SAND HILL REPOWERING PROJECT
ALTAMONT PASS WIND RESOURCE AREA
PROGRAM ENVIRONMENTAL IMPACT REPORT
IMPLEMENTATION CHECKLIST

PREPARED FOR:

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Introduction

An implementation checklist template was prepared as a tool to aid Alameda County Community Development Agency (County) staff in evaluating permit applications for wind energy repowering projects in the Altamont Pass Wind Resource Area (APWRA) program area, and to inform staff and applicants alike how such projects may comply with the California Environmental Quality Act (CEQA, 1970, as amended), in the context of the APWRA Repowering Program Environmental Impact Report (PEIR) that was prepared in anticipation of subsequent project proposals such as the current Sand Hills Wind Repowering Project.

Background

In November 2014, the County certified the Altamont Pass Wind Resource Area PEIR in accordance with the provisions of CEQA, which served to evaluate the potential impacts of repowering the Alameda County portion of the APWRA. The PEIR analyzed a program of wind energy applications and potential County approvals of those applications, as a series of actions that are related geographically and that are likely to have similar environmental effects that can be mitigated in similar ways (see State CEQA Guidelines Section 15168[a]). The program is expected to result in progressive repowering of the APWRA through 2018 and beyond, consisting of the decommissioning of existing old-generation turbines, installation of new turbines, and operation for the expected life of the new turbines under a 30-year permit and conditions of approval that include implementation of the identified mitigation measures. When approving new CUPs for repowering, the County intends to facilitate such repowering projects through reliance on the mitigation measures contained in the PEIR as uniform standards where appropriate and by *tiering* from the PEIR to provide a framework for focused project-by-project analysis. The PEIR identified two program alternatives representing different maximum buildouts measured in megawatts (MW) – 417 or 450 MW – and also evaluated two specific projects at a detailed level, such that each impact and mitigation measure was coded in the PEIR with references to the program alternative or the specific projects (Golden Hills or Patterson Pass projects). The Implementation Checklist does not include the codes identifying the program alternatives.

Tiering

The County intends to use the PEIR pursuant to CEQA Guidelines Section 15168(c) for subsequent activities in the program area. State CEQA Guidelines Section 15168(c) states:

> (c) Use with Later Activities. Subsequent activities in the program must be examined in the light of the program EIR to determine whether an additional environmental document must be prepared.
>
> (1) If a later activity would have effects that were not examined in the program EIR, a new Initial Study would need to be prepared leading to either an EIR or a Negative Declaration.
>
> (2) If the agency finds that pursuant to Section 15162, no new effects could occur or no new mitigation measures would be required, the agency can approve the activity as being within the scope of the project covered by the program EIR, and no new environmental document would be required.
>
> (3) An agency shall incorporate feasible mitigation measures and alternatives developed in the program EIR into subsequent actions in the program.

(4) Where the subsequent activities involve site specific operations, the agency should use a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operation were covered in the program EIR.

(5) A program EIR will be most helpful in dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible. With a good and detailed analysis of the program, many subsequent activities could be found to be within the scope of the project described in the program EIR, and no further environmental documents would be required.

Use of the Implementation Checklist in Determining Applicability of the Program EIR

In evaluating permit applications for wind projects in the program area, the County must first ascertain if the proposed project falls within the parameters defined by the PEIR. Consequently, the reviewer should be able to answer each of the questions listed below in the affirmative.

- Is the proposed project a wind repowering project, to replace old generation turbines with new, larger and conventional fourth-generation turbines (as described in Section 2.3, *Wind Turbine Technology*, of the PEIR)?
- If the project was not listed as part of anticipated cumulative development in the PEIR, would the MW proposed – combined with the anticipated projects – not result in greater than 450 MW of capacity in the APWRA?
- Is the proposed project area within the identified program area boundaries??
- Does the proposed project description conform to the components listed in *Repowering Activities* above?

Upon confirming that the proposed project meets these broad criteria, the County can use this checklist to determine the applicability of the impact analyses and mitigation measures set forth in the PEIR. The checklist has been developed in compliance with CEQA Guidelines Section 15168(c)(4), reproduced above in *Tiering*. In addition to the checklist, this document includes several attachments to aid the County in its evaluation, discussed below.

Project-Specific or Site-Specific Studies

The following site-specific studies were required for some previously proposed projects in order to ensure that the level of impact for those projects fell below the applicable threshold, and could be applicable to other proposed projects. These studies are listed in the table below, with a brief explanation of their applicability to specific activities. Four separate potential impacts would be expected to occur only in limited circumstances (AES-2a, AES-5, HAZ-5 and NOI-1), as noted below. More detail specific to the project under consideration, the Sand Hill Wind Repowering Project, is found in the Project Description, the Checklist and in the MMRP.

Project proposals may be submitted with or without site-specific studies completed. However, many of the studies and analyses required prior to ground-disturbing activities ae expected to have substantial effects on siting decisions, project layout and the ultimate number and possibly type of wind turbine selected. For example Mitigation Measures BIO-11b, BIO-11c and BIO-11d together require turbine and infrastructure design and siting to avoid locations with potential for increased

avian safety hazards; Mitigation Measure BIO-14a requires siting to avoid bat mortality to the extent possible, and pre-construction surveys of special status plants and wildlife often must be completed under specific seasonal protocols, for which a delay in completion is normally unacceptable for project proponents. Required geotechnical and cultural resource studies may also affect siting decisions, as well as noise studies if turbines are within 2,000 feet of a residence, and potential shadow flicker studies, all of which are identified as potential mitigation measures. Many of these studies may be deferred until later stages of the process, before final design submittals for the building permit; however, such studies may result in the determination that specific turbine sites or infrastructure proposals cannot be approved.

The standard conditions of approval require a variety of other design submittal requirements besides those required by the mitigation measures identified in the Program EIR, but which are necessary for the evaluation of the project's specific project impacts, as intended by the Checklist. These include assessment of compliance with safety setbacks established by the County.

Summary of PEIR Required Project-Specific or Site-Specific Studies

PEIR Requirement	Applicability/Time of Submittal
AES-2a: Require site development review and specific findings.	Only applies to new turbines along ridgelines or hilltops that have not previously been developed with commercial-scale wind turbines. The Sand Hill Wind Repowering Project is only proposed on ridges and hills that have previously been developed with wind turbines, and therefore AES-2a is not applicable to the current project.
AES-5: Analyze shadow flicker effects (disturbance of residential uses due to moving turbine blade shadows) and mitigate effects or incorporate changes into project design or operations to reduce adverse effects.	Applies to wind turbines proposed within 500 meters (about 1,640 feet) in a generally east or west direction of residences. The Sand Hill Project appears to have potential for shadow flicker effects on one residence, from potentially three or four different turbines, and therefore a study is required. A detailed study has been prepared and is included in the Siting Memo (SIT-1 in the Checklist Supporting Information).
BIO-1a: Conduct surveys to determine the presence or absence of special-status plant species.	This mitigation measure requires surveys and preparation of a survey report, no more than three years prior to ground-disturbing activity, which could occur in early 2016. Botanical surveys of special status plant species were completed for the Sand Hill Project in 2013, and the resulting report is attached as BIO-1 in the Checklist Supporting Information.
BIO-3a: Conduct preconstruction surveys for habitat for special status wildlife species.	This mitigation measure requires a preconstruction survey and preparation of a survey report. A Biological Resources Technical Report was prepared for the Sand Hill Project, and is attached as BIO-2 in the Checklist Supporting Information.

Summary of PEIR Required Project-Specific or Site-Specific Studies (continued)

PEIR Requirement	Applicability/Time of Submittal
BIO-6: Conduct preconstruction surveys for western pond turtle and monitor construction activities if turtles are observed.	This mitigation measure requires a preconstruction survey to be completed within one week prior to ground disturbance if the Project area is determined to have habitat suitable for this species. The Biological Resources Technical Report (attached as BIO-2) found the potential to be low, but would require the Sand Hill project to complete the survey at that time. Therefore the appropriate preliminary survey of the Project habitat area is complete until the survey that is required prior to construction.
BIO-11a: Prepare a project-specific avian protection plan for approval by the County Technical Advisory Committee (TAC).	A draft APP can be deferred until after approval, but is required at least ten days before applying for a building permit for project construction.
BIO-12a: Conduct bat roost surveys.	This mitigation measure, applicable to the Sand Hill Project, requires a preconstruction survey and preparation of a survey report, to be prepared prior to construction.
CUL-2a: Conduct a preconstruction cultural field survey and cultural resources inventory and evaluation.	This mitigation measure requires a preconstruction survey and preparation of a survey report prior to site disturbance. A Cultural Resources Survey was completed for the Sand Hill Project, and a summary is attached as CUL-1 in the Checklist Supporting Information (the complete contents remain confidential to protect the resources that have been identified).
GEO-1: Conduct site-specific geotechnical investigation and implement design recommendations in subsequent geotechnical report.	The investigation is required to be submitted with the building permit. Such a study or report has not been prepared for the Sand Hill Project yet, but it may be deferred until the time of the building permit application.
HAZ-4: Perform a Phase I Environmental Site Assessment prior to construction activities and remediate if necessary.	The Phase I Assessment is required to be submitted and accepted as adequate prior to approval of a building permit. An Assessment has not yet been submitted for the Sand Hill Project, but it may be deferred to the time of the building permit application.
HAZ-5: Coordinate with the Contra Costa ALUC prior to final design.	Applies to northeastern corner of the APWRA program area, near the Byron airport. The Sand Hill Project sites are a minimum of four miles from the subject airport, and is therefore not subject to this mitigation measure.

Summary of PEIR Required Project-Specific or Site-Specific Studies (continued)	
PEIR Requirement	**Applicability/Time of Submittal**
NOI-1: Perform project-specific noise studies and implement measures to comply with County noise standards for adverse noise impacts due to wind turbine operations.	Applies to wind turbines within 2,000 feet of sensitive receptors such as residential uses, and there appear to be two residences within such a distance of proposed turbines for the Sand Hill Project. Noise studies have been completed for the Project, and are included in the Checklist Supporting Information, as part of the Siting Memo (SIT-1).
TRA-1: Develop and implement a construction traffic control plan.	Required prior to site disturbance. No such plan has been submitted for the Sand Hill Project; however, it is not required until the time of the building permit application.

Checklist Structure

The checklist has been designed in tabular format. The first column under the heading, *Impact*, identifies each impact by number and name as it appears in the PEIR (although impact suffixes used to distinguish program and project alternatives in the PEIR have been removed). The second column (with two subsidiary columns) with the heading, *Discussion in Text*, provides the page numbers in the PEIR where the relevant discussion for both setting (existing conditions) and impacts appear for each numbered impact. The third main column, identified as *APWRA Issues to Consider*, provides a focused yes or no question to determine if a proposed project would result in the subject impact. The yes column and those further to the right are shaded as sections to be completed if the project is expected to have the subject impact, although the second to last column enables the reviewer to indicate if the project would have other impacts not identified in the PEIR.

The fifth column, *Mitigation Measures*, lists mitigation measures identified in the PEIR, with check-boxes for the reviewer to confirm that the mitigation measures apply to the proposed project. This column summarizes the requirements of the mitigation measures. The full text of the mitigation measures are found in the MMRP, which is Attachment C. The sixth main column (also with two subsidiary *no* and *yes* columns) enables the reviewer to indicate if the project would have impacts not identified in the PEIR. The seventh and last column, *Summary of Documentation*, indicates, in italics, what if any relevant documentation is required either as part of the application package or associated with mitigation to address each impact, and provides space for a summary of the documentation that supports the County's findings for a determination for the specific project.

It is important to note that the checklist is a summary of the information contained in the PEIR and is not a replacement for the PEIR. The user or reader will therefore need to consult the PEIR for detailed information. The PEIR is available for online reference and download at the following website:

http://www.acgov.org/cda/planning/landuseprojects/apwraprog.htm

Checklist Attachments

The following information, included as Attachment 1, *Supporting Documentation*, is provided to assist reviewers in their evaluation of the permit application.

- *Project Location* and *Project Overview* Figures (Figures 1 and 2) illustrate the location and proposed layout of the project
- *Aesthetics* Figures (Figures 3.1-1 through 3.1-6) present the project's aesthetic setting and provide a series of existing and simulated views from key observation points in the surrounding area to support the checklist's aesthetics conclusions
- *Sensitive Receptors* Figure (Figure 3.7-1) shows the distance and geographic relationship of the project to nearby residences, as relevant to the aesthetics, hazards, and noise evaluations in the checklist
- *Airports* Figure (Figure 3.8-1) indicates the project's distance from nearby airport facilities, as described in the hazards and transportation sections of the checklist
- Reports BIO-1, *Focused Spring Botanical Survey for the Sand Hill Project*, BIO-2, *Biological Resources Technical Report for the Sand Hill Wind Project*, and BIO-3, *Avian Baseline in the Altamont Pass Wind Resource Area*, provide supporting data for the biological resources conclusions presented in the checklist
- CUL-1 Summary of 2013 Cultural Resources Survey for FloDesign Wind Turbine, Inc. (now Ogin, Inc.) Proposed Sand Hill Wind Farm Repowering Project (the complete report is confidential and available only for qualified personnel)
- SIT-1 Siting Memorandum prepared in February 2016, including Attachments 1 to 3, respectively providing a Flicker Analysis, a Noise Analysis, and a Blade Throw Analysis, as well as discussion of siting to address biological resource constraints, wind regime conditions, etc.
- Attachment A, *Application Materials,* lists the project-specific studies identified in the Checklist as necessary to make a CEQA determination. Other studies may be required on a case-by-case basis.
- Attachment B, *State- or County-Designated Scenic Roads*, is a list of the designated scenic roads in the program area that could be subject to visual impacts.

Applicability of the Checklist to the Sand Hill Repowering Project

The proposed Sand Hill Repowering Project is consistent with the Altamont Pass Wind Resource Area (APWRA) Repowering Program, and the Final Program Environmental Impact Report (PEIR), which was certified by the East County Board of Zoning Adjustments on November 12, 2014 (SCH# 2010082063). The project is therefore being reviewed as a tiered project with a checklist pursuant to Section 15168(c) of the California Environmental Quality Act (CEQA) Guidelines. The checklist is intended to inform public agency decision-makers and the public generally of the significant environmental effects of the specific project and identify possible ways to minimize such effects.

Mitigation measures that were identified in the Program EIR will be required for the current project as applicable, and as discussed in the Implementation Checklist that follows. A Mitigation Monitoring and Reporting Program (MMRP) will be required as a condition of approval of the requested Conditional Use Permit to construct and operate the repowered wind energy facility.

A complete project description of the proposal follows this introduction.

Sand Hill Wind, LLC
Sand Hill Repowering Project
Project Description

1.0 Introduction

This project description describes the physical changes that would result from the repowering program proposed by Sand Hill Wind, LLC (SH Wind), to replace its existing wind turbine assets with standard modern wind turbines. This description defines the goals and objectives of the proposed Sand Hill Wind Project, identifies the project's regional location and project area boundaries, outlines Sand Hill's existing project permits, facilities and operations, and identifies how the proposed repower phases relate to the existing facilities and operations.

SH Wind's repowering program would consist of removing the existing 433 old generation turbines and installing up to 24 modern 1.5 to 3.0 megawatt (MW) wind turbines. Alternative layouts would yield as few as 11 new turbines. The nameplate capacity would therefore be between 33 MW and 72 MW. Sand Hill involves eight land parcels within the Alameda County portion of the APWRA in northern California that total approximately 875 acres, on which SH Wind currently has secured long-term lease agreements sufficient for the planned duration of the project.

1.1 Regional Setting and Project Area

1.1.1 Altamont Pass Wind Resource Area

The APWRA comprises approximately 50,000 acres (over 75 square miles) and is located north and south of Interstate 580 (I-580) in the Altamont Hills of eastern Alameda and Contra Costa Counties, near their boundaries with San Joaquin County and at the geographic interface between the coastal mountains and the Central Valley. The Altamont Pass area sustains a strong and predictable wind resource due mainly to the funneling of cool marine winds from the Pacific Ocean eastward through the pass to replace the rising hot summer air of the Central Valley. The Altamont Pass Wind Resource Area (APWRA) was designated first by the state and subsequently by Alameda and Contra Costa Counties as well-suited for the capture and utilization of energy from the wind.

Alameda County prepared and certified a Programmatic Environmental Impact Report (Program EIR) for the repowering of the portion of the APWRA that lies within the county. The properties on which the Sand Hill project will take place were included in that Program EIR. The Program EIR assumed the properties would be repowered utilizing large modern turbines like the turbines being proposed by SH Wind.

1.1.2 Project Area, Existing Conditions, and Land Uses

The project area is located within the rural, unincorporated eastern Alameda County portion of the APWRA, east of the San Francisco Bay Area and near the western edge of the San Joaquin Valley in northern California. The region is primarily treeless and generally characterized by rolling foothills of annual grassland, steeper on the west and gradually flatter on the east, sloping toward the floor of the Central Valley. 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 area.

The specific project area is comprised of eight land parcels grouped in three distinct areas: four west parcels, two northeast parcels, and two southeast parcels , but all clustered within 1–3 miles of each other. These may also be identified as the project parcels. The project vicinity refers to a larger area that

encompasses land uses or activities beyond the area defined by the project parcels, but that may experience effects from the proposed repowering project activities.

The project area consists largely of cattle-grazed land on which operating wind turbines and ancillary facilities are currently installed. Major features in and near the project area include the existing wind turbines and ancillary facilities, an extensive grid of high voltage power transmission lines, substations, microwave towers, I-580 and local roadways, and scattered rural residences and businesses.

1.1.3 Existing Use Permits

The existing turbines in the APWRA were originally developed under CUPs approved between the early 1980s and mid-1990s. Seawest Power Resources (or AES), which previously owned the wind turbines now held by the Applicant, held five permits on the eight properties for the operation of 433 wind turbines with a reported nameplate generating capacity, as of 2005, of roughly 25.4 MW. These permits expired between 2002 and 2004, and were renewed in 2005 along with 26 other CUPs for other wind-energy companies, with specific conditions that were directed towards reducing avian mortality and establishing a repowering program as a result of litigation (hereafter referred to as the 2007 Settlement Agreement). Among other requirements, the conditions of the 2007 Settlement Agreement required the removal of individual turbines defined as uniquely or especially hazardous to birds, established a Scientific Review Committee for the APWRA, and instituted a Monitoring Team to evaluate progress on reducing avian mortality. These CUPs also established the winter season shut down protocol, in which the applicable turbines ceased operations from November 1st until February 15th, a practice that the Monitoring Team determined has had the greatest effect in reducing avian mortality.

The existing project facilities are constructed entirely on private land, leased under long-term agreements with the landowners sufficient for the planned project duration. The lease agreements and turbine assets and infrastructure were acquired in 2012 by Ogin, Inc. (formerly known as FloDesign Wind Turbine Corporation) from AES Seawest. Ogin, Inc. owns SH Wind, as well as Forebay Wind, LLC. SH Wind, has wind energy easements covering all of the properties associated with the project. Forebay Wind, LLC, owns the existing generation assets and operates them by a sub easement through Sand Hill Wind, LLC. The proposed facilities would occupy the same parcels. Table 2-1 shows the assessor parcel number(s) (APNs), ownership, and parcel acreage associated with each of the existing project-related CUP parcels, as well as the number of turbines previously permitted on each parcel (or on adjoining parcels) and the numbers of modern turbines to be installed in the Sand Hill repower project. Table 2-2 provides the acreage occupied by existing project facilities and components.

Table 2-1. Parcels and Turbines Included in Repower Project

Applicable Existing CUP	Assessor Parcel Number	Parcel Ownership	Approxi-mate Acreage	Permitted Turbines as of 2005	Included in Repower	Range of Number of Turbines Proposed for Repowering
C-8023	99B-6325-1-4	Johnston	67.9	30	Yes	0-1
C-8161	99B-7750-6-0	Pombo	99.4	38	Yes	0-2
C-8182	99B-6325-1-3 99B-7375-1-7	Ralph	222.5 60.0	182	Yes	6-8
C-8201	99B-7875-1-2 99B-7875-1-3	Griffith	115.1 92.8	52	Yes	0-5
C-8203	99B-7500-3-1 99B-7600-1-1	Castello Arnaudo	112.9 104.9	131	Yes	3-8
TOTALS			875.5	433		11-24

Table 2-2. Existing Project Facilities and Components

Facilities	Area of Each Facility/Component	Number of Units	Total Area (approx. acres)
Existing turbine tower foundation areas[a]	400 square feet per tower	407 foundations	3.7
Access roads (main)	32 square feet per linear foot of road	5,283 linear feet	3.9
Access roads (turbine access) [b]	12–14 square feet per linear foot of road	99,752 linear feet	29.6
Transmission and substation areas	--	--	10
Total			47.2

[a] The existing tower foundation area includes the area between the access roads and the turbines, the turbine foundations, all the disturbed area under and around the turbines, and the areas around the nearby transformers.

[b] Turbine access roads: 54,946 linear feet at 12 square feet per linear foot of road plus 44,806 linear feet at 14 square feet per linear foot of road.

1.2 Project Objectives

The project objective is to repower the existing wind project by removing the existing old generation wind turbines and installing up to 24 modern wind generation turbines with a total nameplate capacity of up to 72 MW. The wind farm would deliver renewable energy to the PG&E/CAISO power grid as part of the effort to meet the state's RPS goals. The properties are subject to the 2007 Settlement Agreement described above; the proposed repowering would fulfill the obligations under that agreement.

The proposed project elements include:

- A total nameplate generation capacity of up to 72 MW (24 turbines x 3.0 MW).
- Removal of existing wind turbines and installation of 24 new wind turbine generators, towers, foundations, and pad-mounted transformers.
- Development of project roads and installation of a power collection system, as necessary.
- Use of existing electrical power transmission lines, where feasible, to convey the wind energy produced by the project to local and regional energy markets.
- Use of existing roads that provide access throughout much of the program area.
- Use of existing substations and switchyards (with potential upgrades of the existing equipment within the footprint of the project area).
- Construction of a new O&M facility.
- Use of the existing O&M facility and other support facilities adjacent to the project area that are available for project utilization and that will continue to receive power during the repowering process.

1.3 Proposed Project

The proposed project components are described below. The proposed project would entail three phases: decommissioning and removal of the existing wind project facilities, construction of the proposed new turbines, and operation of the proposed project. A conceptual layout of the proposed project is shown in Figures 1 to 3.

1.3.1 Decommissioning the Existing Facilities

Decommissioning the existing project requires removal of the existing wind turbine nacelles, blades, towers, and other facilities. Some facilities such as the O&M building and substations would be retained and upgraded as necessary. The O&M facility would continue to operate in support of the repowering project. In general, other facilities from the existing project that could not be reused—such as collection lines, some access roads, and turbine foundations—would be removed where necessary and in alignment with land lease requirements and/or resource agency (USFWS and CDFW) recommendations. All removal activities would be carried out to minimize disturbance. It is anticipated that existing roads will be left in place where possible to minimize disturbance (with upgrades as noted below). Equipment that cannot be salvaged would be disposed of at a properly licensed landfill.

1.3.2 New Wind Turbines

The proposed turbines would be three-blade, upwind turbines on tubular towers. A range of turbines are being considered for the proposed project; each would have a nameplate capacity of up to 3.0 MW, a rotor diameter of 90–125 meters (295–410 feet), towers up to 100 meters (382 feet), and a maximum turbine height of 151 meters (495 feet). For example, the Goldwind GW121 2.5 MW turbine, has a 121-meter (397–foot) rotor diameter, 90-meter (295-foot) hub height, and turns at 13.5 rpm. The tubular steel towers would have internal ladders to the nacelle, the color of towers and rotors would be neutral and non-reflective (e.g., dull white or light gray), and nacelles would be completely enclosed to minimize perching opportunities.

Each turbine would involve an approximately up to 1 acre temporary laydown area to accommodate turbine components and the equipment necessary for turbine installation. Following installation, the laydown areas would be restored to pre-project conditions.

Turbine placement would conform to the setback conditions established in the Program EIR. According to the General Setback requirements, all turbines should be sited no less than three times the total turbine height (i.e., from the ground surface to the tip of the blade in the 12 o'clock position) from any dwelling unit and 2.5 times the total turbine height from any public road, trail, recreation area, commercial, or residential zoning. Alternative setback requirements, as defined by the Program EIR, are allowable upon request within a report prepared by a qualified professional and verified by the County demonstrating that a lesser setback is adequate. In no case would a setback less than 50% of the established setback be allowed.

1.3.3 Temporary Staging Areas

The proposed project would likely require up to four temporary staging areas each covering approximately 5 acres. To the extent possible, the laydown areas would be located in areas with existing turbines and access roads to minimize disturbance of natural habitats. The staging areas would be used for storage of turbine components, construction equipment, job trailers, and the materials needed for project construction. Access to the temporary staging areas would be integrated into the existing road system wherever possible. Upon completion of construction, the temporary staging areas would be removed.

1.3.4 Foundations

The freestanding tubular towers would be mounted on steel and concrete foundations. Two types are being considered: the inverted T spread footing and the tensionless pier footing. Foundations would be designed in consideration of site-specific conditions and the design engineer's requirements. Once the foundation is constructed, the turbine towers would be anchored to the base with long steel bolts. The area surrounding each foundation would be restored by backfilling, compacting, and burying the foundation. Following backfilling, the foundation pedestal would stand approximately 1 foot above the surrounding grade.

1.3.5 Site Access and Road Improvements

Interstate Highway 580 would be the primary highway used for access to the project area. Secondary roads to the project area include Altamont Pass Road, North Midway Road, and Grant Line Road. Local roads used to access the project site include Altamont Pass Road, North Midway Road, and Mountain House Road. Existing site entrances would be from these roads. Once on the site, existing site access roads that are improved and expanded where necessary would be used to carry out the work. As currently planned, no new roads would be needed, only upgrades to existing roads are proposed. To the extent possible, existing access roads would be reused; however the existing roads were constructed to accommodate much smaller first-generation turbines, and in many cases are not adequate to support construction or operation of the new project.

The proposed project would require approximately 3.5 miles of private onsite access roads. The project will utilize existing roads and improve them as necessary to accommodate construction. Access roads would be graded and temporarily graveled up to a width of 36 feet to allow sufficient space for two lanes of travel and to facilitate movement of large equipment (e.g., cranes, turbine components). Cut and fill necessary for road construction would be balanced onsite. No soil would be imported or exported for road construction. Gravel for construction of new roads would be trucked in from an existing source and would be compacted to form a stable road surface.

After construction, the road edges would be restored and reseeded, where appropriate, and the width of the roads would be reduced to 16 feet for continued use during O&M activities.

1.3.6 Power Collection System

Electrical collection lines for the proposed project will be buried underground from each turbine site to the existing substation. The buried cable system may include junction boxes that would house cable splices and allow access to the cable for any needed maintenance or repairs. The cables will be buries using an open trenching method or would be installed using horizontal directional drilling (HDD) technology. The cables will be buried approximately 36–48 inches deep. The temporary disturbance area for cable installation will be minimized to the extent feasible; it would typically be approximately 20 feet wide in most locations.

The power collection system will connect to the two existing AC/DC substations, and then through the short existing gen-tie overhead line into the existing PG&E transmission lines that traverse the project area. Because the proposed project would have electrical generation capacity similar to that of the existing project, modifications to the substations as necessary to support the project (outside the existing fence line) or PG&E transmission line are anticipated. Some minor equipment improvements within the existing substation footprints may be completed to replace old equipment or to bring the equipment up to current safety and operational standards. All work would be conducted within the graveled footprint of the existing substations.

1.3.7 Operations and Maintenance Facility and Other Project Elements

Operations, storage, and repairs for the proposed project will take place at a six-acre site located on the southwest corner of the Pombo parcel (APN: 99B-7750-6-0), adjacent to the existing storage building . The facility will include a 5,000 square foot O&M building, and a graveled parking area, which together

will occupy approximately five acres. A permanent storage and laydown area would occupy the remaining five acres of the site. A new underground electrical connection from the existing. PG&E power lines would provide power for the proposed O&M facility. Portable restrooms would be used during the construction phase. The O&M facility will have bathrooms serviced by a septic system and water service through a well.

1.4 Project Construction

Construction of the proposed project would begin after the Conditional Use Permit is granted and the appropriate building and public works permits are obtained. Construction, including decommissioning of the existing facilities, will likely occur in the construction season of 2016 and would take approximately 6–9 months to complete. Typical construction steps are listed below. Some of these steps will take place simultaneously or will overlap with each other.

- Demarcation of construction areas and any sensitive biological, cultural, or other resources needing protection.
- Decommissioning of the existing wind project.
- Disassembly of existing turbines.
- Removal of foundations as required for new road and turbine construction.
- Construction of temporary staging areas.
- Grading and road construction.
- Turbine foundation construction.
- Power collection system and communication line installation.
- Turbine installation.
- Upgrades to the substations (if required).
- Erosion and sediment control.
- Final road construction.
- Final cleanup and restoration.

The construction contractors would prepare the project area, deliver and install the project facilities, oversee construction, and complete final cleanup and restoration of the construction sites. The Sand Hill project would implement BMPs consistent with standard practice and with the requirements of this EIR and any state or federal permits to minimize soil erosion, sedimentation of drainages downslope of the project area, and any other environmental impacts. Examples of likely erosion control measures are listed below.

- Use of straw wattles, silt fences/straw bale dikes, and straw bales to minimize erosion and collect sediment (to protect wildlife, no monofilament-covered sediment control measures would be used).
- Re-seeding and restoration of the site.
- Maintenance of erosion control measures.
- Regular inspection and maintenance of erosion control measures.

Construction traffic routing would be established in a Construction Traffic Plan, if required by the CUP conditions, which would include a traffic safety and signing plan prepared by the Applicant in

coordination with the County and other relevant agencies. The plan would define hours, routes, and safety and management requirements.

The construction activities and the approximate duration of each are listed below.

- Phase 1—Decommissioning of existing plant: 8 weeks.
- Phase 2—Laydown area: 2 weeks.
- Phase 3—Road construction: 12 weeks.
- Phase 4—Foundations/electrical: 16 weeks.
- Phase 5—Turbine delivery and installation: 24 weeks.
- Phase 6—Electrical trenching: 16 weeks.
- Phase 7—Cleanup: 12 weeks.

1.4.1 Decommissioning and Removal of Existing Turbines

Preparation of the project parcels to receive new turbines would require decommissioning (disassembly and removal) of existing wind turbines. Generally this is a two-step process: 1) the removal of the turbine nacelles, towers, and associated aboveground equipment, and 2) the removal of foundations and associated underground equipment, only where necessary. The first step would employ only conventionally-sized cranes and haul trucks for specialized equipment, as well as standard pickup trucks and service vehicles.

The second step would demolish and remove the existing turbine foundations or turbine pads (whichever is encountered at each turbine site) so that proper foundations can be installed for the proposed new shrouded turbines. This step would be performed only in the instances necessary for installation of the new turbines, and will occur concurrently with other site preparation and turbine foundation installation activities. Actual work related to foundation removal is expected to require about 1 day to complete per turbine.

1.4.2 Access Roads

Existing public roads provide access to the project area as shown in Figures A & B. I-580 would be the primary highway used for access to the project area. Secondary roads in the project vicinity include Altamont Pass Road, Patterson Pass Road, Mountain House Road, North Midway Road, and Grant Line Road. Existing gated entrances on Altamont Pass Road, North Midway Road, and Mountain House Road would be used by authorized personnel to directly access the project area. Within the project area, existing access roads would be used to carry out the work, but some minor road improvements, such as grading, adding aggregate base, and widening of these existing internal access roads, may be required to accommodate the larger size of the conventional new generation turbines. As currently planned, no new roads would be needed; only upgrades to existing roads are proposed. These upgrades would involve an approximately 6-foot width increase to most of the existing internal access roadways and some resurfacing on existing internal access roadways.

1.4.3 Temporary Laydown Areas

The repower project would require at least four temporary laydown areas each occupying upto10 acres. The actual acreage needed for each laydown area would depend on timing and logistics. The laydown areas would be used for storage of turbine components, construction equipment, job trailers, and project construction materials. Upon completion of construction, the temporary laydown areas would be removed, and the sites would be revegetated.

1.4.4 Assembly Pads

The anticipated disturbance at each turbine location includes an assembly pad area to be used primarily for turbine assembly. The pads are level areas not more than one acre per turbine in area with gravel cover to support the construction equipment and to reduce dust. The pads would be temporary and would be removed after construction is complete. The assembly pad sites would be revegetated once they are no longer in use.

Table 2-3 presents the expected disturbance area associated with repower project decommissioning and construction activities and components. The decommissioning and removal of existing turbines would not occupy a larger footprint than the eventual construction activities needed to install the new turbines. The disturbance estimates in Table 2-3 apply to both construction and decommissioning activities.

1.4.5 Turbine Foundation Construction

Once the roads are upgraded, turbine foundations would be constructed. As part of the detailed engineering design, a geotechnical report would be developed to determine the appropriate turbine foundation design. Each foundation would be constructed of steel-reinforced concrete as appropriate for the foundation type selected for use on the project. The "inverted T" foundation, is expected to require an excavation approximately 10 feet deep and 80 feet in diameter. A pier-type foundation would require a 30-foot-deep excavation. If caissons are used, each structure would be approximately 8 feet in diameter, spaced approximately 12 feet apart (center to center) from the adjoining caisson and be set to a depth of about 7 feet below grade. The tower foundation would be located within the crane pad area. Foundation construction will vary as required by code and issuance of building permits.

1.4.6 Turbine Installation

The turbine towers and turbines would be brought to the project area after construction of the turbine foundations was complete. Cranes would be brought onsite to lift the multiple tower sections and turbines into place. The first step would be to lift and secure the base section of the tower to the foundation. Subsequent tower sections would be connected to the base tower section. The turbine, including the blades and nacelle assembly, would then be lifted into place atop the tower.

The crane pad area and assembly area of approximately 1 acres will be needed at each turbine location. The assembly area would provide enough space to stage the crane and store and assemble the turbine components while the tower is being erected.

1.4.7 Power Collection System and Communication Lines Installation

The power collection system will consist of underground conduits and cables between individual turbines, pad mounted transformers, and the existing substations. Underground cables would be installed by digging a trench approximately 12 inches wide and 42 inches deep and burying the cable. Communication lines for remote sensing equipment, used to monitor each turbine, would be installed in the same trenches as the power collection system or data would instead be transmitted wirelessly. If necessary to avoid trenching through sensitive areas such as wetlands, overhead lines or horizontal directional drilling (HDD) methods would be used.

1.4.8 Substation and Transmission Interconnection

The project would use the existing substations and transmission interconnection lines located in the project area. These facilities would be modified as needed to support the Project.

1.4.9 Operations and Maintenance Facility

The repower project would use a new Operations and Maintenance (O&M) facility on one of the Project parcels (Pombo, APN 99B-7750-6-0). An area of approximately 5 acres adjacent to the existing O&M facility would be graded and finished with a gravel surface to be used for additional parking and storage.

1.4.10 Erosion and Sediment Control

Erosion and sediment from disturbed construction areas would be controlled using well-established best management practices (BMPs) to minimize soil erosion, sedimentation of drainages downslope of the project area, and other environmental impacts. Prior to construction, the Applicant would develop an Erosion and Sedimentation Control Plan to be used throughout the life of the project. Erosion control procedures would comply with the County Public Works Engineering Division requirements.

Examples of likely erosion measures:

- Use of straw wattles, silt fences/straw bale dikes, and straw bales to minimize erosion and collect sediment.
- Hydroseeding and restoration of the site.
- Maintenance of all erosion-control measures until disturbed areas are stabilized.
- Regular inspection and maintenance of erosion-control measures.
- Removal or covering of stockpiled soils if rain is forecast or apparent.

Other BMPs that may be implemented for the repower project would include the following:

- Designated Work Areas: Construction would occur within the flagged and staked project boundaries. Clearing of vegetation would be minimized where feasible.
- Construction Traffic Plan: Construction traffic routing would be established in a Construction Traffic Plan, as further discussed in Section 3.11, *Transportation and Traffic*. The plan would define hours, routes, and safety and management requirements.
- Dust Control Plan: Dust arising from exposed soil would be controlled using water trucks.
- Site Reclamation: To reduce erosion and restore the original land use, all temporarily disturbed areas would be revegetated.

Because of its rural location, there is no water service that supplies water to the existing project area facilities. The Alameda County Flood Control and Water Conservation District (Zone 7 Water Agency) sells treated water to local water agencies as well as untreated water directly to agricultural and other customers. As noted above, during construction, water trucks would bring water to the sites for dust control and revegetation. Water for dust suppression would be obtained from the Zone 7 Water Agency.

Water necessary for construction will be used for dust control and revegetation activities. These activities would require up to 50 million gallons of water during the construction period.

1.4.11 Final Cleanup and Restoration

As a final step in construction, the construction site will be cleaned and restored. Construction trash and debris will be collected and properly disposed of at a landfill or other appropriate facility. Any final erosion control and revegetation measures would be completed.

After construction is completed, all temporarily disturbed areas of the project area would be seeded with appropriate vegetation in order to conform to adjacent land areas, as required by Alameda County and landowner agreements. To minimize subsurface water migration, trench plugs may be installed in the

trenches on steep slopes. All trenches and excavated areas will be backfilled with subsurface soil and covered with topsoil and any vegetation that was cleared during site preparation. To the extent feasible, original land contours will be restored to preconstruction conditions, and permanent erosion control measures such as water bars may be installed (water bars slow runoff and prevent water from collecting or draining down disturbed slopes).

1.5 Schedule, Equipment, and Construction Workforce

Project ground disturbing activities are expected to be completed between April and November 2016. Foundation removal (removal, site restoration, and reclamation) activities associated with the existing turbine foundation sites would occur concurrent with construction activities for the new turbines. Foundation removal and construction would take place over a 6- to 9-month period. Construction activities would occur between 7:00 a.m. and 7:00 p.m. Monday through Friday and between 8:00 a.m. and 6:00 p.m. on Saturdays and Sundays. Typical construction equipment used for wind project facilities, as outlined in Table 2-4, is expected to be used for both foundation removal and construction activities. Table 2-7 lists the types of equipment that would be used during the various stages of decommissioning and construction. On average, all equipment would operate for approximately 8 hours per day.

Table 2-7 Decommissioning and Construction Equipment Requirements

Work Activity Primary Equipment Description	Estimated Horsepower	Probable Fuel Type	Primary Equipment Quantity	Estimated Schedule (day)
Existing Turbine Removal and Restoration of Turbine Sites				
Crane	500	Diesel	3	120
Lowboy/Truck/Trailer	500	Diesel	3	120
Excavator	400	Diesel	3	120
Grader	350	Diesel	1	120
Dump Truck	500	Diesel	3	120
Road, Pad, and Collector Line Construction				
1 Ton Crew Cab 4X4	300	Diesel	2	180
Road Grader	350	Diesel	3	180
Track Type Dozer	350	Diesel	3	180
Drum Type Compactor	250	Diesel	3	180
Water Truck	350	Diesel	2	180
Lowboy/Truck/Trailer	500	Diesel	3	180
Backhoe/Front Loader	350	Diesel	2	180
Excavator	350	Diesel	2	180
Rock Crusher	350	Diesel	1	180
Cement Trucks	335	Diesel	3	120
Batch Plant				
Backhoe/Front Loader	350	Diesel	1	120
Generator	350	Diesel	1	120
Turbine Installation				
Crane	500	Diesel	2	90
Lowboy/Truck/Trailer	500	Diesel	2	90
Excavator	400	Diesel	2	90
Restoration of Existing Roads and Temporary Disturbance Areas				
Road Grader	350	Diesel	3	90
Excavator	350	Diesel	3	90

Table 2-5. Construction Workforce

Personnel	Full-Time Equivalent (FTE)
Carpenters	10
Electricians	25
Equipment operators	25
Foremen	15
Iron workers	30
Project management	16
Truck drivers	25

1.6 Safety Lighting

Wind projects must be constructed and operated in accordance with Federal Aviation Administration (FAA) standards for obstruction marking and/or lighting specific to wind projects.

For protection from potential lightning strikes, each wind turbine will be equipped with a lightning protection system. The lightning protection system will be connected to an underground grounding arrangement to facilitate lightning flowing safely to the ground. In addition, all equipment, cables, and structures comprising the wind turbines will be connected to a metallic, project-wide grounding network.

1.7 Operation and Maintenance Activities

Routine maintenance of the turbines would be necessary to maximize performance and detect potential difficulties. SH Wind will follow an O&M protocol, which will specify routine turbine maintenance and inspection activities in accordance with the program developed by the turbine manufacturer. Scheduled maintenance of each wind turbine will be conducted approximately every 6 months. On average, each turbine will require 10–20 hours of scheduled mechanical and electrical maintenance per year. O&M personnel will perform routine maintenance, including replacing lubricating fluids periodically, checking parts for wear, and recording data from data-recording chips in the anemometers. All roads, pads, and trenched areas will be inspected regularly and maintained to minimize erosion.

In addition to visual inspections, the turbines will be monitored continuously by a SCADA system. Each turbine will be equipped with monitors to communicate major aspects of operation to the O&M facility through communication lines. Alarm systems would be triggered if operational characteristics fall outside established limits. Each turbine will have an automatic braking system to shut down the turbine blades in the event of malfunction or excessive wind speeds. Any problems would be promptly reported to onsite O&M personnel for correction.

1.8 Final Decommissioning Activities

After the expected useful life of the project (anticipated to be 30 years in the absence of any major equipment upgrades) the Sand Hill facility will be decommissioned and the area revegetated. This will include the breakdown and removal of all turbine components, all facility structures, any other above-ground infrastructure, and below-ground structures (such as foundations) to a reasonable depth and in accordance with any land lease requirements, if not removed entirely. Grading will be performed to the extent needed to return the land surface to near natural conditions and reasonable drainage functions.

Impact (As identified for Program-related activities, including post-mitigation level of significance)	Discussion in Text: Existing Conditions	Discussion in Text: Impacts	APWRA Issues to Consider	No	Yes	Mitigation Measures (Details in MMRP) and Notes	Would the project, with mitigation, have impacts not identified in the PEIR? No	Would the project, with mitigation, have impacts not identified in the PEIR? Yes	Summary of Documentation
Aesthetics									
Impact AES-1: Temporary visual impacts caused by construction activities (less than significant with mitigation)	3.1-3–4 3.1-8–10	3.1-12–13	Would construction or heavy equipment be visible from residences or recreation areas and trails?	☐	☒	**Mitigation Measure AES-1: Limit construction to daylight hours** ☒ Do not allow construction between sunset and sunrise or on weekends ☒ Do not use high-wattage lighting sources	☒	☐	A map indicating locations of Key Observation Points (KOPs) relative to the proposed project is provided as Figure 3.1-1 in Part 1. Figures 3.1-2 through 3.1-6 in Part 1 comprise existing views and photo simulations of anticipated views from the KOPs. The visibility of proposed wind turbines from these KOPs, as demonstrated in the simulations, indicates that construction activities and/or heavy equipment may also be visible from County-designated Scenic Rural-Recreation Routes, including Altamont Pass Road, Mountain House Road, and Grant Line Road. Implementation of Mitigation Measure AES-1 would ensure that this impact would be less than significant.
Impact AES-2: Have a substantial adverse effect on a scenic vista (less than significant with mitigation)	3.1-6–7 3.1-8–10	3.1-15–16	Would new turbines be placed in areas where no turbines currently exist? (See Policies 105 and 106 for list of sensitive ridgelines, pg 3.1-6) Would post-construction conditions result in adverse aesthetic appearances of the project sites and surrounding areas?	☐	☒	**Mitigation Measure AES-2a: Require site development review prior to approval of site plans** ☐ County to require, review, and approve Site Development Review prior to approval of site plans for new turbines along ridgelines that have not previously been developed with wind turbine strings **Mitigation Measure AES-2b: Maintain site free of debris and restore abandoned roadways** ☒ Clear all derelict equipment, debris, and litter away from the site upon project completion ☒ Restore and hydroseed abandoned roads (unless otherwise recommended by USFWS or CDFW) ☒ Maintain site in such a manner for the life of the project **Mitigation Measure AES-2c: Screen surplus parts and materials** ☒ Maintain sites where surplus parts and materials are kept in a neat and orderly fashion ☒ Screen sites from view	☒	☐	The project area is located within an area already developed with wind energy facilities and would be within the vicinity of Altamont Pass Road, Mountain House Road, and Grant Line Road, as well as other designated scenic roadways, as shown on Figure1-2 in Part 1. Although substantially larger, the new turbines would not be out of character with the existing turbines within and near the project area. Impacts on scenic vistas would be less than significant with implementation of Mitigation Measures AES-2b, and AES-2c. Mitigation Measure AES-2a is not required, because there are no turbines on ridgelines that were not previously developed.
Impact AES-3: Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings along a scenic highway (significant and unavoidable – *findings of overriding considerations made at the program level, due to new turbines proposed on ridgelines not previously developed with wind turbine strings, and that could be mitigated with site development review, but not to a level that is less than significant*).	3.1-6 3.1-8–10	3.1-19–20	Would turbines be located along a state- or county-designated scenic highway? (See Attachment B for list) Would turbines be placed on ridgelines that were not previously developed?	☐	☒	**Mitigation Measure AES-2a: Require site development review prior to approval of site plans for turbines proposed on ridgelines that were not previously developed** ☐ County to require, review, and approve Site Development Review prior to approval of site plans for new turbines along ridgelines that have not previously been developed with wind turbine strings **Mitigation Measure AES-2b: Maintain site free of debris and restore abandoned roadways** ☒ Clear all derelict equipment , debris, and litter away from the site upon project completion ☒ Restore and hydroseed abandoned roads (unless otherwise recommended by USFWS or CDFW)	☒	☐	As shown on Figure 1-2 in Part 1, the new turbines would be located adjacent to one state-designated scenic route, I-580. Turbines would be visible from I-580, Altamont Pass Road, Grant Line Road, and Mountain House Road, as shown in Part 1, Figures 3.1-2 through 3.1-6. With implementation of Mitigation Measures AES-2b, and AES-2c, this impact would be less than significant. As with impact AES-2, Mitigation Measure AES-2a is not required, because there are no turbines on ridgelines that were not previously developed.

Impact (As identified for Program-related activities, including post-mitigation level of significance)	Discussion in Text: Existing Conditions	Discussion in Text: Impacts	APWRA Issues to Consider	No	Yes	Mitigation Measures (Details in MMRP) and Notes	Would the project, with mitigation, have impacts not identified in the PEIR? No	Would the project, with mitigation, have impacts not identified in the PEIR? Yes	Summary of Documentation
						☒ Maintain site in such a manner for the life of the project **Mitigation Measure AES-2c: Screen surplus parts and materials** ☒ Maintain sites where surplus parts and materials are kept in a neat and orderly fashion ☒ Screen sites from view			
Impact AES-4: Substantially degrade the existing visual character or quality of the site and its surroundings (significant and unavoidable – *findings of overriding considerations made at the program level; see AES-3 above*)	3.1-6 3.1-8–10	3.1-23–24	Would new turbines be placed in the southern portion of the program area, starting approximately 2.5 miles south of Patterson Pass Road, or in other areas where no turbines currently exist?	☒	☐	**Same as Impact AES-3.**	☒	☐	The project area is north of Patterson Pass Road; therefore, no turbines would be placed in the southern portion of the program area, south of Patterson Pass Road. With implementation of Mitigation Measures AES-2a, AES-2b, and AES-2c, this impact would be less than significant.
Impact AES-5: Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area (less than significant with mitigation)	3.1-6 3.1-10–11	3.1-27–28	Would turbines be located in a setback area? Are there residents nearby - i.e., within 500 meters [1,640 feet] in a generally east or west direction to account for all seasons? Could blades cause shadow flicker that would disturb sensitive viewers, especially residents?	☐	☒	**Mitigation Measure AES-5: Analyze shadow flicker distance and mitigate effects or incorporate changes into project design to address shadow flicker** ☒ The project applicant has prepared a graphic model and study to evaluate shadow flicker impacts on nearby residences. (see Supporting Documentation Reports, Siting Memo, Part 2). A threshold has been established to require mitigation if shadow flicker affects an existing residence for more than 30 minutes in a single day or 30 hours net or total in a given year. ☒ If it is determined that existing setback requirements as established by the County are not sufficient to prevent shadow flicker impacts on residences, Alameda County will require an increase in the required setback distances to ensure that residences are not affected. ☒ If any residence is nonetheless affected implement measures to minimize impact, such as relocating the turbine; providing opaque window coverings, window awnings, landscape buffers, or a combination of these features to reduce flicker to acceptable limits; or shutting down the turbine during the period shadow flicker would occur ☒ Relocate turbine if property owner is not amenable to other mitigation measures (window coverings, etc.)	☒	☐	Based on the flicker analysis (see Siting Memo, Part 2) three turbines are currently proposed in relationship to one existing residence, for which shadow flicker would exceed the threshold of 30 hours per year (almost 86 hours per year) and 30 minutes per day (about two hours under worst case conditions). With implementation of Mitigation Measure AES-5, this impact would be reduced to a less than significant level. As described in the PEIR, the new, larger turbines would require FAA lighting; however, the amount of FAA-required lighting is expected to be similar to existing levels (i.e., relatively moderate to wide distribution of lighted turbines and transmission line pylon tower lights), and have a less-than-significant impact. The proposed Sand Hill Wind project would not have lighting impacts greater than those anticipated in the PEIR. Because the existing turbines would be replaced with far fewer of the larger, more efficient turbines, the daytime source of glare is expected to be reduced. Further, the color of towers and rotors on the new turbines would be neutral and non-reflective (e.g., dull white or light gray), minimizing glare.
Impact AES-6: Consistency with state and local policies (less than significant with mitigation)	3.1-3–7	3.1-30	Would the project comply with policies set forth to protect visual resources along scenic roadways and open space areas identified for protection (Alameda County 1966) and comply with guidelines set forth in the ECAP to protect visual resources such as sensitive viewsheds, streets and highways, scenic highways, and areas affected by windfarms (Alameda County 2000)?	☐	☒	**Mitigation Measure AES-2a: Require site development review prior to approval of site plans** ☐ County to require, review, and approve Site Development Review prior to approval of site plans for new turbines along ridgelines that have not previously been developed with wind turbine strings a separate Site Development Review **Mitigation Measure AES-2b: Maintain site free of debris and restore abandoned roadways** ☒ Clear all derelict equipment , debris, and litter away from the site upon project completion	☒	☐	*Require the application to include mapping to show the locations of residences in relation to proposed turbine locations.* Figure 3.1-7, shows the location of residences in relation to the proposed turbines. *Require the application to include mapping to show locations of existing turbines in relation to new proposed turbines.* Figure 1-2 shows the locations of both existing and proposed turbines.

Impact (As identified for Program-related activities, including post-mitigation level of significance)	Discussion in Text: Existing Conditions	Discussion in Text: Impacts	APWRA Issues to Consider	No	Yes	Mitigation Measures (Details in MMRP) and Notes	Would the project, with mitigation, have impacts not identified in the PEIR? No	Would the project, with mitigation, have impacts not identified in the PEIR? Yes	Summary of Documentation
						☒ Restore and hydroseed abandoned roads (unless otherwise recommended by USFWS or CDFW) ☒ Maintain site in such a manner for the life of the project **Mitigation Measure AES-2c: Screen surplus parts and materials** ☒ Maintain sites where surplus parts and materials are kept in a neat and orderly fashion ☒ Screen sites from view **Mitigation Measure AES-5: Analyze shadow flicker distance and mitigate effects or incorporate changes into project design to address shadow flicker** ☒ During project design, the project applicant will prepare a graphic model and study to evaluate shadow flicker impacts on nearby residences. (see mitigation measure for details on thresholds) ☒ If it is determined that existing setback requirements as established by the County are not sufficient to prevent shadow flicker impacts on residences, Alameda County will require an increase in the required setback distances to ensure that residences are not affected. ☒ If any residence is nonetheless affected implement measures to minimize impact, such as relocating the turbine; providing opaque window coverings, window awnings, landscape buffers, or a combination of these features to reduce flicker to acceptable limits; or shutting down the turbine during the period shadow flicker would occur ☒ Relocate turbine if property owner is not amenable to other mitigation measures (window coverings, etc.)			*Require the application to include mapping or photo simulations to show areas visible from recreation areas or trails.* The California Aqueduct Trail borders the project area (Arnaudo & Castillo properties, east of Mountain House Road), as shown on Figure 3.1-1. Another planned trail, the San Joaquin County to Shadow Cliffs Trail, also shown on Figure 3.1-1, would border the west side of the southernmost project parcels (the two Griffith parcels), along Midway Road. Although no visual simulation is provided specifically for the view of turbines from Midway Road, they may clearly be recognized as comparable to the simulated views provided in Figures 3.1-3 and 3.1-4. The project would be consistent with state and local policies. With implementation of Mitigation Measures AES-2b, AES-2c, and AES-5, this impact would be less than significant.
Agricultural Resources									
Impact AG-1: Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to nonagricultural use (less than significant with mitigation)	3.2-1–4 3.24–6	3.2-7–8	Would project components be built on Prime Farmland?	☒	☐	**Mitigation Measure AG-1: Avoid conversion of Prime Farmland** ☐ Do not place wind turbines or other related facilities/infrastructure in locations that would result in the permanent conversion of land that is Prime Farmland or Farmland of State Importance	☒	☐	As shown on Figure 3.2-1 of the PEIR, there is one small area of Prime Farmland in the far northeastern corner of the program area. No Prime Farmland is within the project area boundary.
Impact AG-2: Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract (no impact)	3.2-1–4 3.24–6	3.2-9	Would the project conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?	☒	☐	**Note:** Wind turbines are a conditionally permitted use in the agricultural zone applied to the program area and are a compatible use, allowed under the Williamson Act contracts for grazing land covering the program area. Therefore, repowering projects would result in no impact.	☒	☐	The project area is within the program area considered in the PEIR. The project would not conflict with existing zoning for agricultural use or conflict with a Williamson Act contract. As described in the PEIR, windfarm uses are conditionally permitted in the "A" (Agriculture) zone district, which encompasses the entire program area, and in areas designated under the ECAP as Large Parcel Agriculture (LPA), which applies to almost all of the program area. Further, all of the Williamson Act land within the program area is Non-Prime Farmland. Wind turbines are a compatible use, allowed under the Williamson Act contracts for grazing land covering the program area.

Impact (As identified for Program-related activities, including post-mitigation level of significance)	**Discussion in Text**		**APWRA Issues to Consider**	**No**	**Yes**	**Mitigation Measures (Details in MMRP) and Notes**	**Would the project, with mitigation, have impacts not identified in the PEIR?**		**Summary of Documentation**
	Existing Conditions	**Impacts**					**No**	**Yes**	
Impact AG-3: Conflict with existing zoning for, or cause rezoning of forest land, timberland, or timberland zoned Timberland Production (no impact)	3.2-3 3.2-6	3.2-10	Would project features be built in forest or timber land?	☒	☐	**Note:** There is no forest land in the program area. Therefore, repowering projects would result in no impact.	☒	☐	There is no forest land within the program area or within the project area.
Impact AG-4: Result in the loss of forest land or conversion of forest land to non-forest use (no impact)	Same as previous	Same as previous	Same as previous	☒	☐	**Note:** There is no forest land in the program area. Therefore, repowering projects would result in no impact.	☒	☐	There is no forest land within the program area or within the project area boundary.
Impact AG-5: Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forest land to non-forest use(less than significant with mitigation)	3.2-1–4 3.24–6	3.2-11	Would project features be built on Prime Farmland, Farmland of Statewide Importance, or forest land?	☒	☐	**Mitigation Measure AG-1: Avoid conversion of Prime Farmland** ☐ Do not place wind turbines or other related facilities/infrastructure in locations that would result in the permanent conversion of land that is Prime Farmland or Farmland of State Importance	☒	☐	There is no Prime Farmland, Farmland of Statewide Importance, or forest land within the project area boundary. See Figure 3.2-1 of the PEIR for the location of prime farmland in the program area.
Air Quality									
Impact AQ-1: Conflict with or obstruct implementation of the applicable air quality plan (less than significant)	3.3-1–7	3.3-19	Would the project include activities not covered in the PEIR?	☒	☐	Repowering projects and other related activities that would not result in substantial increase in employment would fall within the impact assessed in the PEIR under Impact AQ-1.	☒	☐	The project would not conflict with or obstruct implementation of the applicable air quality plan. The project is a repowering project and would not include activities not covered in the PEIR or result in a substantial increase in employment. This activity is therefore covered within Impact AQ-1 as assessed in the PEIR.
Impact AQ-2: Violate any air quality standard or contribute substantially to an existing or projected air quality violation (significant and unavoidable)	3.3-1–7	3.3-21	Would project construction create air quality conditions that violate air quality standards? Would project operation create air quality conditions that violate air quality standards?	☐	☒	**Mitigation Measure AQ-2a: Reduce construction-related air pollutant emissions by implementing applicable BAAQMD Basic Construction Mitigation Measures** ☒ Implement mitigation measures shown in MMRP **Mitigation Measure AQ-2b: Reduce construction-related air pollutant emissions by implementing measures based on BAAQMD's Additional Construction Mitigation Measures** ☒ Implement mitigation measures shown in MMRP **Note:** Implementation of Mitigation Measures AQ-2a and AQ-2b would not reduce total construction-related ROG or NOX emissions of projects such as those assessed in the PEIR to a less-than-significant level. This impact of total ROG and NOX emissions would be significant and unavoidable as identified in the PEIR.	☒	☐	*Because the analysis in the PEIR was based on a typical project, air quality modeling performed for a specific proposed project could show emissions levels below the standards. If air emissions modeling prepared for the proposed project and submitted with the application shows that the emissions levels for the specific project would not exceed the standards, the mitigation measures would not be required. Otherwise, the PEIR mitigation measures would be required and a project such as those assessed in the PEIR would be considered to have the significant and unavoidable impact as identified in the PEIR.* During construction, the project's maximum daily unmitigated exhaust emissions of NO_x are expected to exceed BAAQMD's significance threshold, resulting in a significant impact. Implementation of Mitigation Measures AQ-2a and AQ-2b would minimize construction-related exhaust emissions. Furthermore, the project consists of the repowering of existing

Impact (As identified for Program-related activities, including post-mitigation level of significance)	Discussion in Text: Existing Conditions	Discussion in Text: Impacts	APWRA Issues to Consider	No	Yes	Mitigation Measures (Details in MMRP) and Notes	Would the project, with mitigation, have impacts not identified in the PEIR? No	Would the project, with mitigation, have impacts not identified in the PEIR? Yes	Summary of Documentation
									windfarm facilities and, as such, does not include activities beyond the scope of those covered in the PEIR.
Impact AQ-3: Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)(significant and unavoidable for construction and less than significant for operation)	3.3-1–7	3.3-37	Would the project create new permanent stationary sources of criteria pollutants or increase criteria pollutant emissions from any existing stationary sources? Would the project result in an increase in ROG, NOX, PM10, or PM2.5? Would the project include activities not covered in the PEIR?	☐	☒	**Mitigation Measure AQ-2a: Reduce construction-related air pollutant emissions by implementing applicable BAAQMD Basic Construction Mitigation Measures** ☒ Implement mitigation measures shown in MMRP **Mitigation Measure AQ-2b: Reduce construction-related air pollutant emissions by implementing measures based on BAAQMD's Additional Construction Mitigation Measures** ☒ Implement mitigation measures shown in MMRP **Note:** Implementation of Mitigation Measures AQ-2a and AQ-2b would not reduce total construction-related ROG or NOX emissions to a less-than-significant level. This impact of total ROG and NOX emissions would be significant and unavoidable.	☒	☐	*Because the analysis in the PEIR was based on a typical project, air quality modeling performed for a specific proposed project could show emissions levels below the standards. If air emissions modeling prepared for the proposed project and submitted with the application shows that the emissions levels for the specific project would not exceed the standards, the mitigation measures would not be required. Otherwise, the PEIR mitigation measures would be required and a project such as those assessed in the PEIR would be considered to have the significant and unavoidable impact as identified in the PEIR.* The project would not create new permanent stationary sources of criteria pollutants or increase criteria pollutant emissions from any existing stationary sources. During construction, the project's maximum daily unmitigated exhaust emissions of NO_x would exceed BAAQMD's significance threshold, resulting in a significant impact. Implementation of Mitigation Measures AQ-2a and AQ-2b would reduce construction-related exhaust emissions in the SFBAAB, but NO_x emissions would remain in exceedance of the significance threshold. The project consists of the repowering of existing windfarm facilities and, as such, does not include activities beyond the scope of those covered in the PEIR. Project impacts would therefore not be beyond those disclosed in the PEIR.
Impact AQ-4: Expose sensitive receptors to substantial pollutant concentrations (less than significant with mitigation)	3.3-14	3.3-40	Would the project be located near sensitive receptors? The closest sensitive receptors to the program area are a community of single-family residences in the city of Livermore located approximately 4,500 feet to the west of the program area boundary and the Mountain House community located approximately 5,000 feet to the east of the program area boundary.	☒	☐	**Same as Impact AQ-3.**	☒	☐	The closest residence is approximately 900 feet away from the nearest proposed wind turbine (Part 1, Figure 3.1-7).The project would not expose sensitive receptors to substantial pollutant concentrations. Construction activities are anticipated to last for 6-9 months, and associated emissions would be spatially dispersed over the approximately 1,000-acre project area. With implementation of Mitigation Measures AQ-2a and AQ-2b, impacts would be less than significant.

Impact (As identified for Program-related activities, including post-mitigation level of significance)	**Discussion in Text**		**APWRA Issues to Consider**	**No**	**Yes**	**Mitigation Measures (Details in MMRP) and Notes**	**Would the project, with mitigation, have impacts not identified in the PEIR?**		**Summary of Documentation**
	Existing Conditions	**Impacts**					**No**	**Yes**	
Impact AQ-5: Create objectionable odors affecting a substantial number of people (less than significant)	3.3-14	3.3-41	Would the project include activities not covered in the PEIR? Would the project cause objectionable odors that would affect a substantial number of people?	☒	☐	**Note:** It is anticipated that "The program would result in the development of new wind turbine generators that would not result in objectionable odors. Although program construction would involve the use of diesel equipment and a temporary batch plant that could result in the creation of odors, the construction activities would be temporary (approximately 5 years), spatially dispersed over the 49,202-acre program area, and would take place in areas that are not in the vicinity of sensitive receptors. Therefore, the program would not affect a substantial number of people." Potential odors from repowering projects and other related activities as described in the PEIR would fall within the impact assessed in the PEIR and be less than significant. If the project includes activities not covered in the PEIR the impact could be significant and will need to be evaluated.	☒	☐	The project would not include activities not covered in the PEIR. Although project construction would involve the use of diesel equipment that could result in the creation of odors, construction activities would be temporary and would be spatially dispersed over the approximately 1,000-acre project area, rather than located in an area that would expose a substantial number of people to objectionable odors.
Biological Resources									
Impact BIO-1: Potential for ground-disturbing activities to result in adverse effects on special-status plants or habitat occupied by special-status plants (less than significant with mitigation)	3.4-1–6 3.4-22–25	3.4-60	Would project construction affect special-status plants or habitat occupied by special-status plants?	☐	☒	**Mitigation Measure BIO-1a: Conduct surveys to determine the presence or absence of special-status plant species** ☒ Conduct surveys for the special-status plant species within and adjacent to all project sites no more than 3 years prior to construction **Mitigation Measure BIO-1b: Implement best management practices to avoid and minimize impacts on special-status species** ☒ Implement best management practices shown in MM BIO-1b and incorporate them into individual project design and construction documents **Mitigation Measure BIO-1c: Avoid and minimize impacts on special-status plant species by establishing activity exclusion zones** ☒ Establish activity exclusion zones around special-status plant species if construction will occur within 250 feet of the occupied habitat ☒ If exclusion zone is to be smaller, consult with qualified biologist and obtain concurrence from CDFW. **Mitigation Measure BIO-1d: Compensate for impacts on special-status plant species** ☒ Where avoidance of impacts on a special-status plant species is infeasible, compensate for through the acquisition, protection, and subsequent management in perpetuity of other existing occurrences at a 2:1 ratio (occurrences impacted: occurrences preserved). ☒ Provide detailed information to the County and CDFW on the location of the preserved occurrences, quality of the preserved habitat, feasibility of protecting and managing the areas in-perpetuity, responsibility parties, and other pertinent information. **Mitigation Measure BIO-1e: Retain a biological monitor during ground-disturbing activities in environmentally sensitive areas** ☒ Retain a qualified biologist to conduct monitoring	☒	☐	*Use biological resources study submitted with project application to determine which mitigation measures are required.* As described in the botanical survey report (Part 2, Report BIO-1), the project area has suitable habitat for several special-status plant species that occur in the region. One special-status plant species, Heartscale (*Atriplex cordulata* var. *cordulata*) has been observed within the project area. The authors of the study conclude that precipitation and climate conditions at the time of the survey make a definitive conclusion on the presence or absence of other special-status plants impossible. Mitigation Measure BIO-1a would require the applicant to conduct additional surveys during the appropriate time(s) of year to determine the presence or absence of special-status plants. Mitigation Measures BIO-1b, BIO-1c would ensure that impacts to special-status plants are avoided and minimized. Mitigation Measure BIO-1d would ensure that impacts on special-status plants that cannot be avoided and minimized are mitigated through compensation. Mitigation Measure BIO-1e will ensure that project activities are monitored to avoid environmentally sensitive areas. With incorporation of these mitigation measures, potential impacts to special-status plants would be the same as those identified in the PEIR, and would be less than significant.

Impact (As identified for Program-related activities, including post-mitigation level of significance)	**Discussion in Text**		**APWRA Issues to Consider**	**No**	**Yes**	**Mitigation Measures (Details in MMRP) and Notes**	**Would the project, with mitigation, have impacts not identified in the PEIR?**		**Summary of Documentation**
	Existing Conditions	**Impacts**					**No**	**Yes**	
						Note: All impacts on large-flowered fiddleneck, diamond-petaled California poppy, and caper-fruited tropidocarpum must be avoided, impacts on other special-status plant species will be avoided to the extent feasible, and any impacts related to avoidance being infeasible will be addressed through compensatory mitigation.			
Impact BIO-2: Adverse effects on special-status plants and natural communities resulting from the introduction and spread of invasive plant species(less than significant with mitigation)	3.4-3–4 3.4-8–21	3.4-65	Would construction vehicles have the potential to introduce invasive plant species into the project area?	☐	☒	**Mitigation Measure BIO-2: Prevent introduction, spread, and establishment of invasive plant species** ☒ Construction vehicles and machinery will be cleaned prior to entering the construction area. Cleaning stations will be established at the perimeter of the construction area along all construction routes or immediately offsite. ☒ Vehicles will be washed only at approved areas. No washing of vehicles will occur at job sites. ☒ To discourage the introduction and establishment of invasive plant species, seed mixtures and straw used within natural vegetation will be either rice straw or weed-free straw, as allowed by state and federal regulation of stormwater runoff. **Note:** Erosion control reduces impacts related to invasive plants through erosion of soils in which they grow.	☒	☐	*Use biological resources study submitted with project application to determine which mitigation measures are required.* As listed in the botanical survey report (Part 2, Report BIO-1), several invasive plant species were detected within the project area. Additional invasive plant species could be introduced during construction. This potential impact would be the same as identified in the PEIR and implementation of Mitigation Measure BIO-2 would ensure this impact is reduced to less than significant.
Impact BIO-3: Potential mortality of or loss of habitat for vernal pool branchiopods and curved-footed hygrotus diving beetle (less than significant with mitigation)	3.4-1–8 3.4-28–29	3.4-67	Would the project occur in or near vernal pool habitat or drainages? Would the project involve road construction or widening? Would the project alter the hydrology or sedimentation? Would herbicides be used during operation or maintenance near or upstream of suitable habitat for curved-footed hygrotus diving beetle? Would the project involve road or firebreak maintenance?	☒	☐	**Mitigation Measure BIO-1b: Implement best management practices to avoid and minimize impacts on special-status species** ☐ Implement best management practices and incorporate them into individual project design and construction documents **Mitigation Measure BIO-1e: Retain a biological monitor during ground-disturbing activities in environmentally sensitive areas** ☐ Retain a qualified biologist to conduct monitoring **Mitigation Measure BIO-3a: Conduct preconstruction surveys for habitat for special-status wildlife species** ☐ Conduct surveys for the special-status wildlife species within and adjacent to all project sites no more than 3 years prior to construction **Mitigation Measure BIO-3b: Implement measures to avoid, minimize, and mitigate impacts on vernal pool branchiopods and curved-footed hygrotus diving beetle** ☐ Implement measures ☐ Where impacts cannot be avoided or minimized, undertake compensatory mitigation in accordance with mitigation ratios and requirements developed under the EACCS (Appendix C of the Program EIR). ☐ If an incidental take permit is required, undertake compensatory mitigation in accordance with the terms of the permit in consultation with USFWS.	☒	☐	*Use biological resources study submitted with project application to determine which mitigation measures are required.* As described in the Biological Resources Technical Report (Part 2, Report BIO-2), habitat for vernal pool branchiopods and curved-footed hygrotus diving beetle is not expected to occur within the project area. Mitigation measures to avoid, minimize, and compensate for impacts are therefore not required.

Impact (As identified for Program-related activities, including post-mitigation level of significance)	**Discussion in Text**		**APWRA Issues to Consider**	**No**	**Yes**	**Mitigation Measures (Details in MMRP) and Notes**	**Would the project, with mitigation, have impacts not identified in the PEIR?**		**Summary of Documentation**
	Existing Conditions	**Impacts**					**No**	**Yes**	
Impact BIO-4: Potential disturbance or mortality of and loss of suitable habitat for valley elderberry longhorn beetle(less than significant with mitigation)	3.4-1–8 3.4-25–28	3.4-71	Would the project cause the removal of elderberry shrubs during construction or operation? Would the project cause the trimming of elderberry shrubs during construction or operation? Would the project cause disturbance of elderberry roots within the shrub dripline? Would the project cause changes in topography or compaction of soil from construction in the vicinity of elderberry shrubs?	☒	☐	**Mitigation Measure BIO-1b: Implement best management practices to avoid and minimize impacts on special-status species** ☐ Implement best management practices and incorporate them into individual project design and construction documents **Mitigation Measure BIO-1e: Retain a biological monitor during ground-disturbing activities in environmentally sensitive areas** ☐ Retain a qualified biologist to conduct monitoring **Mitigation Measure BIO-3a: Conduct preconstruction surveys for habitat for special-status wildlife species** ☐ Conduct surveys for the special-status wildlife species within and adjacent to all project sites no more than 3 years prior to construction **Mitigation Measure BIO-4a: Implement measures to avoid or protect habitat for valley elderberry longhorn beetle** ☐ Avoid removal of elderberry shrubs. ☐ Protect elderberry shrubs/clusters within 100 feet of the construction area. (A qualified biologist will mark the elderberry shrubs and clusters and orange construction barrier fencing will be placed at the edge of the buffer areas.) ☐ Receive approval from USFWS for buffer areas. No construction activities will be permitted within the buffer zone. ☐ Post signs every 50 feet (15.2 meters) along the perimeter of the buffer area fencing... ☐ Inspect buffer area fences around elderberry shrubs weekly by a qualified biological monitor during ground-disturbing activities and monthly after ground-disturbing activities until project construction is complete or until the fences are removed ☐ Submit biological inspection reports to USFWS. **Mitigation Measure BIO-4b: Compensate for direct and indirect effects on valley elderberry longhorn beetle** ☐ If elderberry shrubs cannot be avoided and protected as outlined in Mitigation Measure 4a, the project proponent will obtain an incidental take permit from USFWS. ☐ If elderberry shrubs cannot be avoided and protected as outlined in Mitigation Measure 4a, the project proponent will compensate for the loss of any elderberry shrubs.	☒	☐	*Use biological resources study submitted with project application to determine if mitigation measures are required.* As described in the Biological Resources Technical Report (Part 2, Report BIO-2), habitat for Valley elderberry longhorn beetle (elderberry shrubs) is not expected to occur within the project area. The botanical survey report (Part 2, Report BIO-1) also did not detect elderberry shrubs within the project area. Mitigation measures to avoid, minimize, and compensate for impacts are therefore not required.

Impact (As identified for Program-related activities, including post-mitigation level of significance)	**Discussion in Text**		**APWRA Issues to Consider**	**No**	**Yes**	**Mitigation Measures (Details in MMRP) and Notes**	**Would the project, with mitigation, have impacts not identified in the PEIR?**		**Summary of Documentation**
	Existing Conditions	**Impacts**					**No**	**Yes**	
Impact BIO-5: Potential disturbance or mortality of and loss of suitable habitat for California tiger salamander, western spadefoot, California red-legged frog, and foothill yellow-legged frog(less than significant with mitigation)	3.4-1–8 3.4-8–22 3.4-29–32	3.4-76	Would the project include any of the following activities? • Excavation, grading, or stockpiling of soil • Removal or disturbance of upland habitat • Installation of power collection and communication systems • Turbine construction • Road infrastructure construction/maintenance and upgrades • Meteorological tower installation and removal • Temporary staging area set-up • Reclamation • Operation and maintenance • Travel on maintenance roads	☐	☒	**Mitigation Measure BIO-1b: Implement best management practices to avoid and minimize impacts on special-status species** ☒ Implement best management practices and incorporate them into individual project design and construction documents **Mitigation Measure BIO-1e: Retain a biological monitor during ground-disturbing activities in environmentally sensitive areas** ☒ Retain a qualified biologist to conduct monitoring **Mitigation Measure BIO-3a: Conduct preconstruction surveys for habitat for special-status wildlife species** ☒ Conduct surveys for the special-status wildlife species within and adjacent to all project sites no more than 3 years prior to construction **Mitigation Measure BIO-5a: Implement best management practices to avoid and minimize effects on special-status amphibians** ☒ Implement best management practices shown in and incorporate them into individual project design and construction documents ☒ If implementation of some of these measures requires a take permit, obtain incidental take permits from USFWS (California red-legged frog and California tiger salamander) and from CDFW (California tiger salamander only) before construction begins. ☒ Implement additional conservation measures or conditions of approval in applicable project permits (e.g., ESA or CESA incidental take authorization). ☒ Comply with the State of California State Water Resources Control Board NPDES construction general requirements for stormwater. **Mitigation Measure BIO-5b: Compensate for loss of habitat for special-status amphibians** ☒ If impacts on aquatic and upland habitat for special-status amphibians cannot be avoided or minimized, undertake compensatory mitigation in accordance with mitigation ratios and requirements developed under the EACCS (Appendix C of the PEIR). ☒ If take authorization is required, undertake compensatory mitigation in accordance with the terms of the authorization in consultation with USFWS and/or CDFW. **Mitigation Measure BIO-5c: Restore disturbed annual grasslands** ☒ Prepare and submit a Grasslands Restoration Plan within 30 days prior to any ground disturbance	☒	☐	*Use biological resources study submitted with project application to determine which mitigation measures are required.* As described in the Biological Resources Technical Report (Part 2, Report BIO-2), the project area has suitable habitat for California tiger salamander, California red-legged frog, and western spadefoot. Additionally, California red-legged frog was observed within the project area in 2013. Mitigation Measures BIO-1b and BIO-1e would ensure that impacts to special-status species are avoided and minimized. Mitigation Measure BIO-3a would ensure that impacts on special-status amphibians are adequately described and determined prior to construction. Mitigation Measure BIO-5a would ensure that additional avoidance and minimization measures specific to amphibians are implemented. Mitigation Measure BIO-5b would ensure that impacts are compensated, and BIO-5c would ensure that temporarily disturbed areas are restored following construction. With incorporation of these mitigation measures, potential impacts to special-status amphibians would be the same as those identified in the PEIR, and would be less than significant.

Impact (As identified for Program-related activities, including post-mitigation level of significance)	**Discussion in Text**		**APWRA Issues to Consider**	**No**	**Yes**	**Mitigation Measures (Details in MMRP) and Notes**	**Would the project, with mitigation, have impacts not identified in the PEIR?**		**Summary of Documentation**
	Existing Conditions	**Impacts**					**No**	**Yes**	
Impact BIO-6: Potential disturbance or mortality of and loss of suitable habitat for western pond turtle (less than significant with mitigation)	3.4-1–8 3.4-32–33	3.4-82	Would the project involve construction activities in or near ponds, reservoirs, drainages, or surrounding riparian and grassland areas? Would the project involve road construction or widening activities?	☐	☒	**Mitigation Measure BIO-1b: Implement best management practices to avoid and minimize impacts on special-status species** ☒ Implement best management practices and incorporate them into individual project design and construction documents **Mitigation Measure BIO-1e: Retain a biological monitor during ground-disturbing activities in environmentally sensitive areas** ☒ Retain a qualified biologist to conduct monitoring **Mitigation Measure BIO-3a: Conduct preconstruction surveys for habitat for special-status wildlife species** ☒ Conduct surveys for the special-status wildlife species within and adjacent to all project sites no more than 3 years prior to construction **Mitigation Measure BIO-6: Conduct preconstruction surveys for western pond turtle and monitor construction activities if turtles are observed** ☒ Conduct surveys for western pond turtle one week before and within 24 hours of beginning work in suitable aquatic ☒ Have a biological monitor present during construction activities in the aquatic habitat where the turtle was observed ☒ Have a qualified biologist remove and relocate turtle to appropriate aquatic habitat outside and away from the construction area (relocation of western pond turtle requires a letter from CDFW authorizing this activity)	☒	☐	*Use biological resources study submitted with project application to determine if mitigation measures are required.* As described in the Biological Resources Technical Report (Part 2, Report BIO-2), the project area has suitable habitat for western pond turtle. Mitigation Measures BIO-1b and BIO-1e would ensure that impacts to special-status species are avoided and minimized. Mitigation Measure BIO-3a would ensure that impacts on special-status amphibians are adequately described and determined prior to construction. Mitigation Measure BIO-6 would ensure that additional avoidance and minimization measures specific to western pond turtles are implemented. With incorporation of these mitigation measures, potential impacts to special-status amphibians would be the same as those identified in the PEIR, and would be less than significant
Impact BIO-7: Potential disturbance or mortality of and loss of suitable habitat for Blainville's horned lizard, Alameda whipsnake, and San Joaquin coachwhip (less than significant with mitigation)	3.4-1–8 3.4-32–34	3.4-85	Would the project involve construction activities in grassland, chaparral, oak woodland, or scrub? Would the project involve road and firebreak maintenance activities in grassland, chaparral, oak woodland, or scrub?	☐	☒	**Mitigation Measure BIO-1b: Implement best management practices to avoid and minimize impacts on special-status species** ☒ Implement best management practices shown in and incorporate them into individual project design and construction documents **Mitigation Measure BIO-1e: Retain a biological monitor during ground-disturbing activities in environmentally sensitive areas** ☒ Retain a qualified biologist to conduct monitoring **Mitigation Measure BIO-3a: Conduct preconstruction surveys for habitat for special-status wildlife species** ☒ Conduct surveys for the special-status wildlife species within and adjacent to all project sites no more than 3 years prior to construction **Mitigation Measure BIO-5c: Restore disturbed annual grasslands** ☒ Prepare and submit a Grasslands Restoration Plan within 30 days prior to any ground disturbance **Mitigation Measure BIO-7a: Implement best management practices to avoid and minimize effects on special-status reptiles** ☒ Implement best management practices shown in and incorporate them into individual project design and construction documents	☒	☐	*Use biological resources study submitted with project application to determine which mitigation measures are required.* As described in the Biological Resources Technical Report (Part 2, Report BIO-2), the project area has suitable habitat for special-status reptiles. While none have been observed within the project area, they are difficult to detect and may be present. Mitigation Measures BIO-1b and BIO-1e would ensure that impacts to special-status species are avoided and minimized. Mitigation Measure BIO-3a would ensure that impacts on special-status amphibians are adequately described and determined prior to construction. Mitigation Measure BIO-5c would ensure that temporarily disturbed areas are restored following construction. Mitigation Measure BIO-7a would ensure that additional avoidance and minimization measures specific to reptiles are implemented. Mitigation Measure BIO-7b would ensure that impacts are compensated. With incorporation of these mitigation measures, potential impacts to special-status reptiles would be the same as those identified in the PEIR, and would be less than significant.

Impact (As identified for Program-related activities, including post-mitigation level of significance)	Discussion in Text: Existing Conditions	Discussion in Text: Impacts	APWRA Issues to Consider	No	Yes	Mitigation Measures (Details in MMRP) and Notes	Would the project, with mitigation, have impacts not identified in the PEIR? No	Would the project, with mitigation, have impacts not identified in the PEIR? Yes	Summary of Documentation
						☒ If implementation of some of these measures requires a take permit, obtain incidental take permits from USFWS and CDFW (Alameda whipsnake) before construction begins. ☒ Implement additional conservation measures or conditions of approval in applicable project permits (i.e., ESA incidental take permit). **Mitigation Measure BIO-7b: Compensate for loss of habitat for special-status reptiles** ☒ If impacts on habitat for special-status reptiles cannot be avoided or minimized, compensatory mitigation will be undertaken in accordance with mitigation ratios and requirements developed under the EACCS (Appendix C of the EIR). ☒ If incidental take permits are required for Alameda whipsnake, compensatory mitigation will be undertaken in accordance with the terms of permits in consultation with USFWS and CDFW.			
Impact BIO-8: Potential construction-related disturbance or mortality of special-status and non–special-status migratory birds (less than significant with mitigation)	3.4-1–8 3.4-34–42	3.4-89	Would construction occur during nesting season (generally February 1–August 31)?	☐	☒	**Mitigation Measure BIO-1b: Implement best management practices to avoid and minimize impacts on special-status species** ☒ Implement best management practices and incorporate them into individual project design and construction documents **Mitigation Measure BIO-1e: Retain a biological monitor during ground-disturbing activities in environmentally sensitive areas** ☒ Retain a qualified biologist to conduct monitoring **Mitigation Measure BIO-3a: Conduct preconstruction surveys for habitat for special-status wildlife species** ☒ Conduct surveys for the special-status wildlife species within and adjacent to all project sites no more than 3 years prior to construction **Mitigation Measure BIO-5c: Restore disturbed annual grasslands** ☒ Prepare and submit a Grasslands Restoration Plan within 30 days prior to any ground disturbance **Mitigation Measure BIO-8a: Implement measures to avoid and minimize potential impacts on special-status and non–special-status nesting birds** ☒ Implement best management practices, including: ☒ Preconstruction bird surveys ☒ Coordination with USFW on golden eagles ☒ Coordination with CDFW and USFWS on active nests **Mitigation Measure BIO-8b: Implement measures to avoid and minimize potential impacts on western burrowing owl** ☒ Implement best management practices, including: ☒ Preconstruction burrowing owl surveys ☒ Coordination with CDFW on active burrowing owl nests ☒ Coordination with CDFW on burrowing owl buffer	☒	☐	As described in the Biological Resources Technical Report (Part 2, Report BIO-2) and the Avian Baseline tReport (Part 2, Report BIO-3), the project area could support numerous special-status and non-special-status migratory birds, and numerous species have been recorded as fatalities in the area. Potential impacts to these species from construction (operational impacts are addressed below in Impact BIO-11) would be the same as those in the PEIR. With implementation of Mitigation Measures BIO-1b, BIO-1e, BIO-3a, BIO-5c, BIO-8a, and BIO-8b, impacts would be less than significant.

Impact (As identified for Program-related activities, including post-mitigation level of significance)	**Discussion in Text**		**APWRA Issues to Consider**	**No**	**Yes**	**Mitigation Measures (Details in MMRP) and Notes**	**Would the project, with mitigation, have impacts not identified in the PEIR?**		**Summary of Documentation**
	Existing Conditions	**Impacts**					**No**	**Yes**	
						☒ Coordination with CDFW on burrowing owl exclusion plan			
Impact BIO-9: Permanent and temporary loss of occupied habitat for western burrowing owl and foraging habitat for tricolored blackbird and other special-status and non–special-status birds (less than significant with mitigation)	3.4-1–8 3.4-34–42	3.4-94	Would the project result in the temporary or permanent loss of grassland?	☐	☒	**Mitigation Measure BIO-5b: Compensate for loss of habitat for special-status amphibians** ☒ If impacts on aquatic and upland habitat for special-status amphibians cannot be avoided or minimized, undertake compensatory mitigation in accordance with mitigation ratios and requirements developed under the EACCS (Appendix C of the EIR). ☒ If take authorization is required, undertake compensatory mitigation in accordance with the terms of the authorization in consultation with USFWS and/or CDFW. **Mitigation Measure BIO-5c: Restore disturbed annual grasslands** ☒ Prepare and submit a Grasslands Restoration Plan within 30 days prior to any ground disturbance **Mitigation Measure BIO-9: Compensate for the permanent loss of occupied habitat for western burrowing owl** ☒ If construction activities would result in the removal of occupied burrowing owl habitat, permanently protect mitigation land through a conservation easement or implement alternative mitigation ☒ Consult with CDFW, as described in its Staff Report on Burrowing Owl Mitigation (California Department of Fish and Game 2012:11–13), to develop the compensation plan ☒ Submit compensation plan for County review and approval	☒	☐	*Use biological resources study submitted with project application to determine which mitigation measures are required.* As described in the Biological Resources Technical Report (Part 2, Report BIO-2) and the Avian Baseline Report (Part 2, Report BIO-3), the project area could support western burrowing owl, tricolored blackbird, and other special-status and non-special-status migratory birds. Potential impacts to these species from construction (operational impacts are addressed below in Impact BIO-11) would be the same as those in the PEIR. With implementation of Mitigation Measures BIO-5b (an amphibian measure which would compensate for upland habitat), BIO-5c, which would restore temporarily disturbed areas, and BIO-9, which would compensate for impacts, impacts would be less than significant.
Impact BIO-10: Potential injury or mortality of and loss of habitat for San Joaquin kit fox and American badger (less than significant with mitigation)	3.4-1–8 3.4-45–46	3.4-96	Would the project result in temporary or permanent impacts on grassland? Would the project use vehicles that could hit San Joaquin kit fox or American badger? Would the project have exposed pipes, large excavated holes, or trenches that could entrap San Joaquin kit foxes or American badgers? Would the project have operation or maintenance activities, such as road and firebreak maintenance?	☐	☒	**Mitigation Measure BIO-1b: Implement best management practices to avoid and minimize impacts on special-status species** ☒ Implement best management practices and incorporate them into individual project design and construction documents **Mitigation Measure BIO-1e: Retain a biological monitor during ground-disturbing activities in environmentally sensitive areas** ☒ Retain a qualified biologist to conduct monitoring **Mitigation Measure BIO-3a: Conduct preconstruction surveys for habitat for special-status wildlife species** ☒ Conduct surveys for the special-status wildlife species within and adjacent to all project sites no more than 3 years prior to construction **Mitigation Measure BIO-5c: Restore disturbed annual grasslands** ☒ Prepare and submit a Grasslands Restoration Plan within 30 days prior to any ground disturbance	☒	☐	*Use biological resources study submitted with project application to determine which mitigation measures are required.* As described in the Biological Resources Technical Report (Part 2, Report BIO-2), the project area has suitable habitat for San Joaquin kit fox and American badger. While neither has been observed within the project area, they are difficult to detect and may be present. Mitigation Measures BIO-1b and BIO-1e would ensure that impacts to special-status species are avoided and minimized. Mitigation Measure BIO-3a would ensure that impacts on these special-status species are adequately described and determined prior to construction. Mitigation Measure BIO-5c would ensure that temporarily disturbed areas are restored following construction. Mitigation Measure BIO-10a would ensure that additional avoidance and minimization measures specific to San Joaquin kit fox and American badger are implemented. Mitigation Measure BIO-10b would ensure that impacts are compensated. With incorporation of these mitigation measures, potential impacts to San

Impact (As identified for Program-related activities, including post-mitigation level of significance)	Discussion in Text: Existing Conditions	Discussion in Text: Impacts	APWRA Issues to Consider	No	Yes	Mitigation Measures (Details in MMRP) and Notes	Would the project, with mitigation, have impacts not identified in the PEIR? No	Would the project, with mitigation, have impacts not identified in the PEIR? Yes	Summary of Documentation
						Mitigation Measure BIO-10a: Implement measures to avoid and minimize potential impacts on San Joaquin kit fox and American badger ☒ Implement BMPs, including: ☒ Preconstruction San Joaquin kit fox and American badger surveys ☒ Conducting preconstruction surveys no less than 14 days and no more than 30 days before the beginning of ground disturbance, or any activity likely to affect San Joaquin kit fox ☒ Submission of results of the preconstruction survey including the locations of any potential or known San Joaquin kit fox dens to USFWS ☒ If implementation of some of these BMPs requires a take permit, obtain incidental take permits from USFWS and CDFW (San Joaquin kit fox) before construction begins. **Mitigation Measure BIO-10b: Compensate for loss of suitable habitat for San Joaquin kit fox and American badger** ☒ If permanent impacts on habitat for San Joaquin kit fox and American badger cannot be avoided or minimized, undertake compensatory mitigation in accordance with mitigation ratios and requirements developed under the EACCS (Appendix C in EIR). ☒ If incidental take permits are required for San Joaquin kit fox, undertake compensatory mitigation in accordance with the terms of permits in consultation with USFWS and CDFW.			Joaquin kit fox and American badger would be the same as those identified in the PEIR.
Impact BIO-11: Avian mortality resulting from interaction with wind energy facilities (significant and unavoidable – *findings of overriding considerations made with the program EIR*)	3.4-1–8 3.4-46–49	3.4-102	Would the project include turbines or powerlines?	☐	☒	**Mitigation Measure BIO-11a: Prepare a project-specific avian protection plan** ☒ Prepare a project-specific avian protection plan (APP) ☒ Submit a draft project-specific APP to the County for review by the TAC **Mitigation Measure BIO-11b: Site turbines to minimize potential mortality of birds** ☒ Conduct a siting process ☒ Prepare a siting analysis to select turbine locations to minimize potential impacts on bird and bat species ☒ Use model to identify dangerous locations for birds and bats based on site-specific risk factors ☒ Include siting analysis and model results for each turbine in project-specific APP **Mitigation Measure BIO-11c: Use turbine designs that reduce avian impacts** Implement the following design-related measures: ☒ Select designs that have been shown or that are suspected to reduce avian fatalities, based on the height, color, configuration, or other features of the turbines ☒ Limit or eliminate perching opportunities ☒ Limit or eliminate nesting or roosting opportunities ☒ Install lighting on the fewest number of turbines allowed by FAA regulations, and all pilot warning lights will fire synchronously. Use only red or dual red-and-white strobe, strobe-like, or flashing lights and operate at the minimum allowable intensity, flashing frequency, and quantity allowed by FAA	☒	☐	The project would utilize "fourth-generation" turbines as described in the PEIR, consistent with BIO-11c. Impacts to avian species from collisions with wind turbines are expected to occur as also described in the PEIR. Consequently, the project has significant and unavoidable impacts in relation to avian mortality that cannot be reduced to below the level of significance through the incorporation of mitigation measures. Nonetheless, Mitigation Measures BIO-11a through BIO-11i will be implemented to reduce and minimize impacts where possible. Potential impacts to avian species would be the same as those described in the PEIR. A siting process was conducted to choose specific turbine sites based on avian species flight patterns, as well as in recognition of terrestrial species, wetland ecologies, wind conditions (or resources) and topography, safety setback requirements and other factors. The Siting Memo is attached (SIT-1 in Part 2). More detailed siting analysis in accordance with BIO-11a and for the project APP is ongoing and may continue until the building permit application is submitted.

Impact (As identified for Program-related activities, including post-mitigation level of significance)	Discussion in Text: Existing Conditions	Discussion in Text: Impacts	APWRA Issues to Consider	No	Yes	Mitigation Measures (Details in MMRP) and Notes	Would the project, with mitigation, have impacts not identified in the PEIR? No	Would the project, with mitigation, have impacts not identified in the PEIR? Yes	Summary of Documentation
						Mitigation Measure BIO-11d: Incorporate avian-safe practices into design of turbine-related infrastructure ☒ Implement avian-safe practices **Mitigation Measure BIO-11e: Retrofit existing infrastructure to minimize risk to raptors** ☒ Retrofit any existing power lines in a specific project area that are owned by the wind project operator and are associated with electrocution of an eagle or other raptor, within 30 days, to make them raptor-safe according to Avian Power Line Interaction Committee guidelines. ☒ Retrofit all other existing structures to remain in a project area during repowering, as feasible, according to specifications of Mitigation Measure BIO-11c prior to repowered turbine operation. **Mitigation Measure BIO-11f: Discourage prey for raptors** Apply the following measures when designing and siting turbine-related infrastructure to minimize opportunities for fossorial mammals to become established ☒ Do not use rodenticide on the project site to avoid the risk of raptors scavenging the remains of poisoned animals ☒ Place boulders (rocks more than 12 inches in diameter) excavated during project construction in aboveground piles more than 500 meters (1,640 feet) from any turbine ☒ Move existing rock piles created during construction of first- and second-generation turbines at least 500 meters (1,640 feet) from turbines ☒ Place gravel around each tower foundation to discourage small mammals from burrowing near turbines **Mitigation Measure BIO-11g: Implement postconstruction avian fatality monitoring for all repowering projects** Implement the postconstruction monitoring program, including: ☒ Conducting fatality monitoring for a minimum of 3 years ☒ Forming a technical advisory committee (TAC) ☒ Conducting carcass surveys ☒ Providing for avian use surveys to be conducted within the project area boundaries for a minimum of 30 minutes duration ☒ Submitting raw data and annual reports to the County **Mitigation Measure BIO-11h: Compensate for the loss of raptors and other avian species, including golden eagles, by contributing to conservation efforts** ☒ Implement the compensation measures, including submitting to the County for approval specific conservation effort to be pursued as part of the avian conservation strategy review process			

Impact (As identified for Program-related activities, including post-mitigation level of significance)	Discussion in Text: Existing Conditions	Discussion in Text: Impacts	APWRA Issues to Consider	No	Yes	Mitigation Measures (Details in MMRP) and Notes	Would the project, with mitigation, have impacts not identified in the PEIR? No	Would the project, with mitigation, have impacts not identified in the PEIR? Yes	Summary of Documentation
						Mitigation Measure BIO-11i: Implement an avian adaptive management program ☒ Implement the adaptive management program in MM BIO-11i if fatality monitoring described in Mitigation Measure BIO-11g results in an estimate that exceeds the preconstruction baseline fatality estimates (i.e., estimates at the nonrepowered turbines as described in this PEIR) for any focal species or species group (i.e., individual focal species, all focal species, all raptors, all non-raptors, all birds combined). This includes: ☒ Preparing a project-specific adaptive management plan within 2 months following the availability of the fatality monitoring results ☒ Implementing the project-specific adaptive management plans within 2 months of approval by the County			
Impact BIO-12: Potential mortality or disturbance of bats from roost removal or disturbance (less than significant with mitigation)	3.4-1–8 3.4-42–45	3.4-127	Would the project construction or decommissioning involve any of the following activities? • Increased traffic, noise, lighting, or human access • Removal or disturbance of trees, rock outcrops, debris piles, outbuildings, or other artificial structures • Removal of special-status species' roost structures	☐	☒	**Mitigation Measure BIO-1b: Implement best management practices to avoid and minimize impacts on special-status species** ☒ Implement best management practices and incorporate them into individual project design and construction documents **Mitigation Measure BIO-3a: Conduct preconstruction surveys for habitat for special-status wildlife species** ☒ Conduct surveys for the special-status wildlife species within and adjacent to all project sites no more than 3 years prior to construction **Mitigation Measure BIO-12a: Conduct bat roost surveys** ☒ Prior to development of any repowering project, conduct a roost habitat assessment to identify potential colonial roost sites of special-status and common bat species within 750 feet of the construction area ☒ If suitable roost sites are to be removed or otherwise affected by the proposed project, conduct targeted roost surveys of all identified sites that would be affected (several separate survey visits may be required) ☒ At the completion of the roost surveys, submit a report documenting areas surveyed, methods, results, and mapping of high-quality habitat or confirmed roost locations **Mitigation Measure BIO-12b: Avoid removing or disturbing bat roosts** ☒ Do not disturb active bat roosts and provide a minimum buffer of 500 feet where preexisting disturbance is moderate or 750 feet where preexisting disturbance is minimal ☒ Confirm buffer distances and determination of the need for a biological monitor for active maternity roosts or hibernacula in consultation with CDFW. ☒ Wherever feasible, leave structures (natural or artificial) showing evidence of significant bat use within the past year in place as habitat ☒ Consult with CDFW should such a structure need to be removed or disturbed ☒ Provide environmental awareness training to construction personnel, establish buffers, and initiate consultation with CDFW if needed	☒	☐	The presence or absence of bat roosts in the project area is unknown. The project could result in mortality or disturbance of bats from roost removal or disturbance. Potential impacts to these species would be the same as those in the PEIR. Implementation of Mitigation Measures BIO-1b, BIO-3a, and BIO-12a, would determine if bat roosts are present and BIO-12b would avoid the removal of bat roosts if they are present. Impacts would be less than significant with the implementation of these measures.

Impact (As identified for Program-related activities, including post-mitigation level of significance)	Discussion in Text: Existing Conditions	Discussion in Text: Impacts	APWRA Issues to Consider	No	Yes	Mitigation Measures (Details in MMRP) and Notes	Would the project, with mitigation, have impacts not identified in the PEIR? No	Would the project, with mitigation, have impacts not identified in the PEIR? Yes	Summary of Documentation
						☒ Shield and angle artificial night lighting within 500 feet of any roost in such that bats may enter and exit the roost without artificial illumination and the roost does not receive artificial exposure to visual predators ☒ Conduct tree and vegetation removal outside the maternity season (April 1–September 15) ☒ If a maternity roost or hibernaculum is present within 500 feet of the construction site where preexisting disturbance is moderate or within 750 feet where preexisting disturbance is minimal, have a qualified biological monitor onsite during groundbreaking activities			
Impact BIO-13: Potential for construction activities to temporarily remove or alter bat foraging habitat (less than significant)	3.4-1–8 3.4-42–45	3.4-130	Would project construction degrade bat foraging habitat by replacing vegetation with nonvegetated land cover types?	☐	☒	Loss or degradation of bat foraging habitat by replacing vegetation with and by creating a temporary increase in traffic, noise, and artificial night lighting in the program area, reducing the extent of landscape available for foraging would fall within the impact assessed in the PEIR and be less than significant because the amount of landscape returned to foraging habitat in the process of decommissioning the first- and second-generation turbines would offset the amount of foraging habitat lost to repowering activities.	☒	☐	The project has potential for construction activities to temporarily remove or alter bat foraging habitat. However, the loss of habitat would be offset from the decommissioning of existing turbines and restoration of grassland in these areas. Potential impacts to bat foraging habitat would be the same as those in the PEIR. No mitigation is required.
Impact BIO-14: Turbine-related fatalities of special-status and other bats (significant and unavoidable – *findings of overriding considerations made with the program EIR*)	3.4-1–8 3.4-42–45	3.4-131	Would the project involve turbines?	☐	☒	**Note:** These mitigation measures will not reduce the impact to less than significant. **Mitigation Measure BIO-14a: Site and select turbines to minimize potential mortality of bats** ☒ Use the best information available to site turbines and to select from turbine models in such a manner as to reduce bat collision risk; measures include siting turbines the greatest distance feasible up to 500 meters (1,640) feet from still or flowing bodies of water, riparian habitat, known roosts, and tree stands (California Bat Working Group 2006:6). ☒ Conduct a bat habitat assessment and roost survey to identify and map habitat of potential significance to bats ☒ Incorporate relevant bat use survey data and bat fatality records published by other projects in the APWRA into turbine siting decisions ☒ Carry out roost surveys according to the methods described in Mitigation Measure-BIO-12a. **Mitigation Measure BIO-14b: Implement postconstruction bat fatality monitoring program for all repowering projects** ☒ Implement a scientifically defensible, postconstruction bat fatality monitoring program ☒ Include on the TAC at least one biologist with significant expertise in bat research and wind energy impacts on bats ☒ Conduct bat acoustic surveys concurrently with fatality monitoring in the project area ☒ Modify the fatality search protocol will be implemented to obtain better information on the number and timing of bat fatalities	☒	☐	The project would have significant and unavoidable impacts in relation to bat mortality that cannot be reduced to below the level of significant through the incorporation of mitigation measures. Potential impacts to bats from operational activities would be the same as those in the PEIR. The implementation of mitigation measures identified in the PEIR, BIO-14a through BIO-14e will reduce the impacts, but not to a less than significant level.

Impact (As identified for Program-related activities, including post-mitigation level of significance)	Discussion in Text: Existing Conditions	Discussion in Text: Impacts	APWRA Issues to Consider	No	Yes	Mitigation Measures (Details in MMRP) and Notes	Would the project, with mitigation, have impacts not identified in the PEIR? No	Would the project, with mitigation, have impacts not identified in the PEIR? Yes	Summary of Documentation
						☒ Use bat carcasses in detection probability trials to develop bat-specific detection probabilities **Mitigation Measure BIO-14c: Prepare and publish annual monitoring reports on the findings of bat use of the project area and fatality monitoring results** ☒ Produce annual reports of bat use results and fatality monitoring within 3 months of the end of the last day of fatality monitoring ☒ Report special-status bat species records to CNDDB **Mitigation Measure BIO-14d: Develop and implement a bat adaptive management plan** ☒ In concert with Mitigation Measure BIO-14b, develop adaptive management plans to ensure appropriate, feasible, and current incorporation of emerging information **Mitigation Measure BIO-14e: Compensate for expenses incurred by rehabilitating injured bats** ☒ Assume in full the cost of reasonable, licensed rehabilitation efforts for any injured bats taken to wildlife care facilities from the program area			
Impact BIO-15: Potential for road infrastructure upgrades to result in adverse effects on alkali meadow (less than significant with mitigation)	3.4-1–8 3.4-10–11	3.4-141	Would the project involve grading, widening, or regravelling of existing roads or construction of new roads in alkali meadow habitat? Would existing culverts be upgraded or new culverts installed in alkali meadow habitat?	☐	☒	**Mitigation Measure BIO-15: Compensate for the loss of alkali meadow habitat** ☒ If alkali meadow habitat is filled or disturbed, compensate for the loss of this habitat ☒ Determine compensation ratios through coordination with state and federal agencies (CDFW, USFWS, USACE) ☒ Develop and implement a restoration and monitoring plan	☒	☐	*Use biological resources study submitted with project application to determine if mitigation measures are required.* As described in the Biological Resources Technical Report (Part 2, Report BIO-2), the project has potential for ground disturbing activities to result in direct adverse effects on alkali meadow habitats. This impact would be the same as described in the PEIR, With implementation of Mitigation Measure BIO-15 impacts would be less than significant.
Impact BIO-16: Potential for road infrastructure upgrades to result in adverse effects on riparian habitat (less than significant with mitigation)	3.4-1–8 3.4-14–15	3.4-142	Would the project involve grading, widening, or regravelling of existing roads or construction of new roads in riparian habitat? Would existing culverts be upgraded or new culverts installed in riparian habitat?	☐	☒	**Mitigation Measure BIO-16: Compensate for the loss of riparian habitat** ☒ If riparian habitat is filled or removed as part of a project, compensate for the loss of riparian habitat ☒ Determine compensation ratios through coordination with state and federal agencies (CDFW, USFWS, USACE) ☒ Develop and implement a restoration and monitoring plan	☒	☐	*Use biological resources study submitted with project application to determine which mitigation measures are required.* As described in the Biological Resources Technical Report (Part 2, Report BIO-2), the project has potential for ground disturbing activities to result in direct adverse effects on riparian habitats. This impact would be the same as described in the PEIR, With implementation of Mitigation Measure BIO-16 impacts would be less than significant.
Impact BIO-17: Potential for ground-disturbing activities to result in direct adverse effects on common habitats (less than significant)	3.4-8–21	3.4-143	Would the project cause ground disturbance in common habitats? Would the project not include the following measures, which are part of the project, as described in Chapter 2, *Program Description*, of the EIR?	☐	☒	**Note**: No mitigation is required for projects as described in the PEIR because all lands disturbed by infrastructure installation or removal would be returned to preproject conditions per the County required reclamation plan.	☒	☐	*Use biological resources study submitted with project application to determine which mitigation measures are required.* The project has potential for ground disturbing activities to result in direct adverse effects on common habitats. This impact would be the same as described in the PEIR, which determined that the impact is less than significant

Impact (As identified for Program-related activities, including post-mitigation level of significance)	Discussion in Text: Existing Conditions	Discussion in Text: Impacts	APWRA Issues to Consider	No	Yes	Mitigation Measures (Details in MMRP) and Notes	Would the project, with mitigation, have impacts not identified in the PEIR? No	Would the project, with mitigation, have impacts not identified in the PEIR? Yes	Summary of Documentation
			• develop a reclamation plan in coordination with the County, USFWS, and CDFW • ensure the reclamation plan is completed and approved by the County 6 months in advance of project decommissioning			**If the project does not include these measures, it would not fall within the impacts identified in the PEIR**			because the amount of loss is relatively minor and all lands disturbed by infrastructure would be returned to pre-project conditions.
Impact BIO-18: Potential for road infrastructure upgrades to result in adverse effects on wetlands (less than significant with mitigation)	3.4-1–8 3.4-15–17	3.4-145	Would the project involve grading, widening, or regravelling of existing roads or construction of new roads in wetlands? Would existing culverts be upgraded or new culverts installed in wetlands?	☐	☒	**Mitigation Measure BIO-18: Compensate for the loss of wetlands** ☒ If wetlands are filled or disturbed as part of a project, compensate for the loss of this habitat functions ☒ Determine compensation ratios through coordination with state and federal agencies (CDFW, USFWS, USACE) ☒ Develop and implement a restoration and monitoring plan	☒	☐	*Use biological resources study submitted with project application to determine which mitigation measures are required.* As described in the Biological Resources Technical Report (Part 2, Report BIO-2), the project has potential for road infrastructure upgrades to result in adverse effects on wetlands. This impact would be the same as described in the PEIR. With implementation of Mitigation Measure BIO-18 impacts would be less than significant.
Impact BIO-19: Potential impact on the movement of any native resident or migratory wildlife species or established native resident or migratory wildlife corridors, and the use of native wildlife nursery sites (significant and unavoidable - *findings of overriding considerations made with the program EIR*))	3.4-1–8 3.4-25–49	3.4-146	Would the project involve construction activities or fencing of work areas?	☐	☒	**Note:** These mitigation measures will not reduce the impact to less than significant **Mitigation Measure BIO-1b: Implement best management practices to avoid and minimize impacts on special-status species** ☒ Implement best management practices and incorporate them into individual project design and construction documents **Mitigation Measure BIO-1e: Retain a biological monitor during ground-disturbing activities in environmentally sensitive areas** ☒ Retain a qualified biologist to conduct monitoring **Mitigation Measure BIO-3a: Conduct preconstruction surveys for habitat for special-status wildlife species** ☒ Conduct surveys for the special-status wildlife species within and adjacent to all project sites no more than 3 years prior to construction. **Mitigation Measure BIO-4a: Implement measures to avoid or protect habitat for valley elderberry longhorn beetle** ☒ Avoid removal of elderberry shrubs. ☒ Protect elderberry shrubs/clusters within 100 feet of the construction area. (A qualified biologist will mark the elderberry shrubs and clusters and orange construction barrier fencing will be placed at the edge of the buffer areas.) ☒ Receive approval from USFWS for buffer areas. No construction activities will be permitted within the buffer zone. ☒ Post signs every 50 feet (15.2 meters) along the perimeter of the buffer area fencing	☒	☐	The project has potential for impacting the movement of native resident or migratory wildlife species or established native resident or migratory wildlife corridors, and the use of native wildlife nursery sites. In terms of operation of the wind turbines, impacts are considered significant and unavoidable in relation to raptors, other birds, and bats and these impacts cannot be reduced to below the level of significant through the incorporation of mitigation measures. This impact would be the same as described in the PEIR. Nonetheless, Mitigation Measures BIO-1b, BIO-1e, BIO-3a, BIO-4a, BIO-5a, BIO-5c, BIO-7a, BIO-8a, BIO-8b, BIO-10a, BIO-11b, BIO-11c, BIO-11d, BIO-11e, BIO-11i, BIO-12a, BIO-12b, BIO-14a, and BIO-14d will be implemented.

Impact (As identified for Program-related activities, including post-mitigation level of significance)	Discussion in Text: Existing Conditions	Discussion in Text: Impacts	APWRA Issues to Consider	No	Yes	Mitigation Measures (Details in MMRP) and Notes	Would the project, with mitigation, have impacts not identified in the PEIR? No	Would the project, with mitigation, have impacts not identified in the PEIR? Yes	Summary of Documentation
						☒ Inspect buffer area fences around elderberry shrubs weekly by a qualified biological monitor during ground-disturbing activities and monthly after ground-disturbing activities until project construction is complete or until the fences are removed ☒ Submit biological inspection reports to USFWS. **Mitigation Measure BIO-5a: Implement best management practices to avoid and minimize effects on special-status amphibians** ☒ Implement best management practices and incorporate them into individual project design and construction documents ☒ If implementation of some of these measures requires a take permit, obtain incidental take permits from USFWS (California red-legged frog and California tiger salamander) and from CDFW (California tiger salamander only) before construction begins. ☒ Implement additional conservation measures or conditions of approval in applicable project permits (e.g., ESA or CESA incidental take authorization). ☒ Comply with the State of California State Water Resources Control Board NPDES construction general requirements for stormwater. **Mitigation Measure BIO-5c: Restore disturbed annual grasslands** ☒ Prepare and submit a Grasslands Restoration Plan within 30 days prior to any ground disturbance			
						Mitigation Measure BIO-7a: Implement best management practices to avoid and minimize effects on special-status reptiles ☒ Implement best management practices and incorporate them into individual project design and construction documents ☒ If implementation of some of these measures requires a take permit, obtain incidental take permits from USFWS and CDFW (Alameda whipsnake) before construction begins. ☒ Implement additional conservation measures or conditions of approval in applicable project permits (i.e., ESA incidental take permit).			
						Mitigation Measure BIO-8a: Implement measures to avoid and minimize potential impacts on special-status and non–special-status nesting birds ☒ Implement best management practices, including: ☒ Preconstruction bird surveys ☒ Coordination with USFW on golden eagles ☒ **Coordination with CDFW and USFWS on active nests** **Mitigation Measure BIO-8b: Implement measures to avoid and minimize potential impacts on western burrowing owl** ☒ Implement best management practices, including: ☒ Preconstruction burrowing owl surveys			

Impact (As identified for Program-related activities, including post-mitigation level of significance)	**Discussion in Text**		**APWRA Issues to Consider**	**No**	**Yes**	**Mitigation Measures (Details in MMRP) and Notes**	**Would the project, with mitigation, have impacts not identified in the PEIR?**		**Summary of Documentation**
	Existing Conditions	**Impacts**					**No**	**Yes**	
						☒ Coordination with CDFW on active burrowing owl nests ☒ Coordination with CDFW on burrowing owl buffer ☒ Coordination with CDFW on burrowing owl exclusion plan **Mitigation Measure BIO-10a: Implement measures to avoid and minimize potential impacts on San Joaquin kit fox and American badger** ☒ Implement BMPs, including: ☒ Preconstruction San Joaquin kit fox and American badger surveys ☒ Conducting preconstruction surveys no less than 14 days and no more than 30 days before the beginning of ground disturbance, or any activity likely to affect San Joaquin kit fox ☒ Submission of results of the preconstruction survey including the locations of any potential or known San Joaquin kit fox dens to USFWS ☒ If implementation of some of these BMPs requires a take permit, obtain incidental take permits from USFWS and CDFW (San Joaquin kit fox) before construction begins. **Mitigation Measure BIO-11b: Site turbines to minimize potential mortality of birds** ☒ Conduct a siting process ☒ Prepare a siting analysis to select turbine locations to minimize potential impacts on bird and bat species ☒ Use model to identify dangerous locations for birds and bats based on site-specific risk factors ☒ Include siting analysis and model results for each turbine in project-specific APP **Mitigation Measure BIO-11c: Use turbine designs that reduce avian impacts** Implement the following design-related measures: ☒ Select designs that have been shown or that are suspected to reduce avian fatalities, based on the height, color, configuration, or other features of the turbines ☒ Limit or eliminate perching opportunities ☒ Limit or eliminate nesting or roosting opportunities ☒ Install lighting on the fewest number of turbines allowed by FAA regulations, and all pilot warning lights will fire synchronously. Use only red or dual red-and-white strobe, strobe-like, or flashing lights and operate at the minimum allowable intensity, flashing frequency, and quantity allowed by FAA **Mitigation Measure BIO-11d: Incorporate avian-safe practices into design of turbine-related infrastructure** ☒ Implement avian-safe practices **Mitigation Measure BIO-11e: Retrofit existing infrastructure to minimize risk to raptors** ☒ Retrofit any existing power lines in a specific project area that are owned by the wind project operator and are associated with electrocution of an eagle or other raptor,			

Impact (As identified for Program-related activities, including post-mitigation level of significance)	Discussion in Text: Existing Conditions	Discussion in Text: Impacts	APWRA Issues to Consider	No	Yes	Mitigation Measures (Details in MMRP) and Notes	Would the project, with mitigation, have impacts not identified in the PEIR? No	Would the project, with mitigation, have impacts not identified in the PEIR? Yes	Summary of Documentation
						within 30 days, to make them raptor-safe according to Avian Power Line Interaction Committee guidelines. ☒ Retrofit all other existing structures to remain in a project area during repowering, as feasible, according to specifications of Mitigation Measure BIO-11c prior to repowered turbine operation. **Mitigation Measure BIO-11i: Implement an avian adaptive management program** ☒ Implement the adaptive management program if fatality monitoring described in Mitigation Measure BIO-11g results in an estimate that exceeds the preconstruction baseline fatality estimates (i.e., estimates at the nonrepowered turbines as described in this PEIR) for any focal species or species group (i.e., individual focal species, all focal species, all raptors, all non-raptors, all birds combined). This includes: ☒ Preparing a project-specific adaptive management plan within 2 months following the availability of the fatality monitoring results ☒ Implementing the project-specific adaptive management plans within 2 months of approval by the County			
						Mitigation Measure BIO-12a: Conduct bat roost surveys ☒ Prior to development of any repowering project, conduct a roost habitat assessment to identify potential colonial roost sites of special-status and common bat species within 750 feet of the construction area ☒ If suitable roost sites are to be removed or otherwise affected by the proposed project, conduct targeted roost surveys of all identified sites that would be affected (several separate survey visits may be required) ☒ At the completion of the roost surveys, submit a report documenting areas surveyed, methods, results, and mapping of high-quality habitat or confirmed roost locations **Mitigation Measure BIO-12b: Avoid removing or disturbing bat roosts** ☒ Do not disturb active bat roosts and provide a minimum buffer of 500 feet where preexisting disturbance is moderate or 750 feet where preexisting disturbance is minimal ☒ Confirm buffer distances and determination of the need for a biological monitor for active maternity roosts or hibernacula in consultation with CDFW. ☒ Wherever feasible, leave structures (natural or artificial) showing evidence of significant bat use within the past year in place as habitat ☒ Consult with CDFW should such a structure need to be removed or disturbed ☒ Provide environmental awareness training to construction personnel, establish buffers, and initiate consultation with CDFW if needed ☒ Shield and angle artificial night lighting within 500 feet of any roost in such that bats may enter and exit the roost without artificial illumination and the roost does not receive artificial exposure to visual predators ☒ Conduct tree and vegetation removal outside the maternity season (April 1–September 15)			

Impact (As identified for Program-related activities, including post-mitigation level of significance)	Discussion in Text: Existing Conditions	Discussion in Text: Impacts	APWRA Issues to Consider	No	Yes	Mitigation Measures (Details in MMRP) and Notes	Would the project, with mitigation, have impacts not identified in the PEIR? No	Would the project, with mitigation, have impacts not identified in the PEIR? Yes	Summary of Documentation
						☒ If a maternity roost or hibernaculum is present within 500 feet of the construction site where preexisting disturbance is moderate or within 750 feet where preexisting disturbance is minimal, have a qualified biological monitor onsite during groundbreaking activities **Mitigation Measure BIO-14a: Site and select turbines to minimize potential mortality of bats** ☒ Use the best information available to site turbines and to select from turbine models in such a manner as to reduce bat collision risk; measures include siting turbines the greatest distance feasible up to 500 meters (1,640) feet from still or flowing bodies of water, riparian habitat, known roosts, and tree stands (California Bat Working Group 2006:6). ☒ Conduct a bat habitat assessment and roost survey to identify and map habitat of potential significance to bats ☒ Incorporate relevant bat use survey data and bat fatality records published by other projects in the APWRA into turbine siting decisions ☒ Carry out roost surveys according to the methods described in Mitigation Measure-BIO-12a. **Mitigation Measure BIO-14d: Develop and implement a bat adaptive management plan** ☒ In concert with Mitigation Measure BIO-14b, develop adaptive management plans to ensure appropriate, feasible, and current incorporation of emerging information			
						Note: The mitigation measures below are not repeated here because they are addressed above **Mitigation Measure BIO-1a: Conduct surveys to determine the presence or absence of special-status species** **Mitigation Measure BIO-1b: Implement best management practices to avoid and minimize impacts on special-status species** **Mitigation Measure BIO-1c: Avoid and minimize impacts on special-status plant species by establishing activity exclusion zones** **Mitigation Measure BIO-1d: Compensate for impacts on special-status plant species** **Mitigation Measure BIO-1e: Retain a biological monitor during ground-disturbing activities in environmentally sensitive areas** **Mitigation Measure BIO-3a: Implement measures to avoid, minimize, and mitigate impacts on vernal pool branchiopods and curved-footed hygrotus diving beetle** **Mitigation Measure BIO-4a: Implement measures to avoid or protect habitat for valley elderberry longhorn beetle** **Mitigation Measure BIO-4b: Compensate for direct and indirect effects on valley elderberry longhorn beetle** **Mitigation Measure BIO-5a: Implement best management practices to avoid and minimize effects on special-status amphibians**			The project has potential for conflicting with the Alameda County's East County Area Plan. This impact would be the same as described in the APWRA Repowering PEIR. With implementation of Mitigation Measures BIO-1a, BIO-1b, BIO-1c, BIO-1d, BIO-1e, BIO-3a, BIO-4a, BIO-5a, BIO-5b, BIO-5c, BIO-7a, BIO-7b, BIO-8a, BIO-8b, BIO-9, BIO-10a, BIO-10b, BIO-15, BIO-16, and BIO-18 impacts would be less than significant.

Impact (As identified for Program-related activities, including post-mitigation level of significance)	**Discussion in Text**		**APWRA Issues to Consider**	**No**	**Yes**	**Mitigation Measures (Details in MMRP) and Notes**	**Would the project, with mitigation, have impacts not identified in the PEIR?**		**Summary of Documentation**
	Existing Conditions	**Impacts**					**No**	**Yes**	
Impact BIO-20: Conflict with local plans or policies (less than significant with mitigation)	3.4-6–8	3.4-153	Would project construction or operation cause the loss of special-status species or their habitat, loss of alkali meadow, loss of riparian habitat, or loss of existing wetlands?	☐	☒	**Mitigation Measure BIO-5b: Compensate for loss of habitat for special-status amphibians** **Mitigation Measure BIO-5c: Restore disturbed annual grasslands** **Mitigation Measure BIO-7a: Implement best management practices to avoid and minimize effects on special-status reptiles** **Mitigation Measure BIO-7b: Compensate for loss of habitat for special-status reptiles** **Mitigation Measure BIO-8a: Implement measures to avoid and minimize potential impacts on special-status and non-special-status nesting birds** **Mitigation Measure BIO-8b: Implement measures to avoid and minimize potential impacts on western burrowing owl** **Mitigation Measure BIO-9: Compensate for the permanent loss of foraging habitat for western burrowing owl** **Mitigation Measure BIO-10a: Implement measures to avoid and minimize potential impacts on San Joaquin kit fox and American badger** **Mitigation Measure BIO-10b: Compensate for loss of suitable habitat for San Joaquin kit fox and American badger** **Mitigation Measure BIO-15: Compensate for the loss of alkali meadow habitat** **Mitigation Measure BIO-16: Compensate for the loss of riparian habitat** **Mitigation Measure BIO-18: Compensate for the loss of wetlands**	☒	☐	
Impact BIO-21: Conflict with provisions of an adopted HCP/NCCP or other approved local, regional, or state habitat conservation plan (no impact)	NA	3.4-158	Would the project include activities that are not within the scope of the project described in the PEIR?	☒	☐	**Note:** There are no adopted HCP/NCCPs for the program area. If the proposed project does not fall within the scope of activities described in the PEIR but the project would not conflict with the EACCS, there would be no impact.	☒	☐	The project area does not have adopted HPC/NCCPs and would not conflict with the EACCS. This impact would be the same as described in the PEIR. No mitigation is required.
Cultural									
Impact CUL-1: Cause a substantial adverse change in the significance of a historical resource (less than significant with mitigation)	3.5-1–3 3.5-6–12	3.5-15	Are any historic architectural resources located in the project area?	☒	☐	**Mitigation Measure CUL-1a: Avoid historic resources** ☐ Where feasible, avoid historic resources in design and layout of a proposed project in the program area **Mitigation Measure CUL-1b: Appropriate recordation of historic resources** ☐ If Mitigation Measure CUL-1a is determined to be infeasible, record the significantly affected historic resource following the guidelines of NPS, HABS, or HAER and provide the documentation to NPS, the SHPO, and local repositories as determined by Alameda County	☒	☐	*Use cultural resources study submitted with project application to determine which mitigation measures are required.* No resources that qualify as historic architectural resources for CEQA purposes have been identified within the project area. Therefore, the project is not expected to cause a substantial adverse change in the significance of an historical resource. This conclusion is based on the results of the 2013 cultural resources inventory conducted for the project. The inventory included background research, a records search, Native American correspondence, an archaeological pedestrian survey, and resource evaluations and management considerations. Because no historic architectural resources for CEQA purposes were identified in the project area during the inventory, Mitigation Measures

Impact (As identified for Program-related activities, including post-mitigation level of significance)	Discussion in Text		APWRA Issues to Consider	No	Yes	Mitigation Measures (Details in MMRP) and Notes	Would the project, with mitigation, have impacts not identified in the PEIR?		Summary of Documentation
	Existing Conditions	Impacts					No	Yes	
									CUL-1a and CUL-1b would not be required, as the project is anticipated to have no impact on historic architectural resources.
Impact CUL-2: Cause a substantial adverse change in the significance of an archaeological resource(less than significant with mitigation)	3.5-1–12	3.5-17	Would the project involve ground-disturbing activities?	☐	☒	**Mitigation Measure CUL-2a: Conduct a preconstruction cultural field survey and cultural resources inventory and evaluation** ☐ Conduct an archaeological field survey of the program area and include the documentation and result of these efforts, the evaluation of any cultural resources identified during the survey, and cultural resources monitoring **Mitigation Measure CUL-2b: Develop a treatment plan for any identified significant cultural resources** ☐ If any significant resources are identified through the preconstruction survey, develop and implement a treatment plan that could include site avoidance, capping, or data recovery **Mitigation Measure CUL-2c: Conduct worker awareness training for archaeological resources prior to construction** ☒ Prior to the initiation of any site preparation and/or the start of construction, ensure that all construction workers receive training overseen by a qualified professional archaeologist who is experienced in teaching nonspecialists, to ensure that forepersons and field supervisors can recognize archaeological resources **Mitigation Measure CUL-2d: Stop work if cultural resources are encountered during ground-disturbing activities** ☒ In the construction specifications, include a stop-work order if prehistoric or historic-era cultural resources are unearthed during ground-disturbing activities ☒ If such resources are encountered, immediately halt all activity within 100 feet of the find until a qualified archaeologist can assess the significance of the find. ☒ If the find is determined to be potentially develop a treatment plan that could include site avoidance, capping, or data recovery	☒	☐	*Use cultural resources study submitted with project application to determine which mitigation measures are required.* No archaeological resources were identified within the project area. Therefore, the project is not expected to cause a substantial adverse change in the significance of an archaeological resource. This conclusion is based on the results of the 2013 cultural resources inventory conducted for the project area (Part 2, Report CUL-1). The inventory included background research, a records search, Native American correspondence, an archaeological pedestrian survey, and resource evaluations and management considerations. Mitigation Measure CUL-2a has already been implemented by the completion of the preconstruction cultural field survey and cultural resources inventory. Because no archaeological resources were identified during this survey, Mitigation Measure CUL-2b is not necessary. However, it is possible that that as-yet unidentified buried archaeological resources are present in the project area and could be encountered during project ground-disturbing activities. If any such resources are present and qualify as a historical resource or unique archaeological resource for CEQA purposes, any impact to them resulting from the project could be potentially significant. With implementation of Mitigation Measures CUL-2c and CUL-2d, any potential impacts to as-yet unidentified archaeological resources would be less than significant.
Impact CUL-3: Disturb any human remains, including those interred outside of formal cemeteries (less than significant with mitigation)	3.5-1–3	3.5-20	Would the project involve ground-disturbing activities?	☐	☒	**Mitigation Measure CUL-3: Stop work if human remains are encountered during ground-disturbing activities** ☒ In the construction specifications, include a stop-work order if human remains are discovered ☒ Do not excavate or disturb the site within a 100-foot radius of the location of such discovery, or any nearby area reasonably suspected to overlie adjacent remains ☒ Notify the Alameda County Coroner	☒	☐	No known human remains are located within the project area. This conclusion is based on the results of the 2013 cultural resources inventory conducted for the project. The inventory included background research, a records search, Native American consultation, an archaeological pedestrian survey, and resource evaluations and management considerations. However, it is possible that as-yet unidentified buried human remains are present in the project area and could be encountered during project ground-disturbing activities. If any such resources were encountered, any impact to them resulting from the project could be potentially significant. With implementation of

Impact (As identified for Program-related activities, including post-mitigation level of significance)	**Discussion in Text**		**APWRA Issues to Consider**	**No**	**Yes**	**Mitigation Measures (Details in MMRP) and Notes**	**Would the project, with mitigation, have impacts not identified in the PEIR?**		**Summary of Documentation**
	Existing Conditions	**Impacts**					**No**	**Yes**	
									Mitigation Measure CUL-3, any potential impacts to human remains would be less than significant.
Geology, Soils, Mineral Resources, and Paleontological Resources									
Impact GEO-1: Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, as a result of rupture of a known earthquake fault (less than significant with mitigation)	3.6-1–9 3.6-9–13	3.6-19	Would the project involve construction activities?	☐	☒	**Mitigation Measure GEO-1: Conduct site-specific geotechnical investigation and implement design recommendations in subsequent geotechnical report** ☒ Prior to construction activities at any site, retain a geotechnical firm with local expertise in geotechnical investigation and design to prepare a site-specific geotechnical report ☒ Submit site-specific geotechnical report to the County building department ☒ Incorporate geotechnical recommendations into project design	☒	☐	The project would involve construction activities. With implementation of Mitigation Measure GEO-1, impacts would be less than significant.
Impact GEO-2: Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, as a result of strong seismic ground shaking (less than significant with mitigation)	3.6-1–9 3.6-9–13	3.6-21	Would the project involve construction activities?	☐	☒	**Mitigation Measure GEO-1: Conduct site-specific geotechnical investigation and implement design recommendations in subsequent geotechnical report** ☒ See Impact Geo-1	☒	☐	The project would involve construction activities. With implementation of Mitigation Measure GEO-1, impacts would be less than significant.
Impact GEO-3: Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, as a result of seismic-related ground failure, including landsliding and liquefaction (less than significant with mitigation)	3.6-1–9 3.6-9–13	3.6-24	Would the project involve construction activities?	☐	☒	**Mitigation Measure GEO-1: Conduct site-specific geotechnical investigation and implement design recommendations in subsequent geotechnical report** ☒ See Impact Geo-1	☒	☐	The project would involve construction activities. With implementation of Mitigation Measure GEO-1, impacts would be less than significant.
Impact GEO-4: Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, as a result of landsliding (less than significant with mitigation)	3.6-1–9 3.6-9–13	3.6-26	Would the project involve construction activities?	☐	☒	**Mitigation Measure GEO-1: Conduct site-specific geotechnical investigation and implement design recommendations in subsequent geotechnical report** ☒ See Impact Geo-1	☒	☐	The project would involve construction activities within the program area. The program area is known to be susceptible to earthquake-induced landsliding (PEIR, page. 3.6-24). With implementation of Mitigation Measure GEO-1, impacts would be less than significant.
Impact GEO-5: Result in substantial soil erosion or the loss of topsoil (less than significant)	3.6-1–9 3.6-14–15	3.6-28	Would the project not include the following measures, which are part of the project, as described in Chapter 2, *Program Description*, of the EIR? ☒ prepare a SWPPP ☒ develop a reclamation plan in coordination with the County, USFWS, and CDFW	☐	☒	**Note:** If the project does not include these measures, it would not fall within the impacts identified in the PEIR and could result in additional impacts.	☒	☐	The project would be located within the program area, in an area characterized by the Fontana-Diablo-Altamont soil association and the Carbona-Calla soil type (PEIR Figure 3.6-6). Some soils in the Fontana-Diablo-Altamont soil association have a higher susceptibility to water erosion. The project would include a SWPPP and reclamation plan; therefore, erosion impacts would be less than significant.

Impact (As identified for Program-related activities, including post-mitigation level of significance)	Discussion in Text: Existing Conditions	Discussion in Text: Impacts	APWRA Issues to Consider	No	Yes	Mitigation Measures (Details in MMRP) and Notes	Would the project, with mitigation, have impacts not identified in the PEIR? No	Would the project, with mitigation, have impacts not identified in the PEIR? Yes	Summary of Documentation
			☒ ensure the reclamation plan is completed and approved by the County 6 months in advance of project decommissioning						
Impact GEO-6: Be located on expansive soil, creating substantial risks to life or property (less than significant with mitigation)	3.6-1–9 3.6-14–15	3.6-31	Would the project involve construction activities?	☐	☒	**Mitigation Measure GEO-1: Conduct site-specific geotechnical investigation and implement design recommendations in subsequent geotechnical report** ☒ See Impact Geo-1	☒	☐	The project would involve construction activities in an area characterized by the Fontana-Diablo-Altamont soil association and the Carbona-Calla soil type (PEIR Figure 3-6-6). Most soils in the Fontana-Diablo-Altamont association have a high shrink-swell potential. With implementation of Mitigation Measure GEO-1, impacts associated with expansive soil would be less than significant.
Impact GEO-7: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature (less than significant with mitigation)	3.6-4 3.6-15–17	3.6-32	Would the project involve ground-disturbing earthwork associated with construction?	☐	☒	**Mitigation Measure GEO-7a: Retain a qualified professional paleontologist to monitor significant ground-disturbing activities** ☒ Retain a qualified professional paleontologist as defined by the SVP's Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources (2010) to monitor activities with the potential to disturb sensitive paleontological resources ☒ Monitor ground-disturbing activities as determined by the professional paleontologist (in general, these activities include any ground-disturbing activities involving excavation deeper than 3 feet in areas with high potential to contain sensitive paleontological resources) ☒ Prepare recovered fossils so that they can be properly documented and ensure they are curated at an appropriate facility **Mitigation Measure GEO-7b: Educate construction personnel in recognizing fossil material** ☒ Ensure that all construction personnel receive training provided by a qualified professional paleontologist experienced in teaching non-specialists to ensure that they can recognize fossil materials in the event any are discovered during construction. **Mitigation Measure GEO-7c: Stop work if substantial fossil remains are encountered during construction** ☒ If substantial fossil remains (particularly vertebrate remains) are discovered during earth disturbing activities, stop activities within 100 feet of the find immediately until a state-registered professional geologist or qualified professional paleontologist can assess the nature and importance of the find and a qualified professional paleontologist can recommend appropriate treatment. ☒ Ensure that recommendations regarding treatment and reporting are implemented	☒	☐	Project construction would involve ground-disturbing earthwork. Because most geologic units in the program area are likely to be sensitive for paleontological resources, excavation within these units could damage paleontological resources. Implementation of Mitigation Measures GEO-7a through GEO-7c would reduce this impact to a less-than-significant level.

Impact (As identified for Program-related activities, including post-mitigation level of significance)	Discussion in Text: Existing Conditions	Discussion in Text: Impacts	APWRA Issues to Consider	No	Yes	Mitigation Measures (Details in MMRP) and Notes	Would the project, with mitigation, have impacts not identified in the PEIR? No	Would the project, with mitigation, have impacts not identified in the PEIR? Yes	Summary of Documentation
Greenhouse Gas Emissions									
Impact GHG-1: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment (less than significant)	3.7-1–7 3.7-7–11	3.7-16	Would the project include activities that are not within the scope of the project described in the PEIR?	☒	☐	**Note:** If the project would include activities unrelated to wind power generation, the GHG impacts generated by the project would not be offset by the wind power generation related reduction in GHGs described in Impact GHG-1. However, if the project itself would result in a net reduction of CO_{2e} per year, the impact is less than significant.	☒	☐	Project construction activities would result in GHG emissions from the combustion of fuels from worker vehicles and construction equipment. However, the project would not include activities beyond the scope of the project described in the PEIR or activities unrelated to wind power generation. The project would therefore not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.
Impact GHG-2: Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases (less than significant with mitigation)	3.7-1–7 3.7-7–11	3.7-24	Would the project use vehicles that emit greenhouse gases?	☐	☒	**Mitigation Measure GHG-2a: Implement best available control technology for heavy-duty vehicles** ☒ Document that the vehicles used for project construction meet the specified requirements **Mitigation Measure GHG-2b: Install low SF6 leak rate circuit breakers and monitoring** ☒ Ensure that any new circuit breaker installed at a substation has a guaranteed SF6 leak rate of 0.5% by volume or less ☒ Provide Alameda County with documentation of compliance, such as specification sheets, prior to installation of the circuit breaker ☒ Monitor the SF6-containing circuit breakers at the substation consistent with Scoping Plan Measure H-6 for the detection and repair of leaks **Mitigation Measure GHG-2c: Require new construction to use building materials containing recycled content** ☒ In the construction of all new substation and other permanent buildings, incorporate materials for which the sum of post-consumer recycled content plus one-half of the post-industrial content constitutes at least 10% of the total value of the materials in the project **Mitigation Measure GHG-2d: Comply with construction and demolition debris management ordinance** ☒ Comply with the County's revised Green Building Ordinance regarding construction and demolition debris as follows: (1) 100% of inert waste and 50% wood/vegetative/scrap metal not including Alternative Daily Cover (ADC) and unsalvageable material will be put to other beneficial uses at landfills, and (2) 100% of inert materials (concrete and asphalt) will be recycled or put to beneficial reuse.	☒	☐	Project construction equipment and worker vehicles would emit GHGs from fuel combustion. . Construction and operation of GH North would result in no additional SF_6 emissions associated with the operation and maintenance of circuit breakers, because the project power collection system will connect to the two existing AC/DC substations. With implementation of Mitigation Measures GHG-2a, GHG-2c, and GHG-2d impacts would be less than significant.

Impact (As identified for Program-related activities, including post-mitigation level of significance)	Discussion in Text: Existing Conditions	Discussion in Text: Impacts	APWRA Issues to Consider	No	Yes	Mitigation Measures (Details in MMRP) and Notes	Would the project, with mitigation, have impacts not identified in the PEIR? No	Would the project, with mitigation, have impacts not identified in the PEIR? Yes	Summary of Documentation
Hazards and Hazardous Materials									
Impact HAZ-1: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials (less than significant)	3.8-1–6 3.8-6–9	3.8-10	Would the project NOT implement the following BMPs and procedures? • Standard construction BMPs to reduce pollutant emissions during construction • BMPs to reduce the potential for or exposure to accidental spills involving the use of hazardous materials • Procedures to carefully disassemble and remove wind turbines in a manner consistent with recycling and/or reselling the units	☒	☐	**Note:** If the project does not include these measures, it would not fall within the impacts identified in the PEIR and could result in additional impacts.	☒	☐	Project construction would involve small quantities of commonly used materials, such as fuels and oils, to operate construction equipment. The project would implement standard construction BMPs, as required by the SWPPP, to reduce pollutant emissions during construction. This impact would be less than significant.
Impact HAZ-2: 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 (less than significant)	3.8-1–6 3.8-6–9	3.8-13	Would the project involve activities or materials beyond those described in the PEIR?	☒	☐	**Note:** If the project includes activities not covered in the PEIR the impact could be significant and will need to be evaluated.	☒	☐	The project would not involve activities or materials beyond those described in the PEIR. Furthermore, the project would not create a significant hazard to the public or the environment through reasonably foreseeable upset or accident conditions involving the release of hazardous materials into the environment. This impact would be less than significant.
Impact HAZ-3: Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school (no impact)	3.8-1–6 3.8-7	3.8-15	Is a public or private K–12 school located within 0.25 mile of the project area?	☒	☐	**Note:** There are no public or private K–12 schools within 0.25 mile of the program area. The nearest school is approximately 0.48 mile east of proposed wind facilities and it is unlikely that hazardous materials would be emitted or released within 0.25 mile of any schools. Also, implementation of the SWPPP by contractors would reduce the potential of a hazardous spill incident. Should the project be located within 0.25 mile of a public or private K–12 school, it would not fall within the impacts assessed in the PEIR and the impact will need to be evaluated.	☒	☐	The project area is not within 0.25 mile of any public or private K-12 school. The nearest school is Mountain House Elementary, approximately 1 mile north of the eastern parcel of the project area. There would be no impact.
Impact HAZ-4: Location on a hazardous materials site, creating a significant hazard to the public or the environment (less than significant with mitigation)	3.8-1–6 3.8-6–9	3.8-16	Would the project involve soil disturbance?	☐	☒	**Mitigation Measure HAZ-4: Perform a Phase I Environmental Site Assessment prior to construction activities and remediate if necessary** ☒ Conduct a Phase I environmental site assessment prior to construction and in conformance with the American Society for Testing and Materials Standard Practice E1527-05 ☒ Conduct all environmental investigation, sampling, and remediation activities associated with properties in the project area under a work plan approved by the regulatory oversight agency ☒ Include results of any investigation and/or remediation activities conducted in the project area in the project-level EIR	☒	☐	Project construction would involve soil disturbance. However, a Phase I ESA will be performed prior to construction. With implementation of Mitigation Measure HAZ-4 this impact would be less than significant.

Impact (As identified for Program-related activities, including post-mitigation level of significance)	**Discussion in Text**		**APWRA Issues to Consider**	**No**	**Yes**	**Mitigation Measures (Details in MMRP) and Notes**	**Would the project, with mitigation, have impacts not identified in the PEIR?**		**Summary of Documentation**
	Existing Conditions	**Impacts**					**No**	**Yes**	
Impact HAZ-5: Location within an airport land use plan area or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, resulting in a safety hazard for people residing or working in the project area (less than significant with mitigation)	3.8-1–6 3.8-7	3.8-19	Would the project be located in the Byron Airport influence area?	☒	☐	**Mitigation Measure HAZ-5: Coordinate with the Contra Costa ALUC prior to final design** ☐ If wind turbines are proposed to be constructed within the Byron Airport influence area zones, coordinate and consult with the Contra Costa County Airport Land Use Commission and request review and obtain approval of the final design and placement of wind turbines ☐ Incorporate any ALUC recommendations in to the final design	☒	☐	*Require the application to include mapping to show locations of proposed turbines in relation to the Byron Airport influence areas or any private airstrips, including distances.* As shown on Figure 3.8-1 in Part 1, the nearest public airport, Byron Airport, is located about 4.5 miles north of the project area; therefore, the project would not be located in the Byron Airport influence area, and would not be located within 2 miles of any public airport or public use airport. There would be no impact.
Impact HAZ-6: Location within the vicinity of a private airstrip, resulting in a safety hazard for people residing or working in the project area (less than significant)	3.8-1–6 3.8-7	3.8-21	Would the project be located within 2 miles of a private airstrip?	☒	☐	**Note:** Should the project be located within 2 miles of a private airstrip, it would not fall within the impacts assessed in the PEIR and the impact will need to be evaluated.	☒	☐	*Require the application to include mapping to show locations of proposed turbines in relation to the Byron Airport influence areas or any private airstrips, including distances.* As described in the PEIR and shown on Figure 3.8-1 in Part 1, the nearest private airstrip is Meadowlark Airfield, 3.16 miles south of the APWRA. Therefore, the project would not be located within 2 miles of a private airstrip. There would be no impact.
Impact HAZ-7: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan (less than significant with mitigation)	3.8-1–6	3.8-22	Would the project increase vehicular traffic?	☐	☒	**Mitigation Measure TRA-1: Develop and implement a construction traffic control plan (*see Traffic*)**	☒	☐	The project would increase vehicular traffic during construction only; minimal vehicular traffic would be associated with operation and maintenance. With implementation of Mitigation Measure TRA-1 this impact would be less than significant.
Impact HAZ-8: 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 (less than significant)	3.8-1–6 3.8-7–9	3.8-24	Would the project alter the Altamont Pass Wind Farms Fire Requirements as described in Exhibit C of the 2005 CUPs?	☒	☐	**Note:** If the project does not include these measures, it would not fall within the impacts identified in the PEIR and could result in additional impacts.	☒	☐	The project would not alter the Altamont Pass Wind Farms Fire Requirements as described in Exhibit C of the 2005 CUPs. The project would therefore have a less-than-significant impacts related to wildland fires.
Impact HAZ-9: During normal operation, the effects of bending and stress on rotor blades over time could lead to blade failure and become a potential blade throw hazard (less than significant)	3.8-1–6	3.8-26	Is there potential for blade throw to occur outside windfarm boundaries? Would overall site access NOT be limited to persons approved for entry by the windfarm operators or landowners?	☒	☐	**Note:** If the project does not include such restriction, a standard County requirement, it would not fall within the impacts identified in the PEIR and could result in additional impacts.	☒	☐	The project does not have potential for blade throw to occur outside windfarm boundaries. Ogin limits overall site access to persons approved for entry. This impact would be less than significant.

Impact (As identified for Program-related activities, including post-mitigation level of significance)	Discussion in Text: Existing Conditions	Discussion in Text: Impacts	APWRA Issues to Consider	No	Yes	Mitigation Measures (Details in MMRP) and Notes	Would the project, with mitigation, have impacts not identified in the PEIR? No	Would the project, with mitigation, have impacts not identified in the PEIR? Yes	Summary of Documentation
Hydrology and Water Quality									
Impact WQ-1: Violate any water quality standards or waste discharge requirements (less than significant with mitigation)	3.9-1–5 3.9-5–6	3.9-7	Would the project involve earth-disturbing activities?	☐	☒	**Mitigation Measure WQ-1: Comply with NPDES requirements** ☒ File NOI with the State Water Board ☒ Prepare SWPPP ☒ Receive approval by the San Francisco Bay Regional Water Board and the Central Valley Water Board	☒	☐	The project would involve earth-disturbing activities within the scope of activities addressed in the PEIR. Further, project implementation requires compliance with NPDES requirements, including preparation and implementation of a SWPPP that would ensure the project does not violate any water quality standards or waste water requirements. With implementation of Mitigation Measure WQ-1, this impact would be less than significant.
Impact WQ-2: Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in 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 that would not support existing land uses or planned uses for which permits have been granted) (less than significant)	3.9-1–5 3.9-6	3.9-10	Would the project involve very large areas of disturbance or involve a substantial use of water beyond that described in the PEIR?	☒	☐	**Note:** If the project has a larger footprint, or a larger water use than that described in the PEIR, it would not fall within the impacts identified in the PEIR and could result in additional impacts.	☒	☐	The project's footprint would be small and not involve large areas of ground disturbance or affect groundwater recharge. New impervious surfaces would be limited to turbine foundations and the proposed 5,000 sf operations and maintenance (O&M) building; all other new surfaces, such as gravel areas around the new turbines and a graveled parking area near the new O&M building, would be pervious. In addition, water usage would be minimal, even during peak construction, when it would be used primarily for dust control BMPs. This impact would be less than significant.
Impact WQ-3: 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 that would result in substantial erosion or siltation onsite or offsite (less than significant with mitigation)	3.9-1–5 3.9-5–6	3.9-11	Would the project involve construction activities?	☐	☒	**Mitigation Measure WQ-1: Comply with NPDES requirements (see Impact WQ-1)**	☒	☐	The project would involve construction activities, including grading; such activities would require a grading permit from the County of Alameda. These activities would primarily consist of internal gravel road widening and grading for temporary laydown areas and turbine foundations, and are therefore not expected to substantially alter existing drainage patterns in a manner that would result in substantial erosion or siltation either within or beyond the project area. Further, erosion control BMPs would be implemented through the project SWPPP required by Mitigation Measure WQ-1. With implementation of Mitigation Measure WQ-1, this impact would be less than significant.
Impact WQ-4: 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 in a manner that would result in flooding onsite or offsite (less than significant with mitigation)	3.9-1–5 3.9-5–6	3.9-12	Would the project involve construction activities?	☐	☒	**Mitigation Measure WQ-1: Comply with NPDES requirements (see Impact WQ-1)**	☒	☐	The project would involve limited improvements and construction, including the new 5,000 sf O&M building, that might alter the project area's existing drainage pattern. No additional impervious surfaces are proposed. Any increase in surface water runoff resulting from permanent project features would be minor and location-specific, and would not influence surface runoff patterns in a manner that would result in flooding on- or offsite. As part of the SWPPP required by Mitigation Measure WQ-1, the project would implement erosion and

Impact (As identified for Program-related activities, including post-mitigation level of significance)	Discussion in Text: Existing Conditions	Discussion in Text: Impacts	APWRA Issues to Consider	No	Yes	Mitigation Measures (Details in MMRP) and Notes	Would the project, with mitigation, have impacts not identified in the PEIR? No	Would the project, with mitigation, have impacts not identified in the PEIR? Yes	Summary of Documentation
									sediment control measures and BMPs. With implementation of Mitigation Measure WQ-1, this impact would be less than significant.
Impact WQ-5: Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff (less than significant with mitigation)	3.9-1–5 3.9-5–6	3.9-14	Would the project be constructed in an area with stormwater drainage facilities? Would the project involve construction activities?	☐	☒	**Mitigation Measure WQ-1: Comply with NPDES requirements (see Impact WQ-1)** **Note:** The program area does not currently have existing or planned stormwater drainage facilities.	☒	☐	The project would create a small amount of additional impervious surface associated with the new 5,000 sf O&M building, and may require a small amount of imported water for dust suppression activities. However, these changes would not substantially increase the amount of stormwater runoff. Further, the project area is drained by natural stream channels and does not rely on constructed stormwater drainage systems. Although the pattern and concentration of runoff could be altered by project activities such as grading of access roads; the amount of runoff would not be substantially altered. With implementation of Mitigation Measure WQ-1, this impact would be less than significant.
Impact WQ-6: Otherwise substantially degrade water quality (less than significant with mitigation)	3.9-1–5 3.9-5–6	3.9-15	Would the project involve construction activities?	☐	☒	**Mitigation Measure WQ-1: Comply with NPDES requirements (see Impact WQ-1)**	☒	☐	The project would involve construction activities but would not degrade water quality beyond what was described in the PEIR. The project would be consistent with federal, state, and local policies. The Implementation of the required NPDES permit BMPs would ensure that no substantial amount of polluted runoff would be generated during construction. With implementation of Mitigation Measure WQ-1, this impact would be less than significant.
Impact WQ-7: 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 (no impact)	3.9-1–5 3.9-6	3.9-17	Would the project involve construction of housing or be constructed within the 100-year floodplain?	☒	☐	**Note:** If the project would involve construction of housing or be constructed within the 100-year floodplain, it would not fall within the impacts identified in the PEIR and could result in additional impacts.	☒	☐	The project does not include the construction of housing. The project area is not within a 100-year floodplain. There would be no impact.
Impact WQ-8: Place within a 100-year flood hazard area structures that would impede or redirect floodflows (no impact)	3.9-1–5 3.9-6	3.9-17	Would the project involve construction of housing or be constructed within the 100-year floodplain?	☒	☐	**Note:** If the project would involve construction of housing or be constructed within the 100-year floodplain, it would not fall within the impacts identified in the PEIR and could result in additional impacts.	☒	☐	The project would not involve construction of housing. The project area is not within the 100-year floodplain. There would be no impact.
Impact WQ-9: 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 (no impact)	3.9-1–5 3.9-6	3.9-17	Would the project involve construction of housing or be constructed within the 100-year floodplain?	☒	☐	**Note:** If the project would involve construction of housing or be constructed within the 100-year floodplain, it would not fall within the impacts identified in the PEIR and could result in additional impacts.	☒	☐	The project would not involve construction of housing. The project area is not within the 100-year floodplain. There would be no impact.
Impact WQ-10: Contribute to inundation by seiche, tsunami, or	3.9-1–5 3.9-5–6	3.9-18	Would the project involve construction activities?	☐	☒	**Mitigation Measure WQ-1: Comply with NPDES requirements (see Impact WQ-1)**	☒	☐	The project would involve construction activities. However, the project area is in rolling hills and far from the ocean or other water bodies, so the possibility of a seiche or tsunami is unlikely. A mudflow is also highly

Impact (As identified for Program-related activities, including post-mitigation level of significance)	Discussion in Text: Existing Conditions	Discussion in Text: Impacts	APWRA Issues to Consider	No	Yes	Mitigation Measures (Details in MMRP) and Notes	Would the project, with mitigation, have impacts not identified in the PEIR? No	Would the project, with mitigation, have impacts not identified in the PEIR? Yes	Summary of Documentation
mudflow (less than significant with mitigation)									unlikely, but possible in rolling hills without implementation of proper BMPs during the construction process. Implementation of Mitigation Measure WQ-1 would ensure that project-related stormwater runoff would be properly contained and drain appropriately to minimize the potential for a mudflow. Therefore, with implementation of Mitigation Measure WQ-1, this impact would be less than significant.
Land Use and Planning									
Impact LU-1: Physically divide an established community (no impact)	3.10-1–2 3.10-3	3.10-4	Would the project divide an established community?	☒	☐	**Note:** There are no established communities in the program area that could be divided by any development associated with a wind project. If the project involves locations or activities beyond those described in the PEIR, it would not fall within the impacts identified in the PEIR and could result in additional impacts.	☒	☐	The project area is within the boundaries of the PEIR program area and would therefore not divide an established community. There would be no impact.
Impact LU-2: Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect (no impact)	3.10-1–2 3.10-3		Would the project involve activities or materials beyond those described in the PEIR?	☒	☐	**Note:** If the project involves locations beyond those described in the PEIR, it would not fall within the impacts identified in the PEIR and could result in additional impacts.	☒	☐	The project area is within the boundaries of the PEIR program area and the project would not involve activities or materials beyond those described in the PEIR. There would be no impact.
Impact LU-3: Conflict with any applicable habitat conservation plan or natural community conservation plan (no impact)	3.10-1–2 3.10-3	3.10-6	Would the project include activities that are not within the scope of the project described in the PEIR?	☒	☐	**Note:** There are no adopted HCP/NCCPs for the program area. If the proposed project does not fall within the scope of activities described in the PEIR but the project would not conflict with the EACCS, there would be no impact.	☒	☐	The project would not include activities or materials beyond the scope of those described in the PEIR. There would be no impact.
Noise									
Impact NOI-1: Exposure of residences to noise from new wind turbines—program Alternative 1 (less than significant with mitigation)	3.11-5–8 3.11-8–9	3.11-11	Would the project be located with approximately 2,000 feet of residences?	☐	☒	**Mitigation Measure NOI-1: Perform project-specific noise studies and implement measures to comply with County noise standards** ☒ Retain a qualified acoustic consultant to prepare a report that evaluates noise impacts associated with operation of the proposed wind turbines ☒ Include a noise monitoring survey to quantify existing noise conditions at noise sensitive receptors located within 2,000 feet of any proposed turbine location ☒ Include measurement of the daily A-weighted L_{dn} values over a 1-week period and concurrent logging of wind speeds at the nearest meteorological station ☒ Include a site-specific evaluation of predicted operational noise levels at nearby noise sensitive uses.	☒	☐	*Require the application to include mapping to show locations of proposed turbines in relation to residences, including distances.* Based on maps submitted by the applicant, there would be several residences within 2,000 feet of the nearest wind turbines (see Figure 3.1-7). With implementation of Mitigation Measure NOI-1, this impact would be less than significant.

Impact (As identified for Program-related activities, including post-mitigation level of significance)	Discussion in Text: Existing Conditions	Discussion in Text: Impacts	APWRA Issues to Consider	No	Yes	Mitigation Measures (Details in MMRP) and Notes	Would the project, with mitigation, have impacts not identified in the PEIR? No	Would the project, with mitigation, have impacts not identified in the PEIR? Yes	Summary of Documentation
						☒ Modify project if operation of the project is predicted to result in noise in excess of 55 dBA (L_{dn}) where noise is currently less than 55 dBA (L_{dn}) or result in a 5 dB increase where noise is currently greater than 55 dBA(L_{dn}) ☒ Submit a report to the County demonstrating how the project will comply with these performance standards ☒ After review and approval of the report by County staff, incorporate measures as necessary into the project to ensure compliance with these performance standards			
Impact NOI-2: Exposure of residences to noise during decommissioning and new turbine construction (less than significant with mitigation)	3.11-5–8 3.11-8–9	3.11-15	Would construction equipment be used within 800 feet of residences?	☒	☐	**Mitigation Measure NOI-2: Employ noise-reducing practices during decommissioning and new turbine construction** ☐ Employ noise-reducing construction practices , which may include: ☐ Prohibit noise-generating activities before 7 a.m. and after 7 p.m. on any day except Saturday or Sunday, and before 8 a.m. and after 5 p.m. on Saturday or Sunday ☐ Locate equipment as far as practical from noise sensitive uses ☐ Require that all construction equipment powered by gasoline or diesel engines have sound-control devices ☐ Use noise-reducing enclosures around noise-generating equipment where practicable ☐ Do not use gasoline or diesel engines without muffled exhausts	☒	☐	*Require the application to include mapping to show locations of proposed turbines in relation to residences, including distances.* Based on proposed turbine layouts submitted by the applicant, the project's construction equipment would be approximately 900 feet from the nearest residences (see Figure 3.1-7). With implementation of Mitigation Measure NOI-1, this impact would be less than significant.
Population and Housing									
Impact POP-1: Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure) (no impact)	3.12-1–2 3.12-2–4	3.12-5	Would the project create any housing?	☒	☐	**Note:** If the project includes housing, the impact of the project would not be covered by the Program EIR.	☒	☐	The project would not create any housing or result in any indirect impacts on population beyond those described in the PEIR. There would be no impact.
Impact POP-2: Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere (no impact)	3.12-1–2 3.12-2–4	3.12-9	Would the project result in the demolition or displacement of existing housing?	☒	☐	**Note:** If the project results in the demolition or displacement of housing, the impacts of the project would fall outside of those identified in the Program EIR, and additional impacts could occur.	☒	☐	The project would not result in the demolition or displacement of existing housing. There would be no impact.
Impact POP-3: Displace a substantial number of people, necessitating the construction of replacement housing elsewhere (no impact)	3.12-1–2 3.12-2–4	3.12-9	Would the project result in the demolition or displacement of existing housing?	☒	☐	**Note:** If the project results in the demolition or displacement of housing, the impacts of the project would fall outside of those identified in the Program EIR, and additional impacts could occur.	☒	☐	The project would not result in the demolition or displacement of existing housing. There would be no impact.

Impact (As identified for Program-related activities, including post-mitigation level of significance)	**Discussion in Text**		**APWRA Issues to Consider**	**No**	**Yes**	**Mitigation Measures (Details in MMRP) and Notes**	**Would the project, with mitigation, have impacts not identified in the PEIR?**		**Summary of Documentation**
	Existing Conditions	**Impacts**					**No**	**Yes**	
Public Services									
Impact PS-1: Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a 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: fire protection; police protection; schools; parks; other public facilities (no impact)	3.13-1 3.13-1–2	3.13-3	Would the project involve activities beyond those described in the PEIR?	☒	☐	**Note:** If the project involves activities beyond those described in the PEIR, it would not fall within the impacts identified in the PEIR and could result in additional impacts.	☒	☐	The project would not involve activities beyond those described in the PEIR. There would be no impact.
Recreation									
Impact REC-1: 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 (no impact)	3.14-1–2	3.14-3	Would the project involve activities beyond those described in the PEIR?	☒	☐	**Note:** If the project involves activities beyond those described in the PEIR, it would not fall within the impacts identified in the PEIR and could result in additional impacts.	☒	☐	The project would not involve activities beyond those described in the PEIR. There would be no impact.
Impact REC-2: Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment (no impact)	3.14-1–2	3.14-4	Would the project involve activities beyond those described in the PEIR?	☒	☐	**Note:** If the project involves activities beyond those described in the PEIR, it would not fall within the impacts identified in the PEIR and could result in additional impacts.	☒	☐	The project would not involve activities beyond those described in the PEIR. There would be no impact.
Transportation/Traffic									
Impact TRA-1: 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 or conflict	3.15-1–5 3.15-5–7	3.15-10	Would the project construction or operation increase traffic? Would the project involve activities beyond those described in the PEIR?	☐	☒	**Mitigation Measure TRA-1: Develop and implement a construction traffic control plan** ☒ Prepare and implement a Traffic Control Plan (TCP) that adheres to Alameda County and Caltrans requirements ☒ Submit the TCP for review and approval of the County Public Works Department prior to implementation ☒ Include any additional elements required by the County or Caltrans during their review and approval of the TCP	☒	☐	Temporary and short-term increases in local traffic would occur during construction, but the activities and associated traffic would not be beyond the scope of those described in the PEIR. Project operation and maintenance activities would involve 10-20 hours of scheduled maintenance of each wind turbine per year; these activities would not increase traffic beyond that described in the PEIR. A Traffic Control Plan would be implemented as required by Mitigation Measure TRA-1, ensuring that this impact would be less than significant.

Impact (As identified for Program-related activities, including post-mitigation level of significance)	**Discussion in Text**		**APWRA Issues to Consider**	**No**	**Yes**	**Mitigation Measures (Details in MMRP) and Notes**	**Would the project, with mitigation, have impacts not identified in the PEIR?**		**Summary of Documentation**
	Existing Conditions	**Impacts**					**No**	**Yes**	
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 (less than significant with mitigation)						**Note:** If the project involves activities beyond those described in the PEIR, it would not fall within the impacts identified in the PEIR and could result in additional impacts.			
Impact TRA-2: 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 (less than significant)	3.15-1–5 3.15-5–7	3.15-16	Would the project maintenance needs be substantially greater than currently required? Would post-construction traffic generated by the maintenance activities exceed the capacity of the CMP roadway system and differ materially from the current maintenance traffic level? Would the increase in construction traffic be substantial? Would the increase in construction traffic degrade the traffic operation of the CMP roadway segments that already exceed the LOS standard E or cause a CMP roadway segment to exceed the LOS standard?	☒	☐	**Note:** If the project involves activities beyond those described in the PEIR, it would not fall within the impacts identified in the PEIR and could result in additional impacts.	☒	☐	The project would not involve activities beyond those described in the PEIR and would not involve maintenance activities substantially greater than currently required. Construction traffic accessing the project area would use I-580, and would also cause a short-term increase in traffic volumes on the county roads that provide direct access to existing project area entrances, including Altamont Pass Road, North Midway Road, and Mountain House Road, all of which currently have low traffic volumes. Construction traffic is not expected to result in a substantial increase in congestion that would affect existing LOS on state highways. Further, long-term exceedance of LOS standards is not expected to occur and the project is therefore is expected to be in compliance with the established Alameda County General Plan LOS Standards. .
Impact TRA-3: 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 (less than significant)	3.15-1–5 3.15-5–7	3.15-17	Would the project affect air traffic patterns of the public or private airports in the vicinity of the program area? Would the project result in substantial safety risks associated with airport operations?	☒	☐	**Note:** If the project involves activities or locations beyond those described in the PEIR, it would not fall within the impacts identified in the PEIR and could result in additional impacts.	☒	☐	The project does not involve activities or locations beyond those described in the PEIR. The project area is about 4.5 miles south of Byron Airport, the nearest airport. The project is therefore not expected to change air traffic patterns. Furthermore, the project will comply with FAA lighting requirements.
Impact TRA-4: Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) due to construction-generated traffic (less than significant with mitigation)	3.15-1–5 3.15-5–7	3.15-18	Would the project involve large, slow-moving construction-related vehicles and equipment among the general-purpose traffic on roadways?	☐	☒	**Mitigation Measure TRA-1: Develop and implement a construction traffic control plan (see Impact TRA-1)**	☒	☐	Project construction would involve the use of large, slow moving construction-related vehicles and equipment among the general-purpose traffic on nearby roadways. With implementation of Mitigation Measure TRA-1, this impact would be less than significant.
Impact TRA-5: Result in inadequate emergency access due to construction-generated traffic (less than significant with mitigation)	3.15-1–5 3.15-5–7	3.15-20	Would the project involve large, slow-moving construction-related vehicles and equipment among the general-purpose traffic on roadways?	☐	☒	**Mitigation Measure TRA-1: Develop and implement a construction traffic control plan (see Impact TRA-1)**	☒	☐	Project construction would involve the use of large, slow moving construction-related vehicles and equipment among the general-purpose traffic on roadways. However, the project would not require closures of

Impact (As identified for Program-related activities, including post-mitigation level of significance)	Discussion in Text: Existing Conditions	Discussion in Text: Impacts	APWRA Issues to Consider	No	Yes	Mitigation Measures (Details in MMRP) and Notes	Would the project, with mitigation, have impacts not identified in the PEIR? No	Would the project, with mitigation, have impacts not identified in the PEIR? Yes	Summary of Documentation
			Would the project involve lane/road closures occurring during delivery of oversized loads?						public roads. With implementation of Mitigation Measure TRA-1, this impact would be less than significant.
Impact TRA-6: Conflict with adopted policies, plans, or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities (less than significant with mitigation)	3.15-1–5 3.15-5–7	3.15-21	Would the project involve large, slow-moving construction-related vehicles and equipment among the general-purpose traffic on roadways? Would the project involve lane/road closures occurring during delivery of oversized loads?	☐	☒	**Mitigation Measure TRA-1: Develop and implement a construction traffic control plan (see Impact TRA-1)**	☒	☐	Project construction would involve the use of large, slow moving construction-related vehicles and equipment among the general-purpose traffic on roadways. However, no public transportation or pedestrian facilities are present within or near the project area. Project construction traffic could temporarily affect bicycle access to local roads. With implementation of Mitigation Measure TRA-1, this impact would be less than significant.
Utilities and Service Systems									
Impact UT-1: Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board (less than significant)	3.16-1–3	3.16-3	Would the project generate a significant amount of wastewater?	☒	☐	**Note:** If the project involves activities beyond those described in the PEIR, it would not fall within the impacts identified in the PEIR and could result in additional impacts.	☒	☐	The project would not involve activities beyond those described in the PEIR, nor would it generate wastewater that would be treated by public wastewater treatment facilities. An existing septic tank and portable toilets would be used during project construction and operation, and the proposed O&M facility would also use a septic system.
Impact UT-2: 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 (no impact)	3.16-1–3	3.16-4	Would the project generate a significant amount of wastewater? Would new water or wastewater treatment facilities be required?	☒	☐	**Note:** If the project involves activities beyond those described in the PEIR, it would not fall within the impacts identified in the PEIR and could result in additional impacts.	☒	☐	The project does not involve activities or locations beyond those described in the PEIR. The project would not generate a significant amount of wastewater. No new water or wastewater treatment facilities would be required. There would be no impact.
Impact UT-3: Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (less than significant)	3.16-1–3	3.16-5	Would the project substantially modify the existing stormwater drainage patterns? Would the project increase impermeable surfaces onsite beyond the tower foundations? Would the project disturb less than 1 acre and therefore NOT be required to have coverage under the state's Construction General Permit?	☒	☐	**Note:** If the project involves activities beyond those described in the PEIR, it would not fall within the impacts identified in the PEIR and could result in additional impacts.	☒	☐	The project does not involve activities or locations beyond those described in the PEIR. The project area is located entirely in a rural setting; stormwater runoff drains primarily through natural drainage swales, ditches, and watercourses. The project would not substantially modify the existing stormwater drainage patterns of the project parcels, and increases in impermeable surfaces would be primarily limited to tower foundations and the new 5,000 sf O&M building. Construction activity may require temporary stormwater management features or materials; however, after construction, drainage would be comparable to present conditions. Because the project would disturb more than 1 acre, it would be required to have coverage under the state's Construction General Permit..

Impact (As identified for Program-related activities, including post-mitigation level of significance)	Discussion in Text: Existing Conditions	Discussion in Text: Impacts	APWRA Issues to Consider	No	Yes	Mitigation Measures (Details in MMRP) and Notes	Would the project, with mitigation, have impacts not identified in the PEIR? No	Would the project, with mitigation, have impacts not identified in the PEIR? Yes	Summary of Documentation
Impact UT-4: Require new or expanded entitlements to water resources (less than significant)	3.16-1–3	3.16-6	Would the project require more than minimal water use? Would the project require new or expanded entitlements to supply the program during construction or operation?	☒	☐	**Note:** If the project involves activities beyond those described in the PEIR, it would not fall within the impacts identified in the PEIR and could result in additional impacts.	☒	☐	The project does not involve activities or locations beyond those described in the PEIR. The project would not require more than minimal water use, nor would it require new or expanded entitlements to water resources.
Impact UT-5: Result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the program's projected demand in addition to the provider's existing commitments (no impact)	3.16-1–3	3.16-7	Would the project involve the construction or expansion of wastewater systems? Would the project require an offsite wastewater treatment provider?	☒	☐	**Note:** If the project involves activities beyond those described in the PEIR, it would not fall within the impacts identified in the PEIR and could result in additional impacts.	☒	☐	The project does not involve activities or locations beyond those described in the PEIR. The project would not involve the construction or expansion of wastewater systems, nor would it require an offsite wastewater treatment provider. There would be no impact.
Impact UT-6: Generate solid waste that would exceed the permitted capacity of landfills to accommodate the program's solid waste disposal needs (less than significant)	3.16-1–3	3.16-8	Would the project involve activities beyond those described in the PEIR?	☒	☐	**Note:** If the project involves activities beyond those described in the PEIR, it would not fall within the impacts identified in the PEIR and could result in additional impacts.	☒	☐	The project does not involve activities or locations beyond those described in the PEIR, nor would it generate solid waste that would exceed the permitted capacity of landfills.
Impact UT-7: Not comply with federal, state, and local statutes and regulations related to solid waste (no impact)	3.16-1–3	3.16-9	Would the project involve activities beyond those described in the PEIR?	☒	☐	**Note:** If the project involves activities beyond those described in the PEIR, it would not fall within the impacts identified in the PEIR and could result in additional impacts.	☒	☐	The project does not involve activities or locations beyond those described in the PEIR. There would be no impact.

References Cited

Aesthetics

Alameda County 1966. *Scenic Route Element of the General Plan*. May. Reprinted June 1974, Amended May 5, 1994.

Alameda County, 2000. *East County Area Plan*. Adopted May 1994. Modified by passage of Measure D, effective December 22, 2000. Oakland, CA.

Biological Resources

California Bat Working Group. 2006. Guidelines for Assessing and Minimizing Impacts to Bats at Wind Energy Development Sites in California. September.

California Department of Fish and Game. 2012. Staff Report on Burrowing Owl Mitigation. State of California Natural Resources Agency. March 7

Sand Hill Wind, LLC
Sand Hill Repowering Project

Supporting Documentation—Figures

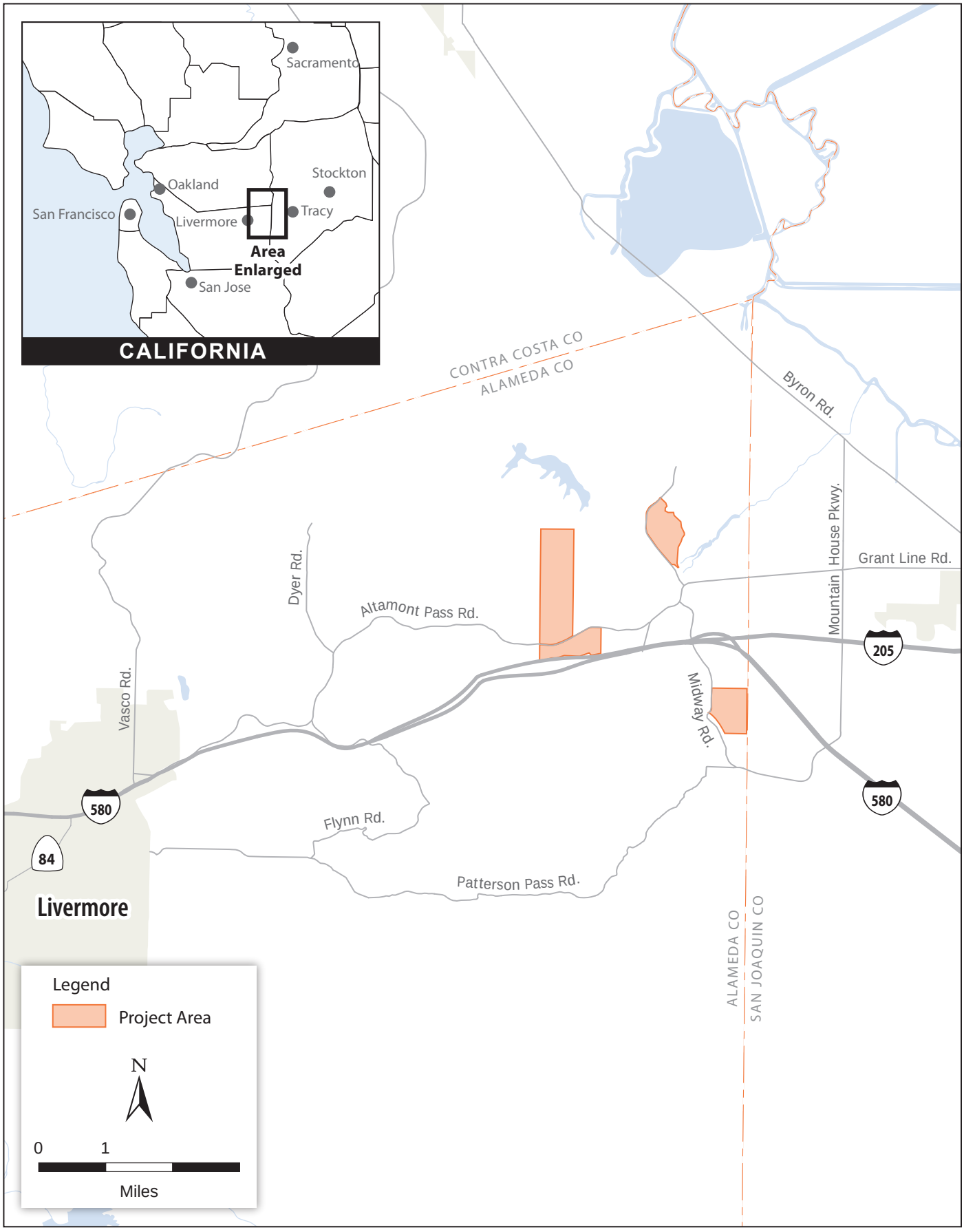

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Figure 1-1
Project Location

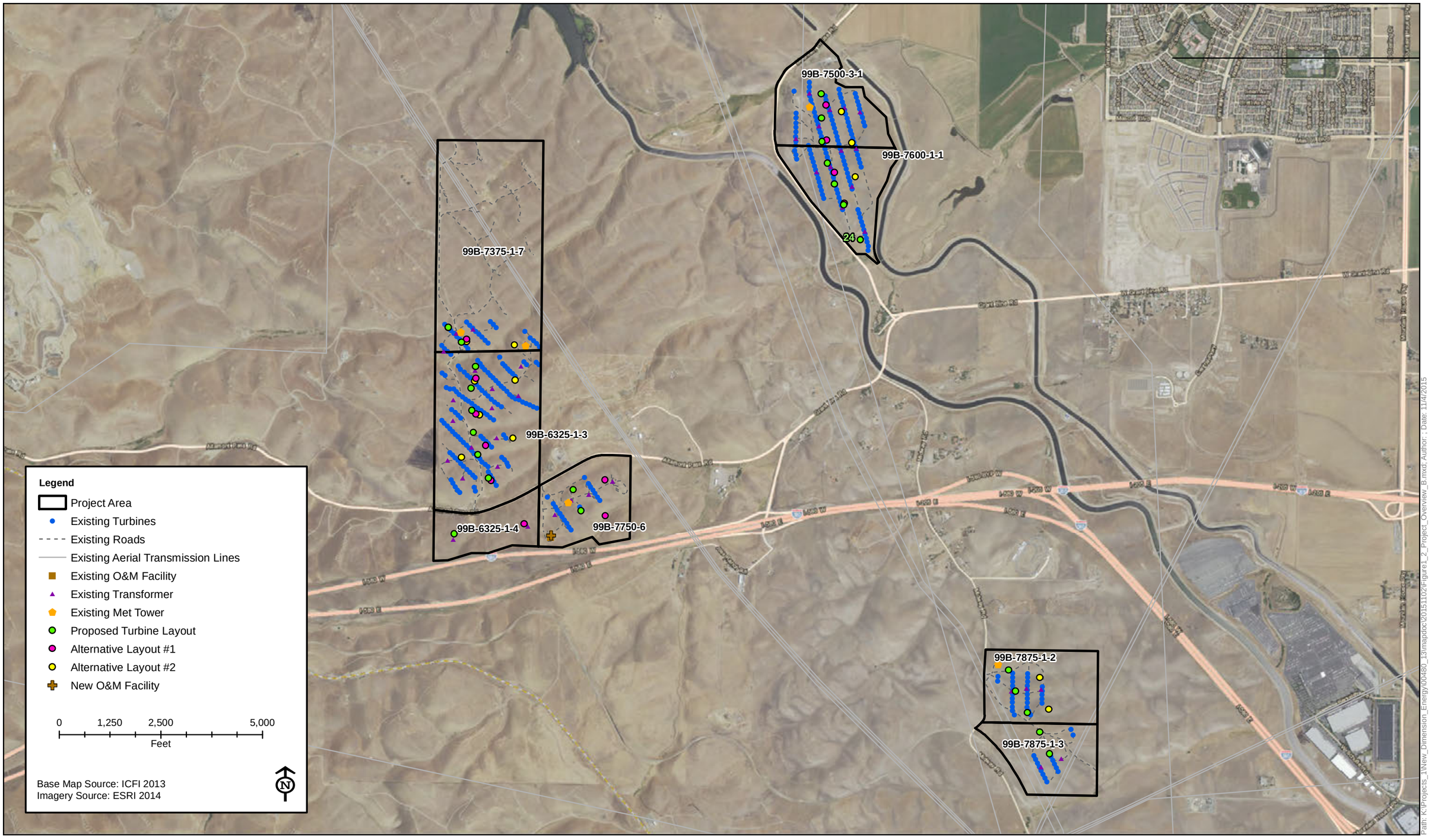

Figure 1-2
Project Overview

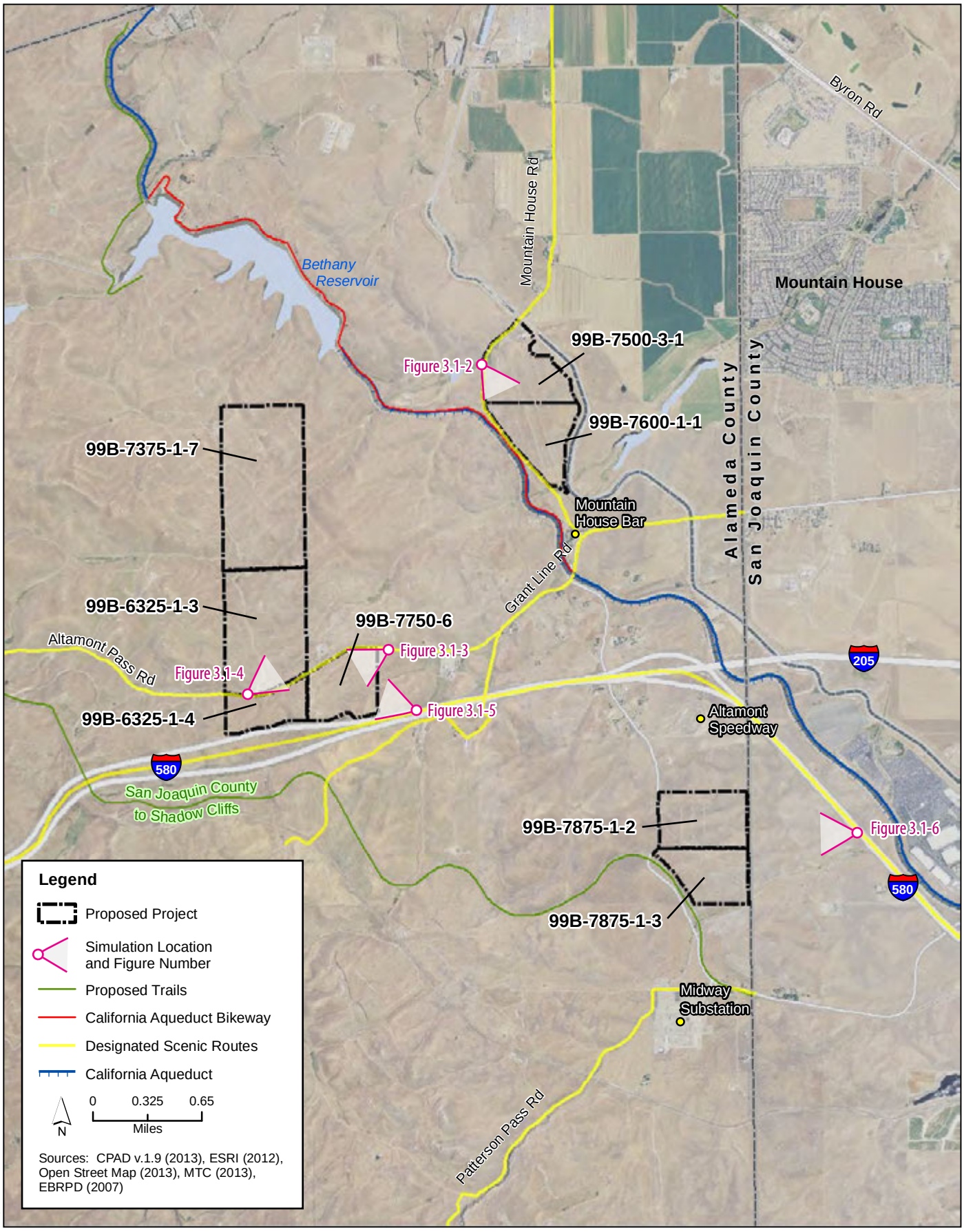

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Figure 3.1-1
Aesthetics Environmental Setting

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Figure 3.1-2
Existing and Simulated Views from Mountain House Road—Southbound, Looking Southeast

Graphics ... 00151.13 (10-12-2015) tm

Figure 3.1-3
Existing and Simulated Views from Altamont Pass Road—Westbound, Looking Southwest

Graphics ... 00151.13 (10-8-2015) tm

Figure 3.1-4
Existing and Simulated Views from Altamont Pass Road—Eastbound, Looking Northeast

Graphics ... 00151.13 (10-6-2015) tm

Figure 3.1-5
Existing and Simulated Views from Interstate 580—Westbound, Looking Northwest

Graphics ... 00151.13 (10-6-2015) tm

Figure 3.1-6
Existing and Simulated Views from Interstate 580—Northbound, Looking West

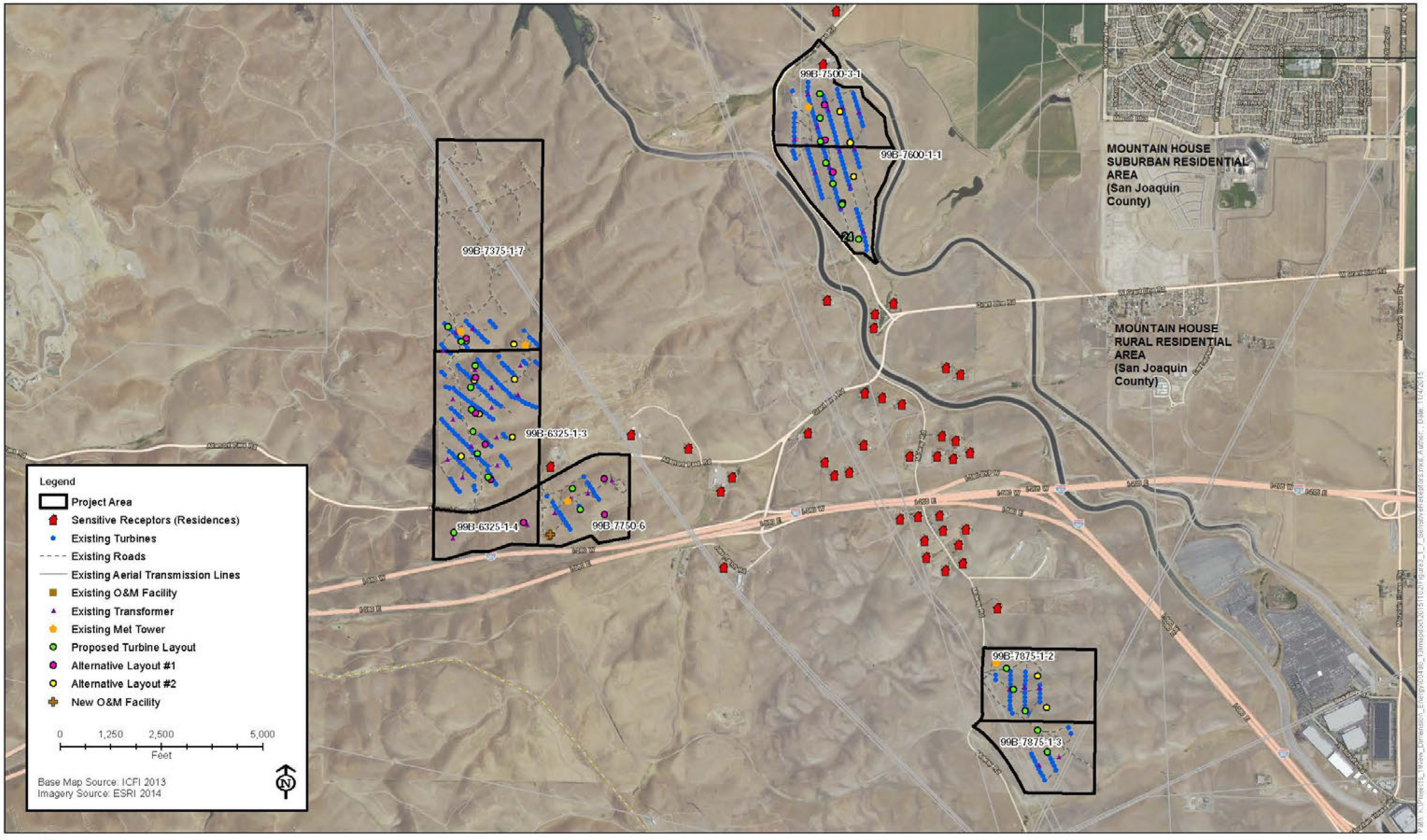

Figure 3.1-7
Sensitive Receptors

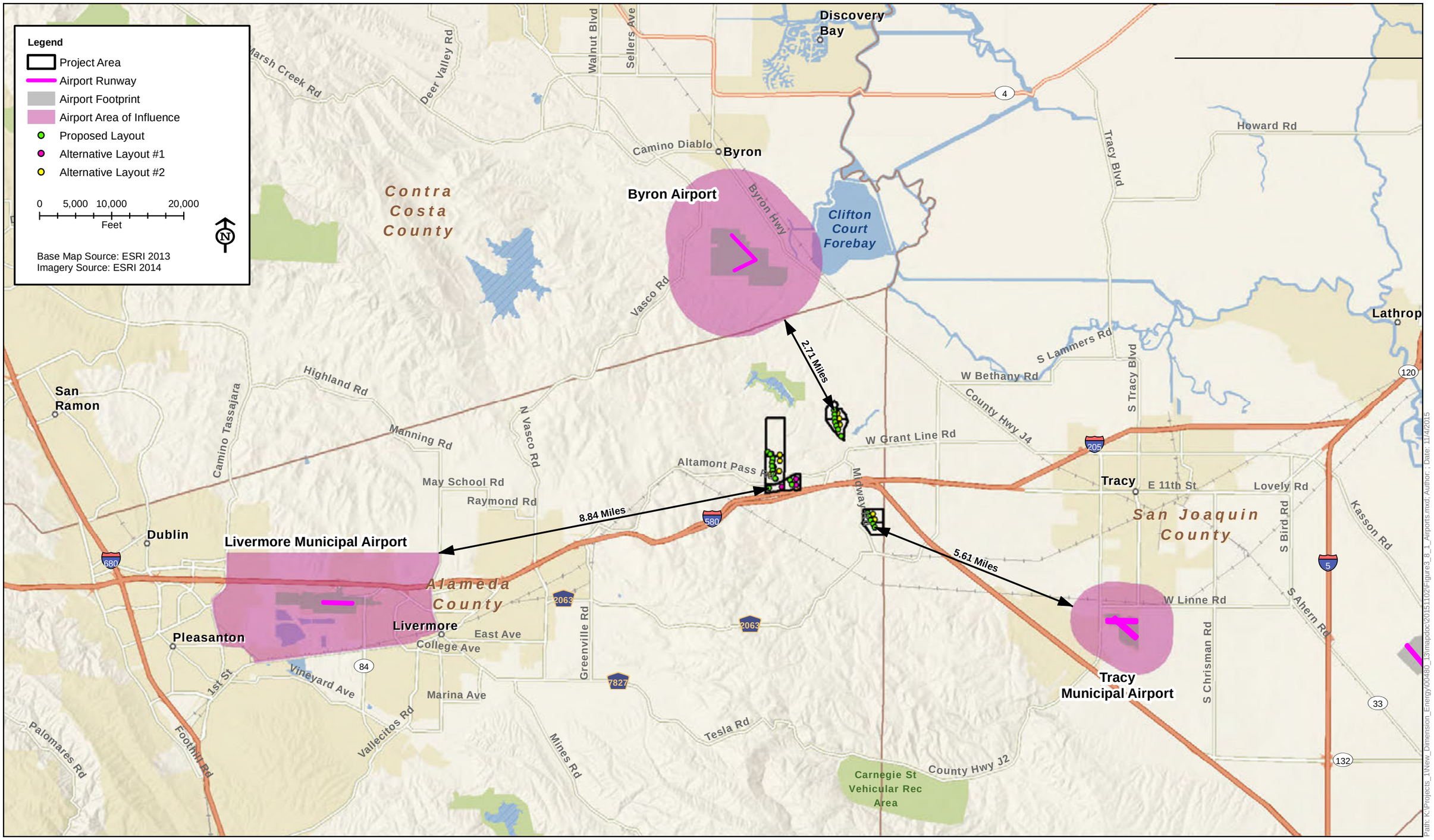

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Figure 3.8-1
Airports