## **ALTAMONT WINDS INC.**

### **86 MW Altamont Wind Farms**

Draft Supplemental Environmental Impact Report 2018 CUP Extension



**PROJECT NUMBER:** 135763

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# Draft Supplemental Environmental Impact Report 2018 CUP Extension

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STEP-UP TRANSFORMER SOILS TESTING APPENDIX B

#### **ACRONYMS AND ABBREVIATIONS**

2013 FEIR Final Environmental Impact Report: Modifications to Existing (Year 2005)

Conditional Use Permits – Altamont Winds Inc. (State Clearinghouse No.

2012062060), July 2013 (incorporating the DEIR document)

2013 DEIR References to the Draft Environmental Impact Report: Modifications to Existing

(Year 2005) Conditional Use Permits – Altamont Winds Inc. (State Clearinghouse

No. 2012062060), March 2013 (submitted for public review)

APNs Assessor's Parcel Numbers

APWRA Altamont Pass Wind Resource Area
AWI WindWorks Inc. and Altamont Winds Inc
BGEPA Bald and Golden Eagle Protection Act
CAISO California Independent System Operator
CDFW California Department of Fish and Wildlife
CEQA California Environmental Quality Act
CESA California Endangered Species Act

CFR Code of Federal Regulation
CNPS California Native Plant Society

County County of Alameda

County CDA County of Alameda Community Development Agency

CUP Conditional Use Permit

CWA Clean Water Act

DSEIR Draft Supplemental Environmental Impact Report
EACCS East Alameda County Conservation Strategy
EBZA East County Board of Zoning Adjustments

EIR Environmental Impact Report ESA Endangered Species Act

FR Federal Register

FSEIR Final Supplemental EIR HRT High Risk Turbines I-580 Interstate 580

MBTA Migratory Bird Treaty Act

MMRP Mitigation Monitoring and Reporting Program

M-Team Monitoring Team

MW megawatt

NOC Notice of Completion NOP Notice of Preparation

PEIR Program EIR

PCBs Polychlorinated Biphenyls PG&E Pacific Gas and Electric SEIR Supplemental EIR

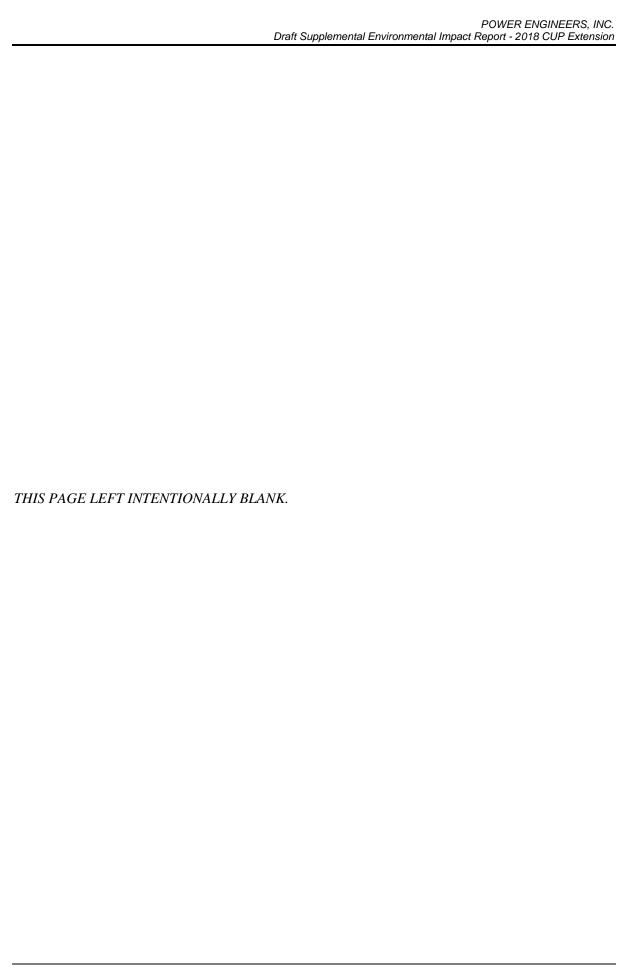
SRC Scientific Review Committee

U.S.C. United States Code

USACE U.S. Army Corps of Engineers

USEPA U.S. Environmental Protection Agency

USFWS U.S. Fish and Wildlife Service



### **EXECUTIVE SUMMARY**

#### Introduction

The County of Alameda Community Development Agency (County CDA) has prepared this Draft Supplemental Environmental Impact Report (DSEIR) for proposed modifications to 16 existing Conditional Use Permits (CUPs), for turbines owned and operated by Altamont Winds Inc. in the Alameda County portion of the Altamont Pass Wind Resource Area (APWRA). Altamont Winds Inc. (the Applicant, together with its operating subsidiary WindWorks Inc., and collectively, AWI) has submitted an application requesting that these CUPs, set to expire on October 31, 2015 under modifications approved in 2013, be extended through October 31, 2018 under specified conditions, for operation of its estimated 828 turbines, which have a rated capacity of approximately 85.8 megawatts (MW).

This DSEIR is intended to supplement the previously certified Final Environmental Impact Report, Modifications to Existing (Year 2005) Conditional Use Permits- Altamont Winds Inc. (2013 FEIR) (State Clearinghouse No. 2012062060). The 2013 FEIR evaluated the application made by AWI in 2011 to modify these same CUPs as they had been approved in September of 2005. Although the current proposal for operations through 2018 was evaluated in the 2013 FEIR as an alternative (Alternative 3), it was only at a limited level of analysis, as provided for in the California Environmental Quality Act (CEQA) Guidelines (Section 15126.6(d)), to provide "sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project." The County CDA made the following finding regarding this alternative in 2013 when it certified the FEIR: "Alternative 3 would better serve the project objectives of renewable energy, but would also very substantially increase the avian mortality impacts compared to the project and all other alternatives. For the purpose of meeting the project objectives and minimizing significant impacts on special status avian wildlife, Alternative 3 is considered infeasible." For these reasons, among others, it is necessary to provide additional information, which this DSEIR is intended to provide, together with the same kind of notice and public review as provided for a draft EIR under Section 15087 of the CEOA Guidelines. This DSEIR, when combined with a Final SEIR containing comments on the DSEIR and responses to such comments, will form the overall project SEIR, and will supplement the 2013 FEIR with additional analysis beyond that included in the 2013 FEIR Alternatives analysis to provide a basis for making the findings required by CEQA.

The SEIR will be used by the East County Board of Zoning Adjustments (EBZA) in its consideration of approval of the proposed CUP modifications to permit operations through October 31, 2018.

### **Summary Description of the Proposed Project**

The proposed project consists of operational modifications to AWI's existing CUPs, as amended in July 2013, for continued wind power operation and maintenance activities within the County portion of the APWRA through October 31, 2018.

The project facilities consist of 828 existing, operating wind turbines on concrete foundations, plus support facilities, occupying approximately 155 acres within a 14, 196-acre area. The turbines have a nameplate capacity of 85.8 MW and rest on lattice and tubular towers that range in height from 60 to 82 feet, generally sited in strings along ridgelines. Support facilities include existing gated, graveled access roads, a power collection and transmission interconnection system, meteorological towers ranging from 60 to 100 feet in height, communication systems, maintenance equipment areas, and offsite facilities including AWI's wind farm main service yard (located near Tracy), and the main wind farm control center, shared with other wind farm operators (located in Livermore). The power collection and transmission interconnection system consists of pad-mount transformers, underground

cables, overhead conductors on poles, circuit breakers and switches, electrical metering/protection devices, and the existing Dyer, Frick, Ralph, and Midway substations. Electrical power is collected from the turbines and transmitted to the substations, where its voltage is increased for interconnection with Pacific Gas and Electric's (PG&E) transmission lines.

The existing project operations consist of 828 turbines and ancillary facilities, with a maximum combined generation capacity of 85.8 MW, currently approved for operation through October 31, 2015. After this point in time as proposed by AWI, operations would be extended for three additional years (applies to existing turbines), through October 31, 2018, on the condition that AWI has diligently pursued development of a repowered wind farm on the project site, and can demonstrate that circumstances beyond AWI's control have delayed completion of the repowered project.

### Asset Exchange

As part of this extension, the applicant is in discussions with another wind farm operator in the APWRA that shares common infrastructure with AWI, regarding a contemplated wind turbine exchange. In such a scenario, AWI would exchange approximately 300 wind turbines it presently owns south of I-580 for an equal number of wind turbines owned and operated by another company, Green Ridge Power LLC, north of I-580. As proposed, and under assurances from both companies, such an exchange will not increase the capacity or quantity of AWI's operating turbines. These 300 turbines represent about 35 percent of AWI's assets in MW capacity. The purpose of the proposed asset exchange is to physically separate certain historically shared (or common) project assets within the APWRA to allow for unencumbered and geographically consolidated operations.

# Major Conclusions of the Environmental Analysis

### **Impacts**

The 2013 FEIR provided a full discussion of the prior project's potential environmental effects on the following resource areas: Air Quality and Greenhouse Gases (GHGs); Biological Resources; Noise; and Hazards and Hazardous Materials. The County CDA does not anticipate that major revisions to the 2013 FEIR are necessary to identify new environmental impacts that were not previously disclosed in the 2013 FEIR for an extension of AWI's operations for three additional years through October 31, 2018. Although there have been some changed circumstances since 2013, the County CDA does find an increase in the severity of previously identified impacts in the 213 FEIR. No new information of substantial importance shows that the CUP extension to 2018 and associated asset exchange would have significant impacts not discussed in the prior FEIR. However, to the extent new information has become available since the prior FEIR, the County CDA has incorporated that information into the DSEIR.

#### **Biological Resources**

Estimated Project Impacts on Focal Species

The 2013 FEIR's analysis of biological resources indicated that extending the term of the CUPs through October 31, 2018 would have significant and unavoidable adverse impacts on both common and special-status avian species (Impact BIO-1), including the four focal raptor species: American kestrel, burrowing owl, golden eagle, and red-tailed hawk. The 2013 DEIR analysis, on pages 4-4 and 4-16 through 4-20 of the 2013 DEIR, and summarized most clearly in Table 3.2-3a in the 2013 FEIR (page 4-16), indicated that the installed capacity of the 86 MW wind farm for an operating term through 2018 would be 311 MW (Table 3-2 of this DSEIR), and all avian fatality estimates were derived based on this operating term. Estimated avian fatalities figures for the February 15, 2016-October 31, 2018 operating schedule are also presented in Tables ES-1 through ES-3 and Tables 3-3 through 3-5 in Chapter 3 of this DSEIR. Tables ES-3 and 3-5 provide a comparison of the scenarios.

TABLE ES-1 ESTIMATED AVIAN FATALITIES AT FULL PROJECT CAPACITY (85.8 MW)
BASED ON 2008-2010 BIRD YEAR ADJUSTED FATALITY RATES

SPECIES	ANNUAL ESTIMATED FATALITIES	ESTIMATED FATALITIES 2016 – 2018	ESTIMATED FATALITIES 2013 – 2018
American Kestrel	26.9	80.8	137.8
Burrowing Owl	25.8	77.5	132.2
Golden Eagle	3.7	11.1	19
Red-Tailed Hawk	17.4	52.2	88.9
Total Focal	73.8	221.6	377.9

Source: POWER Engineers, 2014

TABLE ES-2 ESTIMATED AVIAN FATALITIES AT FULL PROJECT CAPACITY (85.8 MW)
BASED ON 2005-2011 BIRD YEAR BDJUSTED FATALITY RATES

SPECIES	ANNUAL ESTIMATED FATALITIES	ESTIMATED FATALITIES 2016 – 2018	ESTIMATED FATALITIES 2013 – 2018
American Kestrel	35.9	107.6	183.5
Burrowing Owl	47.4	142.3	242.6
Golden Eagle	4.7	14.6	24.9
Red-Tailed Hawk	26.8	80.3	136.8
Total Focal	114.8	344.8	587.8

Source: POWER Engineers, 2014

TABLE ES-3 COMPARISON OF ADJUSTED SPECIES FATALITY TOTALS OF FOUR FOCAL SPECIES, BASED ON AN AVERAGE FATALITY RATE (FATALITIES PER MEGAWATT PER YEAR)

SPECIES	AVERAGE FATALITIES PER MW (2005–2010/ 2008–2010/ 2005-2011)	PROJECTED NUMBER OF FATALITIES UNDER THE 2013 FEIR PROPOSED PROJECT	PROJECTED NUMBER OF FATALITIES UNDER 2013 FEIR BASELINE CONDITIONS	PROJECTED NUMBER OF FATALITIES UNDER 2013 FEIR ALTERNATIVE 3	PROJECTED NUMBER OF FATALITIES FOR YEARS 2016-2018
American Kestrel	0.496/0.443/0.59	85.5–113.9	51.6–68.7	137.8–183.5	80.8–107.6
Burrowing Owl	0.721/0.425/0.78	82.1–150.6	49.5–90.9	132.2–242.6	77.5–142.3
Golden Eagle	0.085/0.061/0.08	11.7–16.4	7.1–9.9	19–26.4	11.1–15.5
Red-Tailed Hawk	0.449/0.286/0.44	55.2-86.7	33.3–52.3	88.9–139.6	52.2-81.9

Source: POWER Engineers, 2014

#### Reduction in High Risk Turbines

The number of County-designated High Risk Turbines (HRT), which are those turbines identified by the SRC as posing the greatest collision risk to birds (ranked from 1 to 10, with 10 representing the highest risk), will be reduced by the proposed asset exchange. Applying the 2013 FEIR APWRA-wide fatality rate methodology to an asset exchange, as proposed under this project, would result in no greater impact on avian mortality when reviewing the proposed wind turbines received in an exchange for the wind turbines given up. Therefore, on a statistical level, the asset exchange would

have no effect on the impacts caused by the project (i.e., no difference whether the asset exchange does or does not occur).

### Reduction in Operating Capacity

As a result of the asset exchange under this project, it is likely that the applicant's operating capacity will be reduced through the exchange, because as part of the exchange, AWI will exchange its twenty 250 kW wind turbines for twenty 100 kW wind turbines. Again considering the per-MW method of fatality calculations utilized by the SRC and the M-TEAM, aggregate project capacity will be reduced by 5.3 MW over three years, which is equivalent to removing twenty-five 100 kW wind turbines for the duration of the three-year project. For these reasons, the asset exchange would not increase the risk to birds over and above the impacts associated with the project generally. An asset exchange is nonetheless anticipated to decrease somewhat the impact on avian species, due to the reduction in the number of high-risk turbines in operation and the anticipated reduction in operating capacity for years 2016-2018.

#### **Hazards and Hazardous Materials**

The 2013 FEIR's analysis of Hazards and Hazardous Materials (Section 3.4) concluded that the project is not expected to create any new hazard to the public or the environment through reasonably foreseeable accidental release of hazardous materials into the environment. However, an area resident submitted a comment during the NOP comment period reported the appearance of oil being dispersed along the turbine blades from leaking turbine generators as a form of environmental pollution.

A review of maintenance practices by the applicant of its turbines indicates that AWI maintains and operates its turbines in accordance with industry standards. Wind turbines are monitored through a centralized control system 24 hours per day alerting technical maintenance crews to promptly address any equipment malfunction or failures. Visual monitoring to inspect turbines and determine when turbines require maintenance occurs on a regular basis, and malfunctioning turbines are temporarily removed from service and/or repaired, as needed. A preventative maintenance program is implemented each winter during the off-season to minimize the possibility of malfunction during the summer wind season.

While an issue of leaking oil from the applicant's assets had been raised during the scoping period, the dark discoloration streaks running along turbine blades originating from the central turbine hubs are primarily caused from staining from rust and mineral deposits emanating from steel casting of the hub and blade insert component. In addition, upon further review, a leaking step-up transformer on the ridge overlooking residences along Dyer Road contains a non-toxic, non-petroleum-based mineral oil with no polychlorinated biphenyls (PCBs). This transformer is scheduled for repair during the upcoming off-season. As there is no substantial concentration of oil in any one location and there are no sensitive receptors located within 0.25 mile of the proposed project (the nearest school is approximately 2 miles east of project facilities) this issue raised during the NOP scoping period is not sufficient to be of major concern. As such, no new hazard to the public or the environment through a reasonably foreseeable accidental release of hazardous materials into the environment is expected to occur with the CUP extension to 2018 and associated asset exchange. This potential impact is considered less than significant.

#### Mitigation

Table ES-4, at the end of this Executive Summary, summarizes the environmental impacts of the proposed permit modifications, the level of significance of each impact before implementation of mitigation, recommended mitigation measures, and the level of significance of each impact after

mitigation. Even after implementation of any of these mitigation measures, the impacts on avian species would remain **significant and unavoidable**.

#### **Biological Resources**

Mitigation for impacts resulting from operation of the project through October 31, 2018 will be carried out in accordance with the mitigation measures prescribed in the 2013 FEIR. The 2013 FEIR included as mitigation measures, seasonal shutdowns (Mitigation Measure BIO-16) and retrofitting off-site electric utility power poles within 140 miles of the project site (Mitigation Measure BIO-17) to reduce the risk to birds of electrocution. The County CDA has also provided, in this DSEIR, a suite of alternative mitigation measures (Mitigation Measure BIO-17a) that could reduce, but would not eliminate, the effects of the proposed project through contributions towards conservation and rehabilitation efforts. These mitigation measures are derived from and align with mitigation measures found in the October 2014 *Final Program Environmental Impact Report for the Altamont Pass Wind Resource Area* (State Clearinghouse No. 2010082063) that was certified on November 12, 2014.

#### Mitigation Measure BIO-16

In order to reduce the potential impacts of the proposed project on avian species (to include raptors and special status species), AWI will implement seasonal shutdowns on all turbines for the remaining operational period. Turbines will be turned off on November 1 each year and will remain off until February 15 of the following year. No operational modifications will occur during the February 16 to October 31 period. AWI will notify County CDA each year when turbines have been shut down, and again when they have resumed operating.

#### Mitigation Measure BIO-17

Citing the 2012 Draft Eagle Conservation Guidelines released by U.S. Fish and Wildlife Service (USFWS) and associated technical appendices updates, the 2013 FEIR also indicated that retrofitting 29 power poles off-site within the defined habitat area (Mitigation Measure BIO-17) would be sufficient mitigation for each golden eagle fatality projected to result from turbine rotor blade collisions. These retrofits would similarly benefit other large raptors as well. Use of power poles for the mitigation of all estimated golden eagle fatalities [2013 FEIR, Table 4-2, *Adjusted Species Fatality Rates for Each Alternative, Based on an Average Fatality Rate (Fatalities per Megawatt per Year)* in the 2013 FEIR estimated 19.0–26.5 golden eagle fatalities] over the three-year duration of the requested AWI CUP modification would require the retrofitting of 322 poles. Based on current published draft guidance from the USFWS (2012), and using a general example, a ratio of 29 utility pole retrofits for each eagle is suggested by the USFWS. AWI will therefore retrofit 29 utility poles as mitigation for the expected level of eagle fatality from the proposed project.

To be in compliance with the mitigation requirements of the existing CUPs, AWI must either contract directly with a utility to complete such retrofits or contribute the cost of retrofits to a third-party mitigation account. The USFWS has estimated the cost of retrofits at \$7,500 per pole, and therefore AWI may contribute \$217,500 (\$7,500 x 29 poles) to a third party mitigation account (approved by the County CDA) instead of contracting directly with a utility. Based on recent AWI discussions with PG&E, the cost per retrofit is more likely to actually be between \$1,000 and \$4,000 per pole, depending on the type and condition of the pole to be retrofitted. Due to the large number of power pole retrofits required, it is reasonably expected that approximately 108 power pole retrofits, or one third of the total required retrofits, will be completed per year of the extended three-year CUP term of the project. This annual retrofit schedule also takes into consideration that repowering (the replacement of older turbines with substantially fewer but larger turbines with the same overall output) could

occur prior to the end of the three-year extended permit term (i.e., prior to October 31, 2018). To date, AWI has retrofitted five power poles.

### Mitigation Measure BIO-17a

The County CDA has also provided, in this DSEIR, a suite of alternative mitigation measures (Mitigation Measure BIO-17a) that could reduce, but would not eliminate, the effects of the proposed project through contributions towards conservation and rehabilitation efforts. These alternative mitigation measures include: measures outlined in an approved Eagle Conservation Plan and Bird and Bat Conservation Strategy; contribution to raptor recovery efforts; contribution to raptor conservation efforts; contribution to regional conservation of raptor habitat; and/or other conservation measures identified in the future. These mitigation measures are derived from and align with mitigation measures found in the October 2014 *Program Environmental Impact Report for the Altamont Pass Wind Resource Area* (State Clearinghouse No. 2010082063) that was certified on November 12, 2014.

#### Hazards and Hazardous Materials

As no new hazard to the public or the environment through a reasonably foreseeable accidental release of hazardous materials into the environment is expected to occur with the CUP extension to 2018 and associated asset exchange, no mitigation measures for Hazards and Hazardous Materials are required.

### Alternatives Analysis

CEQA requires that an Environmental Impact Report analyze a No Project Alternative. The No Project analysis discusses the existing conditions at the time the NOP was published, as well as conditions that would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. Under the No Project Alternative, AWI would continue to operate pursuant to the conditions of the existing CUPs. The existing CUPs require AWI to permanently shut down all wind turbines by October 31, 2015, with decommissioning of wind farm facilities, including equipment removal and site restoration, to occur following that date. One remaining seasonal shutdown of all wind turbines would occur between November 1, 2014 and February 15, 2015, prior to permanent shut down in October 2015.

The environmental impacts of AWI's current operating conditions were described and analyzed in the 2013 FEIR as Alternative 1. Alternative 1 was identical to the 2013 FEIR proposed project but included continued implementation of the winter seasonal shutdowns that were begun in 2005 and expanded to their current schedule of 3.5 months in 2009-2010 (November 1 to February 15.). As the No Project Alternative was previously analyzed in the 2013 FEIR, it will not be discussed further in this DSEIR document.

### **Public Involvement and Next Steps**

In accordance with CEQA review requirements, this DSEIR is being distributed for public, stakeholder, and agency review and comment for a 45-day period, beginning on November 17, 2014, and ending on January 2, 2015. The County CDA will hold one public meeting during the comment period on December 18, 2014, at which time the County CDA will accept oral comments from the public, stakeholders, and reviewing agencies on the DSEIR (as well as written comments). In addition, written comments from the public, stakeholders, and reviewing agencies will be accepted throughout the public comment period that ends on January 2, 2015.

After considering these comments, the County CDA will prepare written responses to comments on the DSEIR's analysis of the significant environmental impacts of the proposed project, and then will prepare a Final Supplemental Environmental Impact Report (FSEIR) that will describe the disposition of any significant environmental issues raised in the comments on the DSEIR. The FSEIR, containing those comments and written responses to each comment, must be provided to those public agencies and persons who submitted comments at least 10 days before the FSEIR can be certified. Following this 10-day period, the EBZA will hold a hearing to consider certifying that the FSEIR has been prepared in compliance with CEOA, and will rely on the certified FSEIR when considering project approval (i.e., approval of the proposed permit modifications) or denial. In accordance with the requirements of CEOA, if the EBZA decides to approve the proposed permit modifications analyzed in this DSEIR (or as modified in the FSEIR), it will make written findings with respect to each significant environmental effect identified in the FSEIR. In addition, if the EBZA decides to approve the proposed permit modifications but determines that they would have significant and unavoidable environmental effects, the EBZA will adopt a Statement of Overriding Considerations that explains why the benefits of the proposed modifications would outweigh the significant effects on the environment, based on information in the FSEIR and the entire administrative record.

If the proposed modifications are approved, the EBZA must adopt a Mitigation Monitoring and Reporting Program for those measures that it has adopted and incorporated into the project to mitigate or avoid significant effects on the environment. Following FSEIR certification and project approval, a Notice of Determination will be issued, documenting the decision.

TABLE ES-4 SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION			
Biological Resources	Biological Resources				
	Mitigation Measure BIO-16: Implement Seasonal Shutdowns to Reduce Avian Fatalities (to include raptors and special status species).				
Impact BIO-1: Potential to cause a substantial adverse effect, either directly or through habitat modifications, on a special-status species.	Mitigation Measure BIO-17: Mitigate for the Loss of Individual Golden Eagles, Raptors, and Special Status Avian Species by Retrofitting Electrical Facilities	Significant; Significant and Unavoidable for Avian Species			
	Mitigation Measure BIO-17a: Compensate for the loss of special-status species, including golden eagles, by contributing to conservation efforts				
Hazards and Hazardous Materials					
Impact HAZ-1: Result in a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials	No Mitigation Required.	Less than Significant			
Source: POWER Engineers, 2014					

### 1.0 INTRODUCTION

### 1.1 Project Under Review

This Draft Supplemental Environmental Impact Report (DSEIR) supplements the previously certified *Final Environmental Impact Report, Modifications to Existing (Year 2005) Conditional Use Permits-Altamont Winds Inc.* (2013 FEIR) (State Clearinghouse No. 2012062060) (ICF International 2013). This DSEIR has been prepared by the County of Alameda Community Development Agency, (County CDA) to evaluate the environmental effects of the proposed modifications to the existing conditional use permits (CUPs), as amended in July 2013, related to applicant, WindWorks Inc. and Altamont Winds Inc. (collectively, AWI). The proposed modifications would include a three-year extension (applies to existing turbines) of the current CUPs, thus permitting AWI to continue to operate and maintain its existing wind turbines (85.8 megawatts of nameplate capacity) in the Alameda County (County) portion of the Altamont Pass Wind Resource Area (APWRA) through October 31, 2018 (proposed project).

### 1.2 Lead Agency

The project is based on AWI's application submitted to the County CDA to amend the County CDA-issued CUPs under which AWI operates. As the agency responsible for evaluating and approving or denying the project, the County CDA will serve as the Lead Agency for the SEIR. The SEIR will be prepared pursuant to the California Environmental Quality Act (CEQA, 1970, as amended) and in accordance with relevant federal, state and local regulations.

### 1.3 The Supplemental Environmental Impact Report

#### 1.3.1 Intended Use

This DSEIR has been prepared by the County CDA to provide the public and responsible and trustee agencies information about the potential effects on the local and regional environment associated with the proposed three-year extension of 16 CUPs for wind farms located throughout the APWRA in unincorporated eastern Alameda County. The environmental effects of AWI's existing operations were evaluated in the 2013 FEIR; it is not the intention of the DSEIR to re-evaluate existing operations. This DSEIR is intended to evaluate only the additional environmental effects attributable to the additional three years of operations proposed by AWI.

This DSEIR will not evaluate a repowering project, but will evaluate the environmental impacts of the requested change to the scheduled expiration of the CUPs under which AWI's turbines are operated. A separate California Environmental Quality Act (CEQA) document [such as an Addendum or Supplemental EIR (SEIR)] 'tiered' from the Altamont Pass Wind Resource Area Repowering Program Environmental Impact Report (EIR) that is currently in the form of a Draft Program EIR, will address the repowering proposal by AWI.

The SEIR will be used by the Alameda County East County Board of Zoning Adjustments (EBZA) in its consideration of approval of the proposed CUP modifications.

### 1.3.2 Type of EIR

As the lead agency, the County CDA has determined that a Supplemental EIR is required to evaluate the three-year CUP extension requested by AWI (*Public Resources Code Section 21166; CEQA Guidelines Sections 15162* and *15163*). A Supplemental EIR augments the EIR prepared for an existing project to address any project changes, new information of substantial importance that was not known or could have been known without the exercise of reasonable diligence or changed circumstances occurring since the time the prior document was certified. In the case of changes to a

previously approved project, as is the case here, the purpose of an SEIR is to provide only the additional analysis necessary to make the previous EIR adequately apply to the project as modified. Accordingly, the SEIR need contain only the analysis necessary to respond to the proposed change in the project that triggered the need for additional environmental review [CEQA Guidelines Section 15163(b)]. The SEIR is given the same kind of notice and public review as is given a draft EIR under CEQA Guidelines Section 15087. CEQA (Code California Public Resources Code 21000 et seq.), Section 21166 and CEQA Guidelines (14 California Code of Regulations 15000 et seq.), Section 15162, state (in part, and as continued further below):

When an EIR has been certified or a negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

The proposed CUP extension to 2018 represents a substantial change to the project evaluated in the 2013 FEIR, which was focused on the effects of moving forward the expiration date of the CUPs from 2018 to 2015. Adoption and implementation of the extension to 2018 will substantially alter that component of the previously-evaluated project, and will result in an increase in the severity of significant effects previously identified in the 2013 FEIR. Of particular importance is the anticipated increase in the net volume of avian mortality due to the three additional years of operation of wind turbines with well-documented patterns of bird collisions.

In addition, based on new information about the condition of the turbines related to potential soil contamination from leaking turbine oils or lubricants, the extension may be expected to increase the severity of impacts (hazards and hazardous materials) previously considered insignificant. Accordingly, the changes in the project could require important revisions of the 2013 FEIR. Because the 2013 FEIR provided a thorough analysis of the environmental impacts of AWI's current operations and included a limited analysis of operations through October 2018, as Alternative 3, the necessary revisions will be made by providing this supplement to the 2013 FEIR.

2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

There are no substantial changes to the circumstances under which the project would be undertaken that would result in new or more severe significant effects. However, as discussed in the remainder of this DSEIR, there are some important changes to the circumstances and a certain degree of new information that, while not requiring the preparation of a Subsequent EIR, would require preparation of a Supplemental EIR.

- 3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete, shows any of the following:
  - a) The project will have one or more significant effects not discussed in the previous FIR:
  - b) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

- c) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
- d) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative." (CEQA Guidelines Section 15162(a)).

There is no new information available that would result in any of the above determinations (3.a through 3.d).

### 1.3.3 Decision to Prepare a Supplemental Environmental Impact Report

The County CDA is preparing a DSEIR rather than a subsequent EIR based on its determination, pursuant to *CEQA Guidelines Section 15163*, that only minor additions and changes are necessary to make the previous EIR adequate to apply to the project for the changes proposed by the applicant. An Addendum to an EIR may be prepared where some changes or additions to an EIR are necessary to make the document adequate and the changes made by the addendum do not raise important new issues about the significant effects on the environment. An Addendum to an EIR may be prepared if none of the conditions calling for preparation of a Subsequent EIR or Supplemental EIR have occurred (*CEQA Guidelines Sections 15162-15164*). Because the County CDA finds that the conditions for performing a Supplemental EIR have been met, an Addendum is not being prepared.

CEQA Guidelines, Section 15163(a), states that the lead or responsible agency may choose to prepare a supplement to an EIR rather than a subsequent EIR if:

- 1) Any of the conditions described in Section 15162 would require the preparation of a subsequent EIR.
- 2) Only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation.

Further, CEOA Guidelines, Section 15163, states:

- b) The supplement to the EIR need contain only the information necessary to make the previous EIR adequate for the project as revised.
- c) A supplement to an EIR shall be given the same kind of notice and public review as is given to a draft EIR under Section 15087.
- d) A supplement to an EIR may be circulated by itself without recirculating the previous draft or final EIR.
- e) When the agency decides whether to approve the project, the decision-making body shall consider the previous EIR as revised by the supplemental EIR. A finding under Section 15091 shall be made for each significant effect shown in the previous EIR as revised.

### 1.4 Environmental Review Process

### 1.4.1 Notice of Preparation

A Notice of Preparation (NOP) was prepared and circulated to all responsible agencies and interested parties on September 17, 2014 for a period of 30 days. The NOP was distributed to responsible agencies and interested parties as required by CEQA and the County CDA CEQA procedures. A copy

of the NOP, the NOP distribution list, and written comments received by the County CDA on the NOP are included in Appendix A of this DSEIR.

### 1.4.2 Public Involvement and Review

This DSEIR will be circulated to local, state and federal agencies, and to interested organizations and individuals who may wish to review and comment on the document. The DSEIR will also be available for review at the County CDA Planning Permit Center (Public Works Building, 399 Elmhurst Ave., Hayward, California 94544) and at the Livermore Public Library. The DSEIR may also be viewed on the County CDA's Planning Department website, at <a href="http://www.acgov.org/cda/planning">http://www.acgov.org/cda/planning</a>, following the links from "Pending Land Use Projects" to "Current Development Projects" and finding "Wind Turbine Projects" under the heading "Ongoing Land Use Projects" – see Altamont Winds Inc., Application PLN2014-28.

Publication of this DSEIR marks the beginning of a 45-day public review period during which written comments may be directed to the County CDA at the address below. The County CDA will prepare responses to the comments received and will include those responses in the Final Supplemental EIR (FSEIR) to be prepared prior to the County CDA taking action on AWI's CUP extension request.

Comments on the DSEIR may be sent to:

Ms. Sandra Rivera, Assistant Planning Director ATTN: AWI Permit Modification Supplemental EIR Alameda County Community Development Agency 224 W. Winton Avenue, Suite 111 Hayward, CA 94544

Comments can also be sent via email with the subject line "AWI Permit Modification Supplemental EIR" to: <a href="mailto:sandra.rivera@acgov.org">sandra.rivera@acgov.org</a>. Please include a return address and contact name with your written comments.

Anyone reviewing the document may submit written comments to the County during this period. Comments on this DSEIR should be limited in scope to those areas discussed in this DSEIR. In accordance with *Section 15162* and *15163* of the *CEQA Guidelines*, the DSEIR only discusses: a) areas of the 2013 FEIR where there has been a significant change to the project; b) where the project's circumstances have substantially changed; and c) new information that would not have been known at the time of the 2013 FEIR that has become available. Likewise, comments to the DSEIR should be limited to the content of the DSEIR insofar as it augments the 2013 FEIR and evaluates the current project to an extent not discussed in the 2013 FEIR. Comments are most helpful when they suggest additional mitigation measures or alternatives that would provide better ways to avoid or mitigate significant environmental impacts. Reviewers should explain the basis for their comments and, whenever possible, should submit data or references in support of their comments.

### 1.4.3 Draft Supplemental Environmental Impact Report

Circulation of the DSEIR begins when a Notice of Completion (NOC) is filed with the State Office of Planning and Research (State Clearinghouse). Filing the NOC starts the 45-day review period for the DSEIR. Concurrent with the filing of the NOC, the lead agency will also provide a Notice of Availability of the DSEIR to all organizations and individuals that have previously requested such notice or are located in proximity to the project site. This notice briefly describes the proposed project; identifies the date when comments must be received and where they are to be sent; and provides locations where copies of the DSEIR can be reviewed (*CEQA Guidelines Section 15085* through *Section 15087*). In conjunction with the preparation of the FSEIR, a revised Mitigation

Monitoring and Reporting Program (MMRP) will be prepared (*CEQA Guidelines Section 21081.6*) to incorporate necessary changes to the MMRP adopted with the 2013 FEIR. The MMRP will contain the mitigation measures along with the action that must be taken to implement them and the method that would be used to document or verify fulfillment of the measure. A procedure for determining and recording compliance will be outlined for each action that must be implemented by the project applicant to mitigate impacts as identified in the DSEIR and adopted when the project is approved. This procedure identifies what action would be taken and when, designates who would be responsible for implementing the action, and to whom and when compliance would be reported.

### 1.4.4 Final Supplemental Environmental Impact Report

At the end of the public review period, written comments on the project will be compiled and responses generated in conjunction with the preparation of the FSEIR. The FSEIR will consist of a list of all persons, organizations, and public agencies commenting on the DSEIR, copies of the comments received on the DSEIR, responses to comments; any other pertinent information or analyses added by the lead agency, an errata containing any revisions made by the lead agency to the DSEIR, which may be based on considerations of comments on the DSEIR, and the revised MMRP (*CEQA Guidelines Section 15132*). The FSEIR will serve as the CEQA compliance document for the County CDA and any other agencies that may be responsible for review of the proposed project and issuance of required permits.

### 1.5 Organization of the Supplemental Environmental Impact Report

This DEIR is organized into the following chapters:

**Executive Summary -** Summarizes the proposed project, areas of controversy, issues to be resolved, any new potential environmental effects that may result from the implementation of the proposed project, that were not addressed in the 2013 FEIR, the mitigation measures identified to reduce or eliminate significant effects, and a summary of the "No Project" Alternative.

**Chapter 1.0** - Introduction: Provides an introduction and overview that describes the intended use of the document and the lead agency authority under CEQA. This chapter also provides a review of the environmental review process and organization of the DSEIR. Also provides a list of acronyms and a glossary of terms used to describe and evaluate the project.

**Chapter 2.0** - Project Description: Provides a detailed description of conditions on the project site and vicinity and the various components of the proposed project. This chapter includes a statement of project objectives and provides background data on the project and project site.

Chapter 3.0 - Environmental Impacts Analysis and Mitigation Measures: Describes the existing environmental conditions on the site and in the vicinity of the project site, and the regulatory environment. Describes the project's characteristics related to each of the topical environmental issues addressed for the DSEIR, and states the significance criteria used to evaluate potentially significant effects of the proposed project. Evaluates the potential environmental effects not addressed in the 2013 FEIR, evaluates significant changes in environmental effects addressed in the 2013 FEIR, identifies mitigation measures to reduce or eliminate effects found to be significant, and determines the level of significance of the effect after measures have been implemented.

**Chapter 4.0** – List of Preparers and Others Consulted: Includes a list of lead agency staff members who participated in the preparation of the DSEIR, consultants who prepared the DSEIR under the direction of the lead agency and any other organization or agency staff consulted.

**Chapter 5.0** – References: Includes a list of documents and resources used in the preparation of the DSEIR.

### 1.5.1 Scope and Focus of the DSEIR, Compared to the 2013 FEIR

The 2013 FEIR broadly distinguished impacts as resulting from either operational activities (i.e., the use of wind turbines to generate electricity) and decommissioning (i.e., the removal of wind turbine equipment from the project area and the subsequent restoration of the underlying land). Decommissioning activities, including the number of daily crews working and the intensity of daily activity associated with decommissioning, are identical regardless of whether the facilities are decommissioned after 2015 or 2018, as noted in the 2013 FEIR. Therefore, for purposes of this DSEIR, impacts resulting solely from decommissioning activities are not discussed, and the County CDA will instead rely entirely on the analyses and mitigation measures as described in the 2013 FEIR for operational impacts, and not any decommissioning-related impacts.

Regarding operational impacts, the 2013 FEIR environmental impacts analysis examined the impacts resulting from operation of an 85.8 MW facility that operates for 8.5 to 12 months out of each year, depending on the scenario (or alternative) being examined. This analysis was structured such that impacts were scalable based on the size of the project (in megawatts) and the term of operation (in months). Using this scaling method, the County CDA evaluated the impacts of multiple operating scenarios (i.e., project alternatives), including the impacts of operating the wind farm through 2018, as presently proposed. However, these alternatives were evaluated at a limited level of analysis, as provided for in the *CEQA Guidelines*, *Section 15126.6(d)*), to provide "sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project." This DSEIR will augment the analysis of the 2013 FEIR, including Alternative 3, to provide the level and scope of analysis necessary to respond to the proposed change in the project.

### 1.6 Incorporated by Reference

As permitted by *Section 15150* of the *CEQA Guidelines*, this DSEIR has referenced several technical studies, analyses, and reports, which are included in the technical appendices of the DSEIR. Information from documents incorporated by reference has been summarized in the appropriate DSEIR section(s) that follow.

### 2.0 PROJECT DESCRIPTION

The proposed project consists of operational modifications to those CUPs for existing wind turbines owned by AWI. Specifically, AWI proposes to extend the CUPs, currently set to expire on October 31, 2015, through October 31, 2018. This section provides a brief review of the project location and background, along with a description of the proposed operational modifications and the conditions under which those modifications would take place.

### 2.1 Project Background

On November 13, 2003 and on January 29, 2004, EBZA approved CUPs for the continued maintenance and operation of wind turbines (or "wind farms") by four different operating companies, including AWI, in the APWRA within Alameda County. Those permits were approved by the EBZA with a determination that they were categorically exempt from CEQA as the continued operation of existing facilities. The Center for Biological Diversity, Californians for Renewable Energy, and Golden Gate Audubon Society appealed these approvals to the County Board of Supervisors, primarily on the grounds that the CUPs were not exempt from CEQA, due to special circumstances represented by high levels of avian mortality.

The Board of Supervisors adopted a final resolution on September 22, 2005 (No. R-2005-463), which upheld the EBZA's decision but imposed a number of operational restrictions on wind farm operations. Under the 2005 CUPs, the operating companies (AWI/WindWorks Inc., NextEra/ Green Ridge Power LLC/Florida Power & Light, EDF/EnXco and Seawest/AES Seawest) were required to permanently cease operations and remove a predetermined percentage of turbines on a specified, phased schedule in order to enable repowering of their wind energy assets. The first phase of decommissioning took place in 2009, at which time AWI was required to remove 10 percent of its 920 turbines. An additional 25 percent of the original 920 turbines (for a cumulative total of 35 percent) were to be permanently removed by September 30, 2013, followed by 50 percent of the original turbine number (for a cumulative total of 85 percent) by September 30, 2015, and the remaining 15 percent of turbines by September 30, 2018. In addition to the phased decommissioning, AWI was required to shut down its wind turbines during winter months. The CUPs also required that the CUP permittee companies jointly sponsor the preparation of an EIR to evaluate the environmental impacts of a repowering program, as well as continued operation of existing turbine facilities, and their progressive removal or phased decommissioning.

In July 2011, AWI applied to the County CDA to modify the 2005 CUPs to:

- 1. Remove the requirement for phased decommissioning.
- 2. Remove winter seasonal shutdown requirements.
- 3. Provide for 100 percent of AWI's turbines be decommissioned by the end of 2015.

The 2013 FEIR was prepared to evaluate the environmental effects of such modifications and to identify mitigation measures to reduce any significant environmental effects identified. It also met the 2005 CUP requirement that an EIR be prepared to evaluate existing operations and phased decommissioning, and identified numerous mitigation measures to reduce and avoid the impacts of turbine removal in advance of repowering, although no specific repowering project had been proposed at that time.

The 2013 FEIR also proposed and analyzed a range of feasible project alternatives, as required by CEQA. In addition to the required No Project Alternative, the 2013 FEIR evaluated three other alternatives, including the project as proposed but with retention of the winter seasonal shutdown requirements (Alternative 1), a one-year extension (through 2016) of the project as proposed with seasonal shutdowns (Alternative 2), and a three-year extension (through 2018) of the project as

proposed, also with seasonal shutdowns (Alternative 3). Project Alternative 3, therefore, represented the operation of AWI's existing wind farms through October 31, 2018 (as currently proposed), and the 2013 FEIR provided a limited analysis of its potential impacts. Alternative 3 was chosen for inclusion in the 2013 FEIR because it would reduce air quality impacts related to GHG emissions and like the other alternatives, helped represent a broad range of scenarios.

On July 18, 2013, the EBZA certified the 2013 FEIR and granted AWI's request for modification of the 2005 CUP but included as mitigation (Mitigation Measure BIO-16 in the 2013 FEIR) the continued implementation of seasonal winter shutdown requirements, due to the substantial increase in avian mortality which was projected to have resulted from the request for operations without the winter shutdown – a roughly 60% increase in total avian fatalities compared to the baseline in avian years 2013 to 2018. In effect, the EBZA chose to approve Alternative 1, which was deemed the environmentally superior alternative in the 2013 FEIR, and denied AWI's request to remove the seasonal shutdown requirement. To further address the increased avian mortality that would result from the modifications, specifically on golden eagle mortality, the 2013 FEIR included as mitigation a requirement to retrofit electrical power poles within 140 miles of the project in an area with eagles at risk from electrocutions. Other mitigation measures that were adopted addressed the impacts of ground disturbance associated with decommissioning, which is outside the scope of this DSEIR.

Development of new wind farms, comprised of larger, modern wind turbines that are expected to replace the existing APWRA wind farms in the coming years, is underway, a process known as "repowering." A separate Program EIR (PEIR) which evaluated repowering was certified on November 12, 2014. The PEIR simultaneously analyzed two specific projects for repowering proposed by other wind companies, and AWI is preparing a separate project-specific EIR intended to "tier off" the PEIR. However, AWI has reported that its progress in developing a repowering program for its turbines is constrained by ongoing commercial and regulatory difficulties.

### 2.2 Project Location

The project location containing AWI's existing wind turbines falls within an approximately 14,196-acre portion of the 50,000-acre APWRA, located in eastern Alameda County, California, as shown in Figure 1. The project site is bisected by Interstate 580 (I-580). The lands are currently under permit by AWI or its affiliates either solely or as a shared arrangement with other wind farm operators.

In preparation for repowering, AWI is in discussions with another wind farm operator in the APWRA regarding a wind turbine exchange, whereby AWI would exchange some of its wind turbines for an equal number of wind turbines owned and operated by another wind farm operator that shares common infrastructure with AWI, as shown in Figure 2. Under no circumstances, however, will any such exchange increase the capacity or quantity of AWI's operating turbines (828).

Those land parcels on which the project is located would also change as a result of the turbine exchange. Following a wind turbine exchange, AWI would no longer operate wind turbines on 31 parcels of land on which AWI's wind turbines are presently located. However, AWI would receive turbines through the exchange on a small number of parcels on which AWI does not presently operate turbines. Table 2-1 presents existing CUPs, landowners, Assessor's Parcel Numbers (APNs), and approximate acreage for the lands that may be included either in whole or in part in the project, including lands on which AWI may operate following an exchange scenario as described above.

TABLE 2-1 LIST OF CUPS, LANDOWNERS AND APNS

CUP NO.	LANDOWNER	ASSESSOR'S PARCEL NUMBERS	APPROXIMATE ACRES
C-8036	Frick/Costa	99B-5680-15	207.12
C-8037	Pombo	99B-6300-2-1, 99B-6300-2-2, 99B-6425-1-6, 99B-6325-2-4 and 99B-6400-1-7	224.26
C-8134	Rooney	99B-6125-2	160.21
C-8137	Mulqueeney	99B-7900-1-5, 99B-7900-1-7, 99B-7890-2-4, 99B-7890-2-5, 99B-7890-2-6, 99B-7925-2-4, 99B-7925-2-1, 99B-7925-2-5, 99B-7950-2, 99B-7975-1, 99B-7980-1, 99B-7985-1-6, 99B-7985-1-4, 99B-7985-1-3, 99B-7985-1-5, 99A-1800-2-4, 99A-1800-2-3 and 99B-8050-1	
C-8191	Mulqueeney	99B-7910-1-1	592.84
C-8243	ACWMA	99A-1780-1-4, 99A-1770-2-1, 99A-1770-2-2, 99A-1770-2-3, 99A-1810-1 and 99A-1790-3	1,324.83
C-8216	ACWMA	99A-1810-1	240.81 (parcel acreage included in C-8243)
C-8231*	Altamont Landfill	99B-6225-1, 99B-6250-1, 99B-6275-1-1	1,547.80
C-8232	Egan	99B-6125-3	160.47
C-8233	Elliott	99B-6125-4	157.54
C-8235	Corbett	99B-5650-1-4 and 99A-1785-1-14	284.96
C-8236	Dunton	99B-5680-1	330.46
C-8237	Valhalla (Devincenzi)	99B-5610-1 and 99B-6075-3	665.98
C-8238	Ralph (north)	99B-7300-1-5 and 99B-7375-1-7	766.57
C-8239*	Jackson	99B-6125-5	325.59
C-8241	Walker	99B-6100-2-10, 99B-6100-2-11, 99B-6100-2-12, 99B-6100-3-10, 99B-6100-3-15, 99B-6100-3-11	1,314.55
C-8242	Gomes (north)	99B-6150-4-10, 99B-6150-3 and 99B-6150-2-7	635.48
C-8244	Gomes (south)	99B-6425-2-3, 99A-1790-2 and 99A-1795-1	1,049.48
	0014	TOTAL ACREAGE	14,195.64

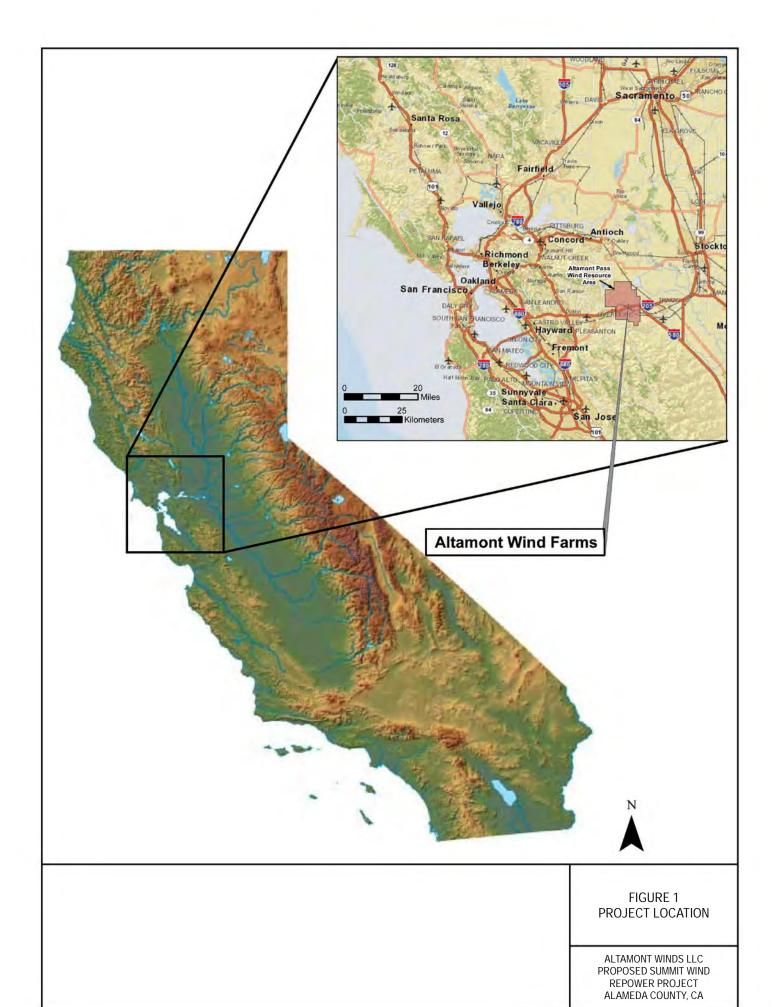
Source: AWI, 2014

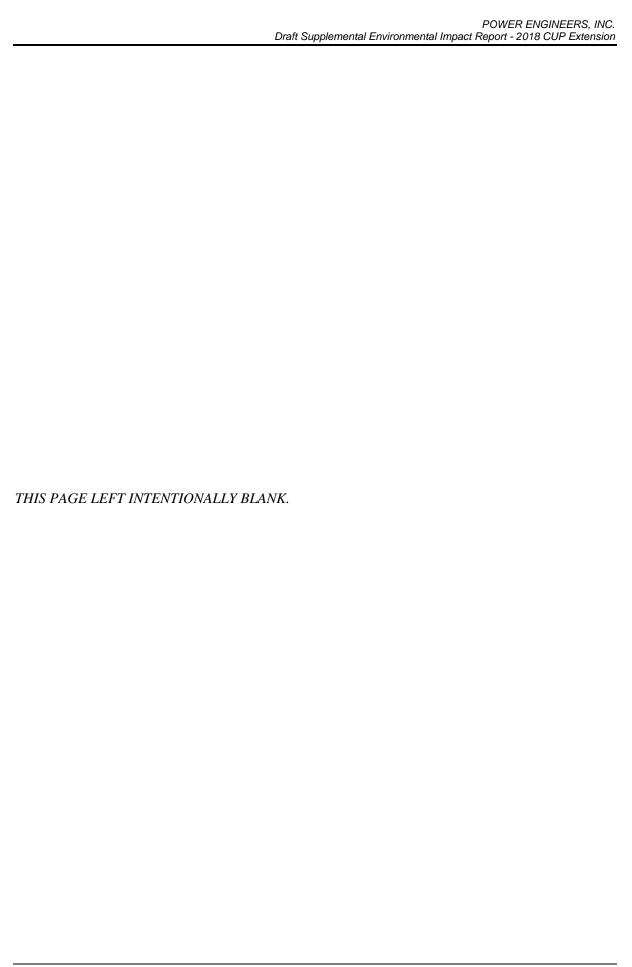
#### Notes:

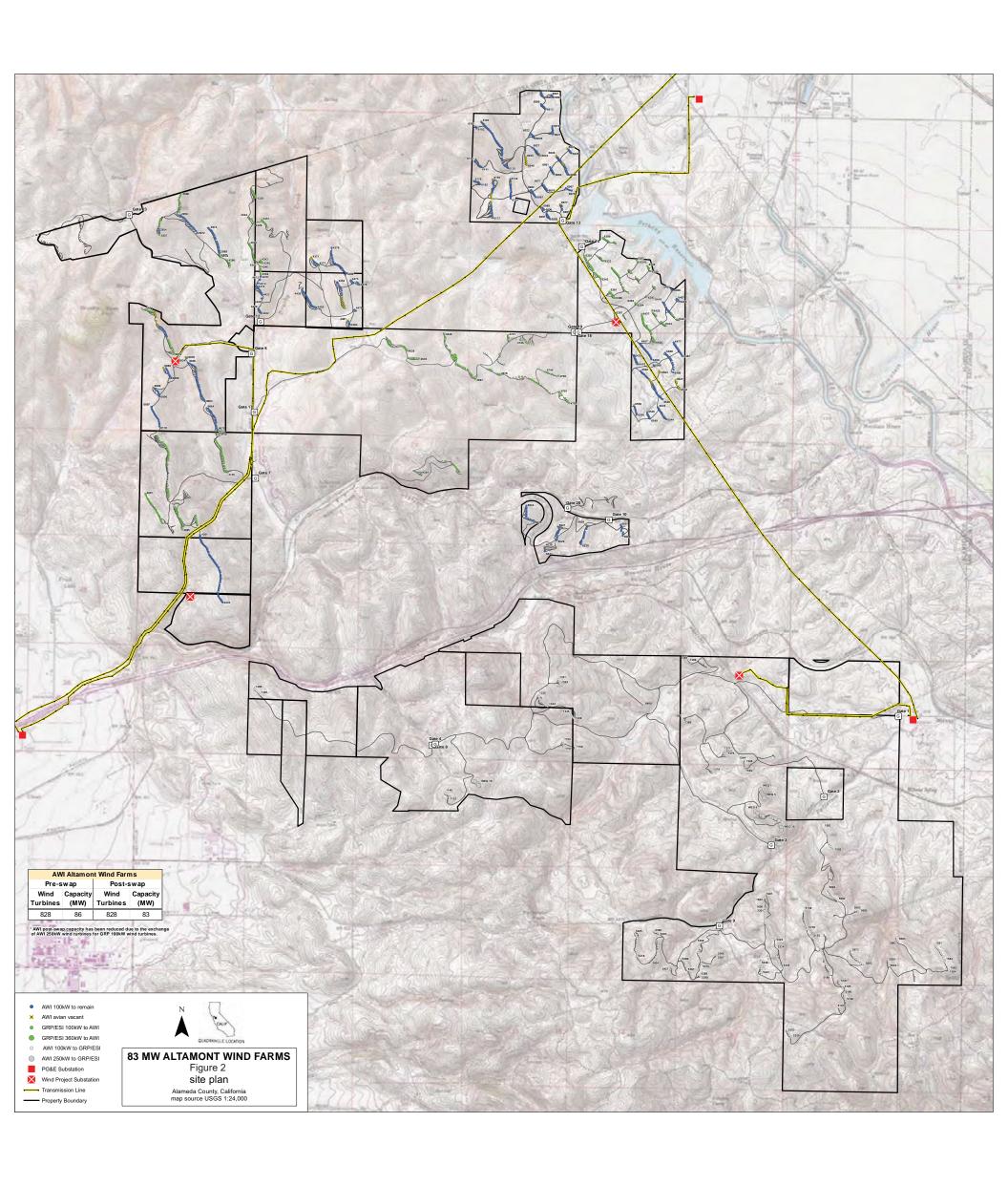
<sup>1.</sup> The above table includes those parcels and CUPs on which AWI currently has installed wind turbines, as well as those parcels and CUPs on which turbines owned by other wind companies are presently installed and whose wind turbines may be obtained in exchange on a turbine-for-turbine basis with turbines currently owned by AWI.

<sup>2.</sup> Many of the wind farms in the APWRA overlap, with different wind energy facility operating companies on a single parcel of land. Therefore, other wind companies beside AWI currently operate wind farms within the project area described above.

<sup>3.</sup> Two additional CUPs, C-8231 and C-8239 (landowners Waste Management Inc. and Jackson, respectively), apply to turbines proposed to be acquired by AWI or its affiliates in a proposed asset exchange, and would contain turbines subject to the proposed modifications.







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### 2.3 Project Need and Objectives

Like the project defined in the 2013 FEIR, the current project is needed to meet the ever-increasing demand of society and consumers for electricity from clean, renewable, and economically viable power sources. Specifically, the project will assist California in meeting its legislated Renewable Portfolio Standard criteria for the generation of renewable energy in the state. This standard requires electric utilities and providers to procure 33 percent of their supply of electricity from renewable energy sources, such as wind, by 2020. In addition, this project will assist California in meeting its legislated global warming solutions criteria requiring reductions in carbon dioxide and other GHG emissions to 1990 levels by 2020.

As also indicated in the 2013 FEIR, AWI proposes to continue operating existing wind turbines and delivering clean, renewable wind-generated electrical energy to the Pacific Gas & Electric Company (PG&E) through existing transmission infrastructure as productively as possible in the short term.

AWI's proposed extension/permit modification (the project) would continue operations (as described in the 2013 FEIR) three additional years; as such, the specific project objectives identified by the applicant would remain as follows:

- Continue to operate the existing AWI project using existing turbines, transmission lines, and
  other infrastructure to meet regional energy needs in an efficient, reliable, and
  environmentally-sound manner.
- Continue to provide clean, renewable energy in the most cost-effective way.
- Operate existing wind power facilities more productively in the short term (four years).
- Provide for continued operations until repowering of the turbine assets is timely and economically viable.
- Contribute to domestic energy security and California's Renewable Energy Resources
  Program, which requires that all retail electricity providers serve 33 percent of their load with
  renewable sources by 2020, by continuing to reduce California's reliance on fossil fuels
  through utilization of APWRA's renewable wind resources.
- Provide significant benefits to human health, wildlife, and climate by reducing climate change/global warming-causing pollutants, reducing water usage, and by displacing toxic emissions produced by fossil fuel-fired power plants.
- Continue to contribute substantially to Alameda County's economy by preserving long-term skilled employment to operate and maintain the project and through expenditures on materials, tools, supplies, and equipment purchases.

Additional objectives for the project considered essential by the County CDA include the following:

- Maintain wind energy uses in the Alameda County portion of the APWRA in the long term in a manner that represents sound stewardship of the area's wildlife and natural habitats, both generally and to support the obligations of state and federal resource agencies to protect the unique and special-status avian species that occupy the area.
- Continue to implement its adopted General Plan policies to promote wind energy development and energy production in the APWRA while minimizing impacts on avian species, and to coordinate with local, state and federal resource-protection agencies to establish feasible means of mitigating avian collisions with wind turbines.

### 2.4 Major Project Components

The project facilities consist of 828 existing wind turbines on concrete foundations, plus support facilities, occupying approximately 155 acres within a 14,196-acre area. The turbines have a nameplate capacity of 85.8 MW and rest on lattice and tubular towers that range in height from 60 to 82 feet, sited in strings along ridgelines. Support facilities include existing gated, graveled access roads, a power collection and transmission interconnection system, meteorological towers ranging from 60 to 100 feet in height, communication systems, maintenance equipment areas, and offsite facilities including AWI's wind farm main service yard (located near Tracy), and the main wind farm control center, shared with other wind farm operators (located in Livermore). The power collection and transmission interconnection system consists of pad-mount transformers, underground cables, overhead cables on poles, circuit breakers and switches, electrical metering/protection devices, and the existing Dyer, Frick, Ralph, and Midway substations. Electrical power is collected from the turbines and transmitted to the substations, where its voltage is increased for interconnection with PG&E transmission lines.

### 2.4.1 Asset Exchange

As part of this extension, AWI is in discussions with another wind farm operator in the APWRA that shares common infrastructure with AWI, regarding a contemplated wind turbine exchange. In such a scenario, AWI would exchange approximately 300 wind turbines it presently owns south of I-580 for an equal number of wind turbines owned and operated by another company, Green Ridge Power LLC, north of I-580. As proposed, and under assurances from both companies, such an exchange will not increase the capacity or quantity of AWI's operating turbines. These 300 turbines represent about 35 percent of AWI's assets in MW capacity. The purpose of the proposed asset exchange is to physically separate certain historically shared (or common) project assets within the APWRA to allow for unencumbered and geographically consolidated operations. It should be noted that at the same time the proposed AWI permit modifications/extension could come into effect on October 31, 2015, major changes in the operating landscape of the APWRA will take place following the 2015 wind season, which concludes on October 31, 2015. At that time, approximately 1,000 old generation wind turbines owned by Green Ridge Power LLC will be permanently shut down and will be removed; thus, reducing overall turbine quantities and densities in the project area.

### 2.4.2 Repowering Development Milestones

The current CUPs allow for operations of 828 turbines and ancillary facilities, through October 31, 2015. Under the proposed permit modifications, after this point in time, operations would be extended for up to three additional years, through October 31, 2018, on the condition that AWI has demonstrated that it has diligently pursued development of a repowered wind farm on the project site, but that circumstances beyond AWI's control, as defined below, have delayed completion of the repowered project.

Specifically, under the proposed permit modifications, AWI will be required to cease operations of the existing wind farm on October 31, 2015 unless (1) AWI has diligently pursued development of a repowered wind farm on the project site, as defined and enumerated below; and (2) circumstances beyond AWI's control delay repowering beyond October 31, 2015. To assess AWI's diligent pursuit of repowering, the CUPs will include several repowering development milestones which must be met as conditions of continuing operation beyond October 31, 2015. These development milestones would be conditions of approval, and failure to achieve these milestones by the dates set forth would constitute noncompliance with the CUPs. These milestones proposed by AWI include:

• AWI submitted a project-specific repowering application to the County CDA on March 31, 2014, including an affidavit affirming site control for the proposed repowered wind farm.

- AWI shall begin preparation of a project-specific EIR or other appropriate environmental document tiered from the Program EIR for the repowering project no later than December 31, 2014.
- Continuous preparation of AWI's project-specific repowering EIR or comparable document through to completion, with a Draft for public review available by April 15, 2015, and a Final available by June 30, 2015.

#### 2.4.3 Circumstances Outside AWI's Control

To continue operation of the wind facility beyond October 31, 2015, in addition to diligently pursuing repowering, AWI's repowered project may be delayed beyond that date due to circumstances beyond AWI's control. Such circumstances considered outside of AWI's control, which would allow AWI to operate beyond October 31, 2015, could include:

- Delay in completion of an interconnection transmission study, despite AWI's initiation of that study, or refusal by the California Independent System Operator (CAISO) and/or PG&E to grant transmission or interconnection rights following such related study.
- The inability to secure an economic power purchase agreement for the repower project, despite commercially reasonable efforts to do so.
- Failure by Congress to renew the federal renewable energy production tax credit beyond 2015, which expired on December 31, 2013.
- Land owner site control for repowering is unilaterally withdrawn by any landowner(s) or is otherwise terminated due to no fault of AWI.
- Repower permits are delayed or not issued by County CDA.
- A Final CEQA document is not certified by July 22, 2015
- Procurement of wind turbines and related wind project equipment for repowered facilities is delayed due to market supply constraints.
- The separation and/or exchange of existing Altamont wind power assets (such as land leases, substations, permits, etc.) necessary to repower the site, is delayed by parties unrelated to AWI.

# 3.0 ENVIRONMENTAL IMPACTS ANALYSIS AND MITIGATION MEASURES

### 3.1 Approach to the Environmental Analysis

The County CDA anticipates that the proposed extension will lead to an increase in the severity of impacts previously identified in the 2013 FEIR. As previously described, the 2013 FEIR provided a full discussion of the prior project's potential environmental effects on the following resource areas: Air Quality and GHGs; Biological Resources; Noise; and Hazards and Hazardous Materials. The County CDA does not anticipate that major revisions to the 2013 FEIR are necessary to identify new environmental impacts that were not previously disclosed in the 2013 FEIR for an extension of AWI's operations for three additional years through October 31, 2018. However, to the extent new information has become available since the prior FEIR, the County CDA has incorporated that information into the DSEIR.

The 2013 FEIR broadly distinguished impacts as resulting from either operational activities (i.e., the use of wind turbines to generate electricity) and decommissioning (i.e., the removal of wind turbine equipment from the project area and the subsequent restoration of the underlying land). Decommissioning activities, including the number of daily crews working and the intensity of daily activity associated with decommissioning, are identical regardless of whether the facilities are decommissioned after 2015 or 2018, as noted in the 2013 FEIR. Therefore, for purposes of this DSEIR, impacts resulting solely from decommissioning activities are not discussed, and the County CDA will instead rely entirely on the analyses and mitigation measures as described in the 2013 FEIR for operational impacts, and not any decommissioning-related impacts.

In the 2013 FEIR, the County CDA evaluated the impacts of multiple operating scenarios (i.e., project alternatives), including the impacts of operating the wind farm through 2018, as presently proposed. However, these alternatives were evaluated at a limited level of analysis, as provided for in the CEQA Guidelines, Section 15126.6(d)), to provide "sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project." The impact analysis below will augment the analysis of the 2013 FEIR, including Alternative 3, to provide the level and scope of analysis necessary to respond to the proposed change in the project.

#### 3.1.1 Noise

As described in the 2013 FEIR operations under Alternative 3 (this project) would increase compared to the prior project. Exposure of residences to increased turbine noise under Alternative 3, including the potential for increased wind turbine noise as a result of aging turbines or lack of maintenance, would be greater under Alternative 3 than under the proposed project because more turbines would be running through 2018. This is considered a significant impact. However, implementing Mitigation Measure NOISE-1, as described in the 2013 FEIR, would reduce this impact to a less-than-significant level. Although there have been some changed circumstances since 2013, the County CDA does not find that there are substantially changed circumstances as part of this project that would result in new or substantially different significant impacts with respect to noise impacts that were not previously identified in the 2013 FEIR. Furthermore, no new information of substantial importance shows that the CUP extension to 2018 and associated asset exchange would have significant impacts with respects to noise not discussed in the prior FEIR.

### 3.1.2 Air Quality and Greenhouse Gases

As also described in the 2013 FEIR, Alternative 3 (this project) would result in the most electricity production and GHGs offset. Although some GHG emissions would result from decommissioning

activities, the GHGs offset by the turbine operations under Alternative 3 are multiple orders of magnitude greater than those resulting from decommissioning activities. The net result of Alternative 3 would be a substantial reduction in GHGs. The County CDA does not find that there are substantially changed circumstances as part of this project that would result in new or substantially different significant impacts with respect to air quality and GHGs that were not previously identified in the 2013 FEIR. Furthermore, no new information of substantial importance shows that the CUP extension to 2018 and associated asset exchange would have significant impacts with respects to air quality and GHGs not discussed in the prior FEIR.

### 3.1.3 Biological Resources

As described in the 2013 FEIR, project impacts on biological resources could occur as a result of operational changes (for avian species) and during decommissioning activities (terrestrial impacts) in cases where special status species and/or sensitive habitats occur within the decommissioning work areas. This DSEIR does not analyze impacts related to decommissioning, as the proposed extension is not anticipated to result in any changes to those impacts. These potential impacts resulting from project decommissioning would not be changed in any way by the proposed extension of the CUPs except that they would be delayed for up to three additional years. In all other respects, impacts resulting from decommissioning activities under the currently proposed CUP modifications would be identical to the impacts identified in the 2013 FEIR. As a result, the impact analysis sections of the 2013 FEIR related to decommissioning are herein incorporated by reference and are not discussed further in this DSEIR. This analysis does, however, focus on the continued wind power operation and maintenance activities within the County portion of the APWRA through October 31, 2018 and associated asset exchange of which terrestrial impacts associated with ground disturbing activities are not anticipated. The biological resources analysis in Section 3.2 of this DSEIR only focuses on wildlife (with an emphasis on avian species). The anticipated impacts on other wildlife (primarily terrestrial species and their habitat), waters of the United States (including wetlands), and waters of the state due to decommissioning are described in detail in the 2013 FEIR.

As described in the 2013 FEIR, an analysis of the potential avian impacts under Alternative 3 indicates that operational impacts would be substantially greater than those associated with the proposed project (2013 FEIR, Table 4-2), and more than 2.5 times the level expected under the No Project Alternative (the avian baseline condition). Although the estimates are based on APWRA-wide per-MW mortality estimates, they provide a comparison of the expected impacts under each alternative. The 2013 FEIR's brief analysis of biological resources indicated that extending the term of the CUPs through October 31, 2018 would have significant and unavoidable adverse impacts on both common and special-status avian species (Impact BIO-1), including the four focal raptor species: American kestrel, burrowing owl, golden eagle, and red-tailed hawk. For example, Table 4-2 in the 2013 FEIR provided a projection that there would be 19.0–26.5 golden eagle fatalities under Alternative 3 through 2018, compared to a baseline (No Project conditions) of 7.1–9.9 golden eagle fatalities through 2018. These additional impacts and related mitigation measures are analyzed in this DSEIR document.

#### 3.1.4 Hazards and Hazardous Materials

The 2013 FEIR's analysis of Hazards and Hazardous Materials (Section 3.4) concluded that the project is not expected to create any new hazard to the public or the environment through reasonably foreseeable accidental release of hazardous materials into the environment. As previously described, an issue raised by an area resident during the NOP comment period reported the appearance of oil being dispersed along the turbine blades from leaking turbine generators as a form of environmental pollution. This issue would fall into the environmental category of Hazards and Hazardous Materials. Based on new information about the condition of the turbines related to potentially widespread soil

contamination from leaking turbine oils or lubricants, the extension may be expected to increase the severity of impacts (hazards and hazardous materials) previously considered insignificant. This issue is further analyzed in Section 3.3 of this DSEIR.

### 3.2 Biological Resources

Potential biological resource related to wildlife avian impacts associated with the project components are analyzed in this section or incorporated by reference to the 2013 FEIR. Potential impacts associated with each of these project components are summarized at a qualitative level in Section 3.2.3, Environmental Impacts. This section also identifies specific and detailed measures from the East Alameda County Conservation Strategy (EACCS) to avoid, minimize, or compensate for potentially significant impacts on biological resources, where necessary as described in the 2013 FEIR. In addition, the County CDA has also provided a suite of alternative mitigation measures that could reduce, but would not eliminate, the effects of the proposed project through contributions towards conservation and rehabilitation efforts. These mitigation measures are derived from and align with mitigation measures found in the June 2014 *Program Environmental Impact Report for the Altamont Pass Wind Resource Area* (State Clearinghouse No. 2010082063) (draft).

### 3.2.1 Regulatory setting

A listing of the laws and regulations that influence the management of biological resources in the study area is summarized below and provided in full detail within the 2013 FEIR. These laws and regulations are relevant for the analysis provided in this DSEIR; as such, the reader is referenced back to Section 3.2.1 of the 2013 FEIR for further details.

#### 3.2.1.1 Federal

- Federal Endangered Species Act
- Migratory Bird Treaty Act
- Bald and Golden Eagle Protection Act
- Clean Water Act

#### 3.2.1.2 State

- California Environmental Quality Act
- California Department of Fish and Wildlife Code

#### 3.2.1.3 Local

• East Alameda County Conservation Strategy

### 3.2.2 Environmental Setting

Section 3.2.2 of the 2013 FEIR summarizes the existing conditions related to biological resources in the study area and references the detail of the existing conditions. These conditions are relevant for the analysis provided in this DSEIR; as such, the reader is referenced back to the 2013 FEIR for further details regarding the Biological Resources environmental setting.

### 3.2.3 Environmental Impacts

#### 3.2.3.1 Method

This biological impact analysis is based on professional standards and information cited throughout the section and incorporates by reference the details discussed in the 2013 FEIR. The key effects were

identified and evaluated qualitatively and quantitatively based on the environmental characteristics of the study area and the magnitude, intensity, and duration of activities related to operation and decommissioning activities associated with the proposed project (2013 EIR).

Avian impacts and the resulting significance conclusions are determined on the basis of the No Project Alternative as defined in the 2013 FEIR as the baseline. For operational changes associated with the proposed project, the avian impact analysis is based on the most recent published results of avian fatality studies in the 2013 FEIR and a three-year average from 2008-2010 (2013 FEIR), June 2014 *Program Environmental Impact Report for the Altamont Pass Wind Resource Area* (State Clearinghouse No. 2010082063) (draft) and the resulting per-MW avian impact estimates.

The method chosen in the 2013 FEIR to estimate the number of avian fatalities considers two variables: (1) the estimated fatality rate and (2) the installed capacity (MW), multiplied together to yield an estimate of fatalities at the wind farm, as follows:

*fatality rate x installed capacity = estimated fatalities/MW* 

This method for analyzing the effect of the project on avian mortality, and conclusions drawn from this method regarding AWI's proposed project, are discussed below.

#### 3.2.3.2 Thresholds of Significance

Based on professional practice, the County CDA Environmental Checklist, and CEQA Guidelines, Appendix G (14 CCR 15000 et seq.), the analysis that follows serves to reach determinations whether the proposed project would:

- Have a substantial adverse effect, either directly or through habitat modifications, including designated critical habitat, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS, including substantially reducing the number or restricting the range of an endangered, rare, or threatened species.
- Have a substantial adverse effect on any sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS.
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA, including marsh, vernal pool, and coastal wetlands, through direct removal, filling, hydrological interruption, or other means.
- Interfere substantially with the movement of any native resident or migratory fish or wildlife
  species or with established native resident or migratory wildlife corridors, or impede the use
  of wildlife nursery sites.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

The thresholds of significance used are also based on professional practice and state and federal guidelines on adverse effects on biological and wildlife resources. As defined by *Section 15064.7* of the *CEQA Guidelines*, such thresholds are "an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally

be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant."

### 3.2.3.3 Impact Assumptions

Impacts on biological resources are based on the following project assumptions:

- Operational changes to the timing and duration of wind turbine operations (three additional years, or up to 25½ additional months of operation, with winter seasonal shutdowns) would result in increased avian fatalities.
- No ground disturbing activities are expect outside what was analyzed in the 2013 FEIR as a
  result of the requested permit extensions.
- No new access roads would be constructed.
- Existing facilities and proposed work areas are limited to upland habitat; no activities will occur within aquatic habitat.
- No suitable habitat for special-status fish species or designated critical aquatic habitat occurs
  in the study area. Therefore, potential impacts on these species and critical habitat are not
  discussed in this impact analysis.
- Avian fatalities are directly proportional to the operational period of wind turbines, calculated as the cumulative installed generation capacity.

### 3.2.3.4 Impact Mechanism

Biological resources could be directly or indirectly affected during additional operation period during the CUP permit extensions. Impacts on biological resources fall into the three categories: temporary, short-term, and long-term. Some activities that could cause impacts on biological resources are *increasing cumulative turbine operation time, particularly during the three-year extended operation period*. These impact mechanisms were used to assess project-related impacts on biological resources in the project area for this DSEIR.

#### 3.2.3.5 Impacts and Mitigations

The 2013 FEIR's brief analysis of biological resources indicated that extending the term of the CUPs through October 31, 2018 would have significant and unavoidable adverse impacts on both common and special-status avian species (Impact BIO-1), including the four focal raptor species: American kestrel, burrowing owl, golden eagle, and red-tailed hawk. These additional impacts and related mitigation measures are analyzed in this section. The County CDA has also provided, in this DSEIR, a suite of alternative mitigation measures (Mitigation Measure BIO-17a) that could reduce, but would not eliminate, the effects of the proposed project through contributions towards conservation and rehabilitation efforts. These mitigation measures are derived from and align with mitigation measures found in the October 2014 *Program Environmental Impact Report for the Altamont Pass Wind Resource Area* (State Clearinghouse No. 2010082063) that was certified on November 12, 2014.

# Impact BIO-1: Potential to cause a substantial adverse effect, directly on special-status species (Significant; Significant and unavoidable for avian species)

The extension of the CUP permits under this project would cause direct impacts to avian species, as discussed in the 2013 FEIR. Additional mortality based estimates for the three years of operation are based on the ongoing monitoring at APWRA and they are discussed in more detail below. There are other factors not considered in the July 2013 FEIR that indicate avian mortality may, in fact, be

reduced as a result of an asset exchange including a reduction in High Risk Turbines and a reduction in operating capacity as discussed below.

### Estimated Project Impacts on Focal Species

#### **Fatality Rates**

Studies of avian fatalities in the APWRA have been conducted, in one form or another, since the 1980s. The most recent iteration of the APWRA-wide monitoring program was implemented by the County CDA following the renewal of the CUPs in 2005. To measure progress towards the goal of reducing avian fatalities within the APWRA through the implementation of adaptive management measures and the seasonal shutdown, the monitoring program has focused on identifying annual avian fatality rates in the APWRA. Fatality rates for each species are calculated, and then for multiple years. The monitoring program is managed by a Monitoring Team (M-TEAM), overseen by the Altamont Pass Scientific Review Committee (SRC), which reports to and makes recommendations to the County CDA. The M-TEAM produces an annual report that discloses the avian fatalities observed and presents estimates of annual adjusted species fatality rates on a standardized per-MW-per-year basis for all avian species. These rates are used to determine the effectiveness of ongoing adaptive management measures, as well as progress towards the goal of fatality reduction. The size and scope of the study has been designed to determine fatality rates for the entire APWRA, standardized on a per-MW-per-year basis. The County CDA determined in the 2013 FEIR that the current monitoring program is the best available source of wind turbine-related avian fatality rates in the APWRA.

Table 3-1, derived from Chapter 3.2 of the 2013 FEIR, provides the anticipated avian species impacts under the proposed project, as calculated from the APWRA-wide fatality rate estimates (standardized on a per-MW basis). Average fatality rates are presented for all available monitoring years (2005–2010) as well as for recent monitoring years (2008–2010). The rates for recent monitoring years were presented in order to consider years in which more intensive efforts have been made to reduce avian mortality within the APWRA, with an understanding that the omission of data for the years 2005-2007, prior to permanent operational changes aimed at reducing avian mortality, would more accurately represent the impacts of the wind farm for the future term of the project. Also included in Table 3-1 is the 2005-2011 average of the annual fatality rates at non-repowered turbines as provided in the October 2014 *Program Environmental Impact Report for the Altamont Pass Wind Resource Area* (State Clearinghouse No. 2010082063) that was certified on November 12, 2014.

SPECIES	AVERAGE FATALITY RATE
BASED ON 2005-2010 MONITORNING RESULTS Source: FEIR, Modifications to Existing (Year 2005) Conditional Use Permits- AWI (SCH No. 2012062060)	
American Kestrel	0.496
Burrowing Owl	0.721
Golden Eagle	0.085
Red-Tailed Hawk	0.449
Total Focal	1.751
BASED ON 2008-2010 MONITORNING RESULTS Source: FEIR, Modifications to Existing (year 2005) Conditional Use Permits- AWI (SCH No. 2012062060)	
American Kestrel	0.443
Burrowing Owl	0.425
Golden Eagle	0.061
Red-Tailed Hawk	0.286
Total Focal	1.215
BASED ON 2005-2011 MONITORNING RESULTS Source: ICF International, APWRA Repowering Draft PEIR, June 2014 (SCH No. 2010082063)	
American Kestrel	0.59
Burrowing Owl	0.78
Golden Eagle	0.08
Red-Tailed Hawk	0.44
Total Focal	1.89

Source: FEIR, Modifications to Existing (Year 2005) Conditional Use Permits- AWI (SCH No. 2012062060)

#### Installed MW Capacity

The other factor considered in the 2013 FEIR analysis of avian impacts resulting from the wind farm is installed MW capacity. Installed capacity, for purposes of the 2013 FEIR avian analysis, is a value derived to represent the operational size of the project over time. More specifically, installed capacity in the 2013 FEIR represents the sum of the nameplate capacity rating of all installed turbines, expressed in MW-years. This value is calculated by (a) determining the number of turbines operating in the year and multiplying that number by the nameplate capacity of each turbine, (b) multiplying the result by the percentage of the year they are expected to operate in that configuration for a given year, then (c) summing the total for each year for the total life of the project.

In months where no turbines operated, such as during the annual Winter Seasonal Shutdown, a period of 3.5 months (from November 1 through February 14 each year) during which the CUPs require 100 percent of turbines to be shut down, the 2013 FEIR assumed zero capacity for such periods. Comments were received arguing against the accuracy of such an approach when comparing project alternatives, some of which included winter operations and others which did not. The present analysis, however, concerns a wind farm that does not operate in the winter. Therefore, the analysis for this DSEIR assumes zero capacity for winter months, just as was assumed in the 2013 FEIR.

The 2013 FEIR's analysis of biological resources indicated that extending the term of the CUPs through October 31, 2018 would have significant and unavoidable adverse impacts on both common and special-status avian species (Impact BIO-1), including the four focal raptor species: American kestrel, burrowing owl, golden eagle, and red-tailed hawk. The 2013 DEIR analysis, on pages 4-4 and 4-16 through 4-20 of the 2013 DEIR, and summarized most clearly in Table 3.2-3a in the 2013 FEIR (page 4-16), indicated that the installed capacity of the 86 MW wind farm for an operating term through 2018 would be 311 MW (Table 3-2 of this DSEIR), and all avian fatality estimates were derived based on this operating term. Estimated avian fatalities figures for the February 15, 2016-October 31, 2018 operating schedule are also presented in Tables ES-1 through ES-3 and Tables 3-3 through 3-5 below. Table 3-5 below provides a comparison of the scenarios.

TABLE 3-2 SUMMARY OF INSTALLED CAPACITY PER MEGAWATT YEAR FOR SCENARIOS

SCENARIO	2013	2014	2015	2016	2017	2018	2019	TOTAL MW - YEARS
2013 FEIR Proposed Project	21.5	85.8	85.5	0.0	0.0	0.0	0.0	193.1
2013 FEIR No Project Alt.	5.2	44.5	32.1	11.9	11.9	10.9	0.0	116.5
2013 FEIR Alternative 3	7.2	60.8	60.8	60.8	60.8	60.8	0.0	311.0
Years 2016 - 2018	-	-	-	60.8	60.8	60.8	0.0	182.4

Source: FEIR, Modifications to Existing (Year 2005) Conditional Use Permits- AWI (SCH No. 2012062060)

TABLE 3-3 ESTIMATED AVIAN FATALITIES AT FULL PROJECT CAPACITY (85.8 MW)
BASED ON 2008-2010 BIRD YEAR ADJUSTED FATALITY RATES

SPECIES	ANNUAL ESTIMATED FATALITIES	ESTIMATED FATALITIES 2016 – 2018	ESTIMATED FATALITIES 2013 – 2018
American Kestrel	26.9	80.8	137.8
Burrowing Owl	25.8	77.5	132.2
Golden Eagle	3.7	11.1	19
Red-Tailed Hawk	17.4	52.2	88.9
Total Focal	73.8	221.6	377.9

Source: POWER Engineers, 2014

TABLE 3-4 ESTIMATED AVIAN FATALITIES AT FULL PROJECT CAPACITY (85.8 MW)
BASED ON 2005-2011 BIRD YEAR ADJUSTED FATALITY RATES

SPECIES	ANNUAL ESTIMATED FATALITIES	ESTIMATED FATALITIES 2016 – 2018	ESTIMATED FATALITIES 2013 – 2018
American Kestrel	35.9	107.6	183.5
Burrowing Owl	47.4	142.3	242.6
Golden Eagle	4.7	14.6	24.9
Red-Tailed Hawk	26.8	80.3	136.8
Total Focal	114.8	344.8	587.8

Source: POWER Engineers, 2014

TABLE 3-5 COMPARISON OF ADJUSTED SPECIES FATALITY TOTALS OF FOUR FOCAL SPECIES, BASED ON AN AVERAGE FATALITY RATE (FATALITIES PER MEGAWATT PER YEAR)

SPECIES	AVERAGE FATALITIES PER MW (2005–2010/ 2008–2010/ 2005- 2011)	PROJECTED NUMBER OF FATALITIES UNDER THE 2013 FEIR PROPOSED PROJECT	PROJECTED NUMBER OF FATALITIES UNDER 2013 FEIR BASELINE CONDITIONS	PROJECTED NUMBER OF FATALITIES UNDER 2013 FEIR ALTERNATIVE 3	PROJECTED NUMBER OF FATALITIES FOR YEARS 2016-2018
American Kestrel	0.496/0.443/0.59	85.5–113.9	51.6-68.7	137.8–183.5	80.8–107.6
Burrowing Owl	0.721/0.425/0.78	82.1–150.6	49.5–90.9	132.2–242.6	77.5–142.3
Golden Eagle	0.085/0.061/0.08	11.7–16.4	7.1–9.9	19–26.4	11.1–15.5
Red-Tailed Hawk	0.449/0.286/0.44	55.2-86.7	33.3-52.3	88.9–139.6	52.2-81.9

Source: POWER Engineers, 2014

#### Reduction in High Risk Turbines

As discussed previously, AWI is in discussions with another wind farm operator in the APWRA that shares common infrastructure with AWI, regarding a contemplated wind turbine exchange. In such a scenario, AWI would exchange approximately 300 wind turbines it presently owns south of I-580 for an equal number of wind turbines owned and operated by another company, Green Ridge Power LLC, north of I-580. As proposed, and under assurances from both companies, such an exchange will not increase the capacity or quantity of AWI's operating turbines. These 300 turbines represent about 35 percent of AWI's assets in MW capacity. The purpose of the proposed asset exchange is to physically separate certain historically shared (or common) project assets within the APWRA to allow for unencumbered and geographically consolidated operations.

The number of County-designated High Risk Turbines (HRT), which are those turbines identified by the SRC as posing the greatest collision risk to birds, will be reduced coincident to the exchange. Over the years, various wildlife consultants have examined the APWRA and attempted to identify those wind turbines that pose a disproportionate risk to avian species, and several different models have been proposed for identification of high risk wind turbines. The system currently in use, the HRT system, was first adopted in 2007 and later revised in 2010. The HRT classification system ranked wind turbines on a scale of 1 to 10, with 10 presumed to be the most hazardous. At various stages since inception of the system, many of those turbines with the highest ratings, such as, 10, 9.5, 9.0, and 8.5, have been ordered to be removed by the County CDA. To date, Green Ridge Power LLC has shut down a greater number of HRTs, compared to AWI. This imbalance will result in AWI decreasing its quantity of HRT turbines after the exchange, theoretically reducing avian impacts.

As previously described, Green Ridge Power LLC has permit and legal obligations to permanently cease operations of its entire fleet of existing wind turbines (approximately 1,000 old generation turbines) by October 31, 2015; as such, AWI's fleet of HRT turbines will be decommissioned by that date.

TABLE 3-6 ASSET EXCHANGE EFFECT ON NUMBER OF HRTS IN OPERATION

OWNER/HRT RATING	OPERATING
AWI	
8.5	12
9	9
9.5	0
10	0
Total Turbines Given Up by AWI	21
NEER	
8.5	4
9	0
9.5	2
10	0
Total Turbines Received by AWI	6
HRT Reduction	15
Course, AMI 2014	

Source: AWI, 2014

The 2013 FEIR methodology, as previously described, utilized the APWRA-wide fatality rate because the project area is large and diversified. Applying the 2013 FEIR APWRA-wide fatality rate methodology to an asset exchange, as proposed under this project, would result in no greater impact on avian mortality when reviewing the proposed wind turbines received in an exchange for the wind turbines given up (Table 3-6). Therefore, on a statistical level, the asset exchange would have no effect on the impacts caused by the project.

#### Reduction in Operating Capacity

As a result of the asset exchange under this project, it is likely that AWI's operating capacity will be reduced through the exchange, because AWI will exchange its twenty 250 kW wind turbines for twenty 100 kW wind turbines. Again considering the per-MW method of fatality calculations utilized by the SRC and the M-TEAM, aggregate project capacity will be reduced by 5.3 MW over three years, which is equivalent to removing twenty-five 100 kW wind turbines for the duration of the three-year project as illustrated in Table 3-7.

TABLE 3-7 ASSET EXCHANGE EFFECT ON MEGAWATT CAPACITY (2016 – 2018)

MEGAWATTS	
182.3	
177.0	
5.3	(equivalent of removing 25 x 100 kW wind turbines for the duration of the 3-year project life)
).1	
0.071	
5.3	
1.771	(equivalent to 25 turbines needed to produce annual reduction in project capacity)
	182.3 177.0

Source: AWI, 2014

For these reasons, the asset exchange would not increase the risk to birds over and above the impacts associated with the project generally. An asset exchange is anticipated to decrease the impact on avian species, due to the reduction in the number of high-risk turbines in operation and the anticipated reduction in operating capacity for years 2016-2018.

# Mitigation Measure BIO-16: Implement Seasonal Shutdowns to Reduce Avian Fatalities

In order to reduce the potential impacts of the proposed project on avian species (to include raptors and special status species), AWI will implement seasonal shutdowns on all turbines for the remaining operational period. Turbines will be turned off on November 1 each year and will remain off until February 15 of the following year. No operational modifications will occur during the February 16 to October 31 period. AWI will notify County CDA each year when turbines have been shut down, and again when they have resumed operating.

# Mitigation Measure BIO-17: Mitigate for the Loss of Individual Golden Eagles, Raptors, and Special Status Avian Species by Retrofitting Electrical Facilities

AWI will mitigate for the proposed project's additional contribution to golden eagle mortality by retrofitting hazardous electrical poles in an onsite location (if any hazardous poles are located onsite), or in an offsite location. This mitigation measure will also benefit mortality reduction for other raptors and special status avian species. The mitigation must occur within 140 miles of the proposed project, the area typically defined by the USFWS as the "local population." The proposed project, with implementation of mitigation measure BIO-16, (together identified as Alternative 1 in the analysis of project alternatives) is projected to result in the fatality of approximately one eagle

(cumulatively, and statistically, 0.7–1.0) when compared to the existing avian baseline condition (the No Project Alternative) (2013 FEIR Table 3.2-5). Although the baseline fatality rate is higher, this mitigation measure addresses the impacts of the proposed project (with mitigation), which is approximately one additional eagle fatality. Based on current published draft guidance from the USFWS (2012), and using a general example, a ratio of 29 utility pole retrofits for each eagle is suggested by the USFWS. AWI will therefore retrofit 29 utility poles as mitigation for the expected level of eagle fatality from the proposed project. AWI may contract directly with an electrical utility to fund this mitigation; however, a written agreement and evidence of the completion of the retrofits must be provided to the County CDA. USFWS has estimated the cost of retrofits at \$7,500 per pole, and therefore AWI may contribute \$217,500 (\$7,500 x 29 poles) to a third party mitigation account (approved by the County CDA) instead of contracting directly with a utility. The third party mitigation account holder would have the responsibility of completing the mitigation or contracting for the mitigation to be completed. Evidence of completion of mitigation must be provided to the County CDA within one year of approval of the proposed project.

The mitigation method of retrofitting offsite electric utility power poles within 140 miles of the project site, to reduce the risk of electrocution to birds (to include eagles, other raptors, and special status avian species), has been endorsed by the County CDA and was included in the 2013 FEIR. Citing the 2012 Draft Eagle Conservation Guidelines released by USFWS and associated technical appendices updates, it was stated in the CUP as Mitigation Measure BIO-17 that one golden eagle fatality resulting from electrocution would be avoided by retrofitting 29 power poles. This would similarly benefit other raptors and special status avian species as well.

Use of power poles for the mitigation of all estimated golden eagle fatalities over the three-year duration of the requested AWI CUP modification would require the retrofitting of 322 poles. To be in compliance with the mitigation requirements of the existing CUPs, AWI must contribute the cost of retrofits to a third-party mitigation account or, alternatively, contract directly with a utility to complete such retrofits. Based on recent AWI discussions with PG&E, the cost per retrofit is between \$1,000 and \$4,000, per pole depending on the type and condition of the pole to be retrofitted. Table 3-8 presents the number of eagle fatalities to be mitigated through power pole retrofits between 2016 through 2018.

TABLE 3-8 ANNUAL NUMBER OF EAGLES FATALITIES TO BE MITIGATED THROUGH POWER POLE RETROFITS

OPERATING YEAR	POLES RETROFITTED	QUANITY GOLDEN EAGLES SAVED PER YEAR	QUANTY GOLDEN EAGLES SAVED PER PROJECT
2016	108	3.7	3.7
2017	107	3.7	7.4
2018	107	3.7	11.1
TOTAL	322	11.1	22.2

Source: AWI, 2014

Due to the large number of power pole retrofits required, it is reasonably expected that approximately 108 power pole retrofits, or one third of the total required retrofits, will be completed per year of the extended three- year CUP term of the project. This annual retrofit schedule also takes into consideration that repowering could likely occur prior to the end of the three-year extended permit term (i.e., prior to October 31, 2018), and therefore, installed mitigation would follow the operating/impact period.

# Mitigation Measure BIO-17a: Compensate for the loss of special-status species, including golden eagles, by contributing to conservation efforts

The Secretary of the Interior issued Order 3330 on October 31, 2013, outlining a new approach to mitigation policies and practices of the Department of the Interior. This approach recognizes that certain strategies aimed at some species can provide substantial benefit to others and to the ecological landscape as a whole. The landscape-scale approach to mitigation and conservation efforts is now central to the Department's mitigation strategy. Although the Order was intended for use by federal agencies and as such is not directly applicable to the County, it is evident that such an approach would likely have the greatest mitigation benefits, especially when considering ongoing and long-term impacts from wind energy projects.

With these considerations in mind, the County has outlined several options that are currently available to compensate for impacts on raptors including special-status species. The options discussed below are currently considered acceptable approaches to compensation for impacts on raptors. Although not every option is appropriate for all species, it is hoped that as time proceeds, a more comprehensive landscape-level approach to mitigation will be adopted to benefit a broader suite of species than might benefit from more species-specific measures. The County recognizes that the science of raptor conservation and the understanding of wind-wildlife impacts are continuing to evolve and that the suite of available compensation options may consequently change over the life of a project.

To promote the conservation of raptors, the project proponent may compensate for special-status species raptor fatalities estimated within their project area. The project proponent may submit for County approval a Special-Status Species Mitigation Plan outlining the estimated number of special-status species fatalities based on the type or types of compensation options to be implemented. The Project proponent will use the Special-Status Species Mitigation Plan to craft an appropriate strategy using a balanced mix of the options presented below, as well as considering new options suggested by the growing body of knowledge during the course of the project lifespan, as supported by a Resource Equivalency Analysis (REA) or similar type of compensation assessment acceptable to the County that demonstrates the efficacy of proposed mitigation for impacts on special-status species.

The County Planning Director, in consultation with the TAC, will consider, based on the REA, whether the proposed Special-Status Species Mitigation Plan is adequate, including consideration of whether each Special-Status Species Mitigation Plan incorporates a landscape-scale approach such that the conservation efforts achieve the greatest possible benefits. Compensation measures as detailed in an approved Special-Status Species Mitigation Plan must be implemented within 60 days of the permit approval. Special-Status Species Mitigation Plans may be revised—and will be reviewed by the County.

• Measures outlined in an approved Eagle Conservation Plan and Bird and Bat Conservation Strategy. The Project proponent may elect to apply for programmatic eagle take permits from USFWS. The programmatic eagle take permit process currently involves preparation of an Eagle Conservation Plan (ECP) and a Bird and Bat Conservation Strategy (BBCS). The ECP specifies avoidance and minimization measures, advanced conservation practices, and compensatory mitigation for eagles—conditions that meet USFWS's criteria for issuance of a permit. The BBCS outlines measures being implemented by the applicant to avoid and minimize impacts on migratory birds, including raptors. If programmatic eagle take permits are obtained by the project proponent, those permit terms, including the measures outlined in the approved ECP and BBCS, may constitute an appropriate conservation measure for estimated take of golden eagles and other raptors, including special-status species, provided such terms are deemed by the County to be comparable to or more protective of raptors than the other options listed herein.

- Contribute to raptor recovery efforts. The Project proponent may elect to contribute funds to raptor recovery centers such as the California Raptor Center (Center). The Center is affiliated with the UC Davis School of Veterinary Medicine, and its programs focus on raptor education, raptor health care and rehabilitation, and raptor research. The average cost to rehabilitate one raptor is approximately \$580 (Stedman pers. comm.). The Center receives more than 200 injured or ill raptors annually. Approximately 60–65% are rehabilitated and returned to the wild. In a typical year, the four raptor species most commonly brought in for care are barn owl (96 admissions in 2006), American kestrel (20 admissions), red-tailed hawk (19 admissions), and Swainson's hawk (15 admissions) (California Raptor Center 2011). The Center relies on donations of time and resources to provide resident raptor care and feeding, underwrite education programs, provide rehabilitation medical supplies and medication, and maintain its facilities. The first contributions for the project will be based on the estimated number of raptor fatalities as described above in this measure.
- Contribute to raptor conservation efforts. The project proponent may contribute funds, equivalent to raptor recovery efforts above (i.e., \$580/raptor), to other local and/or regional conservation efforts designed to protect, recover, and manage lands for raptors, or to conduct research involving methods to reduce raptor fatalities or increase raptor productivity. These funds will be contributed to an entity or entities engaged in these activities including, but not necessarily limited to, the East Bay Regional Park District and the Livermore Area Regional Park District. Conservation efforts may include constructing and installing nest boxes and perches, conducting an awareness campaign to reduce the use of rodenticide, and conducting research to benefit raptors. The specific conservation effort to be pursued will be submitted to the County for approval as part of the Special-Status Species Mitigation Plan review process.
- Contribute to regional conservation of raptor habitat. The project proponent may address regional conservation of raptor habitat by funding the acquisition of conservation easements within the APWRA or on lands in the same eco-region outside the APWRA, subject to County approval, for the purpose of long-term regional conservation of raptor habitat. Lands proposed for conservation must be well-managed grazing lands similar to those on which the projects have been developed. The project proponent will fund the regional conservation and improvement of lands (through habitat enhancement, lead abatement activities, elimination of rodenticides, and/or other measures) using a number of acres equivalent to the conservation benefit of the raptor recovery and conservation efforts described above, or as determined through a project-specific REA. The conservation easements will be held by an organization whose mission is to purchase and/or otherwise conserve lands, such as The Trust for Public Lands, The Nature Conservancy, California Rangeland Trust, or the East Bay Regional Parks District. The project proponent will obtain approval from the County regarding the amount of conserved lands, any enhancements proposed to increase raptor habitat value, and the entity holding the lands and/or conservation easement.
- Other Conservation Measures Identified in the Future. As noted above, additional conservation measures for special-status species may become available in the future. Conservation measures for raptors are currently being developed by USFWS and nongovernmental organizations (e.g., American Wind Wildlife Institute)—for example, activities serving to reduce such fatalities elsewhere, and enhancing foraging and nesting habitat. Under this option, the project proponent may make alternative proposals to the County for conservation measures—based on an REA or similar compensation assessment—that the County may accept as mitigation if they are deemed by the County to be comparable to or more protective of special-status species than the other options described herein.

# 3.2.3.6 Level of Significance after Mitigation

As detailed above and in the 2013 FEIR, mitigation options for significant impacts on avian species at an existing wind energy generation facility are limited to either operational modifications (i.e., shutdowns, removals) or off-site mitigation. Incorporation of these mitigation options could reduce, but would not eliminate the effects of the proposed project. Even after implementation of any of these mitigation measures, the impacts on avian species would remain **significant and unavoidable**.

#### 3.3 Hazards and Hazardous Materials

The 2013 FEIR's analysis of Hazards and Hazardous Materials (Section 3.4) concluded that the project is not expected to create any new hazard to the public or the environment through reasonably foreseeable accidental release of hazardous materials into the environment. An issue raised by an area resident during the NOP comment period noted the dispersal of oil from leaking turbine generators as a form of environmental pollution. This issue would fall into the environmental category of Hazards and Hazardous Materials. This section further investigates new information about the condition of the turbines related to potentially widespread soil contamination from leaking turbine oils or lubricants and analyzes this potential issue as it relates to the operational modifications to AWI's existing CUPs for continued wind power operation and maintenance activities APWRA through October 31, 2018 and associated asset exchange. This analysis investigates if this potential issue is expected to increase the severity of impacts (hazards and hazardous materials) previously considered insignificant.

# 3.3.1 Regulatory setting

A listing of the laws and regulations that influence the oversight of hazards and hazardous materials is provided in full detail within the 2013 FEIR. These laws and regulations are relevant for the analysis provided in this DSEIR; as such, the reader is referenced back to Section 3.4.1 of the 2013 FEIR for further details. Additional local regulations relevant to the issue area being analyzed in this DSEIR are provided below.

## 3.3.1.1 Local

### **Alameda County Department of Environmental Health**

The Alameda County Department of Environmental Health (ACDEH) is the Certified Unified Program Agency (CUPA) for Alameda County. This certification by the California Secretary of Environmental Protection authorizes the ACDEH to implement the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program specified in *Health and Safety Code Chapter 6.11 of Division 20* (beginning with *Section 25404*). As the CUPA, ACDEH oversees the regulatory programs for Hazardous Materials Business Plans, underground and aboveground storage tanks, onsite treatment of hazardous waste, hazardous waste generators, and California Accidental Release Prevention.

# 3.3.2 Environmental Setting

The environmental setting was defined in the 2013 FEIR. Of particular relevance, project facilities are not located on a site considered hazardous pursuant to *Government Code Section 65962.5*. There are no public or private K–12 schools within 0.25 mile of the proposed project. The nearest school is approximately 2 miles east of project facilities and it is unlikely that hazardous materials will be emitted or released within 0.25 mile of any schools.

# 3.3.3 Environmental Impacts

#### 3.3.3.1 Method

Existing conditions were determined from a review of published literature, examination of photographs, and review of department internet sources and other documents that describe the potential for hazards and hazardous materials occurrence in the APWRA. No fieldwork or hazardous materials sites database searches were conducted for the proposed program. The analysis assumes continued wind power operation and maintenance activities within the County portion of the APWRA through October 31, 2018.

# 3.3.3.2 Thresholds of Significance

For this analysis, an impact relating to hazards and hazardous materials would be considered significant under CEQA if it would result in any of the following environmental effects, which are based on professional practice and State CEQA Guidelines Appendix G (14 CCR 15000 et seq.).

• Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

# 3.3.3.3 Impacts and Mitigations

Impact HAZ-1: Result in a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials (Less than significant without mitigation)

Wind Turbine Blades

A review of the project wind turbine blades in their current conditions shows evidence of discoloration and usage over the years of operations. This discoloration is primarily caused from staining from ordinary rust and mineral deposits emanating from the steel casting of the hub and blade insert component. Figure 3 below shows a typical 100 kW blade unit in the Altamont Pass, located on the front/west ridge, north of Interstate 580. As can be seen in the figure, each fiberglass blade is equipped with a metal rod through the diameter of the blade arm (known as an IFD rod). This is a non-galvanized steel rod that is subject to rusting. As seen in Figure 4, rust from rain and condensation can travel down the blade during rotation.

There are two sources of lubricant or oil associated with wind turbines. The first is located in the turbine engine housing and acts as a lubricant as well as a cooling mechanism. The second is located out towards the blades/fins themselves. Grease is used to lubricate bearings located at the center of the blade-hub assembly and, as these blades/fins rotate in a circular motion (depending on the wind direction and wind speed), they can be adjusted in pitch to maximize efficient energy production and minimize potential turbine tower stress. Within this housing structure there is grease/lubricant; the viscosity of which would not allow it to travel much further than as pictured in Figure 3 and Figure 4. This grease/lubricant typically loses its color through ambient sunlight; however, overtime, through wind and dust/grit, it will pick up and regain some sense of color. An excess of approximately 50 gallons of this grease/lubricant (for these facilities) would be required to reach the ground through the blades/fins, which is unlikely since this is well beyond the turbine gearbox capacity. By the nature of physics, gravity would dictate that this lubricant would run down the turbine support structure first rather than migrate out to the blades themselves. However, the high viscosity of the grease used in the wind turbines prevents it from seeping far from the center of the hub, contributing minimally (if any) to the long streaking seen in the figures.

Regular monitoring and maintenance maintains wind turbines in safe operating condition throughout the year. AWI's regular maintenance program is conducted in accordance with industry standards and complies with all relevant best practices to address and prevent hazardous conditions from developing at its turbine sites regardless of a wind turbine age. To manage rust staining and any traces of grease on the blades, blades are washed as needed at an off-site commercial facility. Wind turbines are never washed on site.

AWI's wind turbines are monitored through a centralized control system 24 hours per day. AWI's 100 kW wind turbines are each fitted with a series of alarms that are shown on the main control system display. An alarm will display if any functional problem occurs in a given wind turbine or if the wind velocity is outside the turbine's operating parameters. When triggered, an alarm displays a code specifying the general nature of the malfunction. Any alarm that is generated will also cause the wind turbine to go into a shutdown mode, allowing maintenance crews to visit the turbine and assess the nature of the problem. Wind turbines communicate with the control system every two seconds; as such, technical and maintenance crews are alerted as problems occur.

A visual monitoring system is used to inspect turbines and determine when turbines require maintenance. Crews monitor conditions in and around wind turbines regularly, and malfunctioning turbines are temporarily removed from service and/or repaired as needed.

The applicant also undertakes a preventative maintenance program each winter off-season to minimize the possibility of malfunction during the summer wind season. Preventative maintenance includes, among other activities, rotor blade and pitch sensor calibration, blade shaft rotational torque testing, drive shaft alignment check, pitch actuator brake/clutch functional testing, power factor correction circuit generator circuit insulation testing, and blade repair.









### Step-Up Transformer

A leaking step-up transformer on the ridge overlooking residences along Dyer Road associated with the project wind facilities currently has a minor leak from one of its cooling fins. The applicant is aware of this issue and has scheduled repair for this unit during the upcoming winter off-season. Oil contained in the transformer consists of a non-toxic, non-petroleum-based mineral oil that does not contains polychlorinated biphenyls (PCBs). Previous soil testing of the soil that was known to have been exposed to mineral oil from a transformer returned a "non-hazardous" determination (Appendix B).

In accordance with Appendix G of the State CEQA Guidelines, the project would be considered to have a significant effect if it would create a significant hazard to the public or the environment through the use or disposal of hazardous materials. The proposed project consists of the continued wind power operation and maintenance activities within the County portion of the APWRA through October 31, 2018 and associated asset exchange and does not involve the transport or use of any additional hazardous materials.

As detailed in Chapter 3-4 of the 2013 FEIR, a majority of hazardous materials to be used during operations are of low toxicity and would consist of fuels, oils and lubricants. As these materials are required for operation of construction vehicles and equipment, BMPs (Section 3.4.1.3 of the 2013 FEIR) would be implemented to reduce the potential for or exposure to accidental spills involving the use of hazardous materials. Upon further analysis, the project wind facility conditions in their current state and with the continued wind power operation and maintenance activities within the County portion of the APWRA through October 31, 2018 and associated asset exchange is not expected create any new hazard to the public or the environment through reasonably foreseeable accidental release of hazardous materials into the environment. As discussed in the 2013 FEIR, the project would also not expose people to airport-related hazards, or to impair implementation of any adopted emergency response plan or emergency evacuation plan. There are no public or private K–12 schools within 0.25 mile of the proposed project. The nearest school is approximately 2 miles east of project facilities and it is unlikely that hazardous materials will be emitted or released within 0.25 mile of any schools under the proposed project. As such, impacts would be less than significant.

# Mitigation

No mitigation measures are required.

### 3.3.3.4 Level of Significance after Mitigation

Impacts would be less than significant without mitigation.

# 4.0 LIST OF PREPARERS AND OTHERS CONSULTED

# 4.1 County of Alameda Community Development Agency

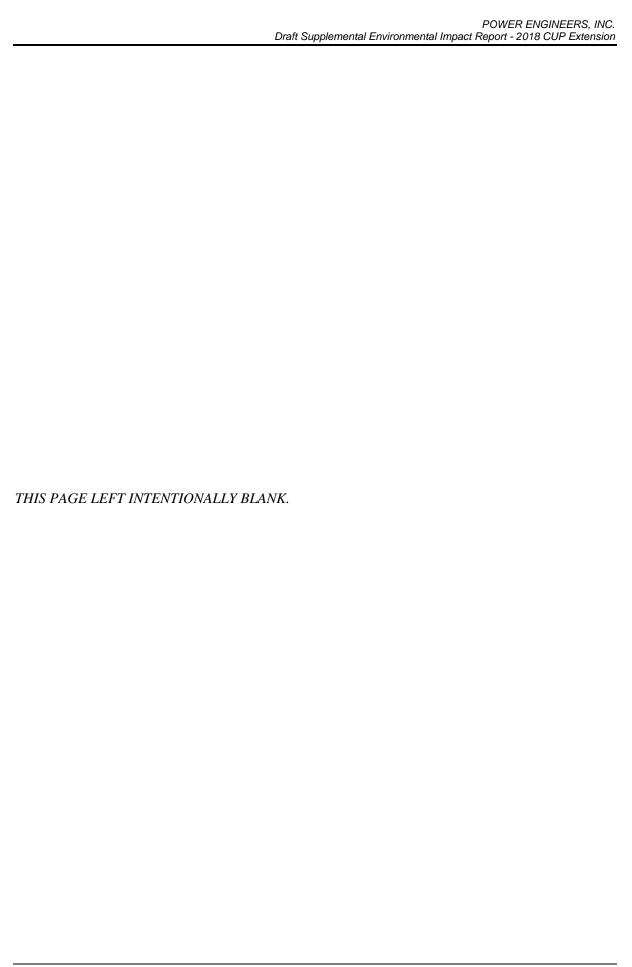
- Sandra Rivera Assistant Planning Director
- Andrew Young Project Planner

# 4.2 POWER Engineers, Inc.

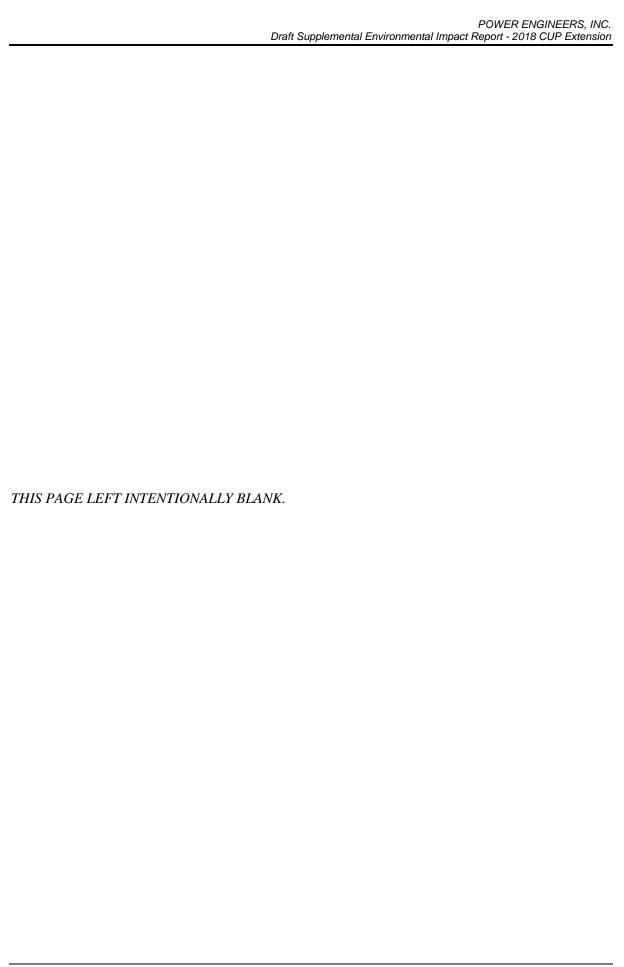
- Chris Knopp Project Manager, EIR Preparation
- Dave Dean Biological Resources
- Dr. Joe Platt Biological Resources
- John Everingham Senior Technical Review
- Yvonne Ulloa Editor

# 5.0 REFERENCES

- ICF International. 2013. Final Environmental Impact Report for Modification to Existing (Year 2005) Conditional Use Permits for Altamont Winds Inc. July. Prepared for County of Alameda (State Clearinghouse No. 2012062060).
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# APPENDIX A NOP, DISTRIBUTION LIST, WRITTEN COMMENTS





#### ALAMEDA COUNTY COMMUNITY DEVELOPMENT AGENCY

#### PLANNING DEPARTMENT

Chris Bazar Agency Director

Albert Lopez Planning Director

224 West Winton Ave Room 111

> Hayward California 94544

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September 15, 2014

**FROM:** Sandra Rivera, Assistant Planning Director Alameda County Community Development Agency 224 W. Winton Avenue, Suite 110 Hayward, CA, 94544

**SUBJECT:** <u>Notice of Preparation</u> (Notice) of a Supplemental Environmental Impact Report for Modifications to Existing Conditional Use Permits – Altamont Winds Inc. (AWI) (PLN2014-00028)

### **SUMMARY**

The County of Alameda (County) is issuing this Notice of Preparation to inform agencies and interested parties that the County will prepare a Supplemental Environmental Impact Report (SEIR) for proposed modifications to 16 existing Conditional Use Permits (CUPs), for turbines owned and operated by Altamont Winds Inc. in the Alameda County portion of the Altamont Pass Wind Resource Area (AC/APWRA). Altamont Winds Inc. (the Applicant, together with its operating subsidiary WindWorks Inc., and collectively, AWI) has submitted an application requesting that these CUPs, set to expire on October 31, 2015 under modifications approved in 2013, be extended through October 31, 2018 under specified conditions, for operation of its estimated 828 turbines, which have a rated capacity of approximately 85.8 MW.

The SEIR is intended to supplement an Environmental Impact Report (EIR), certified in July 2013, that evaluated the application made by AWI in 2011 to modify these same CUPs as they had been approved in September of 2005. Although the current proposal for operations through 2018 was evaluated in the prior EIR as an alternative (Alternative 3), it was only at a limited level of analysis, as provided for in the CEQA Guidelines (Section 15126.6(d)), to provide "sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project." The County made the following finding in 2013 when it certified the EIR regarding this alternative: "Alternative 3 would better serve the project objectives of renewable energy, but would also very substantially increase the avian mortality impacts compared to the project and all other alternatives. For the purpose of meeting the project objectives and minimizing significant impacts on special status avian wildlife, Alternative 3 is considered infeasible." On the basis of this determination, it is necessary to provide additional information, which this SEIR is intended to provide, together with the same kind of notice and public review as provided for a draft EIR under Section 15087 of the CEQA Guidelines. The SEIR will supplement the prior EIR with additional analysis beyond that included in the Alternatives analysis to provide a basis for making the findings required by CEQA.

The 2011 application sought to replace the schedule adopted in 2005 for phased decommissioning (shut down and removal) of existing turbines in anticipation of repowering (replacement with current generation turbines), beginning with 10% removal by September 2009, 35% by 2013, 85% by 2015, and 100% by the end of the CUP term in 2018. The schedule proposed in 2011 and approved in 2013, eliminated the phased decommissioning and provided for operation of the wind farm through October 2015, subject to new and revised conditions. Other changes were also requested by AWI, such as cessation of the winter seasonal shutdown imposed by the County through the administration of the CUPs, but these changes were not approved by the County.

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The CUPs as approved in 2005 required that an EIR be prepared to evaluate ongoing operations, proposed decommissioning and repowering. The EIR certified in 2013 served this purpose in part by evaluating the environmental impacts of ongoing operations and anticipated decommissioning, but did not evaluate any repowering project. The SEIR that is the subject of this Notice will not evaluate a repowering project, but will evaluate the environmental impacts of the requested change to the scheduled expiration of the CUPs under which AWI's turbines are operated. A separate CEQA document (an Addendum or Supplemental EIR) 'tiered' from the Altamont Pass Wind Resource Area Repowering Program EIR that is currently in the form of a Draft Program EIR, will address the repowering proposal by AWI.

The County will serve as the Lead Agency for the SEIR, which will be prepared pursuant to the California Environmental Quality Act (CEQA, 1970, as amended) and in accordance with relevant federal, state and local regulations. The County has determined that a Supplemental EIR is required to evaluate the three-year CUP extension requested by AWI, which is a substantial change to the Project compared to the Project as evaluated in the prior EIR. Although the three-year extension was evaluated in the prior EIR as an Alternative, the adoption and implementation of the extension will result in a substantial increase in the severity of previously identified significant effects and will require important revisions of that EIR, pursuant to Public Resources Code Section 21166 and CEQA Guidelines Section 15162. The County is preparing a Supplemental EIR, rather than a Subsequent EIR, based on its determination, pursuant to CEQA Guidelines Section 15163, that only minor additions and changes are necessary to make the previous EIR adequate to apply to the Project for the changes proposed by the applicant.

Based on the substantial evidence contained in the prior EIR, which included the currently-proposed extension of the CUPs through 2018 as an Alternative, and the evidence represented by the current application, in light of the whole record, the County considers the changes to the Project, from how it was defined for the prior EIR (operations through 2015, with conditions and required mitigation measures) to the current definition of operations through 2018 (with anticipated additional conditions and similar mitigation measures), would increase the severity of previously identified significant effects. For example, full operations (i.e., without phased decommissioning, although with seasonal shutdowns) for an additional three years will increase the total projected number of avian fatalities due to Project operations.

The County does not anticipate that major revisions to the EIR are necessary to identify new environmental impacts that were not disclosed in the prior EIR. Additionally, although there have been some changed circumstances since 2013, the County does not find that there are substantially changed circumstances that would result in new or substantially different significant impacts on the environment. Furthermore, no new information of substantial importance shows that the CUP extension to 2018 would have significant impacts not discussed in the prior EIR. However, to the extent new information has become available since the prior EIR, the County intends to incorporate that information into the SEIR.

The SEIR will be used by the East County Board of Zoning Adjustments in its consideration of approval of the proposed CUP modifications. The County is soliciting the views of agencies, organizations and interested parties as to the scope and content of the environmental resources and topics to be evaluated in the SEIR . In accordance with CEQA, agencies are requested to review the content of this NOP and provide comments on any environmental issues related to the statutory responsibilities of the agency.

CEQA sets the review and comment period for an NOP to end 30 days after publication. The County therefore requests comments on this NOP be received no later than the close of business on Wednesday, October 15, 2014. Provide a name for a contact person in your agency. Send written comments to:

Sandra Rivera, Assistant Planning Director ATTN: AWI Permit Modification Supplemental EIR Alameda County Community Development Agency 224 W. Winton Avenue, Suite 110 Hayward, CA, 94544 Comments can also be sent via e-mail with subject line "AWI Permit Modification Supplemental EIR" to <a href="mailto:sandra.rivera@acgov.org">sandra.rivera@acgov.org</a>. Please include a return address and contact name with your written comments.

# **Project Location**

The proposed project would extend numerous CUPs for 828 existing wind turbines that are widely distributed within an approximately 14,000-acre portion of the 50,000-acre Altamont Pass Wind Resource Area (APWRA) in eastern Alameda County, California (**Figure 1**). The project site is bisected by Interstate 580. The portion of the site lying southerly of I-580 constitutes approximately 7,700 acres, with the remainder lying northerly of I-580. The lands are currently under permit by AWI or its affiliates either solely or as a shared arrangement with other wind farm operators. In preparation for repowering, AWI is in discussions with another wind farm operator in the APWRA regarding a contemplated wind turbine exchange, whereby AWI would exchange some of its wind turbines for an equal number of wind turbines owned and operated by another wind farm operator. Such an exchange would result in AWI operating wind turbines on different parcels of land than those on which it presently operates (**Figure 2**). Under no circumstances, however, will any such exchange increase the capacity or quantity of AWI's operating turbines. **Table 1** below outlines existing CUPs, landowners, Assessor's Parcel Numbers (APNs), and approximate acreage for the lands that may be included either in whole or in part in the project, including lands on which AWI may operate following an exchange scenario as contemplated above. Partial inclusion of some parcels is necessary because AWI does not have control of all turbines on all parcels.

**Table 1. Existing Conditional Use Permits (As of the time of this Notice)** 

CUP No.	Landowner	Assessor's Parcel Numbers	Approximate Acres
C-8036	Costa (was Frick)	99B-5680-15	207.12
C-8037	Pombo	99B-6300-2-1, 99B-6300-2-2, 99B-6425-1-6, 99B-6325-	224.26
		2-4 and 99B-6400-1-7	
C-8134	Rooney	99B-6125-2	160.21
C-8137	Mulqueeney	99B-7900-1-5, 99B-7900-1-7, 99B-7890-2-4, 99B-7890-	4,447.50
		2-5, 99B-7890-2-6, 99B-7925-2-4, 99B-7925-2-1, 99B-	
		7925-2-5, 99B-7950-2, 99B-7975-1, 99B-7980-1, 99B-	
		7985-1-6, 99B-7985-1-4, 99B-7985-1-3, 99B-7985-1-5,	
		99A-1800-2-4, 99A-1800-2-3 and 99B-8050-1	
C-8191	Mulqueeney	99B-7910-1-1	592.84
C-8243	ACWMA	99A-1780-1-4, 99A-1770-2-1, 99A-1770-2-2, 99A-	1,324.83
		1770-2-3, 99A-1810-1 and 99A-1790-3	
C-8216	ACWMA	99A-1810-1 (parcel acreage included in C-8243)	240.81
C-8232	Egan	99B-6125-3	160.47
C-8233	Elliott	99B-6125-4	157.54
C-8235	Corbett	99B-5650-1-4 and 99A-1785-1-14	284.96
C-8236	Dunton	99B-5680-1	330.46
C-8237	DeVincenzi (was	99B-5610-1 and 99B-6075-3	665.98
	Valhalla)		
C-8238	Ralph (north)	99B-7300-1-5 and 99B-7375-1-7	766.57
C-8241	Walker	99B-6100-2-10, 99B-6100-2-11, 99B-6100-2-12, 99B-	1,314.55
		6100-3-10, 99B-6100-3-15, 99B-6100-3-11	
C-8242	Gomes (north)	99B-6150-4-10, 99B-6150-3 and 99B-6150-2-7	635.48
C-8244	Gomes (south)	99B-6425-2-3, 99A-1790-2 and 99A-1795-1	1,049.48
		TOTAL ACREAGE	14,195.64

#### **Notes:**

- 1. The above table includes those parcels and CUPs on which AWI currently has installed wind turbines, as well as those parcels and CUPs on which turbines owned by other wind companies are presently installed and whose wind turbines may be obtained in exchange on a turbine-for-turbine basis with turbines currently owned by AWI.
- 2. Many of the wind farms in the APWRA overlap, with different wind energy facility operating companies on a single parcel of land. Therefore, other wind companies beside AWI currently operate wind farms within the project area described above.
- 3. Two CUPs, C-8231 and C-8239, that previously applied to turbines owned by AWI or its affiliates, are no longer operated by AWI or its affiliates.

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Altamont Winds, Inc., Modifications of Existing Conditional Use Permits – PLN2014-00028
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# Proposed Project

The proposed project consists of operational modifications to AWI's existing CUPs, as amended in July 2013, for continued wind power operation and maintenance activities within the Alameda County portion of the APWRA through October 31, 2018.

The project facilities consist of 828 existing, operating wind turbines on concrete foundations, plus support facilities, occupying approximately 155 acres within a 14,196-acre area. The turbines have a nameplate capacity of 85.8 MW and rest on lattice and tubular towers that range in height from 60 to 82 feet, generally sited in strings along ridgelines. Support facilities include existing gated, graveled access roads, a power collection and transmission interconnection system, meteorological towers ranging from 60 to 100 feet in height, communication systems, maintenance equipment areas, and offsite facilities including AWI's wind farm main service yard (located near Tracy), and the main wind farm control center, shared with other wind farm operators (located in Livermore). The power collection and transmission interconnection system consists of pad-mount transformers, underground cables, overhead conductors on poles, circuit breakers and switches, electrical metering/protection devices, and the existing Dyer, Frick, Ralph, and Midway substations. Electrical power is collected from the turbines and transmitted to the substations, where its voltage is increased for interconnection with Pacific Gas and Electric's (PG&E) transmission lines.

The existing project operations consists of 828 turbines and ancillary facilities, with a maximum combined generation capacity of 85.8 MW, through October 31, 2015. After this point, operations would be extended for three additional years, through October 31, 2018, on the condition that AWI has diligently pursued development of a repowered wind farm on the project site, but where circumstances beyond AWI's control have delayed completion of the repowered project. Mitigation for impacts resulting from operation of the project through October 31, 2018 will be carried out in accordance with the mitigation measures prescribed in the 2013 EIR.

#### **Probable Environmental Effects**

In accordance with CEQA Guidelines Section 15161, the AWI Permit Modification SEIR will examine the environmental impacts of the requested CUP modifications, focusing primarily on the changes in the environment that would result from the proposed extension of the wind farm's operational schedule.

Based on the project description and the County's understanding of the environmental issues associated with the project, the Draft SEIR will evaluate the impacts the proposed CUP modifications may have on biological resources, paying particular attention to impacts to avian species associated with the project's proposed extended operation of wind turbines.

Project Title Modifications to Existing Conditional Use Permits

Project Applicant Altamont Winds Inc.

Date September 15, 2014

Signature Name Sandra Rivera

Title Assistant Planning Director

Telephone/e-mail 510-670-5400 / sandra.rivera@acgov.org

Reference: California Code of Regulations, Title 14 (CEQA Guidelines), Sections 15082(a), 15103, 15375.

FIGURE 1 Project Location Map

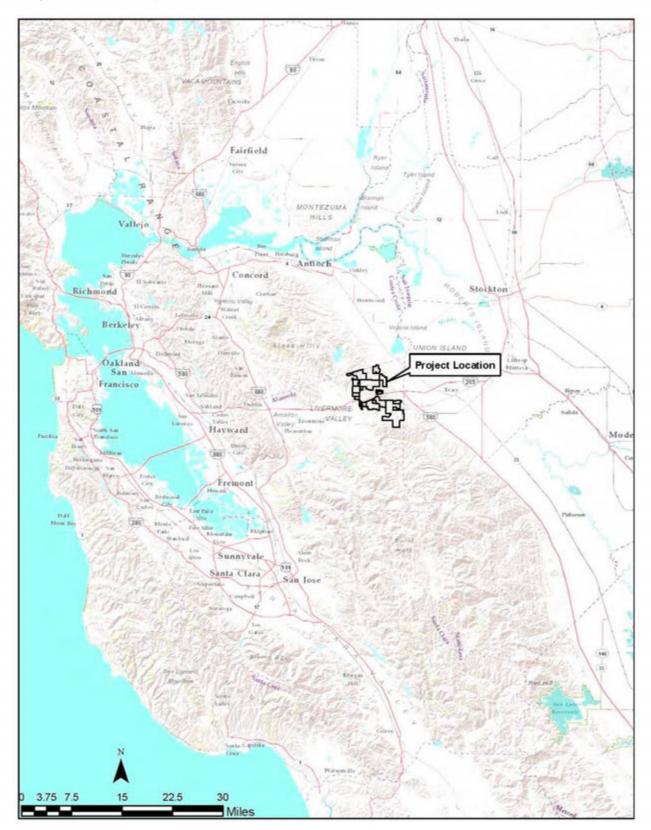
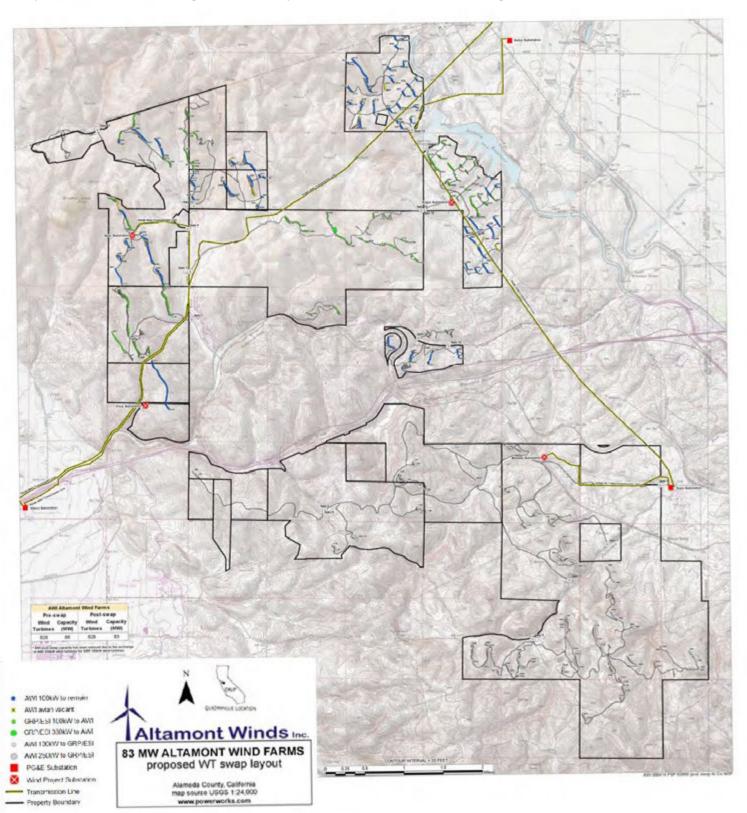


FIGURE 2
Project Site Plan, Including Parcels Subject to Potential Asset Exchange



Notice of Preparation of an EIR for Modifications to Existing CUPs – AWI 2013 – Mailing List

**A-Interested Parties** 

Jean Stice 18089 Wolf Creek Road

Grass Valley, CA 95949

John Howe Ogin, Inc.

Altamont Operation 14740 Altamont Pass Road

John Kopchick Contra Costa County

Tracy, CA 95391

Dept of Conservation & Development

30 Muir Road Martinez, CA 94553

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Barbara Salzman Marin Audubon Chapter PO Box 599 Mill Valley, CA 94942 Jack Barclay 1414 Soquel Avenue, No. 205 Santa Cruz, CA 95062

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Ken Lewis

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Michael Boyd CA for Renewable Energy Inc., 5439 Soquel Drive Soquel, CA 95073

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Jeff Miller CBD 351 California Street, Suite 600 San Francisco, CA 94104 Jackson Land & Cattle LP 6835 N. Vasco Road Livermore, CA 94551

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Lawrence Livermore National Lab
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Environmental Protection Dept
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Livermore, CA 94550

Joe Didonato 2624 Eagle Avenue Alameda, CA 94501

L.G. and V.R. Strieff 1084 Bolinger Canyon Road Moraga, CA 94556

Laurie Jodziewicz AWEA 1501 M Street, NW, Ste 1000 Washington, DC 20005

Mary Ericsson PO Box 2999 Livermore, CA 94551

Michael Leaon CA Energy Commission Integrated Energy & Climate Change Unit Renewal Energy Office 1516 Ninth St, MS 45 Sacramento, CA 95814

Oakland Scavenger Company PO Box 1450 Chicago, IL 60690-1450

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Bernice & Michael Rooney 2593 – 4<sup>th</sup> Street Livermore, CA 94550 Sean Wilson

Sup Haggerty's Office

QIC: 80910

Doug Bell EBRPD

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Diane Ross-Leach

PG&E

Mail Code B24A 77 Beale Street

San Francisco, CA 94105

Brenda Johnson

CA Dept of Fish & Game

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Tracy, CA 95377

**Richard Cimino** 

Ohlone Audubon Society 1281 Ridgewood Road Pleasanton, CA 94566

**Seth Adams** 

Save Mount Diablo 1901 Olympic Blvd, Suite 320 Walnut Creek, CA 94596

Tim Koopman

AC RCD Boardmember

SFPUC

9464 Koopman Road Pleasanton, CA 94566 **Bob Power** 

Santa Clara Valley Audubon Society

McIellan Ranch 22221 McIellan Road Cupertino, CA 95014

**Brian Mathews** 

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CJ & Susan Dunton 5179 Saddle Brook Drive Oakland, CA 94619

Dave Mehl

CA Air Resources Board

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**Don Haines** 

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**Emily Drennen** 

Bay Area Air Quality Mgmt District

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San Francisco, CA 94109

Heath Bartosh

California Native Plant Society

832 Escobar Street Martinez, CA 94553

Rick Koebbe

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Tri-Valley Conservancy 1736 Holmes Street

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Zach Walton

SSL Lawfirm LLP

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Craig Weightman

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Bay Delta Region PO Box 47

Yountville, CA 94599

Diane Dugan

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Dr. Allen Fish

Golden Gate Raptor Observatory

Bldg 201, Fort Mason San Francisco, CA 94123

Glenn Kirby

30520 Hoylake Street Hayward, CA 94544

Tara Mueller

Office of the Attorney General

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Napa, CA 94558

Thom Kato

Lawrence Livermore National Lab

7000 East Avenue Livermore, CA 94550

City of Livermore Planning Dept

City of Tracy, Planning City of Pleasanton, Planning

San Joaquin County Planning

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Doris House	PG&E Company	Darrel & Karen Sweet
PO Box 1212	PO Box 770000	12233 N. Flynn Road
Livermore, CA 94551	San Francisco, CA 94177	Livermore, CA 94550
Richard & Pamela Corbett Trs	City of Santa Clara	Jymiece & Scullion Donald Silva
PO Box 2299	1500 Warburton Avenue	1681 – 5 <sup>th</sup> Street
Livermore, CA 94551	Santa Clara, CA 95050	Livermore, CA 94550
Ralph & Onita Pombo Trs	W.P. Company 843-1-25A-4	Louis & Renee Santucci Trs
32919 S. Tracy Blvd	1416 Dodge Street	5621 Schooner Loop
Tracy, CA 95377	Omaha NE 68179	Discovery Bay, CA 94505
Bill & Elree Langford	Wildlands Inc.,	Grass Lands Property LLC
17950 Midway Road	3855 Atherton Road	1268 Hartman Road
Tracy, CA 95377	Rocklin, CA 95765	Livermore, CA 94551
Waste Management of Alameda County Inc., PO Box 1450 Chicago, IL 60690	Jackson Land & Cattle LLC and Jackson A M TR SU Etal 6835 N. Vasco Road Livermore, CA 94551	Ralph Properties II 2443 Fair Oaks Blvd, #311 Sacramento, CA 95825
Midway Power LLC	Trustees of Brethren Church of Altamont	Robert Vieux TR
PO Boc 770000	10501 Altamont Pass Road	10501 Altamont Pass Road
San Francisco, CA 94177	Livermore, CA 94551	Livermore, CA 94551
Dunton & Susan TRS	Matin Moghadam & Jeanne M	Contreras Rigoberto & Nelly Trs
5179 Saddle Brook Dr	10 Wanflete Ct	9290 S. Flynn Road
Oakland, CA 94619	Orinda, CA 94563	Livermore, CA 94550
Bjarne Hansen L Trust 9782 S. Flynn Road	Mulqueeney Ranch Properties PO Box 2053	Tzenwen & Lin Bihwan Guo 30030 Mission Blvd, #216

Union Pacific Railroad Co 1700 Farnam Street, 10<sup>th</sup> Floor Omaha, NE 68102

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Virginia & Conover Miner Woodrow 2<sup>nd</sup> 4008 Dyer Road Livermore, CA 94551

Livermore, CA 94551

Humphrey Cornelius & Kathleen Rooney Trs Etal 1276 Blossom Circle Livermore, CA 94550

Hayward, CA 94544

Alice Elliott & Joanne Elliott TR Etal Alameda County Flood Control Abbas & Sophia Humayun Etal **Public Works Agency** 3113 Jolie Pre Circle 86 Cardinal Way Santa Rosa, CA 95409 300 Elmhurst Street Modesto, CA 95356 Hayward Paul & Sheila Fagliano Joseph Sr & Connie L Jess Trs Annette & Roy Warner 4435 – 1<sup>st</sup> Street, #341 10620 Flynn Road S 15850 Jess Ranch Rd A Livermore, CA 94551 Livermore, CA 94550 Tracy, CA 95377 Pacific Satellite Connection Inc., Doris House & Beverly Brooks Marina Martinez 1629 S Street PO Box 1212 4950 Kenlar Drive Sacramento, CA 95811 Livermore, CA 94551 San Jose, CA 95124 Samuel & Jacqueline Stewart Trs Samuel & Jacqueline Stewart Trs **Unocal CA Pipeline Company** & Casey Robert PO Box 19 PO Box 1539 PO Box 19 Clayton, CA 94517 Paso Robles, CA 93447 Clayton, CA 94517 Duane Rooney TR State of California **Dolores Kuhn Etal** 2941 NE 9<sup>th</sup> Ter 1416 - 9<sup>th</sup> Street, #425 2681A Mountain House Rd Pompano Beach, FL 33064 Sacramento, CA 95814 Tracy, CA 95391 Vieira Ranch Investments Karan John & Uzra H Wang NMH Inc., 3075 Ashbourne Cir 550 N. Canyon Pkwy 1131 W. Bowman Road San Ramon, CA 94583 Livermore, CA 94551 French Camp, CA 95231 Paula Flessatti & Schenone L M Nancy & Dominic Devincenzi & BA Etal Livermore Area Recreation & Park District 4444 East Avenue 2903 Chateau Way 2730 Camino Diablo Livermore, CA 94550 Livermore, CA 94550 Walnut Creek, CA 94597 Vivian McCarthy TR Robert Cooper & French Charlotte TRS **Henry Baily** PO Box 1113 4000 Dyer Road 3988 Dyer Road Twain Harte, CA 95383 Livermore, CA 94551 Livermore, CA 94551 William & Christine Munson Trs Kim & Steve Schuster Darryl Mueller 3290 Dyer Rd 3316 Dyer Rd 3300 Dyer Rd Livermore, CA 94551 Livermore, CA 94551 Livermore, CA 94551 Brendan & Jill Alchorn Trs Alan & Lauralee Ragsdale **HSBC Bank USA Tr** 4006 Dyer Road 3932 Dyer Road 3232 Newmark Drive

Livermore, CA 94551

Miamisburg, OH 45342

Livermore, CA 94551

Jason & Heidi Preece Trs 10366 Flynn Road S Livermore, CA 94550

Michael Lynes, Executive Director Golden Gate Audubon Society 2530 San Pablo Ave Berkeley, CA 94702

City of Livermore Planning Dept 1052 South Livermore Avenue Livermore, CA 94550

San Joaquin County Planning Community Development Department 1810 E. Hazelton Ave. Stockton, CA 95205 John & Donna Soares 4004 Dyer Road Livermore, CA 94551

Andrew Roth Altamont Winds, Inc., 15850P Jess Ranch Road Tracy, CA 95377

City of Tracy, Planning Development & Engineering Services 333 Civic Center Plaza Tracy, CA 95376 Strieff L G & V R Trs & McCabe & MP Trs PO Box B Villa Grande, CA 95486

Peter Pawlowski Flo Design Wind Turbine 14740 Altamont Pass Road Tracy, CA 95391

City of Pleasanton, Planning 200 Old Bernal Avenue Pleasanton, CA 94566





October 15, 2014

Via Email & US Mail
Ms. Sandra Rivera
Assistant Planning Director
Alameda county Community Development Agency
224 West Winton Ave., Room
Hayward, California 94544

RE: Notice of Preparation of a Supplemental Environmental Impact Report for Modifications to Existing Conditional Use Permits – Altamont Winds Inc. (AWI) (PLN2014-00028)

#### Dear Ms. Rivera:

Audubon California and the Golden Gate Audubon Society (collectively, "Audubon") write to express its strong opposition to Altamont Winds Inc.'s (AWI) application to Alameda County to extend operations of currently-operating turbines in the Altamont Pass Wind Resource Area (APWRA) for three additional years, from 2015 to 2018. If granted, this change will result in the unnecessary deaths of more birds in the APWRA, slow repowering efforts, and grant AWI an unfair competitive advantage over other companies that are actively repowering their assets.

While wind is an important part of California's renewable energy portfolio, recent activities in the AWPRA and elsewhere have demonstrated that California can have wind power that is both productive and sensitive to wildlife concerns. In the APWRA, all stakeholders have agreed that repowering old turbines, which kill more birds and operate inefficiently, and replacing them with well-sited new turbines is the key to success. If granted, these permit modifications would take us in the opposite direction: more old turbines killing more birds while repowering is deprioritized.

We note that the starting place for the Supplemental Environmental Impact Report's (SEIR) analysis will be the finding in the 2013 EIR that Alternative 3, extending 100% of AWI's operations out until 2018, would

better serve the project objectives of renewable energy, but <u>would also very</u> <u>substantially increase the avian mortality impacts</u> compared to the project and all other alternatives. For the purpose of meeting the project objectives and minimizing significant impacts on special status avian wildlife, <u>Alternative 3 is considered infeasible</u>.

Given the extensive investment the County made in the 2013 EIR and the Programmatic EIR due to be released this year, and the fact that this extension was already found to be "infeasible", Audubon cannot understand how entertaining AWI's second request to amend its CUPs in two years is a good use of County resources. In any event, the request should be rejected and the SEIR should include a rigorous review of all reasonably foreseeable impacts and necessary mitigation measures.

# I. Background

In 2005, AWI abandoned settlement discussions with the Bay Area Audubon Chapters and Californians for Renewable Energy and instead sought Conditional Use Permit (CUP) terms that mimicked some terms of the settlement, but provided AWI with more flexibility and less accountability. (*See* East BZA Staff Report, July 2013, at 3) AWI's 2005 CUPs included a phased decommissioning of its assets through 2018, including a shutdown of 25% of its fleet in September 2013 and an 85% shutdown in 2015. Notably, AWI understood and agreed to abide by these terms in 2005.

As the September 2013 deadline approached, AWI sought relief from its commitment in the 2005 CUPs, specifically to forego winter shutdowns and the phased decommissioning of its turbines. The County rejected AWI's effort to avoid winter shutdowns, but granted the request to do away with phased decommissioning with the provision that AWI would completely shut down its turbines in 2015. The County acknowledged that the change may result in greater avian mortality, but that the additional losses would be offset because the action would facilitate repowering in the APWRA.

At the time, AWI emphatically stated that the schedule made sense because it allowed for a more consolidated operation through 2015 and would put AWI on the same footing as other turbine operators who had agreed to shut down in 2015 and were working on repowering projects. AWI said—as it has many times over the past eight years—that it was diligently working on a repowering plan, but that it would not be financially possible without the schedule shift.

Audubon and the Attorney General's Office expressed skepticism regarding AWI's repowering plans. AWI has often expressed interest in repowering, but it has consistently failed to demonstrate substantial progress. Notably, AWI's purported repowering project is absent from the County's programmatic environmental impact report (PEIR) for repowered projects in the AWPRA, which should be finalized before the end of the year. Audubon and the Attorney General's Office also expressed concern that if the CUP modifications were granted, AWI would likely come back and seek a further extension from 2015 to 2018, further undermining repowering efforts and granting AWI an unfair competitive advantage over other companies in the APWRA that were diligently working on repowering projects.

# II. AWI's Request Should Be Rejected because it Undermines Efforts to Reduce Avian Mortality and to Repower the APWRA.

AWI's request should be rejected outright for because it unnecessarily extends the illegal killing of fully protected species with old-generation turbines, hinders repowering efforts, and would constitute bad policy for the County to grant AWI an unfair competitive advantage by continually revising the CUPs in AWI's favor. Further accommodating AWI by extending the use of its outdated turbines through 2018, contravenes the County's policy and creates a further, unreasonable burden on birds that suffer impacts due to APWRA operations.

# A. AWI's Old-generation Turbines Will Illegally Kill More Birds without Improving Renewable Energy Resources in the APWRA.

The County has already repeatedly acknowledged that older turbines kill more birds and that decommissioning and repowering old generation turbine sites is the best way to reduce avian

mortality in the APWRA. Moreover, new generation turbines can generate more power with greater efficiency and over a longer period. Now, AWI proposes to extend use of those old generation turbines by another three years.<sup>1</sup>

Audubon feels compelled to remind the County that *every* death of a bird protected by the Migratory Bird Treaty Act (MBTA), the Bald & Golden Eagle Protection Act (BGPA), or California's fully-protected species provisions of the Fish & Game Code constitutes an illegal act. Moreover, turbine-related mortality is clearly having a significant negative impact on some species, including the local population of Golden Eagles (who are protected by each of the laws identified above). Granting another permit extension to benefit AWI while allowing it to kill more eagles and other birds, but would do nothing to substantially increase energy production in the APWRA.

The County acknowledged that the 2013 permit adjustment which did away with AWI's phased decommissioning was likely to kill more protected species than if the original schedule were maintained, but rationalized that the impact would be offset by the gain in repowering efforts. (*See* East BZA Staff Report, at 14) However, because AWI's new proposal actually hinders repowering in the APWRA, no such rationale applies here.

# B. AWI'S Request Undermines Repowering Efforts in the APWRA.

AWI's request represents an obstacle to the County's clearly-stated goal of repowering older assets in favor of installing fewer, new generation turbines that can be sited carefully and operate more efficiently. First, by extending operations from 2015 to 2018, AWI will not be incentivized to repower and will continue to operate on properties that would be better used for repowering. Second, granting AWI's request would disincentivize other companies from repowering their assets.

Common sense dictates that if AWI's request were granted—thereby allowing it to continue 100% operations through 2018—it would lack financial or regulatory incentives to engage in its own repowering effort. Given AWI's lack of progress in repowering over the past several years, there can be no confidence it will make such efforts any time before 2018. Meanwhile, it will continue to profit from its old generation turbines while unnecessarily and illegally killing protected birds.

The extension would also have broader negative effects for APWRA repowering efforts. Because AWI's current operations would continue, it would be unable or unwilling to engage in the kind of negotiations and land swaps needed to further repowering efforts in the APWRA.

Notably, if granted, the request would invalidate the County's key rationale for granting the 2013 CUP modifications. In its report to the East BZA, Planning Staff found that the primary reason to grant the requested modifications was to promote repowering. (*See* East BZA Staff Report, July 2013, at 13-14) According to the Staff Report:

<sup>&</sup>lt;sup>1</sup> In our testimony regarding the 2013 permit modifications, Audubon raised the question of what the East BZA would do when AWI came back seeking to push its shutdown date out from 2015 to 2018. Based on AWI's behavior to date, if this request is granted, it is almost certain to return to the East BZA again and ask for an extension beyond 2018 for its old generation turbines. Moreover, given that PowerWorks is actively recycling old generation turbines for reuse, it will be incentivized and equipped to keep old turbines operating in the APWRA for as long as possible.

While the County certain considers every bird fatality to be significant and preferably avoided, it is also the case that prolonging the operation of AWI's turbines, even just 15 percent (138) of their original power plant for an additional 21/2 years would be disadvantageous to repowering that is expected to occur on the same properties and would in fact complicate monitoring efforts in those later years. Repowering itself would be achieved more quickly and efficiently on the whole were there to be comprehensive removals of the old generations turbines completed in 2016.

(*Id.* at 14, emphasis added) Here, AWI is not asking to keep merely 15% of its operations going but, rather 100%, making repowering and monitoring much more difficult.

AWI's current request and failure to repower also creates additional uncertainties for the analysis and implementation of management measures contained in the County's programmatic environmental impact report (PEIR) for the APWRA. The PEIR did not consider this new permit modification in its analysis, nor did it consider that AWI's continued operations would complicate repowering efforts. Moreover, it would invalidate the PEIR's analysis to the extent it anticipated that AWI may repower or at least would cease operation of old turbines by 2013. Finally, the controversy that would likely ensue if this additional permit modification were granted may result in enforcement actions or litigation that would complicate implementation of projects or mitigation measures covered by the PEIR.

# C. The Granting of the Request Would Constitute Bad Policy on the Part of the County.

AWI has repeatedly sought to rewrite its permits when the terms prove inconvenient. In 2006, when it fled settlement discussions with the Audubon chapters, AWI readily agreed to the County's modified CUPs that heavily favored AWI. Yet, as the 2013 deadline approached, AWI sought changes to benefit itself, again at the cost of illegally killing protected birds. Now that 2015 is upon us, it again seeks modifications to permits that the County accommodated AWI by changing hardly a year ago. The only conclusion one can draw is that AWI does not want to abide by the permit commitments it makes.

More generally, it is bad policy for a regulator to continually rewrite permits to accommodate a permittee. It results in an overall loosening of the permit's terms, often to the detriment of natural resources that ought to be protected through the permit, and undermines the regulator's authority. It also invites similar behavior from other permitees and calls into question the validity of the entire process.

Here, Audubon has to ask why would other wind companies readily abide by their permits when they see the County so readily—and regularly—revising AWI's permits to further accommodate the company? If the County grants AWI's request but fails to award similar favors to other companies, it could rightly be accused of favoritism that is bestowing an unfair competitive advantage on AWI at a cost to its competitors.

The County and other stakeholders have invested considerable time and money in trying to collaborate with AWI and contribute to a holistic management effort for the APWRA. AWI has rejected that effort and instead aggressively pursued its own self-interest without regard for finding

collaborative solutions. The County has perfectly reasonable CUPs in place for AWI right now and should not waste further resources modifying them.

### III. Conclusion

For the reasons discussed above, and those provided in letters provided by the California Attorney General's Office and the East Bay Regional Park District, AWI's request to further modify its permits should be rejected outright. The County should further its policy of repowering the APWRA rather than creating reasons for companies to continue operating old generation turbines.

Moreover, if this process proceeds, the County must provide a better analysis of whether a Subsequent EIR or Supplemental EIR is appropriate; Audubon is not convinced that the Notice adequately supports the County's determination that a Supplemental EIR is adequate given the additional impacts that will arise from this project and the availability of new mitigation measures (including permits pursuant to the BGEPA).

In any event, any EIR should include rigorous analysis of additional mortality caused by the extension and ensure that the County is not adopting a piecemeal approach to CEQA compliance (i.e., the baseline cannot be merely impacts for the extension alone, but should include those arising from the 2013 permit modification as well). Analysis must consider impacts to birds and on repowering efforts. Moreover, it must include a fully updated analysis of available mitigation measures, their efficacy, and their appropriateness for use in the APWRA.

Thank you for your consideration of our comments. If you would like to discuss these matters further, please do not hesitate to contact me at mlynes@audubon.org or at (916) 737-5707 x. 102.

Respectfully submitted,

Michael Lynes

Michael Lynes Director of Public Policy

Audubon California

Cindy Margulis Executive Director

Golden Gate Audubon Society

Cc: Tara Mueller, California Attorney General's Office
Eric Davis, Assistant Regional Director, US Fish & Wildlife Service
Jill Birchill, Special Agent in Charge, US Fish & Wildlife Service
Kevin Hunting, Chief Deputy Director, California Department of Fish & Wildlife
Dr. Douglas Bell, East Bay Regional Park District

# Young, Andrew, CDA

From: Rivera, Sandra, CDA

**Sent:** Monday, October 06, 2014 12:01 PM

To: Young, Andrew, CDA

**Subject:** FW: Input for AWI Permit Modification

Attachments: Windmill\_Input\_0914d.doc

#### Comments for the NOP

From: Robert Cooper [mailto:bobcooperhorse@gmail.com]

Sent: Sunday, October 05, 2014 7:33 PM

To: Rivera, Sandra, CDA

Subject: Input for AWI Permit Modification

Hi Sandra-

Attached is a Word document that I am submitting to the "Notice of Preparation (NOP) - Supplemental Environmental Impact Report for Altamont Winds, Inc. (AWI) Permit Modification."

Also, please give a copy to the appropriate county people to check if AWI is in violation of pollution laws. The picture in the document gives an idea of the amount of oil that is being sprayed by many windmills onto the ground near my house. Rain will wash oil under the windmills onto my property.

Please notify me that you have received this email. Thanks.

-Bob Cooper

To: Sandra Rivera, Planning Department, Hayward, CA

From: Bob Cooper, resident of Dyer Rd. (<a href="mailto:bobcooperhorse@gmail.com">bobcooperhorse@gmail.com</a>)

Subject: Windmills on Dyer Rd.

Date: October 5, 2014

I'm writing this to call attention to the decrepit condition of the windmills on the ridge west of Dyer Rd. From my property (4000 Dyer Rd.), I can clearly see about 20 windmills. In the past year and a half, most of them have started to leak large amounts of oil from their central hubs. Below is a recent picture that shows obvious streaks of oil running from the central hub, along the blade, and then into the air. Both sides of the blade are similarly streaked. These windmills are owned and maintained by Altamont Winds Inc. (AWI)

Obviously, these windmills are polluting the environment. Their operation should cease immediately and not be put back into service until repaired. Fines seem appropriate.

Leaking oil is only a recent symptom of the age of these windmills. A safety issue is the condition of the large electric cables. They were initially installed in the late 1980's and have endured the harsh Altamont sun for over 27 years. Their insulation has developed substantial cracks. The cables' condition has also been hurt because they are severely twisted by the operation of the windmills. These cables carry 480 volts of electricity.

Additionally, windmill towers have failed; one transformers is leaking; most transformers are rusting; and blades brake.

AWI has requested that Alameda County modify AWI's Conditional Use Permit (CUP) to allow AWI to run 800 windmills an additional three years beyond the current end of operation in 2015. Considering the age of these windmills, their current decrepit condition, and evidence of insufficient/neglectful maintenance, County of Alameda should deny AWI's request for their CUP's extension.





East Bay &

October 13, 2014

Sandra Rivera
Assistant Planning Director
Alameda County Community Development Agency
224 W. Winton, Room 111
Hayward, CA 94544

Sent Via E-Mail to: Sandra.Rivera@acgov.org October 15, 2014

DaB

RE: NOP of a Supplemental Environmental Impact Report for Modification to Existing Conditional Use Permits – Altamont Winds, Inc. (AWI) (PLN2014-00028)

Dear Assistant Planning Director Rivera:

The East Bay Regional Park District ("District") is responding to the County of Alameda's Notice of Preparation (NOP) of a Supplemental Environmental Impact Report (SEIR) for proposed modifications to 16 existing Conditional Use Permits (CUPs), for turbines owned and operated by Altamont Winds, Inc. (AWI) in the Alameda County portion of the Altamont Pass Wind Resource Area (APWRA). AWI (collectively with its operating subsidiary, Wind Works, Inc.) has submitted an application to the County of Alameda to extend its CUPs from their expiration date on October 31, 2015 to October 31, 2018. In 2013, the County amended AWI's previous CUPs, which would have required a phased removal of wind turbines through 2018, to instead allow operation of all of its wind turbines through 2015. AWI now wishes to amend its CUPs again to allow it to continue operating all of its 828 existing, old generation wind turbines of 85.8 MW rated capacity, for three additional years, from 2015 to 2018.

The District owns or manages over 115,000 acres of open space in Alameda and Contra Costa Counties. This includes more than 5,000 acres of open space lands in and around the two-county APWRA. The District remains very concerned about impacts of the existing APWRA infrastructure on birds and bats in the region, as well as other natural and cultural resource values. The existing infrastructure of the APWRA continues to have significant impacts on wildlife, especially birds and bats (Smallwood 2013, Smallwood et al. 2010, Smallwood and Thelander 2008). The District is therefore opposed to AWI's application to extend the operation of its 828 existing, old generation wind turbines for three additional years, from 2015 to 2018.

The purpose of the above SEIR, as stated in the County's NOP, is to supplement the existing Environmental Impact Report (EIR): "Final EIR Modifications to Existing (Year 2005) Conditional Use Permits – Altamont Winds Inc. (AWI)" that was certified in July 2013 (ICF International 2013a) and the

Board of Directors

"Draft EIR Modifications to Existing (Year 2005) Conditional Use Permits – Altamont Winds Inc. (AWI), March 2013" (ICF International 2013b), collectively termed hereafter "2013 EIR". Specifically, AWI wishes to modify its CUPs to conform to Project Alternative 3 – Continued Seasonal Shutdown, No Phased Decommissioning, Permanent Shutdown in 2018 (p. ES-3, ICF International 2013b). In the 2013 EIR, the County made the finding that Project Alternative 3 "...would also very substantially increase the avian mortality impacts compared to the project and all other alternatives. For the purpose of meeting the project objectives and minimizing significant impacts on special status avian wildlife, Alternative 3 is considered infeasible". It is the opinion of the District that additional information brought forth by the SEIR will not change this finding.

According to the 2013 EIR, Project Alternative 3, which reflects AWI's proposed modification to its CUPs in the current NOP, would result in fatalities of approximately 138-154 American kestrels, 132-224 burrowing owls, 140 red-tailed hawks, 19-26 golden eagles, and 2820-3078 birds overall, per year for three additional years (see Table 4-2, p. 4-9; ICF International 2013b). These are significant fatalities which could be avoided with the shutdown of AWI's 858 wind turbines beginning October 31, 2015, as per its existing CUPs. Note that these numbers are relative to cessation of AWI's wind turbine operations in 2015, and not relative to the existing fatality rates estimated from current operation of AWI's 858 wind turbines. Relative to the current operations, we would still see an estimated additional loss of 11-15 golden eagles and 1,653 – 1,804 birds overall, per year.

These high fatality rates are problematic, especially for long-lived and slow reproducing species such as the golden eagle. The current infrastructure of the APWRA represents a population sink for the local breeding population of golden eagles (Bell and Smallwood 2010), as defined by Hunt (2002) and Hunt and Hunt (2006). The District is collaborating with researchers on monitoring and refining estimates of golden eagle territory occupancy and productivity in the region (USGS 2013), but it is clear that any additional, avoidable mortality of golden eagles in the APWRA at this point is unacceptable given the uncertainty surrounding its local population status.

The NOP states that "Mitigation for impacts resulting from operation of the project through October 31, 2018 will be carried out in accordance with the mitigation measures prescribed in the 2013 EIR". Mitigation Measure BIO-17 in the existing 2013 EIR calls for retrofitting 29 power poles to compensate for one project-related golden eagle death per year. The District views this mitigation measure as wholly in adequate based on the fact that the project will result in many more eagle deaths per year than one eagle and retrofitting of power poles to prevent electrocution of golden eagles should not be the sole form of mitigation to compensate for golden eagle take.

The U.S Fish and Wildlife Service (Service) has begun issuing eagle take permits for wind projects (see <a href="https://www.federalregister.gov/articles/2013/12/09/2013-29088/eagle-permits-changes-in-the-regulations-governing-eagle-permitting and https://www.federalregister.gov/articles/2014/06/27/2014-14953/golden-eagles-programmatic-take-permit-decision-finding-of-no-significant-impact-of-final). The Service now recommends that all projects which could result in take of bald or golden eagles should apply for an eagle take permit to insure adequate mitigation and to protect project owners form violations of the Bald and Golden Eagle Protection Act. In conjunction with these rulings, the Service is developing additional mitigation measures for eagle take (<a href="http://eaglescoping.org/compensatory-mitigation">http://eaglescoping.org/compensatory-mitigation</a>). The District supports these efforts and views mitigation that contributes to regional conservation of eagle habitat or programs that lessen other eagle mortality factors (e.g. curtailment of

rodenticide use or reduce use of lead ammunition) as vital tools for effective mitigation. For example, conservation of eagle habitat could encompass a range of actions such as purchase of mitigation credits for golden eagles via conservation banks, easements that pay landowners to curtail ground squirrel control programs, or mitigation credit for retirement of wind rights on wind farms that are particularly deadly to eagles.

The District is also concerned about the uncertainty surrounding the location of the project outlined in the NOP. The proposed project would extend CUPs for 828 existing wind turbines distributed across approximately 14,000 acres of the 50,000 acre APWRA. According to the NOP, AWI is in discussions with other wind farm operators to exchange some of its wind turbines for an equal number of wind turbines on other parcels (i.e. asset exchange), which would result in AWI operating wind turbines on parcels of land other than where it currently operates (Figure 2 in the NOP). This is problematic because it is difficult to assess project footprint and impacts if the exact number, placement and configuration of the wind turbines to be covered by the CUP extensions are unknown. For example, avian use and fatalities in the APWRA are not evenly distributed (Smallwood et al. 2009b). In the case of golden eagles, there appear to be clusters of high use in the APRWA (see Figure 1, next page). If AWI's asset exchange results in AWI operating wind turbines for an additional 3 years in a high eagle use area that would otherwise be shut down by existing repowering agreements, then higher golden eagle take may result than was estimated by the existing 2013 EIR and consequently any proposed mitigation measures would be rendered inadequate.

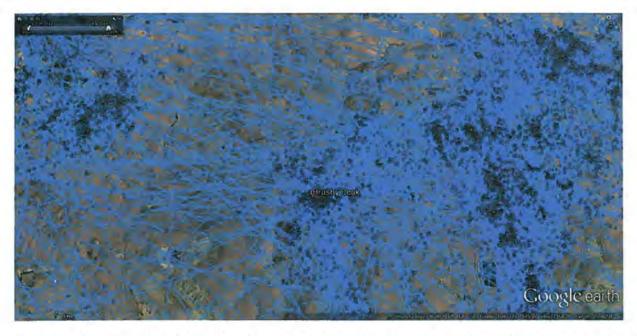


Figure I. Map of northern APWRA and Brushy Peak (center of map) superimposed with golden eagle GPS satellite tracking locations (circles) and tracks (light blue lines representing the shortest distance between two successive locations; EBRPD, unpublished data). Based on tracking of up to 12 golden eagles between December 2012 and March 2014. Note: clusters of circles indicate areas of high eagle use. Scale bar lower left = approx. 6000'.

Numerous public and private entities are engaged in research to lessen impacts to golden eagles and other species in the APWRA, especially through repowering (See Smallwood and Neher 2009, Smallwood et al. 2009a, 2009b). Management actions directed at existing infrastructure, such as removal of high-risk turbines have had some success at reducing avian fatality rates (see ICF International 2014, but see Smallwood 2013). However, careful repowering may be the only way to significantly reduce take of birds, especially golden eagles (Bell and Smallwood 2010). The District supports renewable energy and the repowering of the APWRA in a careful and controlled manner as the best way to lessen the existing impacts of renewable energy production. The proposed amendment to the CUPs would postpone the repowering of a significant portion of the APWRA. Rather than extending the existing CUPs for AWI to continue operating its current infrastructure with significant and unavoidable impacts to birds and bats, the CUPs should be allowed to expire in 2015 and efforts should be directed towards repowering.

Thank you for this opportunity to comment on the NOP of a Supplemental EIR for Modifications to Existing Conditional Use Permits – Altamont Winds Inc.

Sincerely yours,

Douglas A. Bell, Ph.D.

Wildlife Program Manager

Dough a Bell

## References

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## State of California – The Natural Resources Agency DEPARTMENT OF FISH AND WILDLIFE Bay Delta Region 7329 Silverado Trail Napa, CA 94558 (707) 944-5500



October 16, 2014

www.wildlife.ca.gov

Ms. Sandra Rivera
Alameda County Community Development Agency
244 West Winton Avenue, Room 111
Hayward, CA 94544
sandra.rivera@acgov.org

Dear Ms. Rivera:

Subject: Modifications to Existing Conditional Use Permits-Altamount Winds, Inc. Project, Notice

of Preparation of a Supplemental Environmental Impact Report, SCH #2014092057,

Alameda County

The California Department of Fish and Wildlife (CDFW) has reviewed the Notice of Preparation (NOP) of a Supplemental Environmental Impact Report (SEIR) for the proposed Modifications to Existing Conditional Use Permits- Altamount Winds, Inc. Project (Project). CDFW is submitting comments on the SEIR as a means to inform Alameda County (County), as the Lead Agency, of our concerns regarding potentially significant impacts to sensitive resources associated with the proposed Project.

CDFW is a trustee agency pursuant to the California Environmental Quality Act (CEQA) § 15386. Pursuant to Fish and Game Code § 1802, CDFW has jurisdiction over the conservation, protection and management of the fish, wildlife, native plants and the habitat necessary for biologically sustainable populations of such species.

CDFW has regulatory authority over projects that could result in take of any species listed, or is a candidate for listing by the state as threatened or endangered, pursuant to the California Endangered Species Act (CESA). If the proposed Project could result in take of any state listed species, the Project developer should apply for an Incidental Take Permit (ITP), pursuant to Fish and Game Code § 2080 et seq., for the Project.

CDFW has jurisdiction over actions that may result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code §§ protecting birds, their eggs and nests include 3503 (regarding unlawful take, possession or needless destruction of the nests or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird). Fully Protected Species may not be taken or possessed at any time (Fish and Game Code § 3511).

## Project Location, Description and CEQA Background

The proposed Project is located within the Altamont Pass Wind Resource Area (APWRA) in Alameda County. The Project consists of modifications to 16 existing Conditional Use Permits (CUPs) for wind turbines owned and operated by Altamount Winds, Inc. (AWI). AWI has submitted an application requesting that these CUPs, set to expire on October 31, 2015, under

Ms. Sandra Rivera October 16, 2014 Page 2

modifications approved by the County in 2013, be extended through October 31, 2018 under current conditions for operation of its estimated 828 turbines. The turbines have a rated capacity totaling approximately 85.8 MW. The turbines and support facilities occupy approximately 155 acres and are located within an area approximately 14,000 acres in size.

The SEIR is intended to supplement the EIR (SCH#2012062060) which was certified in July 2013. The EIR evaluated the application made by AWI in 2011 to modify the CUPs which were approved in 2005. CDFW provided a comment letter, dated April 19, 2013, to the County on the 2012 draft EIR. The NOP states that, although the proposed CUP extension was evaluated in the prior EIR as an alternative (Alternative 3), it was only at a limited level of analysis [CEQA Guidelines § 15126.6(d)].

In the 2013 EIR, the County determined that "Alternative 3 would better serve the Project objectives of renewable energy, but would also very substantially increase the avian mortality impacts compared to the project and all other alternatives. For the purpose of meeting the Project objectives and minimizing significant impacts on the special-status species avian wildlife, Alternative 3 is considered infeasible."

The 2013 EIR also included modification of the schedule, previously adopted in 2005, for phased decommissioning of existing turbines prior to repowering. The decommissioning schedule, which included 10% removal by September 2009, 35% by 2013, 85% by 2015 and 100% by 2018, was changed to eliminate the phasing and provided for turbine operation through October 2015. AWI has removed approximately 10% of the original 920 turbines.

The NOP states that the SEIR will not evaluate repowering of the AWI wind farm, and that a separate CEQA document (an Addendum or Supplemental EIR) will be tiered from the Altamount Pass Wind Resource Area Repowering Program EIR (SCH#2010082063; not yet certified).

## **Biological Resources**

The Project area supports special-status species such as the federally and state threatened California tiger salamander (*Ambystoma californiense*); federally endangered and state threatened San Joaquin kit fox (*Vulpes macrotis mutica*); federally and state threatened Alameda whipsnake (Masticophis lateralis euryxanthus) also known as Alameda striped racer (*Coluber lateralis euryxanthus*; and state species of special concern, Pacific pond turtle (*Actinemys marmorata*), western burrowing owl (*Athene cunicularia*) and American badger (*Taxidea taxus*). The Project is within federally designated critical habitat for the Alameda whipsnake and California red-legged frog (*Rana draytonii*; state species of special concern). State threatened Swainson's hawk (*Buteo swainsoni*), and state fully-protected golden eagle (*Aquila chrysaetos*), and white-tailed kite (*Elanus leucurus*) which may also occur within the Project area. Townsend's big-eared bat (*Corynorhinus townsendii townsendii*), which is currently a candidate species for listing under CESA and afforded the same protection as a listed species, may also occur within the Project area.

Please be advised that a CESA ITP is warranted if the Project has the potential to result in take of species of plants or animals listed under CESA. As indicated above, the Project area includes locations known to be inhabited by species listed under CESA. Some

Ms. Sandra Rivera October 16, 2014 Page 3

decommissioning of turbines and ancillary facilities has already occurred and decommissioning of remaining infrastructure is expected to occur after the proposed expiration of the CUPs in 2018. CDFW believes that wind farm decommissioning activities, especially decommissioning involving ground disturbance, such as equipment staging, vegetation removal, concrete pad removal, trenching and grading, in addition to operation and maintenance activities, is likely to result in take of state-listed species.

In our April 2013 letter, we recommended that the Project proponent obtain an ITP for California tiger salamander and Alameda whipsnake. Continued operation and maintenance of AWI's wind turbines could also result in take of Swainson's hawk and Townsend's big-eared bat. A Swainson's hawk fatality was detected within the APWRA during the 2005-06 survey season and individuals of this species have been killed elsewhere in California from collisions with turbines. Take of a state listed species is in violation of CESA without a valid ITP. We therefore recommend that the County, as the Lead Agency, require that the Project proponent apply for take authorization under an ITP as a condition of approval.

Issuance of a CESA permit is subject to CEQA, therefore, the EIR supporting the issuance of a CESA ITP would need to specify impacts, mitigation measures, and a mitigation monitoring and reporting program. More information about the CESA permitting process can be found on the CDFW website at <a href="https://www.wildlife.ca.gov/Conservation/CESA">https://www.wildlife.ca.gov/Conservation/CESA</a>. CDFW recommends early consultation during the ITP application process, and CDFW Bay Delta Region staff is available to provide guidance during the process.

## Avian and Bat Impacts

The cessation of the winter seasonal shutdowns was requested by the Project proponent in 2011, and included in the 2012 draft EIR. Winter seasonal shutdowns of 3.5 months in duration are considered to be an effective management action to reduce fatality of golden eagles and red-tailed hawks (*Buteo jamaicensis*) resulting from collisions with turbines (ICF, 2014). In our April 2013 letter, we recommended that the County continue the CUP requirement for seasonal shutdowns. CDFW would like to thank the County for not approving the cessation of the seasonal shutdown, and recommends that the future Project EIR adheres to that requirement.

Repowering within the APWRA that includes replacement of smaller, older-generation wind turbines with modern but fewer turbines with the same or greater overall generating capacity may also lead to reduced turbine-related bird and bat fatalities. The NOP states that the mitigation for impacts resulting from operation of the Project through October 31, 2018 will be carried out in accordance with the mitigation measures prescribed in the 2013 EIR. However, by delaying removal of the existing older-generation wind turbines, additional impacts to avian and bat species are expected to occur. CEQA Guidelines [§ 15126.4 (a)(1)(B)] stipulates that it is not appropriate to defer feasible mitigation measures to a future date. CDFW recommends that the Project EIR include additional mitigation measures (based on rotor swept area), such as acquisition and protection of habitat in perpetuity, to reduce impacts of the Project to avian and bat species to less-than-significant levels.

Ms. Sandra Rivera October 16, 2014 Page 4

## Conclusion

CDFW appreciates the opportunity to provide comments to the County on the NOP for the Project. CDFW supports the development of renewable energy resources for projects which are in compliance with existing state and federal laws and acts, and when measures are implemented which effectively avoid or reduce impacts to native species and their habitats to levels less-than-significant levels. CDFW staff is available to meet with you to ensure that potential impacts to sensitive species are avoided, minimized or mitigated. If you have any questions, please contact Ms. Brenda Blinn, Senior Environmental Scientist (Supervisory), at (707) 944-5541, or <a href="mailto:brenda.blinn@wildlife.ca.gov">brenda.blinn@wildlife.ca.gov</a>; or Mr. Craig Weightman, Environmental Program Manager, at (707) 944-5577, or <a href="mailto:craigweightman@wildlife.ca.gov">craig.weightman@wildlife.ca.gov</a>.

Sincerely,

Scott Wilson

Regional Manager Bay Delta Region

Scott Welson

Cc: Ryan Olah, USFWS

## Literature Cited

ICF. 2014. Altamont Pass Wind Resource Area Bird Fatality Study, Bird Years, 2005-2012. Alameda Community Development Agency. M101.



October 15<sup>th</sup>, 2014

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Assistant Planning Director

Alameda County Community Development Agency

224 W. Winton Av., Suite 110

Hayward, CA 94544

RE: Comments on Notice of Preparation (NOP) of a Supplemental Environmental Impact Report for Modifications to Existing Conditional Use Permits (CUPs) – Altamont Winds Inc. (AWI) – PLN2014-00028

Dear Ms. Rivera,

Save Mount Diablo (SMD) is a non-profit conservation organization founded in 1971 which acquires land for addition to parks on and around Mount Diablo and monitors land use planning which might affect protected lands. We build trails, restore habitat, and are involved in environmental education. In 1971 there was just one park on Mount Diablo totaling 6,778 acres; today there are almost 50 parks and preserves around Mount Diablo totaling 110,000 acres. We include more than 8,000 donors and supporters.

We appreciate the opportunity to comment on the NOP for a draft supplemental EIR (dsEIR) for the proposed modifications to existing CUPs for AWI. We have some concerns about the proposal, discussed below, that should be considered in how this proposal progresses and addressed in the dsEIR.

## Description of unacceptable physical condition of turbines

The dsEIR should provide an accurate description of the baseline conditions found on the site. This description should fully detail the unacceptable state of state of disrepair that at least some of AWI's turbines are in. Photographs from local residents clearly show that turbines in the vicinity of Dyer Rd. are leaking oil from their central hubs, and that oil is staining turbine blades and being broadcast throughout the area, contaminating the ground and potentially local creeks. Photographic evidence of this has been provided to the County and we have heard of other serious lapses in maintenance occurring with turbines owned and operated by AWI.

For example, electrical cables associated with AWI turbines have deteriorated and become extremely twisted, transformers are old and leaking, transformer pads are being undermined by soil erosion and whole towers have fallen over.

This condition of disrepair not only contaminates the environment but could pose a human safety hazard. Given these unacceptable conditions, we believe it would be appropriate for the County to require a full independent inspection of all AWI turbines in the Altamont in order to accurately document the conditions of AWI turbines. Such an inspection should occur before any modifications to existing AWI CUPs are considered.

## Potential end of AWI turbine operations

AWI has previously agree to formulate a repowering Plan for its turbines. To date it has failed to do so, and is now asking for an extension of existing permits to allow AWI turbines to remain in operation. Given the old age of these turbines and the potentially dangerous state of deterioration of at least some turbines, the dsEIR should include an alternative for immediate cessation of operations of AWI turbines in the Altamont. Pending a thorough independent inspection of AWI turbines it may be revealed that some turbines are in good condition and should continue operations. These turbines should continue operations, but only until their current permits run out in 2015.

AWI should not be permitted to continue operating old turbines in a state of disrepair for an additional three years. We believe that the current CUPs should not be modified to prolong the use of AWI turbines if they are unfit to be in operation now.

## Potential priority habitat restoration mitigation measures

The dsEIR would benefit from describing several different priority mitigation measures that range from raptor-specific to measures that address the needs of a broader suite of habitat and species. A potential combination of these two approaches would be the acquisition of easements over broad swaths of land that prohibit the poisoning of rodents on ranchland. This would benefit raptors by increasing their prey base in the Altamont and would also benefit terrestrial species that use ground squirrel burrows as well as prey on the squirrels themselves.

Another potential measure that should be included is riparian habitat restoration. A degraded creek along Dyer Rd. could be a suitable restoration opportunity, but a study should first determine if enough water is present to support the long-term survival of woody vegetation, in this creek and in others around the Altamont.

Because this proposed CPU extension is specific to AWI, a potential mitigation measure specific to AWI-controlled land west of Dyer Rd. (the Dyer Valley area) that should be included in the dsEIR is placing a conservation easement on the valley to link the protected land of Brushy Peak Regional Preserve to the west with the Altamont Hills protected area to the west of Dyer Rd. Dyer Valley is an important wildlife corridor in the area and protecting it with an easement for mitigation could forge a regionally important link between isolated protected lands.

Thank you for the opportunity to provide comments.

Sincerely,

Juan Pablo Galván Land Use Planner



FWS/R8/MB -SP

## United States Department of the Interior

# FISH AND WILDLIFE SERVICE

Pacific Southwest Region 2800 Cottage Way, Suite W-2606 Sacramento, California 95825



October 15, 2014

Ms. Sandra Rivera County of Alameda 244 W. Winton Avenue, Room 111 Hayward, CA 94544

Dear Ms. Rivera:

The U.S. Fish and Wildlife Service (Service) received Alameda County's Notice of Preparation (Notice) of a Supplemental EIR for proposed modifications to existing Conditional Use Permits for turbines owned and operated by Altamont Winds Incorporated (AWI). Our comments are in the context of our legal mandate and trust responsibility to maintain healthy migratory bird populations for the benefit of the American public pursuant to the Migratory Bird Treaty Act Migratory Bird Treaty Act (16 U.S.C. § 703 et seq.; MBTA) and the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668d; Eagle Act). This letter supplements our April 19, 2013 comment letter regarding the *Draft Environmental Impact Report (DEIR) for the Modifications to Existing (Year 2005) Conditional Use Permits (Project) for the Altamont Winds Inc.*Subsequently, the County issued AWI a new CUP based upon Alternative 1, which required AWI to shut down turbines by October 31, 2015.

To ensure that any take of eagles does not exceed the Eagle Act's preservation standard, the Service set regional thresholds (i.e., upper limits) for take of each eagle species using methodology described in the Final Environmental Analysis (FEA) of the Eagle Permit Rule (Service 2009). We also put in place measures to ensure that local eagle populations are not depleted by take that would be otherwise regionally acceptable. As described in our Eagle Conservation Plan Guidance Module 1: Land-based Wind Energy Version 2 (Service 2013, ECP Guidance), it is the Service's policy that take rates for a local-area population (140 miles for golden eagles) should not exceed 5% annually, whether the impacts of a given project have been offset by compensatory mitigation or not, to ensure sustainable populations of eagles.

In our Environmental Analysis for an eagle take permit at the Shiloh IV Wind Farm located about 30 miles from the APWRA (Service 2014), we determined that the current take rate for the APWRA golden eagle local-area population is approximately 12% annually. We are concerned that this level of ongoing take is having a negative effect on the local-area population of golden eagles and could affect the sustainability of this population.

In light of the high level of impacts to the local-area population of golden eagles caused by wind generation facilities operating within the Altamont Pass Wind Resource Area, the Service recommends that Alameda County deny AWI's recent request to extend wind operations beyond October 31, 2015. We encourage the County to retain the current schedule for AWI's permanent shutdown of existing wind turbines.

We have met with AWI and have encouraged the company to develop an Eagle Conservation Plan and to apply for an eagle take permit. The Service regards voluntary adherence and early communication (which includes sharing records such as results of studies, audits, monitoring, bird and bat conservation plans (BBCSs) and other useful documents) as evidence of due care with respect to avoiding, minimizing, and mitigating significant adverse impacts to species protected under the MBTA and the Eagle Act.

For additional information or if you have any questions, please contact Ms. Heather Beeler at Heather\_Beeler@fws.gov or 916/414-6651.

Sincerely,

Assistant Regional Director

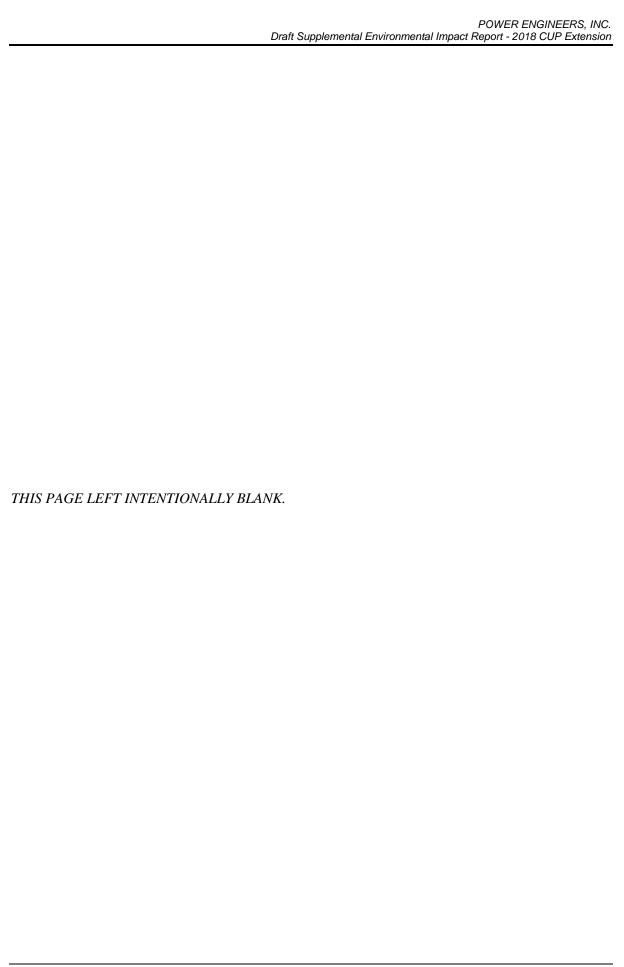
Migratory Birds and State Programs

cc: Craig Weightman, California Department of Fish and Wildlife, Environmental Program Manager
Jill Birchell, U.S. Fish and Wildlife Service, Office of Law Enforcement

## References:

- ICF. 2013. Altamont Pass Wind Resource Area Bird Fatality Study, Bird Years, 2005-2011. Alameda Community Development Agency. M96
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  - ——, 2012a. U.S. Fish and Wildlife Service Land Based Wind Energy Guidelines. March 23. June.
- ———. 2013. Eagle Conservation Plan Guidance. Module 1: Land-based Wind Energy Development. Version 2. April.
- 2014. Final Environmental Assessment for the Shiloh IV Wind Project Eagle Conservation Plan. Division of Migratory Bird Management. Sacramento, CA. With technical assistance from ICF International, Sacramento, CA.

## APPENDIX B STEP-UP TRANSFORMER SOILS TESTING



# **Analytical Report**

Safety Kleen	Client Project ID: Sample A Wastedirt	Date Sampled: 03/01/12	
PO Box 555		Date Received: 03/06/12	
TO BOX 333	Client Contact: Jason Flores	Date Reported: 03/07/12	
Salida, CA 95368	Client P.O.:	Date Completed: 03/12/12	

WorkOrder: 1203168

March 12, 2012

Dear Jason:

#### Enclosed within are:

- 1) The results of the 1 analyzed sample from your project: Sample A Wastedirt,
- 2) QC data for the above sample, and
- 3) A copy of the chain of custody.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius Laboratory Manager McCampbell Analytical, Inc.

The analytical results relate only to the items tested.

1203 168

VOAS O&G METALS OTHER pH<2

PRESERVATION

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SAMPLE ID	LOCATION/ Field Point Name	Date	Time	# Containers	Type Containers	Water	Soil	Air	Sludge	Other	UCT UCT	HNO.	Other	BTEX & TPH as G	TPH as Diesel (8015)	Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	Total Petroleum Hydrocarbons (418.1)	EPA 502.2 / 601 / 8010 / 8021 (HVOCs)	MTBE / BTEX ONLY (EPA 602 / 8021)	EPA 505/ 608 / 8081 (CI Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic CI Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 625 / 8270 (SVOCs)	EPA 8270 SIM / 8310 (PAHs / PNAs)	CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	Lead (200.7 / 200.8 / 6010 / 6020)	Filter sample for DISSOLVED metals analysis	F151 B10	PCB TES	
Sample A dirt	TOPOFHIII	3/1/12	1:45	1	B		1			ļ	Ţ	Ī	I	1	F	F	I	Ī	I	Ī											X.	X	
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**MAI clients MUST gloved, open air, sam allowing us to work s	ple handling by !	gerous ch MAI staff.	emicals kn Non-discle	own to sure in	be pre	sent n im	in th	eir s	subm \$250	itted	l sar	nple ge at	s in	conc	entra ent i	ations s sub	tha ject	t may to ful	cau l lega	se im il liat	med	iate h for h	arm arm	or se suffe	riou: red.	s futu Tha	are h	ealth ou fo	end er you	ange ur un	rmen	t as	a result of brief, ing and for
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Relinquished By:		Date: 3/6/0	Time:	Rece	ived B	y:	()	(0	4					D A	ECH PPR	OPR	LAT	TED E CO	INI		RS_	_											
Belinquished By:							PRESERVED IN LAB																										

## McCampbell Analytical, Inc.

1534 Willow Pass Rd Pittsburg, CA 94565-1701 (925) 252-9262

# CHAIN-OF-CUSTODY RECORD

ClientCode: SKS

Page 1 of 1

Date Received:

J-flag

03/06/2012

WorkOrder: 1203168

Report to: Bill to: Requested TAT: 1 day

Jason Flores Email: jason.flores@safety-kleen.com Accounts Payable

Safety Kleen cc: Safety Kleen
PO Box 555 PO: PO Box 660203

Salida, CA 95368 ProjectNo: Sample A Wastedirt Dallas, TX 75266 Date Printed: 03/06/2012

(209) 595-9016 FAX: (209) 545-3680 SEND HARDCOPY

					Requested Tests (See legend below)											
Lab ID	Client ID	Matrix	Collection Date	Hold	1	2	3	4	5	6	7	8	9	10	11	12
1203168-001	Sample A Dirt	Soil	3/1/2012 13:45		Α	Α										

#### Test Legend:

1 8082A_PCB_S	2 FISHHAZSCREEN_S	3	4	5
6	7	8	9	10
11	12			

Prepared by: Zoraida Cortez

#### **Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).

Hazardous samples will be returned to client or disposed of at client expense.

Comments:

1534 Willow Pass Road, Pittsburg, CA 94565-1701 Toll Free Telephone: (877) 252-9262 / Fax: (925) 252-9269 http://www.mccampbell.com / E-mail: main@mccampbell.com

## **Sample Receipt Checklist**

Client Name.	Safety Kleen				Date an	id Time Received. 3/6/2012 3:	3U:23 PW
Project Name:	Sample A Wastedirt				Checkli	st completed and reviewed by:	Zoraida Cortez
WorkOrder N°:	1203168	Matrix: Soil			Carrier:	FedEx	
		Cha	ain of Cu	ustody (CO	C) Information	<u>on</u>	
Chain of custody	present?		Yes	✓	No 🗌		
Chain of custody	signed when relinquish	hed and received?	Yes	✓	No 🗆		
Chain of custody	agrees with sample lal	bels?	Yes	<b>✓</b>	No 🗌		
Sample IDs note	d by Client on COC?		Yes	<b>✓</b>	No 🗌		
Date and Time o	f collection noted by Cli	ient on COC?	Yes	<b>✓</b>	No 🗆		
Sampler's name	noted on COC?		Yes	✓	No $\square$		
			Sample	e Receipt In	<u>formation</u>		
Custody seals in	tact on shipping contair	ner/cooler?	Yes		No 🗌	NA 🗸	
Shipping contain	er/cooler in good condi	tion?	Yes	<b>✓</b>	No $\square$		
Samples in prope	er containers/bottles?		Yes	<b>✓</b>	No $\square$		
Sample containe	rs intact?		Yes	<b>✓</b>	No $\square$		
Sufficient sample	e volume for indicated to	est?	Yes	$\checkmark$	No 🗌		
		Sample Pre	<u>servatio</u>	n and Hold	Time (HT) I	nformation	
All samples rece	ived within holding time	e?	Yes	•	No 🗌		
Container/Temp	Blank temperature		Coole	er Temp:		NA 🗹	
Water - VOA vial	s have zero headspace	e / no bubbles?	Yes		No 🗌 1	No VOA vials submitted 🗹	
Sample labels ch	necked for correct prese	ervation?	Yes	•	No 🗌		
Metal - pH accep	table upon receipt (pH-	<2)?	Yes		No $\square$	NA 🗹	
Samples Receive	ed on Ice?		Yes		No 🗸		
* NOTE: If the "N	lo" box is checked, see	e comments below.					

Safety Kleen		Client Pr	oject ID: Sampl	e A Wastedirt	Date Sampled:	03/01/12			
PO Box 555					Date Received:	03/06/12			
TO BOX SEE		Client Co	ontact: Jason Flo	res	Date Extracted:	03/06/12			
Salida, CA 95368		Client P.	0.:		Date Analyzed:	03/07/12			
Pol Extraction Method: SW3550B	ychlorii	-	ohenyls (PCBs) A alytical Method: SW8082	•	-ECD*	Work Order: 1203168			
Lab ID	120310	68-001A							
Client ID	Sampl	e A Dirt				Reporting DF			
Matrix		S							
DF		1				S	W		
Compound			Conce	entration		mg/kg	ug/L		
Aroclor1016	1	ND				0.05	NA		
Aroclor1221	1	ND				0.05	NA		
Aroclor1232	1	ND				0.05	NA		
Aroclor1242	1	ND				0.05	NA		
Aroclor1248	1	ND				0.05	NA		
Aroclor1254	1	ND				0.05	NA		
Aroclor1260	1	ND				0.05	NA		
PCBs, total	1	ND				0.05	NA		
		Surre	ogate Recoveries	(%)					
%SS:	1	25							
Comments									
* water samples in µg/L, soil/sludge/solid sa and all TCLP & SPLP extracts are reported in	in mg/L.						•		
ND means not detected above the reporting Surrogate Standard; DF = Dilution Factor	IImit/meth	nod detectio	n limit; N/A means a	natyte not applicable	e to this analysis; %S	s = Percent Ro	covery of		

Angela Rydelius, Lab Manager

# surrogate diluted out of range or surrogate coelutes with another peak.

Safety Kleen	Client Project ID: Sample A Wastedirt	Date Sampled: 03/01/12
PO Box 555		Date Received: 03/06/12
	Client Contact: Jason Flores	Date Extracted: 03/08/12-03/12/12
Salida, CA 95368	Client P.O.:	Date Analyzed: 03/08/12-03/12/12

## **CA Title 22 Acute Fish Bioassay Screen Test for Hazardous Waste**

Analytical Method: CA DFG (Polinsi & Miller) Extraction Method: CA DFG (Polinsi & Miller) Work Order: 1203168 Lab ID 1203168-001A Species Pimephales promelas Avg. Length (mm) 33.2 Client ID Sample A Dirt Common Name Fathead Minnows Avg. Weight (g) 0.327 Max Weight (g) Matrix Soil 0.351 Soft Synthetic Water Min Weight (g) 0.287 Control Water

Control water Soft Sy.			tic water					IVIIII VV	eight (g)	0.207
Concentration-	Sur	vival	Dissolved	O2 (mg/L)	p	Н	Tempera	ature (°C)	Comi	ments
Concentration	A	В	A	В	A	В	A	В	Com	incirts
Control	10	10	8.92	8.95	7.48	7.49	20.4	20.4	Analyst:	AB
250 mg/L	10	10	8.92	8.96	7.58	7.57	20.4	20.4		
500 mg/L	10	10	8.93	8.90	7.60	7.59	20.4	20.4	Date:	3/8/2012
750 mg/L	10	10	8.89	8.94	7.61	7.60	20.4	20.4	Time:	12:00 PM
Control	10	10	8.86	8.89	7.45	7.47	20.3	20.3	Analyst:	AB
250 mg/L	10	10	8.87	8.90	7.55	7.54	20.3	20.3		
500 mg/L	10	10	8.85	8.83	7.57	7.57	20.3	20.3	Date:	3/9/2012
750 mg/L	10	10	8.81	8.88	7.58	7.59	20.3	20.3	Time:	12:00 PM
Control	10	10	8.70	8.63	7.39	7.42	20.6	20.6	Analyst:	CM
250 mg/L	10	10	8.68	8.69	7.51	7.53	20.6	20.6		
500 mg/L	10	10	8.77	8.68	7.55	7.54	20.6	20.6	Date:	3/10/2012
750 mg/L	10	10	8.78	8.71	7.56	7.53	20.6	20.6	Time:	12:00 PM
Control	10	10	8.66	8.73	7.35	7.36	20.8	20.8	Analyst:	CM
250 mg/L	10	10	8.60	8.57	7.45	7.48	20.8	20.8		
500 mg/L	10	10	8.49	8.60	7.47	7.47	20.8	20.8	Date:	3/11/2012
750 mg/L	10	10	8.55	8.63	7.50	7.48	20.8	20.8	Time:	12:00 PM
Control	10	10	8.52	8.57	7.34	7.34	20.0	20.0	Analyst:	AB
250 mg/L	10	10	8.49	8.46	7.43	7.45	20.0	20.0		
500 mg/L	10	10	8.40	8.44	7.46	7.45	20.0	20.0	Date:	3/12/2012
750 mg/L	10	10	8.47	8.49	7.48	7.47	20.0	20.0	Time:	12:00 PM

Initial Final

	Control	750 mg/L	Control	750 mg/L
Hardness (mg/L as CaCO3)	40	40	40	40
Alkalinity (mg/L as CaCO3)	32.8	37.08	35.28	45.64
Conductivity (uS/cm)	163.5	190.4	168.4	188
Salinity (mg/L)	N/A	N/A	N/A	N/A

Result: Mortality <40% at 750mg/L. Therefore LC50>=500mg/L ('non-hazardous')

96 LC50: N/A LC50 Method: N/A
95% Upper Confident Limit: N/A 95% Lower Confident Limit: N/A



## **QC SUMMARY REPORT FOR SW8082**

W.O. Sample Matrix: Soil QC Matrix: Soil BatchID: 65461 WorkOrder: 1203168

EPA Method: SW8082	Extraction: SW3550B					Spiked Sample ID: N/A						
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	Acceptance Criteria (%)					
, may c	mg/kg	mg/kg	% Rec.	% Rec.	% RPD	% Rec.	MS / MSD	RPD	LCS			
Aroclor1260	N/A	0.15	N/A	N/A	N/A	108	N/A	N/A	70 - 130			
%SS:	N/A	0.050	N/A	N/A	N/A	91	N/A	N/A	70 - 130			

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions: NONE

## BATCH 65461 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1203168-001A	03/01/12 1:45 PN	M 03/06/12	03/07/12 8:17 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

# surrogate diluted out of range or surrogate coelutes with another peak.

SH QA/QC Officer