



ALAMEDA COUNTY COMMUNITY DEVELOPMENT AGENCY  
PLANNING DEPARTMENT

**Environmental Checklist Form**  
**Prepared Pursuant to the California Environmental Quality Act (CEQA)**

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**A. PROJECT DESCRIPTION:**

**1. Project Title:**

Sand Hill Wind Project

**2. Lead Agency Name and Address**

Alameda County Community Development Agency  
224 W. Winton Avenue, Suite 110  
Hayward, CA 94544

**3. Contact Person and Phone Number**

Andrew Young, Planner III  
Alameda County Planning Department, Community Development Agency  
510-670-5400

**4. Project Location:**

The project sites are located within unincorporated Alameda County (Figure 1) on Assessor Parcel Numbers [APN] 099B-7750-006-00, 099B-6325-001-03, 099B-7375-001-07, 099B-7875-001-02, 099B-7875-001-03, 099B-7500-003-01, 099B-7600-001-01 (Figure 2).

**5. Project Sponsor's Name and Address:**

FloDesign Wind Turbine Corp. (FloDesign)  
221 Crescent Street, Suite 103A  
Waltham, MA 02453

**6. General Plan Designation:**

Large Parcel Agriculture

**7. Zoning:**

A (Agricultural) District

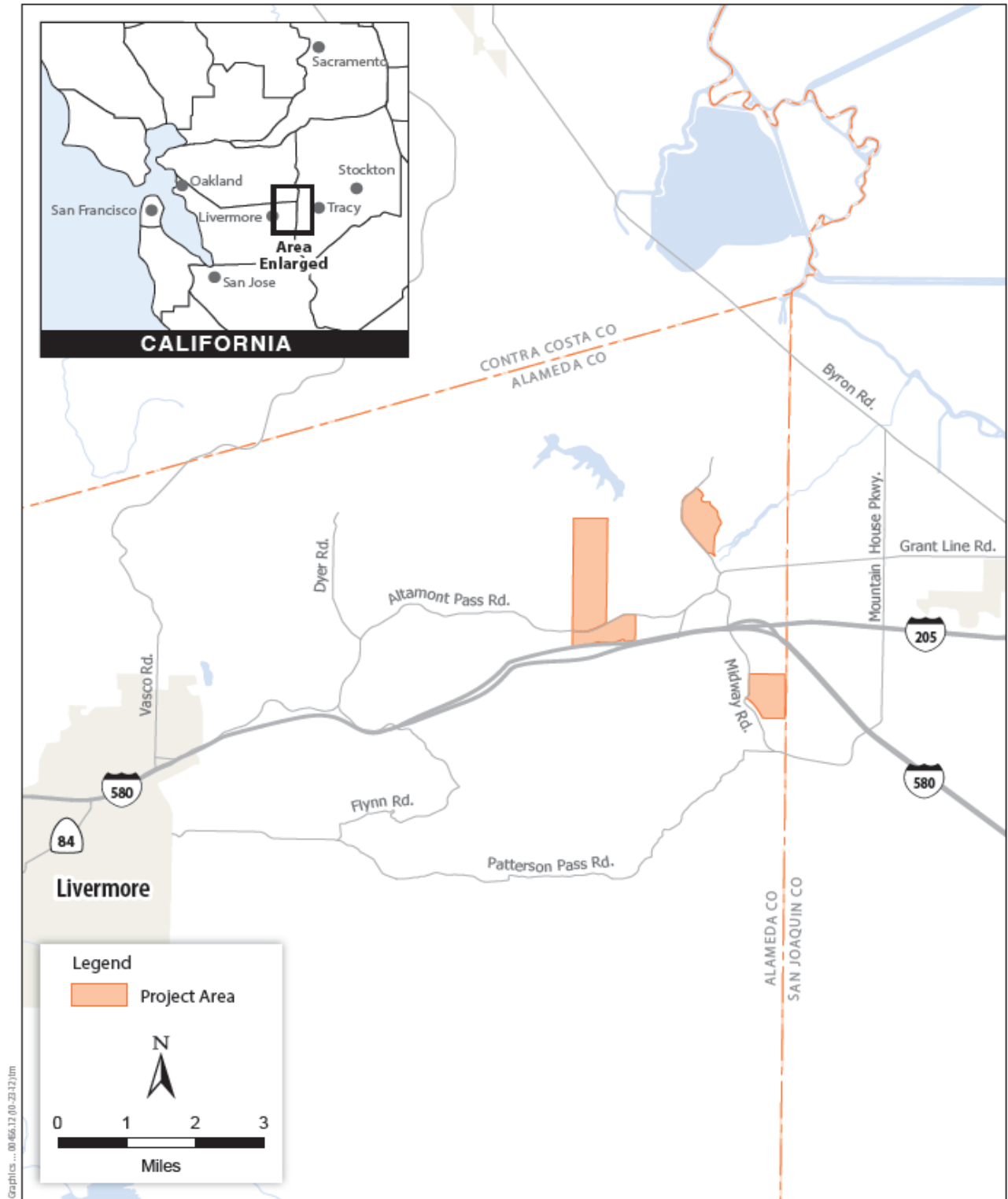
**Description of Project:**

Introduction

FloDesign Wind Turbine Corp. (FloDesign) has proposed a repowering program that would entail the removal of existing turbines previously owned by SeaWest Power Resources LLC on multiple parcels in the Altamont Pass Wind Resource Area (APWRA). FloDesign would replace the older turbines with a new technology turbine known as a mixer-ejector wind turbine (MEWT). FloDesign seeks to accomplish the repowering in two or more phases through 2016. The project would require a conditional use permit (CUP) per the Alameda County Zoning Ordinance. An application for a CUP was submitted to Alameda County on January 15, 2013, for the Initial Repower portion of the project.

Existing Conditions

The AWPRA currently supports one of the largest concentrations of wind turbines in the world. Most of the wind turbines are of aging design, and avian and bat mortality has been an ongoing concern. Approximately 400 existing wind turbines are currently located on the project site.



Graphics...00146517.00-23127.mxd



**Figure 1**  
**Project Location**

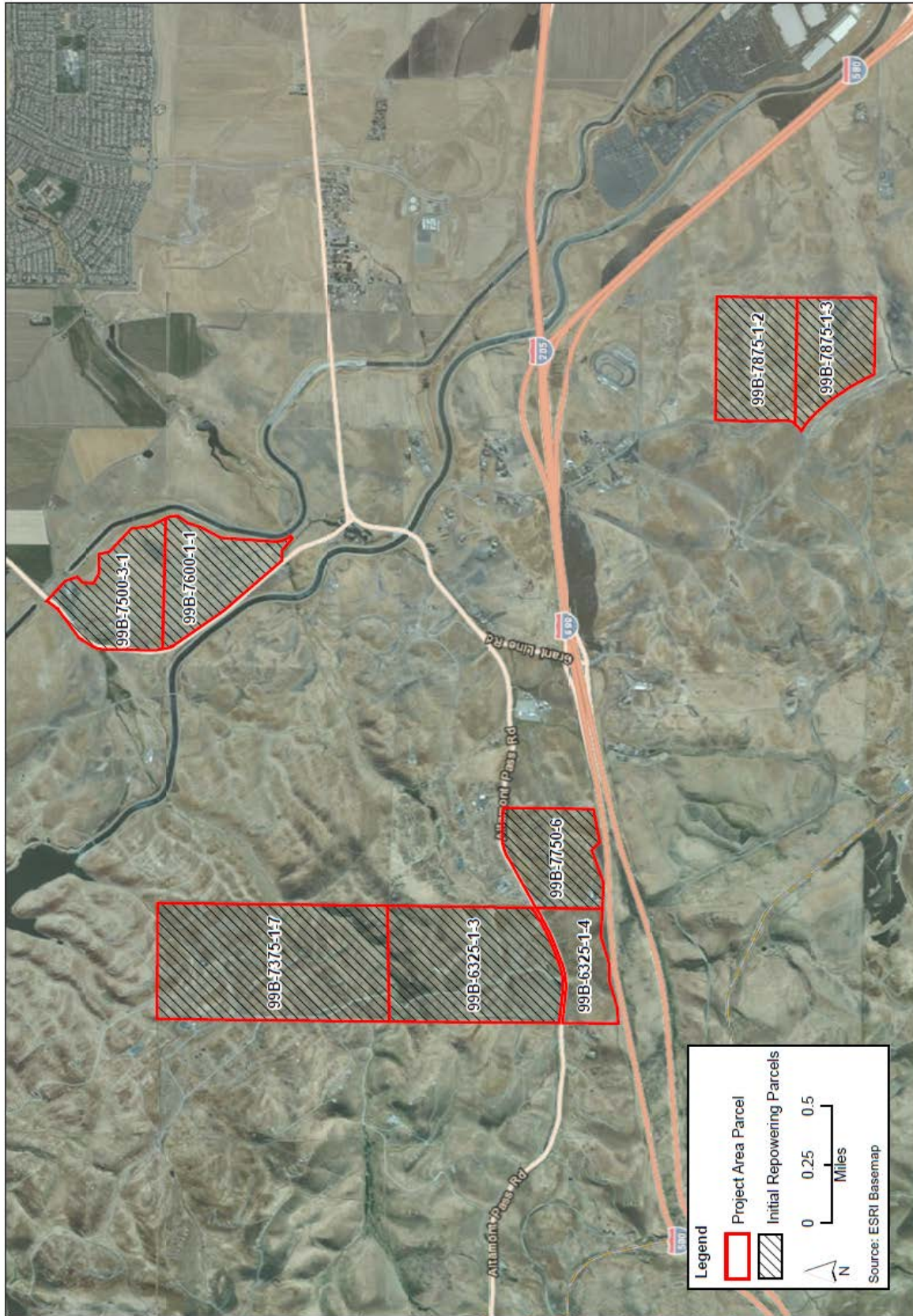


Figure 2  
Project Area Parcels



## 8. Project Details

The first phase of the program, referred to as the “Initial Repower,” would involve the removal of 70–80 existing turbines (approximately 4 MW) and installation of 40 MEWTs of equal total capacity (approximately 4 MW) to assess the functionality of the new MEWT design and determine the extent to which it reduces impacts on birds and bats compared to the mortality associated with the existing turbines. The performance assessment would consist of an avian validation study funded by a Public Interest Energy Research (PIER) Grant from the California Energy Commission (Avian Study).

The 40 MEWTs installed during the Initial Repower would be installed throughout the existing facilities; the remainder of the existing turbines (other than the 70–80 existing turbines removed as part of the Initial Repower) would be left in place for at least 1 year as controls for the avian study that would be conducted to test the MEWTs’ efficacy in reducing avian and bat mortality rates.

FloDesign would use the test results of the Avian Study and MEWT performance data to inform its approach to repowering the remainder of the existing turbines (approximately 320 turbines) in future phases. Subsequent repowering phases would repower up to an additional 32 MW of generating capacity, for a total of 36 MW.

Because of the proposed project’s co-location with existing turbines, no new access roads, substation facilities, interconnection lines, or operations and maintenance (O&M) facilities would be necessary. However, some access roads may require widening. New pads would be constructed for the MEWTs, as well as new connections to the existing power collection system and temporary lay-down areas.

Each MEWT would be a maximum of 190 feet tall, with a maximum hub height of up to 120 feet. The shrouded turbine would have a maximum diameter of 70 feet. Each tower’s foundation would require an excavation of approximately 56 feet in diameter to a depth of 8 feet. The permanent disturbance area of each turbine would be approximately 64 feet in diameter (approximately 3,215 square feet).

To reduce disturbance at each turbine location, common assembly pads would be constructed. Depending on the number of turbines in close proximity, up to eight MEWTs may be constructed from each pad, for a total of up to five pads required. The pads would be level areas approximately 200 feet in diameter with gravel cover to support the construction equipment and to reduce dust. The pads would be temporary and would be removed and restored on completion of construction. Each pad would therefore disturb approximately 0.72 acre, for a total disturbance area of 3.6 acres.

In addition to the pad area for each turbine, the Initial Repower phase would require four temporary laydown areas of 5 acres each to store turbine components, construction equipment, job trailers, and construction materials. These areas would be restored to preproject conditions on completion of construction.

### Phasing

Project construction would proceed as shown in the general sequence below.

- Demarcation of construction areas, biological resources, and biological resource setback areas
- Grading and road repair as needed
- Laydown/staging areas established

- Decommissioning and removal of existing turbines
- Turbine foundation construction
- Power collection system and communication lines installation
- Turbine installation
- Erosion and sediment control
- Final cleanup and restoration

#### Underground Work

Excavations would be dug for construction of turbine foundations, and trenches would be dug for installation of cables between individual MEWTs. Each cable trench would be approximately 12 inches wide and 42 inches deep.

#### System Installation/Testing

Large cranes would be used to erect the turbine towers and install the turbines. After construction, all project systems, controls, and safety equipment would be calibrated and tested before bringing the equipment online.

#### Final Cleanup and Restoration

Upon completion of construction, the site would be cleaned and restored. Construction trash and debris would be collected and properly disposed of. All temporarily disturbed areas would be seeded with a seed mix appropriate to adjacent areas. To the extent feasible, original land contours would be restored to preconstruction conditions, and permanent erosion control measures such as water bars would be installed.

#### 8. **Surrounding land uses and setting:**

The project is located in a rural area of unincorporated eastern Alameda County, near the western edge of the San Joaquin Valley. The area's topography is generally characterized by grass-covered, rounded hills and smooth contours, with occasional steep slopes and ridges. Much of the region currently serves as cattle grazing land, and existing wind turbines and associated facilities are highly visible both within and surrounding the project areas. Scattered rural residences and businesses dot the surrounding landscape.

#### 9. **Other public agencies whose approval may be required:**

Alameda County Public Works Agency

San Francisco Bay Regional Water Quality Control Board

California Department of Transportation

California Department of Fish and Wildlife

U.S. Army Corps of Engineers

Federal Aviation Administration

U.S. Fish and Wildlife Service

**B. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:**

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

- |  |   |  |
|--|---|--|
| <input checked="" type="checkbox"/> Aesthetics                 | <input checked="" type="checkbox"/> Agriculture and Forest Resources            | <input checked="" type="checkbox"/> Air Quality                        |
| <input checked="" type="checkbox"/> Biological Resources       | <input checked="" type="checkbox"/> Climate Change and Greenhouse Gas Emissions | <input checked="" type="checkbox"/> Cultural Resources                 |
| <input checked="" type="checkbox"/> Geology /Soils             | <input checked="" type="checkbox"/> Hazards & Hazardous Materials               | <input checked="" type="checkbox"/> Hydrology and Water Quality        |
| <input type="checkbox"/> Land Use and Planning                 | <input type="checkbox"/> Mineral Resources                                      | <input checked="" type="checkbox"/> Noise                              |
| <input type="checkbox"/> Population and Housing                | <input type="checkbox"/> Public Services  | <input type="checkbox"/> Recreation                                    |
| <input checked="" type="checkbox"/> Transportation and Traffic | <input checked="" type="checkbox"/> Utilities / Service Systems                 | <input checked="" type="checkbox"/> Mandatory Findings of Significance |

**C. LEAD AGENCY DETERMINATION:**

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

  
 \_\_\_\_\_  
 Signature

3/6/13  
 \_\_\_\_\_  
 Date

## D. EVALUATION OF ENVIRONMENTAL EFFECTS:

The Environmental Checklist and discussion that follows is based on sample questions provided in the CEQA Guidelines (Appendix G) which focus on various individual concerns within 17 different broad environmental categories, such as air quality, climate change, cultural resources, land use, public services, noise and traffic (and arranged in alphabetical order). The Guidelines also provide specific direction and guidance for preparing responses to the Environmental Checklist. The sample questions are meant to be used to meet the requirements for an initial study when the criteria set forth in CEQA Guidelines have been met. Substantial evidence of potential environmental impacts that are not listed in the checklist must also be considered. The sample questions are intended to encourage thoughtful assessment of impacts, and do not necessarily represent thresholds of significance.

Each question in the Checklist essentially requires a “yes” or “no” reply as to whether or not the project will have a potentially significant environmental impact of a certain type, and, following a Checklist table with all of the questions in each major environmental heading, citations, information and/or discussion that supports that determination. The Checklist table provides, in addition to a clear “yes” reply and a clear “no” reply, two possible “in-between” replies, including one that is equivalent to “yes, but with changes to the project that the proponent and the Lead Agency have agreed to, *no*”, and another “no” reply that requires a greater degree of discussion, supported by citations and analysis of existing conditions, threshold(s) of significance used and project effects than required for a simple “no impact” reply.

Each possible answer to the questions in the Checklist, and the different type of discussion required, is discussed below:

- a) Potentially Significant Impact. Checked if a discussion of the existing setting (including relevant regulations or policies pertaining to the subject) and project characteristics with regard to the environmental topic demonstrates, based on substantial evidence, supporting information, previously prepared and adopted environmental documents, and specific criteria or thresholds used to assess significance, that the project will have a potentially significant impact of the type described in the question.
- b) Less Than Significant With Mitigation. Checked if the discussion of existing conditions and specific project characteristics, also adequately supported with citations to relevant research or documents, determines that the project clearly will or is likely to have particular physical impacts that will exceed the given threshold or criteria by which significance is determined, but that with the incorporation of clearly defined mitigation measures into the project, that the Applicant has agreed to, such impacts will be avoided or reduced to less-than-significant levels.
- c) Less Than Significant Impact. Checked if a more detailed discussion of existing conditions and specific project features, also citing relevant information, reports or studies, demonstrates that, while some effects may exist with regard to the individual environmental issue, the effect would not exceed a threshold of significance which has been established by the Lead or a Responsible Agency. The discussion may note that due to the evidence that a given impact would not occur or would be less than significant, no mitigation measures are required.
- d) No Impact. Checked if brief statements (one or two sentences) or cited reference materials (maps, reports or studies) clearly show that the type of impact could not be reasonably expected to occur due to the specific characteristics of the project or its location (e.g. the project falls outside the nearest fault rupture zone, or is several hundred feet from a 100-year flood zone, and relevant citations are provided). The referenced sources or information may also show that the impact simply does not apply to projects like the one involved. A response to the question may also be "No Impact" with a brief explanation that the basis of adequately supported project-specific

factors or general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a basic screening of the specific project).

The discussions of the replies to the Checklist questions must take account of the whole action involved in the project, including off-site as well as on-site effects, both cumulative and project-level impacts, indirect and direct effects, and construction as well as operational impacts.

Except when a “No Impact” reply is indicated, the discussion of each issue must identify:

- a) the significance criteria or threshold, if any, used to evaluate each question; and
- b) the mitigation measure identified, if any, to reduce the impact to less than significance, with sufficient description to briefly explain how they reduce the effect to a less than significant level.

Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063(c)(3)(D) of the Guidelines). In this case, a brief discussion should identify the following:

- a) Earlier Analysis Used. Identify and state where the earlier analysis is available for review.
- b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
- c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

1. AESTHETICS Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant with Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Have a substantial adverse effect on a scenic vista?	X			
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	X			
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	X			
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	X			

**Setting**

Aesthetics impacts are typically based on viewer response to changes in their surroundings resulting from project construction and operation. The project areas are in a rural area of unincorporated eastern Alameda County, near the western edge of the San Joaquin Valley. The area’s topography is generally characterized by grass-covered, rounded hills and smooth contours, with occasional steep slopes and



ridges. A broad, flat expanse of the San Joaquin Valley dominates views to the east, with the foothills, ridges, and peaks of the Altamont Hills dominating views to the north, west, and south. A mix of agricultural, industrial, and rural residential land uses define the area's visual character. Much of the region currently serves as cattle grazing land, and existing wind turbines and associated facilities are highly visible both within and surrounding the project areas. Scattered rural residences and businesses dot the surrounding landscape.

Existing wind farms, consisting of rows (or *strings*) of turbines, plus power lines, transformers, and access roads, constitute the area's most visually distinct artificial feature. Approximately 300 Kenetech model KCS-56 100kw wind turbines, consisting of lattice towers 90–100 feet tall currently occupy the project parcels. Many of the turbines are situated in highly visible locations on or near ridgelines.

Several designated scenic routes traverse the project vicinity. The Scenic Route Element of the Alameda County General Plan designates Interstate (I-) 580, Altamont Pass Road, Patterson Pass Road, and Flynn Road as scenic routes (Alameda County 1966). Approximately 15.4 miles of I-580 in San Joaquin and Alameda Counties, from I-5 to I-205, is a state scenic highway; this roadway segment lies east of the project areas (California Department of Transportation 2007).

Sensitive visual receptors in the project vicinity could include residents near the project areas, travelers on nearby roadways, and employees at nearby businesses. Additional potentially sensitive receptors could include individuals participating in recreational activities at area facilities such as Bethany Reservoir State Recreation Area and a nearby off-road vehicle park. Residents would be expected to have the highest sensitivity to visual changes in the project areas due to their familiarity with the view, their investment in the area, and their sense of ownership of the view. Residents who occupy these parcels or other parcels leased for wind generation facilities would be expected to have the lowest level of sensitivity to change because these landowners have agreed to lease the site for wind energy generation purposes and would therefore be more accepting of related visual changes. Motorists on nearby roadways, although more numerous than residents, would generally be less sensitive to visual changes in the project area because of the shorter duration of their exposure to the views and the focus of their attention on driving activities. Employees at nearby businesses would be engaged in work-related activities and would similarly be expected to be less sensitive to visual changes than nearby residents.

### **Impacts**

- a) For the most part, neither the Initial Repower nor the subsequent repowering effort is expected to result in significant visual impacts on scenic vistas. However, the new, substantially taller turbines would likely be visible to sensitive visual receptors such as nearby residents. Because project implementation could affect views from sensitive receptors, the EIR will analyze this issue.
- b) Although the proposed project is unlikely to substantially damage scenic resources, the new, taller turbines could be visible to motorists on nearby designated scenic routes. Accordingly, this issue will be evaluated in the EIR.
- c) Although implementation of both the Initial Repower and the subsequent repowering of the remaining turbines would ultimately result in fewer turbines in the project areas, the new turbines are likely to be more visually prominent than those they would replace because of their greater height. Accordingly, the EIR will consider the increased visual prominence of the new turbines.
- d) The new wind turbines may require lighting in accordance with FAA recommendations for aviation safety. Furthermore, glare could result from the turbines and towers. Accordingly, the proposed project's potential to generate substantial sources of light and glare will be evaluated in the EIR.

<p><b>2. AGRICULTURE AND FOREST RESOURCES</b>                      In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the Project:</p>	YES: Potentially Significant Impact	NO: Less Than Significant with Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				X
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	X			
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?				X

**Setting**

Wind turbines are located throughout the APWRA on agricultural parcels owned by ranchers and farmers. The 1,058.2-acre project area is currently in agricultural use as cattle grazing land as well as existing wind farm operations. Grazing takes place concurrently with wind turbine operations, and the internal maintenance access roads of the wind farms provide landowners with additional access to portions of their properties. Wind farm operators generally lease rights from property owners to use portions of the land for turbines, ancillary electric power lines, access roads, substations, and maintenance facilities. Because wind energy facilities occupy a small area of the total land under lease, the remainder of the land continues to be used for agricultural production.

The 2010 Important Farmland Map for Alameda County does not identify the project areas or surrounding lands as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland, but rather as Grazing Land. Four of the seven parcels scheduled for the Initial Repower phase are under Williamson Act contract (Department of Conservation 2009, 2010).

The site is zoned Agricultural District (A District) under the Alameda County Zoning Ordinance. The Zoning Ordinance allows for agricultural and other non-urban uses. Within the A District, privately owned wind-electric generators is a conditionally permitted use subject to approval by the board of zoning adjustments.

In November 2000, the Alameda County electorate approved the Save Agriculture and Open Space Lands Initiative (Measure D; effective date, December 22, 2000). The purposes of this initiative are to preserve and enhance agriculture and agricultural lands and to protect the natural qualities, the wildlife habitats, the watersheds, and the open space of Alameda County from excessive, badly located, and harmful development.

Alameda County has a Right to Farm Ordinance, Chapter 6.28 of the Administrative Code. The Right to Farm Ordinance alerts prospective property owners that lands within 2,000 feet include agricultural properties and informs them of lawful and properly conducted agricultural and related activities. The ordinance is intended to promote public health, safety, and welfare and to support and encourage continued agricultural operations in Alameda County. The ordinance provides recourse for both parties in the event of a dispute regarding any inconvenience or discomforts from agricultural operations and protects such operations from nuisance lawsuits.

### **Impacts**

- a) None of the land within the project areas is designated as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland by the Farmland Mapping and Monitoring Program. Therefore, the proposed project would have no impact on farmland as defined above.
- b) As indicated in Chapter 17.06.040 of the Alameda County Code of Ordinances, privately owned wind facilities are a conditionally permitted use within the A District. Therefore, the proposed project is considered compatible with continued agricultural use of the adjacent areas and would allow for potential future use of the project site itself for agriculture, should the wind farm use end at some point in the future. Thus, the project would be considered a conditionally allowable use in accordance with the Zoning Ordinance. Measure D, approved in 2000, is intended to preserve and enhance agricultural lands and protect open space. The proposed project would primarily result in a similar land use, but could also result in a small change in agricultural acreage; additional analysis is required. Accordingly, this topic could be potentially significant and will be evaluated further in the EIR.

Several of the project parcels are presently subject to Williamson Act contracts, which coexist with the current wind power facilities. The proposed project would not result in any substantial change to the existing uses on either contracted or uncontracted lands in the project area, nor result in the cancellation or non-renewal of lands under lease for the wind energy project. Alameda County specifically considers commercial wind turbines to be a compatible use on lands under Williamson Act Contract (Alameda County 2011). Continued operation of wind power projects also prevents conversion of agricultural lands to urban uses. The project conforms to the Williamson Act, and would have a less-than-significant impact on Williamson Act contracts.

- c) No forest lands or timberlands exist in or near the project areas. Therefore, the proposed project would have no impact on existing zoning for, or the need to rezone, forest land or timberland.
- d) Because no forest lands exist in the project area, there would be no impact related to the loss of forest land or conversion of forest land to non-forest use.
- e) The proposed MEWTs would be substantially larger than the existing turbines in the project area and would have larger foundations. Consequently, some existing agricultural land in the project area would be converted for use as new turbine foundations or upgraded access roads. The reclamation of many of the old turbine foundations and some access roads would partially offset the acreage converted. However, the project area lands are not "Farmland" under the definition above

(i.e., Prime Farmland, Unique Farmland, or Farmland of Statewide Importance). Project implementation would therefore have no impact on Farmland conversion.

Although the proposed project is not expected to have significant impacts on agriculture or forest resources, it could result in a small change in agricultural acreage, and additional analysis is required. Accordingly, this topic will be evaluated further in the EIR.

<b>3. AIR QUALITY</b> Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant with Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	X			
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	X			
d) Expose sensitive receptors to substantial pollutant concentrations?	X			
e) Create objectionable odors affecting a substantial number of people?			X	

**Setting**

**Background**

The primary factors that determine air quality are the locations of air pollutant sources and the amount of pollutants emitted from those sources. Meteorological and topographical conditions are also important factors. Atmospheric conditions, such as wind speed, wind direction, and air temperature gradients, interact with the physical features of the landscape to determine the movement and dispersal of air pollutants.

The air quality management agencies of direct importance in Alameda County are the U.S. Environmental Protection Agency (EPA), California Air Resources Board (ARB), and the Bay Area Air Quality Management District (BAAQMD). EPA has established federal ambient air quality standards for which ARB and BAAQMD have primary implementation responsibility. ARB and BAAQMD are also responsible for ensuring that state ambient air quality standards are met.

Air quality is based on the size and topography of the air basin, meteorological conditions, and ambient concentrations of criteria pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), sulfur dioxide (SO<sub>2</sub>), lead, and particulate matter (PM), which consists of both PM less than or equal to 10 microns (PM<sub>10</sub>) and PM less than or equal to 2.5 microns (PM<sub>2.5</sub>). State and federal criteria pollutant emission standards have been established for these six pollutants. Within the San Francisco Bay Area Air Basin (SFBAAB), BAAQMD is responsible for ensuring that these emission standards are not violated.

BAAQMD develops and enforces air quality regulations for non-vehicular sources, issues permits, participates in air quality planning, and operates a regional air quality monitoring network.

BAAQMD generally defines a sensitive receptor as a facility or land use that houses or attracts members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of sensitive receptors include schools, hospitals, convalescent facilities, and residential areas.

## Existing Air Quality Conditions

### *Climate and Topography*

The project site is near the base of the Diablo Mountain Range and the western edge of the San Joaquin Valley. The climate to the east of the Diablo Mountain Range is similar to the climate of the San Joaquin Valley, while the climate to the west of the Diablo Mountain Range is similar to the climate of the Livermore Valley.

In general, the climate of the region, along with much of the West Coast, is controlled by a semi-permanent high-pressure system that is centered over the northeastern Pacific Ocean. In the summer, this strong high-pressure system results in clear skies inland and coastal fog. Very little precipitation occurs during the summer months because storms are blocked by the high-pressure system. Beginning in fall and continuing through winter, the high pressure weakens and moves south, allowing storm systems to move through the area. Temperature, winds, and rainfall are more variable during these months.

Airflow in the San Joaquin Valley can be characterized by up-valley and down-valley winds. The down-valley winds are generally caused by airflows into the valley from the Carquinez Strait that then flow south.

### *Attainment Status*

Areas are classified as either attainment or nonattainment with respect to state and federal air quality standards. These classifications are made by comparing actual monitored air pollutant concentrations to state and federal standards. If a pollutant concentration is lower than the state or federal standard, the area is classified as being in *attainment* of the standard for that pollutant. If a pollutant violates the standard, the area is considered a *nonattainment* area. If data are insufficient to determine whether a pollutant is violating the standard, the area is designated *unclassified*. Areas that were previously designated as nonattainment areas but have recently met the standard are called *maintenance* areas.

EPA has classified Alameda County as a marginal nonattainment area for the federal 8-hour ozone standard and a nonattainment area for the federal PM<sub>2.5</sub> standard. For the federal CO standard, EPA has classified the Alameda Urbanized Area as a moderate maintenance area (ppm >12.7), while the rest of the county is classified as an attainment/unclassified area. The project area is not located in the Alameda Urbanized Area. Alameda County is classified as an attainment/unclassified area for the federal PM<sub>10</sub> standard (U.S. Environmental Protection Agency 2012).

ARB has classified Alameda County as a serious nonattainment area for the state 1-hour ozone standard and a nonattainment area for the state 8-hour ozone, PM<sub>10</sub>, and PM<sub>2.5</sub> standards. ARB has classified Alameda County as an attainment area for the state CO, NO<sub>x</sub>, and SO<sub>x</sub> standards (California Air Resources Board 2012).

**Impacts**

- a) A project is deemed inconsistent with air quality plans if it would result in either population or employment growth that exceeds growth estimates included in the applicable air quality plan. Such growth would generate emissions not accounted for in the applicable air quality plan emissions budget. Therefore, projects need to be evaluated to determine whether they would generate population and employment growth and, if so, whether that growth would exceed the growth rates included in the relevant air plans. The project would not substantially induce population or employment growth and would not conflict with or obstruct implementation of the applicable air quality plan. Therefore, impacts related to conflict with or obstruction of the applicable air quality plan are less than significant.
- b) Construction activities associated with the project would generate short-term emissions of reactive organic gases (ROG), nitrogen oxides (NO<sub>x</sub>), CO, PM<sub>10</sub>, and PM<sub>2.5</sub>. BAAQMD requires that all projects implement standard emission control measures to reduce fugitive dust emissions (PM<sub>10</sub> and PM<sub>2.5</sub>) from construction activities. Fugitive dust emissions could contribute to existing violations of air quality standards. This would be a significant impact unless mitigated. The impacts of construction emissions on the applicable air quality standards, and contributions to any existing or projected air quality violation, will be evaluated in the EIR.
- c) Construction of the project could create a significant air quality impact (see Item b), potentially leading to a cumulatively considerable net increase of pollutants. Accordingly, the project's cumulatively considerable contribution to a net increase of criteria pollutants for which the project region is in nonattainment will be evaluated in the EIR.
- d) Construction activities would result in emissions of diesel particulate matter (DPM), which has been identified by ARB as a carcinogen, from construction equipment exhaust. Some construction activities would require heavy machinery operations, primarily during site grading. Grading of access roads would also result in DPM emissions. It is not known if total health risks for sensitive receptors near the project site would exceed BAAQMD significance thresholds; however there is the potential for significant impacts. Accordingly, this topic will be evaluated in the EIR.
- e) The project involves mainly construction and minor operational activities and would not be associated with any major odor-generating activities. Operational activities at the facility or diesel fuel combusted onsite or along hauling routes may create minor odors. However, any odors emitted during construction would be temporary and localized, and these odors would cease once construction activities have been completed. The generation and severity of odors is dependent on a number of factors, including the nature, frequency, and intensity of the source; wind direction; and the location of the receptor(s). BAAQMD has identified typical facility types that are associated with odors, such as landfills, wastewater treatment plants, manufacturing plants, and certain agricultural activities (Table 3-3, Bay Area Air Quality Management District 2010). Implementation of the project would not result in the addition of any of these facilities. This impact is considered less than significant.

4. BIOLOGICAL RESOURCES Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	X			
b) Have a substantial adverse effect on any riparian, aquatic or wetland habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service?	X			
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	X			
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	X			
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X
g) Result in conversion of oak woodlands that will have a significant effect on the environment?				X

### Setting

Record searches conducted for the proposed project consisted of queries of the 2012 California Natural Diversity Database (CNDDDB) and the California Native Plant Society's (CNPS's) 2012 *Online Inventory of Rare & Endangered Plants* for the Midway, Byron Hot Springs, Clifton Court Forebay, Tracy, Lone Tree Creek, Union Island, Altamont, Mendenhall, Cedar Mountain 7.5-minute U.S. Geological Survey quadrangles. In addition, records maintained by Natural Communities Program of the CNDDDB were reviewed to identify the potential presence of natural communities considered to be rare or sensitive by DFG. The results of these searches were used to compile a list of special-status species with the potential to occur in the study area. Site assessment surveys were conducted to evaluate the suitability of habitat in the project areas to support special-status species.

The record searches and field surveys indicated that the project areas have the potential to contain habitat for special-status wildlife species, including California tiger salamander, California red-legged frog, western pond turtle, San Joaquin whipsnake, coast horned lizard, tricolored blackbird, western burrowing owl, loggerhead shrike, American badger, San Joaquin kit fox, golden eagle, and numerous special-status plants. Additionally, wind turbines in the APWRA are known to affect common and special-status birds and bats. Based on the rare communities recorded from the project region and the location of the project site, it was determined that the alkali grassland rare natural community has the potential to occur in the

project area. Wetlands and streams under the jurisdiction of the U.S. Army Corps of Engineers pursuant to Section 404 of the Clean Water Act may also occur in the region. The project areas do not contain habitat for any special-status fish species.

The East Alameda County Conservation Strategy (EACCS), with a study area encompassing the project area, was developed by Alameda County to provide an adaptive management process, and a voluntary framework to protect, enhance, and restore natural resources in eastern Alameda County, while improving and streamlining the environmental permitting process for impacts resulting from infrastructure and development projects. The EACCS was made public in March 2011, since which time the USFWS issued a Programmatic Biological Opinion under Section 7 of the ESA for USACE-permitted projects utilizing the EACCS that may affect federally listed species in the study area. Wind energy projects, including installation, operation, and maintenance, are identified as covered infrastructure projects within the Programmatic BO. However, avian and bat effects associated with these types of projects are not covered under the Programmatic BO. The EACCS has not yet been formally accepted by the County for implementation, although it represents a useful guide to strategies to avoid and minimize adverse effects on biological resources in the project area.

### **Impacts**

- a) Project construction and operational activities could affect special-status and non-special-status bird and mammal species. This could constitute a significant impact and will, accordingly, be evaluated in the EIR.
- b) There is the potential for other sensitive natural communities (e.g., wetlands) to be present in the project areas. Although it is not likely, the proposed project could result in a substantial adverse effect on a sensitive natural community. This would constitute a significant impact and will, accordingly, be evaluated in the EIR.
- c) The project areas have the potential to contain federally protected wetlands. Although it is not likely, the proposed project could result in a substantial adverse effect on federally protected wetlands. This would constitute a significant impact and will, accordingly, be evaluated in the EIR.
- d) Numerous common and special-status avian species are known to occur in the region and many are known to be susceptible to wind turbine collisions and associated fatalities. Additionally, avian species may nest or winter in or adjacent to the project areas, and thus could be disturbed during construction activities or operations. The project could result in disturbance to nesting special-status bird species, potentially resulting in loss of active nests. This would constitute a significant impact and will, accordingly, be evaluated in the EIR.
- e) Implementation of the proposed project would not conflict with any adopted local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. There would be no impact.
- f) The proposed project areas are not covered by an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. Alameda County is a participant in the East Alameda Conservation Strategy (EACS), a non-binding and voluntary conservation plan. While this plan is relevant to the project, it is voluntary, and the project proponent may choose to participate or not. Accordingly, there would be no impact.
- g) The project area does not contain oak woodlands. There would be no impact.



5. CLIMATE CHANGE AND GREENHOUSE GAS EMISSIONS Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	X			
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	X			

## **Setting**

### **Global Climate Change**

Global climate change is caused in large part by anthropogenic (human-made) emissions of greenhouse gases (GHGs) released into the atmosphere through the combustion of fossil fuels and by other activities such as deforestation and land use change. Unlike criteria air pollutants, which are discussed in Section 3, *Air Quality*, GHGs tend to persist in the atmosphere where they can trap infrared radiation emitted from the Earth's surface. This phenomenon, known as the *greenhouse effect*, is necessary to keep the Earth's temperature warm enough for successful habitation by humans. Emissions of GHGs in excess of natural ambient concentrations; however, are responsible for the enhancement of the greenhouse effect. This trend of warming of the Earth's natural climate is termed *global warming*.

### **Greenhouse Gases**

The principle GHGs contributing to global warming are carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), and fluoridated compounds. Because construction equipment and heavy duty trucks primarily generate CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O, the analysis focuses on these pollutants.

### **Significance Criteria**

BAAQMD does not have an adopted significance threshold for construction-related GHG emissions. However, BAAQMD directs the Lead Agency to quantify and disclose GHG emissions that would occur during construction and to make a determination on the significance of these construction-generated GHG emission impacts in relation to meeting AB 32 GHG reduction goals. In addition, BAAQMD recommends implementation of BMPs to reduce GHG emissions from construction (Bay Area Air Quality Management District 2010).

For long-term operational emissions, the BAAQMD sets separate thresholds of significance for both stationary sources and projects other than stationary sources. The project would exceed the GHG thresholds if any of the conditions listed below result from operations.

- Long-term operational GHG emissions from stationary sources exceed 10,000 MT of CO<sub>2</sub>e per year.
- Long-term operational GHG emissions from projects other than stationary sources:
  - are not compliant with a Qualified Greenhouse Gas Reduction Strategy, OR
  - exceed 1,100 MT of CO<sub>2</sub>e per year, OR

- ❑ exceed 4.6 MT of CO<sub>2</sub>e per year service population, where the service population includes both residents and employees in the area.

**Impacts**

- a) Implementation of the project would result in short-term construction emissions of CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O from the use of construction equipment onsite as well from on-road fuel combustion from employee commutes. Although the proposed project could reduce GHG emissions by replacing energy derived from fossil fuel combustion, it is not known whether this amount would be sufficient to offset any potential impacts. This issue will be evaluated in the EIR.
- b) The state has adopted several policies and regulations for the purpose of reducing GHG emissions. The most stringent of these is AB 32, which is designed to reduce statewide GHG emissions to 1990 levels by 2020. Implementation of the proposed project could reduce GHG emissions and help California to meet its RPS requirements. However, it is not known whether project-generated GHG emissions would directly support state goals listed in AB 32 and other state policies adopted to reduce GHG emissions. Accordingly, this impact will be evaluated in the EIR.

<b>6. CULTURAL RESOURCES</b> Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	X			
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	X			
c) Disturb any human remains, including those interred outside of formal cemeteries?	X			

**Setting**

The proposed project includes ground-disturbing activities such as grading for roads and laydown areas and trenching for underground cable installation. Although it is not known if historic or archaeological resources (as defined in Section 15064.5) are present in the project areas, the project vicinity is sensitive for prehistoric cultural resources along all watercourses and in the Diablo Range. Additionally, the Altamont Pass area served as an important transportation corridor. Consequently, there is the potential that cultural resources—such as prehistoric habitation sites, camp sites and artifact scatters, and historic period roads and ranch features—are present in the project area.

The proposed project is subject to CEQA. The threshold of significance under CEQA is generally a resource’s eligibility for inclusion in the California Register of Historic Resources (CRHR) or the National Register of Historic Places (NRHP), listing on a local survey of record, or, in the case of archaeological resources, the resource’s qualification as a “unique archaeological resource” (CEQA Section 21083.2).

**Impacts**

- a) Although it is not known if historic resources are located within the project areas, it is possible that historic resources, particularly those associated with agriculture, are present. Should these resources be significant as defined in State CEQA Guidelines Section 15064.5, effects on them would be a significant impact. Accordingly, this issue will be evaluated in the EIR.
- b) Although it is not known if archaeological resources are located in the project areas, it is possible that some are present. Should these resources be significant as defined in State CEQA Guidelines Section 15064.5, effects on them would be a significant impact. Accordingly, this issue will be evaluated in the EIR.
- c) No known burials are located within the project areas. However, there is always the possibility that previously undiscovered burials may be located during construction. Accordingly, this issue will be evaluated in the EIR.

<b>7. GEOLOGY AND SOILS</b> Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.			X	
ii) Strong seismic ground shaking?			X	
iii) Seismic-related ground failure, including liquefaction?			X	
iv) Landslides?	X			
b) Result in substantial soil erosion or the loss of topsoil?	X			
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	X			
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	X			
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?				X
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	X			

## **Setting**

The project areas are east of the active North American–Pacific Plate boundary, near the seismically active San Francisco Bay region (Bay region). Many earthquakes of low magnitude occur every year throughout the Bay region. Most of the region’s seismic activity is concentrated west along the San Andreas, Hayward, and Calaveras faults, which are 50, 30, and 25 miles west of the project areas, respectively (Jennings 1994).

No active faults are mapped across the project site by the California Geological Survey (CGS) or U.S. Geological Survey (USGS) (Hart and Bryant 1997; U.S. Geological Survey 2012). The closest known active fault to the site that is zoned by the State of California as an Alquist-Priolo Earthquake fault is the Greenville fault, about 9 miles west of the project areas.

Recent geologic studies indicate that a discontinuous, tectonic boundary commonly referred to as the Coast Ranges–Sierran Block (CRSB) boundary exists along the western margin of the San Joaquin Valley, between the actively uplifting east side of the Coast Range crustal block and the west side of the Sierran crustal block (Wong et al. 1988; Wakabayashi and Smith 1994). The magnitude 6.7 Coalinga earthquake in 1983 and an earthquake of a magnitude of more than 6.0 in 1982 near Vacaville and Winters are both generally regarded as having occurred on segments of the CRSB boundary (Unruh and Moore 1992). Accordingly, the project area could be subject to strong ground shaking during an earthquake on one of the many active faults in the project vicinity.

## **Impacts**

- a(i). As discussed above, the project areas are likely to experience strong ground shaking or ground failure generated by any number of faults in the region. The proposed project, however, does not entail constructing any structures that would be occupied by people. All structures constructed on the project site (e.g., tower foundations, turbine towers and bases) would be required to conform to the seismic requirements of the Uniform Building Code and County building standards. Therefore, the proposed project would not result in the substantial exposure of people to risk of loss, injury, or death as a result of earthquakes or related events; these impacts would be less than significant.
- a(ii). The project areas could experience strong ground shaking during the lifespan of the project. The principal concern related to human exposure to ground shaking is that it can result in structural damage, potentially jeopardizing the safety of persons occupying the structures. However, all new facilities would be designed and constructed to meet or exceed relevant standards and codes. In the event that the project is required by the County to prepare a site-specific geotechnical report, the Applicant would implement any recommendations identified (or would implement comparable measures). Therefore, impacts related to strong seismic ground shaking would be less than significant.
- a(iii). See discussion under a(i) above. The proposed project would not result in the substantial exposure of people to risk of loss, injury, or death as a result of seismic-related ground failure; this impact would be less than significant.
- a(iv). Much of the project is located on hilly terrain, and although the proposed project does not involve the construction of any structures that would be occupied by people, turbine foundations and towers could be affected in the event of a landslide. A site-specific geotechnical investigation to assess impacts related to landslides is needed to evaluate the potential for exposing people or structures to potential substantial adverse effects associated with landslides. This would constitute a potentially significant impact and will be evaluated in the EIR.

- b) The project areas are situated on various soils, some of which are considered to have slight erosion potential. Because soils in the project areas have undergone varying degrees of disturbance, ground-disturbing activities such as equipment laydown, site clearing, grading, and excavation are not expected to result in the removal of a high value topsoil resource. However, such activities may have the potential to contribute to accelerated erosion, which could potentially impair surface and/or groundwater quality in the region. Accordingly, these potentially significant impacts related to substantial soil erosion or the loss of topsoil will be evaluated in the EIR.
- c) Some areas of the project could contain unstable soils. A site-specific geotechnical investigation to assess impacts related to unstable geologic units, potential on- and offsite landslide, lateral spreading, subsidence, liquefaction, and collapse is needed to assess all areas where project-related excavation would take place. This topic will be evaluated in the EIR.
- d) The project areas may contain soils with a high expansion potential. Soil expansion can damage foundations and cause large cracks in exterior walls, floors, and ceilings. A site-specific geotechnical investigation, addressing the potential for expansive soils, is needed to assess all project-related construction areas. Impacts related to expansive soils will be evaluated in the EIR.
- e) The proposed project does not include installation of a septic system. Consequently, there is no impact related to soils adequate for supporting a septic system.
- f) The project areas do not contain any unique geologic features and no known paleontological resources are present. However, the possibility still exists that project construction could result in exposure of and impacts on buried paleontological resources. In the absence of adequate mitigation measures, the disturbance of a paleontological resource during project implementation could be a significant impact if a discovered resource were determined to be a unique paleontological resource. This would constitute a potentially significant impact on paleontological resources and will be evaluated in the EIR.

<b>8. HAZARDS AND HAZARDOUS MATERIALS</b> Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	X			
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	X			
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	X			
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use				X

8. HAZARDS AND HAZARDOUS MATERIALS Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
airport, would the project result in a safety hazard for people residing or working in the project area?				
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?				X
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	X			

**Setting**

A search for hazardous materials sites compiled pursuant to Government Code Section 65962.5 was completed for the project area (TetraTech 2012). That study found that no significant risk of environmental contamination is expected at any of these project sites, nor is there any need for environmental cleanup of existing conditions. Moreover, none of the individual parcels associated with these project sites was listed on the databases searched for the report.

FloDesign submitted the required verification statement pursuant to Section 65962.5 of the California Government Code along with their application for a conditional use permit.

The nearest school to the project is the Summit Tutoring Center (4430 Willow Road, Pleasanton), approximately 0.25 mile northwest of the project areas.

The nearest airport to the project areas is Livermore Municipal Airport, approximately 4 miles west of the project areas, and the nearest private airstrip is Byron Airport, approximately 3 miles north of the project areas.

According to Cal Fire, portions of the project areas are in an area with a moderate to high risk for wildland fire hazards within the State Responsibility Area (SRA) (California Department of Forestry and Fire Protection 2007).

**Impacts**

- a) Construction of the proposed project would involve small quantities of commonly used materials, such as fuels and oils, to operate construction equipment. However, because standard construction BMPs would be implemented to reduce pollutant emissions during construction, this impact is considered less than significant. Any potentially contaminated areas encountered during construction would be evaluated by a qualified hazardous material specialist.

Once construction is complete, there would be little use of hazardous materials or potential exposure associated with the project. Dielectric fluid to be used in transformers is biodegradable, contains no PCBs, and is not considered a hazardous material.

- b) Site workers, the public, and the environment could be inadvertently exposed to preexisting contaminants onsite during project construction. Small quantities of potentially toxic substances (such as petroleum and other chemicals used to operate and maintain construction equipment) would be used in the project areas and transported to and from the area during construction. During operation, larger quantities (more than 55 gallons of liquid, 500 pounds of solids, or 200 cubic feet of compressed gases) of fuel could be stored in the project areas. In addition, a total of 1,320 gallons of fuel and other petroleum products could be stored onsite. Release of these hazardous materials into the environment would be a significant impact. Accordingly, this potential impact will be evaluated in the EIR.
- c) One existing school is within 0.25 mile of the project area. Hazardous substances and materials could be used during project construction and operations. In the event of an accidental spill or release, nearby sensitive receptors could be affected. Accordingly, potential impacts associated with hazardous emissions or hazardous materials handling in proximity to schools will be evaluated in the EIR.
- d) A Phase 1 Environmental Site Assessment (ESA) that included an environmental records search for hazardous materials sites has been conducted. The Phase 1 ESA concluded that there are no significant risks of hazards to the public. This Phase 1 ESA stated that no significant risk of environmental contamination is expected at any of the proposed project sites, nor is there any need for environmental cleanup of existing conditions. Additionally, none of the individual parcels associated with these project sites was listed on the databases searched for this report. No Recognized Environmental Conditions (RECs) were identified at these properties or within the vicinity of these properties in database searches, historical information, or site reconnaissance. The report identified small volumes of hazardous wastes that are kept at permitted accumulation areas in two of the four wind project sites, but wastes are not stored for longer than the allowed 60-day period. Finally, minor housekeeping issues were identified relative to storage of reusable parts in areas where non-usable materials have also accumulated.
- e) The project areas are approximately 4 miles east of the Livermore Municipal Airport. Because the project areas are not within 2 miles of an airport, the proposed project would not result in a safety hazard for people residing or working in the project area. Furthermore, because the proposed turbines are less than 200 feet tall, issues related to airspace obstruction are unlikely. Consequently, there would be no impacts associated with proximity to an airport or inclusion in an airport use plan.
- f) The project areas are approximately 3 miles south of the Byron Airport. Because the project site is not located within 2 miles of a private airstrip, the project would not result in a safety hazard for people residing or working in the project area. Furthermore, because the proposed turbines are less than 200 feet tall, issues related to airspace obstruction are unlikely. Consequently, there would be no impacts associated with proximity to a private airstrip.
- g) Projects proposed within the unincorporated area of the county are reviewed by the Alameda County Fire Department (Fire Department) during the building permit process to ensure that they are consistent with adopted emergency response plans and emergency evacuation plans.

Because the project construction activities would not block any public or private rights-of-way that could be necessary for emergency access, construction activities would not hinder the provision of emergency services to adjacent properties or emergency vehicle traffic traveling through the area. Therefore, impacts related to emergency response plans and emergency evacuation plans are less than significant.

- h) As discussed above, portions of the project areas are within an area mapped as moderate to high risk for wildland fire. Construction and operation of the proposed project, including the potential of sparking from combustion engines, could increase the potential for wildland fire. Such an increased risk would constitute a potentially significant impact. Accordingly, this issue will be evaluated in the EIR.

<p><b>9. HYDROLOGY AND WATER QUALITY</b> Would the project:</p>	<p>YES: Potentially Significant Impact</p>	<p>NO: Less Than Significant With Mitigation</p>	<p>NO: Less Than Significant Impact</p>	<p>NO: No Impact</p>
<p>a) Violate any water quality standards, conflict with water quality objectives, fail to meet waste discharge requirements, significantly degrade any surface water body or groundwater, or adversely affect the beneficial uses of such waters, including public uses and aquatic, wetland and riparian habitat?</p>	<p>X</p>			
<p>b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?</p>	<p>X</p>			
<p>c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site (i.e. within a watershed)?</p>	<p>X</p>			
<p>d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff (e.g., due to increased impervious surfaces) in a manner which would result in flooding on- or off-site (i.e. within a watershed)?</p>	<p>X</p>			
<p>e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems due to changes in runoff flow rates or volumes?</p>	<p>X</p>			
<p>f) Result in a significant increase in pollutant discharges to receiving waters (marine, fresh, and/or wetlands) during or following construction (considering water quality parameters such as temperature, dissolved oxygen, turbidity, and typical stormwater pollutants such as heavy metals, pathogens, petroleum derivatives, synthetic organics, sediment, nutrients, oxygen-demanding substances, and trash)?</p>	<p>X</p>			
<p>g) Result in an increase in any pollutant for which a water body is listed as impaired under Section 303(d) of the Clean Water Act?</p>	<p>X</p>			
<p>h) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?</p>				<p>X</p>
<p>i) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?</p>			<p>X</p>	



<p><b>9. HYDROLOGY AND WATER QUALITY</b>                      Would the project:</p>	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
j) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?			X	
k) Inundation by seiche, tsunami, or mudflow?			X	

**Setting**

**Surface Water and Drainage**

The project areas are located southwest of the San Joaquin–Sacramento Delta (Delta) in unincorporated northern Alameda County. Surface drainage ultimately flows north toward the Delta. Due to a gently sloping topography that trends from south to north across the project areas, runoff is primarily conveyed to a culvert under Kelso Road via a series of agricultural drainage ditches. From there, runoff is routed to the Delta-Mendota Canal via a drainage ditch along the north side of Kelso Road. Additionally, some runoff enters a drainage ditch that borders the site on the east, and some enters a canal that bisects the southern portion of the project area; both features drain to Mountain House Creek, a tributary of Old River.

**Groundwater Resources**

The project areas are in the Tracy Subbasin, according to the California Department of Water Resources (DWR) Groundwater Bulletin 118. Review of hydrographs for the Tracy sub-basin indicates that, except for some seasonal variation resulting from recharge and pumping, the majority of water levels in wells have remained relatively stable over at least the last 10 years (California Department of Water Resources 2003).

**Flooding**

The project site is not within a 100-year flood hazard area, as identified on a Flood Insurance Rate Map (FIRM) delineated by the Federal Emergency Management Agency (FEMA). According to Figure 48 of the East County Area Plan, one portion of the project area (AC Project) is within the Bethany Reservoir Dam Inundation Zone (Alameda County 1994).

**Impacts**

a, f) Ground-disturbing activities such as grading, excavating, and other earthwork required for construction of the proposed project would temporarily increase the potential for erosion and sedimentation; however, ground disturbance would be limited to minor grading because the current slope of the project parcel would be maintained. Additionally, maintenance of equipment would require the use of common hazardous materials such as gasoline, engine oil, and concrete, which, if spilled, could contaminate surface waters in the project vicinity. Discharge of excessive sediment or hazardous materials into surface waters during construction has the potential to result in possible violation of certain water quality standards. Accordingly, there is some potential for impacts related to violation of water quality standards, conflicts with water quality objectives, failure to meet waste

discharge requirements, degradation of surface water body or groundwater, adverse effects to the beneficial use of waters, and increases in pollutant discharges to receiving waters during or following construction. Such occurrences would constitute a potentially significant impact; consequently, this issue will be evaluated in the EIR.

- b) Implementation of the proposed project is unlikely to deplete groundwater supplies or interfere with groundwater recharge resulting in groundwater loss. Total water consumption during the 6- to 9-month construction period would entail approximately 8.1–11.9 million gallons (24.9–36.6 acre feet) of water for dust control, cement mixing, and other purposes. Water would be pumped from an existing onsite well. If additional water is required during construction, it would be trucked to the site. Total facility water use during operations would be limited to employee use within the O&M facility, roughly equivalent to the annual water use of one or two single family homes per year. Because the project's primary groundwater demand consists of a single construction event of limited duration and quantity, the project is unlikely to deplete groundwater supplies. The project would create approximately 2.95 acres (128,610 square feet) of impervious surfaces (tower foundations and equipment pads). The amount of new impermeable surface constitutes a small portion of the project areas and a smaller portion of the areas available for recharge in the groundwater basin. Accordingly, impacts related to depletion of groundwater supplies or interference with groundwater recharge are likely to be less than significant. However, the topic of groundwater supply requires confirmation and will be evaluated in the EIR.
- c–e) Grading, excavation, and other earthwork activities that would occur during implementation of the project would result in soil disturbance that could temporarily alter drainage patterns and increase erosion and sedimentation. During the 6- to 9-month construction period, the proposed project would use approximately 8.1–11.9 million gallons (24.9 to 36.6 acre feet) of water for dust control, cement mixing, and other purposes. The project could substantially alter the existing drainage patterns of the site or area in a manner that would result in substantial erosion or siltation on- or offsite. Accordingly, this topic will be evaluated in the EIR.
- g) Surface runoff from the project area could flow into a water body listed as impaired for pollutants during project activities. Impacts related to increases in pollutants for which a water body is listed as impaired under Section 303(d) of the Clean Water Act could be significant. Accordingly, this topic will be evaluated in the EIR.
- h) The project does not include any residential housing. Consequently, there are no impacts related to placing housing within a 100-year flood hazard area.
- i–j) The proposed project would not place structures within a 100-year floodplain. However, a portion of the project area is located within the area of inundation after failure of the dam at the nearby Bethany Reservoir. The proposed project would not involve the construction of habitable structures within the dam inundation zone or substantially redirect flood flows but would include an O&M building where employees would work. Although these employees would be at risk due to inundation in the event of a dam failure, the building site is approximately 1 mile from the reservoir in an area in which flood waters from a dam release would rapidly spread downward and laterally (thus reducing velocity and depth); moreover, the risk of dam failure is very low. Consequently, impacts related to flooding due to a potential dam failure are considered less than significant.
- k) The project is at a low risk of inundation by tsunami due to its location relative to water bodies. Portions of the project areas are approximately 1 mile from Bethany Reservoir and approximately 4 miles south of the Clifton Court Forebay and the project area ranges in elevation between approximately 150–590 feet above mean sea level (msl). While it is theoretically possible for an earthquake to trigger a tsunami that could affect the Pacific Ocean, San Francisco Bay, and/or the

Delta, this is considered a remote possibility. If an earthquake were to occur near Clifton Court Forebay which lies at close to sea level, a seiche is possible but would have to have sufficient force to flow uphill to the project areas, approximately 150 feet higher than the forebay. The project areas are not adjacent to any substantial drainage ways or canyons wherein mudflow is likely. The project areas are unlikely to be subject to inundation by a seiche, tsunami, or mudflow. Accordingly, impacts related to inundation by a seiche, tsunami, or mudflow are considered less than significant.

10. LAND USE AND PLANNING Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Physically divide an established community.				X
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?			X	
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?				X

**Setting**

The project areas are situated in the rural, eastern Alameda County portion of the APWRA far from any established communities. Land uses surrounding the project areas include grazing land, rural residences, other wind farms, and several businesses. Project area lands are under agricultural use in addition to their use as wind farms, and carry a general plan designation of Large Parcel Agriculture and a zoning designation of Agriculture (A District). The land use associated with the proposed project is the same as that currently extant on the project parcels and constitutes a conditionally permitted use.

**Impacts**

- a) No established communities are within or adjacent to the project areas. Project implementation would therefore not result in the physical division of any established community. Because there would be no impact related to division of an established community, this issue will not be evaluated further in the EIR.
- b) Implementation of the proposed repowering project would involve the continuation of an existing land use on the project parcels. Furthermore, the project would not conflict with any applicable land use plan, policy, or regulation, including the Alameda County General Plan, the East County Area Plan, or the Alameda County Zoning Code.

The project would require a conditional use permit (CUP) per the Alameda County Zoning Ordinance. An application for a CUP was submitted to Alameda County on January 15, 2013 for the Initial Repower portion of the project. Because the proposed project is consistent with the relevant plans, policies, and regulations and can be conditionally permitted in the A District, its impact relative to land use policy would be less than significant.

- c) No approved habitat conservation plans or natural community conservation plans are currently in place for the project areas. Consequently, there would be no impact from the project related to conflict with any applicable habitat conservation plan or natural community conservation plan. This issue will not be considered in the EIR.

Because there would be no significant impacts on land use and planning, this resource topic has been dismissed from further evaluation in the EIR.

<b>11. MINERAL RESOURCES</b> Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?				X

**Setting**

CGS has mapped aggregate availability in the state; no aggregate resource zones have been identified in the project areas or their immediate vicinity. As the governing general plan for the eastern portion of Alameda County, the East County Area Plan (ECAP) does not delineate the project areas as a locally important mineral recovery site, nor does it identify mineral resources of value to the region or residents of the state in the project area (Alameda County 1994).

**Impacts**

- a, b) The project would have no impact on any known mineral resource or result in the loss of availability of any locally important resource recovery site. Accordingly, there would be no impact related to mineral resources.

Because there would be no significant impacts on mineral resources, this resource topic has been dismissed from further evaluation in the EIR.

<b>12. NOISE</b> Would the project result in:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	X			

12. NOISE Would the project result in:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?			X	
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?			X	
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	X			
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?				X
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?				X

**Setting**

The project parcels are located in rural eastern Alameda County, in an area where the noise environment is largely defined by traffic traveling on adjacent and distant roadways, light aircraft flyover events, and noise from activities associated with nearby land uses. Noise-sensitive land uses typically include residences, schools, libraries, hospitals, and other similar uses that are considered to be sensitive to noise. Land uses in the project vicinity that could be considered sensitive to noise consist primarily of scattered residences and businesses. Wind turbines are currently operational on the project parcels and neighboring areas. In addition to the artificial noise sources, the windy conditions of this area also create a somewhat elevated ambient noise condition, which increases with wind speed.

Due to their location in unincorporated Alameda County, the project areas are subject to County noise standards. The Alameda County General Plan’s Noise Element incorporates the noise level performance standards from the County General Code to establish noise standards and assess land use compatibility. Construction activities occurring between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and between 8:00 a.m. and 5:00 p.m. Saturday and Sunday are exempt from the County’s noise ordinance. In addition, construction and maintenance and repair operations conducted by public agencies and/or utility companies or their contractors and deemed necessary to serve the best interests of the public are exempt from the County’s noise ordinance.

**Impacts**

- a) The MEWTs themselves are anticipated to produce less noise than the existing wind turbines in the project area, due both to their design and to the ratio at which existing turbines would be replaced. However, construction activities associated with the proposed project could generate noise levels in excess of the County’s established standards. This is a potentially significant impact. Accordingly, this issue will be evaluated in the EIR.

- b) The operation of heavy equipment associated with construction activities may generate localized groundborne vibration and noise. Vibration from non-impact construction activity is typically below the threshold of perception when the activity is more than about 50 feet from receiver. Additionally, vibration from these activities would be of short duration and would end with completion of construction. Because construction activity is not expected to involve high impact activities, the exposure of persons to or generation of excessive groundborne vibration or noise levels is considered a less-than-significant impact.
- c) Implementation of the proposed project is not expected to cause a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project. Wind turbines currently operating on the project parcels would be replaced with new technology that is anticipated to generate less noise. A reduction in ambient noise levels in the project vicinity would have no adverse impact. However, because the proposed MEWT technology is relatively new, the EIR will assess whether the existing noise levels at sensitive receptor locations would, in combination with project-generated noise, increase by a noticeable amount of 3 dB or more.
- d) Demolition and construction activities associated with the proposed project could cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project. This would be a potentially significant impact. The EIR will evaluate noise levels generated by the operation of onsite construction equipment for demolition and reconstruction activities and by construction-related traffic.
- e) The project areas do not lie within an airport land use plan or within 2 miles of a public airport or public use airport. Therefore, there will be no impact related to location within an airport land use plan.
- f) The project areas are not located in the immediate vicinity of a public airport or private airstrip. Therefore, there will be no impact related to location within the vicinity of a private airstrip.

<b>13. POPULATION AND HOUSING</b> Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X

**Setting**

The project area is located in a rural portion of unincorporated eastern Alameda County that supports very few residents. No growth is planned for the immediate area, which is designated for large parcel agricultural uses.

**Impacts**

- a) The project would not induce substantial population growth in any area, either directly or indirectly, as it does not propose any additional housing, businesses, or employment. Any expansion of service roads would serve to provide access to the turbines and associated facilities. The roads would be private and would not result in or encourage new development. The project would have no impact on population growth.
- b) The repowering of turbines on an existing wind farm would not displace homes or people, nor require the relocation of any existing residences or people. The project parcels are located in a rural area and are already in use for wind power generation. Consequently, the proposed project would have no impact on the displacement of housing or people.
- c) The project would not displace people or necessitate the construction of replacement housing elsewhere. The project parcels currently support wind power generation facilities and no residences would be relocated. The project would have no impact on displacement of people.

Because there would be no impacts on population and housing, this resource topic has been dismissed from further evaluation in the EIR.

<b>14. PUBLIC SERVICES</b> Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following public services:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Fire protection?			X	
b) Police protection?			X	
c) Schools?			X	
d) Parks?			X	
e) Other public facilities?			X	

**Setting**

**Fire Protection**

Fire protection for the project areas is provided by Cal Fire because the project areas are within an SRA. SRAs include much of the wildlands in unincorporated Alameda County and the project area. According to Cal Fire, the proposed project is located in an area that has a moderate to high risk for wildland fire hazards within the SRA (California Department of Forestry and Fire Protection 2007). The closest Cal Fire station to the project area is the Castle Rock Station, located approximately 6 miles away at 16502 Schulte Road in Tracy. This seasonal station generally operates during fire season, which extends from the middle of May through the end of October.

The Alameda County Fire Department (ACFD) is a Consolidated Department serving the unincorporated areas of Alameda County; the cities of San Leandro, Dublin, Newark, and Union City; the Lawrence Berkeley National Laboratory; and the Lawrence Livermore National Laboratory, with a total of 28 fire stations. Services include fire suppression, arson investigation, hazardous materials mitigation, paramedic services, urban search and rescue, fire prevention, and public education (Alameda County Fire Department 2012).

Due to the fire hazard zoning and the project areas' location in an area where fire protection is under state jurisdiction, the public safety requirements to minimize the risk of wildland fire would apply within the project areas.

### **Police Protection**

Police protection services in the unincorporated areas of the county are provided by the Alameda County Sheriff's Office (Sheriff's Office) and are funded by the County general fund. The Sheriff's Office employs more than 1,000 sworn personnel and provides law enforcement patrol and investigative services to the unincorporated areas of Alameda County (Alameda County Sheriff's Office 2012).

### **Schools**

The project areas are within the boundaries of the Mountain House Elementary School District (MHESD) and the Livermore Valley Joint Unified School District (LVJUSD). MHESD manages one elementary school, Mountain House School, at 3950 Mountain House Road in Byron. LVJUSD comprises nine elementary (K–5) schools, two K–8 schools, three middle (6–8) schools, two high schools, three continuation/alternative high schools, and one adult school (Livermore Valley Joint Unified School District 2012).

### **Parks**

Several agencies manage parks near the project site, including East Bay Regional Parks District (EBRPD), California Department of Parks and Recreation (State Parks), and California Department of Water Resources (DWR).

Facilities in the surrounding region include EBRPD's Round Valley Regional Preserve, approximately 10 miles northwest of the project areas; DWR's Clifton Court Forebay, approximately 1 mile northeast of the project areas; and Bethany Reservoir State Recreation Area, about 4 miles north of the project areas. The project areas do not include any public access or recreational facilities. See the section 15, *Recreation*, for a discussion of impacts on recreational facilities and parks near the project areas.

### **Impacts**

#### **a–e) Construction Period**

The construction phase of the proposed project would be temporary and of fairly short duration, and is unlikely to materially increase emergency needs for fire or police service. Existing fire and police services are expected to be sufficient to ensure safety during both construction and operational maintenance activities at the project site, and no schools, parks, or other public facilities would be affected by the project. Building plans would be subject to review by the County, Alameda County Fire Department, and Police Department prior to issuance of any building permits. Accordingly, construction-related impacts on fire and police protection, schools, parks, and other public facilities would be less than significant.



**Operation Period**

The proposed project would not include the construction of significant commercial structures. Demand for public services would remain similar to existing demand. The proposed project would not result in an increase in population and would consequently not generate a need for additional school or parks. Accordingly, operational impacts on fire and police protection, schools, parks, or other public facilities would be less than significant.

Because there would be no significant impacts on public services, this resource topic has been dismissed from further evaluation in the EIR.

<b>15. RECREATION</b> Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

**Setting**

The project areas do not support any recreational sites, nor would the proposed project entail construction of any. However, several existing and planned recreational facilities are located near the project areas, including Bethany Reservoir State Recreation Area, the Altamont Speedway, and part of the proposed Iron Horse Trail. The proposed Iron Horse Trail alignment crosses I-580 near one of the Initial Repower parcels (APN 99B-6375-1-3). In addition, two of the parcels, APNs 99B-7500-3-1 and 99B-7600-1-1, lie near the southern reaches of the Bethany Reservoir State Recreation Area, between two channels of the California Aqueduct. The relationship of the proposed project to existing recreational facilities will be addressed in the Aesthetics and Noise sections of the EIR, as appropriate.

**Impacts**

- a) Implementation of the proposed project—both the Initial Repower phase and subsequent, more widespread repowering activities—is not expected to bring additional people into the project vicinity. Consequently, no impact associated with an increase in the use of existing neighborhood parks, regional parks, or other recreational facilities is anticipated and no associated physical deterioration of such facilities would be likely to result from project implementation.
- b) The proposed project does not include recreational facilities. Furthermore, the project would not increase the population in the project vicinity, requiring construction or expansion of existing recreational facilities, or include development of any new recreational facilities. The proposed project would have no impact associated with recreational facility construction or expansion.

Because the proposed project would have no impact on recreational facilities or activities, this resource topic has been dismissed from further evaluation in the EIR.

16. TRANSPORTATION Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	X			
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	X			
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?				X
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	X			
e) Result in inadequate emergency access?			X	
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?			X	

### Setting

The project areas are in a rural region of Alameda County; consequently very few public roads are located in the immediate vicinity. Regional access to the project area is provided by I-580. I-205 runs approximately northwest to southeast near the easternmost of the project parcels. Additional local public roadways in the area surrounding the project parcels include Altamont Pass Road, Carroll Road, Dyer Road, Flynn Road, Grant Line Road, Jess Ranch Road, Midway Road, Mountain House Road, and Patterson Pass Road. Finally, the project parcels are crisscrossed by numerous private, unpaved access roads.

### Impacts

- a) The proposed project would not entail any changes to existing land uses in the project areas, and operation of the facilities is not likely to generate any traffic beyond that presently associated with operation and maintenance activities. However, repowering the existing facilities would require large construction vehicles to transport materials and equipment from and to the project parcels. Demolition- and construction-related truck traffic could affect the operations of nearby intersections and roadways on a temporary basis. The truck traffic could restrict the movement of local vehicles to some degree. The number and frequency of project-related truck trips and the number of affected individuals is expected to be relatively low. However, the addition of truck traffic to area roadways has the potential to cause a significant impact on roadway operations and

- conflict with an applicable circulation plan, ordinance, or policy. The EIR will evaluate the proposed project’s potential to conflict with applicable circulation plans, ordinances, and policies.
- b) Due to its rural location, the proposed project is not expected to conflict with an applicable congestion management program. As described above for item a), demolition and construction activities could affect roadway operations. These effects could include a significant impact on roadway levels of service in the project vicinity. Accordingly, this issue will be evaluated in the EIR.
  - c) Air navigation hazards are discussed in section 8, *Hazards and Hazardous Materials*, of this Initial Study. The proposed project is expected to have no impact on existing air traffic patterns.
  - d) The proposed project does not entail the construction or alteration of any public roads or the introduction of incompatible uses to the project vicinity. However, demolition- and construction-related traffic could accelerate the rate of deterioration on existing roads, resulting in hazardous conditions. This is a potentially significant impact. Accordingly, this issue will be evaluated in the EIR.
  - e) Implementation of the proposed project would not alter emergency access where project area access roads already exist. However, the proposed project would entail construction of some short segments of new internal access roads. The introduction of slow-moving construction vehicles to internal, private access roads during project construction is not expected to substantially impede emergency access. The project would have a less-than-significant impact on emergency access adequacy.
  - f) Because the project parcels are located in a rural area, opportunities for alternative transportation are limited. This situation is not expected to change. The proposed project would have no impact on adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities.

<b>17. UTILITIES AND SERVICE SYSTEMS</b> Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?				X
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?			X	
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	X			

17. UTILITIES AND SERVICE SYSTEMS Would the project:	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?			X	
g) Comply with federal, state, and local statutes and regulations related to solid waste?				X

**Setting**

Total water consumption during the 6- to 9- month construction period would entail approximately 8.1–11.9 million gallons (24.9–36.6 acre feet) of water for dust control, cement mixing, and other purposes. Water would be pumped from an existing onsite well. If additional water is required during construction, it would be trucked to the site. Total facility water use during operations would be limited to employee use within the O&M facility, roughly equivalent to the annual water use of one or two single family homes per year.

**Impacts**

- a) The project would not generate wastewater that would be treated by public wastewater treatment facilities. An existing septic tank, installed in accordance with County regulations (Department of Environmental Health) and portable toilets would be used during construction and operation of the proposed project. Therefore, the project would have no impact on the San Francisco Bay Regional Water Quality Control Board's wastewater treatment requirements.
- b) Water for use at the project areas would be trucked in. As discussed above, wastewater would be managed through use of an existing septic tank and portable toilets. Therefore, the project would not require or result in the construction of a new public water or wastewater treatment facility. The proposed project would use portable toilets, installed and operated in accordance with County requirements; wastewater would be treated by the existing septic tank onsite. Impacts would be less than significant.
- c) The project areas are located entirely in a rural setting; stormwater runoff drains primarily through natural drainage swales, ditches, and watercourses. The proposed project would not substantially modify the existing stormwater draining patterns at the project site, and increases in impermeable surfaces onsite would be primarily limited to tower foundations. Consequently, impacts related to construction of new stormwater drainage facilities or expansion of existing facilities would be less than significant.
- d) As discussed above, the majority of water consumption would take place during construction. The project proponent plans to draw construction water from an existing onsite well. If the well cannot meet construction water demands, the project proponent intends to truck additional construction

water to the site after purchasing it from an offsite source. Therefore, new or expanded entitlements may be needed to supply the project during construction, depending on the capacity of the existing well. This is a potentially significant impact. Accordingly, this issue will be evaluated in the EIR.

- e) No construction or expansion of wastewater systems would be required because the project would not be connected to a public sewer system. During construction, portable toilets would be utilized. During operation of the project, an existing septic system at the O&M building would be used. No offsite wastewater treatment provider would be necessary. There would be no impact.
- f) Solid waste generated by construction of the projects would consist mostly of construction waste. This would be a temporary impact. Operation of the project would not result in any substantial solid waste disposal needs. Accordingly, the impact would be less than significant.
- g) The proposed project would comply with all federal, state, and local laws and regulations related to the disposal of solid waste. There would be no impact.

Because there would be no significant impacts on utilities and service systems, this topic has been dismissed from further evaluation in the EIR

<b>18. MANDATORY FINDINGS OF SIGNIFICANCE</b>	YES: Potentially Significant Impact	NO: Less Than Significant With Mitigation	NO: Less Than Significant Impact	NO: No Impact
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	X			
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	X			
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?			X	

Discussion

- a) Implementation of the proposed project has the potential to degrade the quality and extent of the environment for special-status species, as described in section 4, *Biological Resources*. Similarly, although it is not known if significant cultural resources are present in the project areas, the proposed project has the potential to disturb or otherwise affect currently unknown cultural resources, as described in section 6, *Cultural Resources*.

- b) The project would have a cumulatively considerable impact if it would involve environmental impacts that are individually limited, but cumulatively considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. Project-related cumulative impacts could include those listed below.
- Cumulative disturbance of special-status plant and terrestrial wildlife species.
  - Cumulatively significant avian mortality from collision with turbines. Although evidence indicates that avian mortality resulting from collision with wind turbines under the repowering program would likely be reduced below existing levels, the actual extent of the reduction is unknown.
  - Cumulative contributions of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.
  - Potential cumulative fire hazards, including the potential to hinder wildland fire suppression due to the lack of a mapping and address plan; construction activity increasing the risk of wildland fires, increasing the need for Confined Space/Rescue equipment and training for first responders; and avian electrocution resulting from contact with jumper wires.
- c) The proposed project would not have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly. Noise, air quality, and traffic impacts on adjacent land uses are expected to be less than significant. The proposed project would not expose people to new hazards such as geologic risks, flooding, or airport hazards. There would be no other adverse effects on human beings.

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