of 7:00 a.m. to 6:00 p.m., Monday through Friday, unless otherwise approved by the County. No construction activities are allowed on state holidays.~~	Less than Significant

TABLE ES-2
Summary of Class II Impacts and Mitigation Measures

Resource Area	Phase/Project Component[6]	Impact Summary	Mitigation Measure Summary	Residual Impact
			NOI-~~2~~3: Telephone Number for Noise Complaints. The Applicant shall establish a telephone number for use by the public to report any significant undesirable noise conditions associated with the construction and operation of the Project. If the telephone is not staffed 24 hours per day, the Applicant shall include an automatic answering feature, with date and time stamp recording, to answer calls when the phone is unattended. This telephone number shall be posted at the Project site during construction in a manner visible to passersby and the number shall be maintained until the Project has been operational for at least 1 year. **NOI-~~4~~3: Noise Complaint Resolution Plan.** Throughout the construction and operation of the Project, the Applicant shall document, investigate, and evaluate all complaints and attempt to resolve all legitimate Project-related noise complaints **NOI-~~4~~5: Maintenance of Construction Equipment.** Construction contractors shall be required to ensure that construction equipment is well tuned and maintained according to the manufacturer's specifications, and that the standard noise reduction devices on the equipment are in good working order. **NOI-~~6~~5: Resident Notification.** In coordination with the County, the Applicant shall hold a pre-construction meeting for residents of Miguelito Canyon Road to review upcoming construction activities and associated noise and traffic. The Applicant shall notify residences within 1 mile of any unusually loud construction activities, including the use of helicopters, blasting or pile driving, at least 1 week prior to their scheduled occurrence. In addition, the Miguelito Canyon residents shall be notified at least one week prior of any anticipated road/lane closures and property owner ingress/egress restrictions. Such activities shall be limited to between the hours of 8:00 a.m. to 5:00 p.m., Monday through Friday, unless otherwise approved by the County.	
NOI-2	Operations/ LWEF	Adjacent nonparticipating residences could be exposed to noise levels greater than ~~44~~43.3 dBA L_{eq} (50 dBA ~~L_{dn}~~CNEL); and four of the nine participating residences could be exposed to noise levels at or greater	**NOI-~~7~~6: Acoustical Analysis.** The LWEF will be designed and operated to ensure the noise level attributable to the Project does not exceed ~~44~~43.3 dBA L_{eq} (1 hour) under normal operating conditions at any existing nonparticipating residences, or ~~59~~58.3 dBA L_{eq} at participating residences. The Applicant shall submit to the County a detailed acoustical analysis of the final site layout and selected WTGs. All calculations or modeling input and output files shall be made available to the County. The analysis shall include all available vendor sound-level data (specified as either guaranteed or expected), including a site-specific analysis of how sound power levels increase with wind speed. If a stall-controlled WTG is selected, sound power level data must be sufficient to estimate maximum sound levels under any stall condition because this could fall	Less than Significant

TABLE ES-2
Summary of Class II Impacts and Mitigation Measures

Resource Area	Phase/Project Component[6]	Impact Summary	Mitigation Measure Summary	Residual Impact
		than 59 dBA L_{eq} (65 dBA ~~L_{dn}~~CNEL).	outside the range reported by IEC 61400-11 (IEC, 2006). Control strategies, if available, to reduce Project noise levels also shall be discussed and evaluated. **NOI-~~7~~8: Noise Monitoring and Control Plan.** The Applicant shall prepare and submit a "Noise Monitoring and Control Plan" prior to zoning clearance. **NOI-~~8~~9: Maintenance Hours.** Maintenance or other routine noise-generating activities within 1,600 feet of nonparticipating residences shall be limited to weekdays between the hours of 8:00 a.m. to 5:00 p.m. only, unless activities are for emergency repairs or as otherwise approved by the County. See **Mitigation Measures NOI-1, NOI-2, ~~and~~ NOI-3, and NOI-4** above.	
PALEO-1	Construction/ LWEF, Power Line	Ground-disturbing activities such as mechanical excavation, drilling, or trenching could affect paleontological resources.	**Mitigation PALEO-1: Pre-construction Workshop.** The County shall conduct a pre-construction workshop with a County-qualified paleontologist or individual qualified to identify paleontological resources and construction workers and other personnel. The workshop shall inform personnel what fossil resources are and what they look like, what to do and who to notify in case of a paleontological discovery, and penalties for the illicit disturbance of fossils. **Mitigation PALEO-2: Implement Monitoring Program.** Paleontological resources monitoring of mechanical disturbance only in Project areas known to have moderate to high sensitivity sediments will occur concurrently with those construction activities. Monitoring will be performed by an individual determined by the County to be qualified to identify paleontological resources. Based on field data, a decrease or increase in the monitoring of specific activities and areas may be identified. **Mitigation PALEO-3: Discovery of Fossils.** If fossils are found by the monitor or by construction personnel, the following actions will be taken: a. Follow appropriate notification procedures b. Assessment of the find, usually in the field by the Project paleontologist and determination of recovery procedures c. Provisions for construction avoidance until a find is assessed and, if recovery is called for, scientifically recovered; construction-related excavations would continue in other areas away from the discovery d. Provisions for continued monitoring of construction in all appropriate areas while the find is being recovered e. Post-field initial study and curation preparation and subsequent curation.	Less than Significant

TABLE ES-2
Summary of Class II Impacts and Mitigation Measures

Resource Area	Phase/Project Component[6]	Impact Summary	Mitigation Measure Summary	Residual Impact
PALEO-2	Construction/ LWEF, Power Line	Unauthorized collection of fossils by construction workers or operational personal may occur.	See **Mitigation Measure PALEO-1** above.	Less than Significant
RISK-1	Operations/ LWEF	Risk to the public from WTG collapse would be limited, though ~~one or two~~several WTGs could be located ~~within 500 feet of a short segment of road with light traffic~~close to lightly-traveled County roads. The Project is expected to present a low risk of blade throw; nonetheless, a risk exists.	**RISK-5~~1~~: Tower Failure and Blade Throw.** ~~WTGs shall not be sited within 500 feet of a public road.~~All WTGs along public roadways shall adhere to the public road setback of the combined WTG tower and blade height.	Less than Significant
TC-2	Construction/ LWEF, Power Line	Long, heavy trucks used to deliver equipment during construction could present safety concerns, and physical modifications to the roadway or nearby trees and power lines may be required.	~~A~~ **TC-1: Traffic Management Plan (TMP).** The Applicant shall prepare a TMP for submittal to the County of Santa Barbara, City of Lompoc, and Caltrans. The purpose of the TMP is to address potential hazards associated with Project truck traffic. The plan will require measures such as informational signs, flagmen when equipment may result in blockages of throughways, and traffic control to implement any necessary changes in temporary lane configuration. ~~A~~ **TC-2: Traffic Mitigation Fees.** The Applicant shall pay the appropriate traffic mitigation fees to the County of Santa Barbara. TC-4: Oversize Loads. Oversize loads require the implementation of special traffic control measures and require permits from affected jurisdictions. Since loads will be delivered to the site using state, city, and County roads, permits shall be required from Caltrans, the City of Lompoc, and the County of Santa Barbara. The Applicant shall obtain permits from the County of Santa Barbara to trim or remove trees, or both, on San Miguelito Road for the safe movement of oversized trucks. Longer trucks may have to be restricted to specific routes if turning radii are not sufficient on current truck routes.	Less than Significant

TABLE ES-2
Summary of Class II Impacts and Mitigation Measures

Resource Area	Phase/Project Component[6]	Impact Summary	Mitigation Measure Summary	Residual Impact
TC-5	Construction/ LWEF, Power Line	Trucks carrying heavy equipment could damage existing streets.	TC-3: Roadway Repairs. The Applicant shall enter into an agreement with affected jurisdictions to ensure that any damage to roadways attributable to Project traffic is mitigated through repair or reconstruction to original conditions. Roads will be photographed or videotaped prior to construction to ensure that final repairs are sufficient to return the road to pre-construction conditions. The Applicant shall also comply with the requirements of the hauling permits from affected jurisdictions prior to the construction of the Project. See also **Mitigation Measures ~~A-~~TC-1 and ~~A-~~TC-2** above.	Less than Significant
WAT-5	Construction and Operations/ LWEF, Power Line	The Project could result in the removal or reduction of vegetation from the buffer zone of streams, creeks, or wetlands, which could affect water quality.	WAT-1: Erosion Control Plan. An Erosion Control Plan for Project construction (the County acknowledges that a SWPPP that incorporates all of the RWQCB requirements/ BMPs and the measures listed below would be acceptable to comply with this requirement) shall be developed by a registered engineer to minimize potential impacts to surface water quality during construction activities. Best available erosion and sediment control measures shall be implemented during grading and construction. WAT-2: Minimize watercourse encroachment in road widening. Prior to final approval of the Project, a road widening plan showing all watercourse encroachments shall be submitted to Santa Barbara County for review and approval. The plan shall demonstrate that any roadway widening within or adjacent to a watercourse is the minimum practicable, and that the widening does not adversely affect the creek channel or flow pattern. The road widening plan shall also demonstrate that access to the City of Lompoc Frick Springs Water Treatment Facility, and its operations and delivery systems, will not be compromised. ~~**A-RISK-1.** The Applicant shall prepare a Hazardous Materials Management Plan that meets SBCFD requirements.~~ ~~**A-RISK-2.** Refueling vehicles shall have a sign listing pertinent contacts to notify in the event of a spill.~~ ~~**A-RISK-3.** All equipment shall be adequately maintained to minimize operational losses of hazardous materials and to reduce the risk of accidental spillage.~~ ~~**A-RISK-4.** Construction fueling shall be designated such that sensitive areas are avoided.~~ See also **Mitigation Measures BIO-1, BIO-2, BIO-2, BIO-9, BIO-10, GEO-2, RISK-1, RISK-2, RISK-3, AND RISK-4 ABOVE.~~A-BIO-16, A-BIO-18, A-BIO-19, A-BIO-20, BIO-2, AND A-GEO-2~~** above.	Less than Significant

Note to reader: Table ES-3 presents a summary only of the Class III impacts (adverse but less than significant) identified for the Lompoc Wind Energy Project. For a detailed discussion of the impacts and the entirety of the mitigation measures, please refer to Sections 3.2 through 3.15. The entire mitigation measures are also available for review in Appendix D, Mitigation Monitoring Plan. Due to the substantial edits to and reordering of the biological resources impacts and mitigation measures, deletions are not shown in the table below.

TABLE ES-3
Summary of Class III Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
AG-1	Construction and Operations/ LWEF, Power Line	Development of the LWEF and power line installation would result in the temporary and permanent disturbance of farmland.		Not Applicable
AQ-1	Construction/ LWEF, Power Line	Exhaust emissions from construction equipment would result in short-term emissions of NO_x and ROC.	~~A~~ **AQ-1: Construction Equipment Emission Reduction Plan.** A Construction Equipment Emission Reduction Plan shall be prepared by the Applicant based on the construction impact mitigation measures for equipment exhaust summarized in the Santa Barbara Air Pollution Control District guide.	Not Applicable
AQ-3	Operations/ LWEF, Power Line	Exhaust emissions from workers driving onsite and a forklift would result in long-term emissions of NO_x and ROC. Fugitive dust emissions from workers driving on unpaved roads would result in long-term emissions of PM_{10}.		Not Applicable
BIO-1	Operations	Minor disturbances to common vegetation are expected during O&M.	See **Mitigation Measure BIO-1** above.	Not Applicable

TABLE ES-3
Summary of Class III Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
BIO-2	Operations	Only minor disturbances to common vegetation are expected from ongoing vegetation clearances for fire management and safety.	See **Mitigation Measures BIO-1, BIO-2, BIO-3. BIO-4 and BIO-11c, d** above.	Not Applicable
BIO-4	Construction	A minor amount of riparian vegetation (several square feet) would be removed during bridge construction at Honda Creek; soil erosion would result in minor impacts on water quality.	See **Mitigation Measures BIO-1 thru BIO-4, BIO-9, BIO-10 and BIO-11c, d** above.	Not Applicable
BIO-7	Construction	Individual animals could be injured or killed by vehicles, equipment, explosives, or large holes during construction.	See **Mitigation Measures BIO-1, BIO-2, and BIO-11a, b, c, d** above.	Not Applicable
BIO-9	Construction and Operations	Direct and indirect impacts may occur to special-status wildlife species. Those with higher potential for injury or fatalities by vehicles or equipment, loss of habitat, or disturbance of burrows and nests including mammals.	See **Mitigation Measures BIO-1, BIO-2, BIO-11a, b, c, d and BIO-14c, d** above.	Not Applicable

TABLE ES-3
Summary of Class III Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
BIO-12	Operations	Birds with habitat within 200 feet of WTG towers may be displaced.	See **Mitigation Measures BIO-16a, b, c, d** above.	Not Applicable
BIO-13	Construction and Operations	Indirect impacts to wildlife during construction would result from a variety of sources, which could result in temporary displacement. During operations, increases to impacts compared to pre-Project levels would be minor.	See **Mitigation Measures BIO-11a, b** above.	Not Applicable
EEU-2	Construction and Operations/ LWEF, Power Line	Construction and operation of the Project would result in consumption of diesel fuel and gasoline.		Not Applicable
EEU-3	Construction and Operations/ Power Line	Temporary and long-term modifications to the PG&E system would be required to implement the Project, including ~~a temporary power line and~~ upgrades to PG&E's existing electrical system.		Not Applicable
FPES-4	Construction and Operations/ LWEF, Power Line	The influx of workers may temporarily increase the need for paramedic services during construction, although only about		Not Applicable

TABLE ES-3
Summary of Class III Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
		10 staff would be required during operations.		
FPES-6	Construction and Operations/ LWEF	For security and safety reasons, the Applicant may request that Sudden Road and upper Miguelito Canyon Road become a private road, which would be required to have a lock that could be opened by fire and other emergency service providers.		Not Applicable
GEO-1	Construction and Operations/ LWEF, Power Line	Risk of damage to structures by fault rupture is very low.		Not Applicable
GEO-2	Construction and Operations/ LWEF, Power Line	A major earthquake could result in ground shaking and liquefaction.	~~A-~~**GEO-1: Seismicity.** Project facilities shall be designed to Uniform Building Code Seismic Zone 4 standards.	Not Applicable
GEO-4	Construction/ LWEF, Power Line	Construction could accelerate or increase the potential for erosion from water and wind.	See **Mitigation Measure ~~A-~~GEO-2** above.	Not Applicable
GEO-5	Construction and Operations/	Structures would be designed to appropriate engineering	~~A-~~**GEO-3: Expansive Soils.** Soil analyses shall be completed for expansion potential. Once Project design has been developed and the criteria for the facility performance have been established, the soils engineer shall review these and modify them as appropriate. If further measures are considered necessary to	Not Applicable

TABLE ES-3
Summary of Class III Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
	LWEF, Power Line	standards and would not be susceptible to significant damage produced by expansive soils.	mitigate problems posed by expansive soils, the following alternatives shall be considered: a. Over-excavation of expansive soils and replacement with non-expansive fill. b. Support of structures on drilled shaft foundations. c. Lime treatment of expansive subgrades. See **Mitigation Measure ~~A-~~GEO-1** above.	
GEO-6	Construction and Operations/ LWEF	Testing has determined that leach lines would be a suitable method of sewage effluent disposal.		Not Applicable
GEO-7	Construction and Operations/ LWEF, Power Line	Compressible soil and subsidence potential is considered low. Collapsible soil may be present within alluvial valleys and could cause settlement damage to structures and roadways.	**~~A-~~GEO-4: Project Support Facilities.** Project support facilities such as bridge foundations shall be sited on cut pads to provide relatively uniform foundation support and reduce differential settlement. Alternatively, structure foundations shall be designed to tolerate potential differential settlement. See **Mitigation Measure ~~A-~~GEO-1** above.	Not Applicable
LU-1	Construction and Operations/ LWEF, Power Line	The Project would comply with development standards, ~~because~~including impacts to aesthetic/visual resources that would be mitigated to the extent feasible through the implementation of mitigation measures identified in Section	**LU-2: Staking of Coastal Zone.** The Applicant shall install exclusion fencing or stake the coastal zone boundary to ensure that no construction activities enter the coastal zone area. **LU-3: Decommission & Reclamation Plan:** The Applicant shall develop a Decommission and Reclamation Plan that addresses facility decommission, abandonment, and post-abandonment reclamation efforts.	Not Applicable

TABLE ES-3
Summary of Class III Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
		3.2.5.8.		
LU-2	Construction and Operations/ LWEF, Power Line	The Project would affect air navigation ~~through the use of~~ if helicopters were used during construction and the installation of WTGs and meteorological towers.	**Mitigation Measure ~~A-~~LU-1: Compliance with FAA Regulations**. The WTG lighting plan shall comply with FAA requirements.	Not Applicable
LU-3	Operations/ LWEF	The Project would be designed to avoid interference with VAFB operations, such as radar, telemetry antennas, and microwave links, specifically VTRS located on Sudden Peak. The Project footprint is within existing space launch hazard corridors that need to be evacuated periodically to ensure public safety and evacuation agreements would be pursued.	~~**Mitigation A-LU-2: Compliance with VAFB Requirements.** The final WTG layout and Project operations shall not conflict with VAFB operations.~~	Not Applicable
LU-4	Construction/ LWEF, Power Line	Construction activities would result in increased traffic in relatively quiet neighborhoods.	See **Mitigation Measure TC-1** above.	Not Applicable

TABLE ES-3
Summary of Class III Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
LU-5	Construction/ LWEF	The Project would result in increased noise levels during construction. ~~Noise from WTG operation would impact quality of life of certain residences near the turbine corridors.~~	See **Mitigation Measures NOI-2, NOI-3. NOI-4 and NOI-6** above.	Not Applicable
RISK-2	Operations/ LWEF	Blade icing and ice throw would not be expected to occur; additionally, there would be limited human activity in the Project area.		Not Applicable
RISK-3	Operations/ LWEF, Power Line	Electromagnetic fields are a possible issue when associated with the siting of high voltage overhead power lines or cables less than 200-feet from residences.	~~**Mitigation Measure RISK-2: Electromagnetic Field Effect Reduction.** The 115-kV power line shall be constructed with low-cost EMF reduction measures incorporated where the line is located less than 200 feet (ground distance) from residences or other occupied structures. These measures may include siting the power lines 200 feet or more from residences or employing phasing between the conductors to minimize or eliminate EMF. The measure shall conform to those described in California Public Utilities guidelines.~~See Avoidance and Protection Measure PL-7, Section 2.8.5.	Not Applicable
RISK-4	Construction and Operations/ LWEF, Power Line	~~Utility and turbine~~ Construction workers would be exposed to a number of risks, including electrical shock and falls. There is also risk to members of public who incidentally or intentionally enter the Project site.		Not Applicable

TABLE ES-3
Summary of Class III Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
RISK-5	Construction and Operations/ LWEF, Power Line	Accidental spills or leakage of hazardous materials could occur, including fuels (gasoline and diesel), lubricants, motor oil, and paints.	See **Mitigation Measures ~~A-~~RISK-1, ~~A-~~RISK-2, ~~A-~~RISK-3, and ~~A-~~RISK-4** above.	Not Applicable
TC-1	Construction/ LWEF, Power Line	Project-related construction traffic would temporarily affect traffic levels and LOS on Project area roadways.	See **Mitigation Measures ~~A-~~TC-1 and ~~A-~~TC-2** above.	Not Applicable
TC-3	Construction/ LWEF, Power Line	Heavy-haul trucks would be required to transport large and heavy equipment subject to weight, height, and load limitations.	**TC-~~4~~2: Oversize Loads.** Oversize loads require the implementation of special traffic control measures and require permits from affected jurisdictions. Since loads will be delivered to the site using state, city, and County roads, permits shall be required from Caltrans, the City of Lompoc, and the County of Santa Barbara. The Applicant shall obtain permits from the County of Santa Barbara to trim or remove trees, or both, on San Miguelito Road for the safe movement of oversized trucks. Longer trucks may have to be restricted to specific routes if turning radii are not sufficient on current truck routes. See **Mitigation ~~A-~~Measures TC-1 and ~~A-~~TC-2** above.	Not Applicable
TC-4	Construction/ LWEF, Power Line	During peak construction, several oversized trucks per day could slow traffic and necessitate temporary blockages of intersections.	~~**Mitigation Measure TC-13: Roadway Repairs.** The Applicant shall enter into an agreement with affected jurisdictions to ensure that any damage to roadways attributable to Project traffic is mitigated through repair or reconstruction to original conditions. Roads will be photographed or videotaped prior to construction to ensure that final repairs are sufficient to return the road to pre-construction conditions. The Applicant shall also comply with the requirements of the hauling permits from affected jurisdictions prior to the construction of the Project.~~ See **Mitigation Measure TC-1 and ~~A-~~TC-2** above.	Not Applicable
TC-5	Construction and Operations/ LWEF, Power Line	Project vehicles could track dust and soil onto public roads.	See **Mitigation Measures ~~A-~~TC-2** ~~above~~ and WAT-1.	Not Applicable

TABLE ES-3
Summary of Class III Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
~~VIS-1~~	~~Construction and Operations/~~ ~~LWEF, Power Line~~	~~WTGs and related structures have the potential to be visible in the vicinity of the Project.~~	~~**A-VIS-1: Materials Storage.** All construction materials and excavated materials shall be stored away from San Miguelito Road, whenever possible, to reduce impacts on mountain views.~~ ~~**A-VIS-2: Location of Construction Activities.** Construction activities and materials storage shall be confined to within the WTG right-of-way, staging areas, and the Project Substation and operations and maintenance (O&M) facility areas.~~	~~Less than Significant~~
VIS-2	Construction and Operations/ LWEF	WTGs would be visible from La Purisima Mission.	See **Mitigation Measure LU-1** above.	
VIS-3	Operations/ LWEF	WTGs would be visible throughout the SR-1 corridor and the Lompoc Valley	See **Mitigation Measure LU-1** above.	Not Applicable
VIS-5	Construction and Operations/ LWEF, Power Line	Construction and operation of the power line would be visible from public roadways.	~~**Mitigation Measure A-VIS-3: Power Line.** Where possible, particularly on nonparticipating ranches, the power line shall follow the existing distribution lines. Where possible, existing distribution and power lines shall be built below the proposed power line to consolidate facilities.~~ See Avoidance and Protection Measure PL-4, Section 2.8.5.	Not Applicable
WAT-1	Construction/ LWEF, Power Line	The proper implementation of erosion and sedimentation control would reduce erosion rates during and after construction to essentially natural rates.	~~A-~~**WAT-1. Erosion Control Plan**. An Erosion Control Plan for Project construction shall be developed by a registered engineer to minimize potential impacts to surface water quality during construction activities. Best available erosion and sediment control measures shall be implemented during grading and construction. If grading needs to be done outside of the dry season, the Applicant shall coordinate grading work with the County and shall follow all applicable guidelines. Rainy season erosion control measures shall be utilized to control runoff and erosion in the event that revegetation is not completed prior to the rainy season. Sediment control measures shall be maintained for the duration of the grading period and until graded areas have been stabilized by structures, long-term erosion control measures or landscaping. Construction entrances and exits shall be stabilized using gravel beds, rumble plates, or other measures to prevent sediment from being tracked onto adjacent	Not Applicable

TABLE ES-3
Summary of Class III Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
			roadways. Any sediment or other materials tracked off site shall be removed the same day as they are tracked using dry cleaning methods. See **Mitigation Measures ~~A-BIO-19~~ ~~and A-~~GEO-2** above.	
WAT-2	Construction/ LWEF, Power Line	Water quality could be affected by small fuel or oil spills, concrete, and trash and litter during construction.	See **Mitigation Measures Risk-1 to Risk-4.**	Not Applicable
WAT-3	Construction and Operations/ LWEF, Power Line	Although some acres will be temporarily and permanently disturbed by changes to stormwater runoff/flooding, hydrologic conditions would remain about the same as current conditions.	**WAT-2: Minimize watercourse encroachment in road widening**. Prior to final approval of the Project, a road widening plan showing all watercourse encroachments shall be submitted to Santa Barbara County for review and approval. The plan shall demonstrate that any roadway widening within or adjacent to a watercourse is the minimum practicable, and that the widening does not adversely affect the creek channel or flow pattern. The road widening plan shall also demonstrate that access to the City of Lompoc Frick Springs Water Treatment Facility, and its operations and delivery systems, will not be compromised.	Not Applicable
WAT-4	Construction and Operations/ LWEF	The Project would not substantially deplete groundwater supplies or interfere with groundwater recharge. Effluent from facility drains would be disposed of through a proposed leach line system.	See **Mitigation Measure FPES-4**.	Not Applicable

TABLE ES-4
Summary of Class IV Impacts and Mitigation Measures

Resource Area	Phase/Project Component	Impact Summary	Mitigation Measure Summary	Residual Impact
AG-1	Construction and Operations/ LWEF, Power Line	Development of the LWEF and power line installation would provide financial support to property owners.		Beneficial
EEU-1	Operations/ LWEF, Power Line	The Project could generate up to ~~350~~285 million kWh of electricity annually.		Beneficial