ALAMEDA COUNTY COMMUNITY DEVELOPMENT AGENCY
PLANNING DEPARTMENT

STAFF REPORT

TO: EAST COUNTY BOARD OF ZONING ADJUSTMENTS

HEARING DATE: MAY 28, 2020

GENERAL INFORMATION

APPLICATION: **MODIFIED CONDITIONAL USE PERMIT, PLN2020-00007**

APPLICANT: **ALTAMONT WINDS, LLC**

PROPERTY OWNERS: **VARIOUS (See Table 1, Project Properties and Owners)**

PROPOSAL: To modify CUP PLN2014-00056, approved on January 14, 2016 by the Board of Zoning Adjustments for the Summit Wind Repower Project, to allow an increase in total generating capacity from 54 to 57.5 megawatts (MW) based on use of twenty-three (23) wind turbines with a nameplate capacity of 2.5 MW per turbine, instead of twenty-seven (27) turbines with an average maximum nameplate capacity of 2.0 MW as originally approved.

LOCATION, ASSESSOR'S PARCEL NOS. AND PARCEL AREAS: The proposed project is located on 15 parcels spread over about 3,350 acres in the eastern Altamont Hills, generally west of Dyer Road, east of the Brushy Peak Regional Preserve, and between the Alameda County and Contra Costa County border on the north and Altamont Pass Road on the south. Assessor Parcel Numbers are identified in Table 1, Project Properties and Owners, and in the Draft Resolution.

ZONING: A (Agriculture, 160-acre minimum) District

GENERAL PLAN DESIGNATION: LPA (Large Parcel Agriculture), East County Area Plan, adopted in 1994 and amended in November 2000 and May 2002.

ENVIRONMENTAL REVIEW: The project is subject to the California Environmental Quality Act (CEQA, 1970 as amended), and is consistent with the Program Environmental Impact Report (PEIR) certified by the East County Board of Zoning Adjustments on November 12, 2014. The proposal was previously reviewed as a tiered project with a checklist pursuant to Section 15168(c) of CEQA Guidelines, and was the basis for determining that the project was in compliance with CEQA. The CEQA Implementation Checklist and Application Supporting Materials was the basis for making written findings of significant effects, approving a Mitigation Monitoring and Reporting Program, and finally a Statement of Overriding Considerations for approval of Conditional Use Permit PLN2014-00056 on January 14, 2016.

An Affected Environment Analysis Update (AEAU) has been prepared to describe the environmental effects of the 3.5 MW increase in total generating capacity and is attached herein. The AEAU serves to demonstrate that the CUP modification will not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects over those analyzed in the PEIR and CEQA Implementation Checklist.

RECOMMENDATION

The Board should receive a staff presentation, take public comment on the proposed modification, review the draft resolution and exhibits, and approve the modified Conditional Use Permit, subject to the attached Resolution.

TABLE 1, PROJECT PROPERTY OWNERS, PARCELS

Owner	APNs	Acres	Prior CUP No.
Costa	99B-5680-15-0	207.12	C-8036
Dunton	99B-5680-1-0	330.46	C-8236
DeVincenzi	99B-5610-1-0, 99B-6075-3-0, 99B-6051-1-0 and 99B-6051-9-0	693.03	C-8237
Egan	99B-6125-3-0	160.47	C-8232
Elliot	99B-6125-4-0	157.54	C-8233
Jackson	99B-6125-5-0	325.59	C-8239
Rooney	99B-6125-2-0	160.21	C-8134
Walker	99B-6100-2-10, 99B-6100-2-11, 99B-6100-2-12, 99B-6100-3-11, and 99B-6100-3-15	1,314.55	C-8241
	TOTAL	3,348.97	

WIND-RELATED PERMIT HISTORY

The Summit Wind Repower Project site is within the Altamont Pass Wind Resource Area (APWRA), which has been developed with wind farms since the early 1980s, when the state identified it as a wind energy resource area. The project site is in the northwestern portion of the APWRA, on private land which is leased under long-term agreements with eight landowners possessing 15 parcels, generally east of the Brushy Peak Regional Preserve, south of the Alameda County-Contra Costa County border, west of Dyer Road, and north of I-580 (and Altamont Pass Road). Some portions of parcels lie north of Brushy Peak Regional Preserve and northeast of the Dyer Road terminus. The Conditional Use Permits listed in Table 1 above for assets owned by Altamont Winds Inc. all expired September 11, 2018, and the site is now subject only to Conditional Use Permit (CUP) PLN2014-00056.

GENERAL PLAN DESIGNATION, POLICIES AND ZONING

The project site is designated by the East County Area Plan (ECAP, 2002) as Large Parcel Agriculture (LPA), which permits one single-family residence per parcel, agricultural uses, agricultural processing facilities, public and quasi-public uses, quarries, landfills and related facilities, wind farms and related facilities, utility corridors, and similar uses compatible with agriculture.

Lands in the project area are zoned A-BE-160 (Agricultural District, with minimum building site areas of 160 acres), which allows for agricultural and other non-urban uses. Within the A District, privately owned wind-electric generators are a conditionally permitted use subject to approval by the East County Board of Zoning Adjustments (EBZA).

For changes and modifications to an approved CUP, the Zoning Ordinance provides, in Section 17.54.150, that, with two unrelated exceptions (reconstruction of buildings in the Suñol district, and where the County Planning Commission is specified to hear and decide certain applications for CUPS by Section 17.54.135) the following:

> … the board of zoning adjustments shall receive, hear and decide applications to renew or extend the term of a conditional use or to modify or waive any condition previously imposed upon a conditional use, or upon a use permit issued prior to the effective date of the ordinance codified in this section. Every such application shall be subject to the same procedure and regulations as set forth herein for a conditional use.

Due to the change in the project to increase its aggregate energy output over the number of MW previously approved, and because the number of MW has been used almost exclusively in the related environmental analyses to calculate mortality of birds and bats in the APWRA, a modified CUP was determined by the County to be required by Section 17.54.150 of the County's Zoning Ordinance. The environmental effects of the modification and relationship to prior analyses under CEQA is discussed further below.

SITE AND CONTEXT DESCRIPTION

The project site is within the Alameda County portion of the APWRA (except as noted, APWRA hereinafter shall mean the Alameda County portion), which currently includes 43,358 acres, or nearly 68 square miles, extending from the northern county line across the Altamont Hills, southwards for approximately 10 miles, with an average width of 5 to 6 miles. The project site will be constructed entirely on private land which is leased under long-term agreements with up to eight landowners possessing 17 parcels over about 3,470 acres located in the eastern Altamont Hills, between the Contra Costa County line and Interstate I-580, and mainly west of Dyer Road and the portion of Altamont Pass Road between Carroll Road and Dyer Road. It also includes one parcel east of Dyer Road approximately a half mile north of Altamont Pass Road, and extends to the northeast and northwest from the north end of Dyer Road to the County line. The remainder of the wind farm assets held by Altamont Winds Inc. (an affiliate of Altamont Winds LLC), an estimated 469 wind turbines located to the east on other properties in the APWRA and north of I-580, are not part of the Summit Wind Repower Project, but will be decommissioned under Altamont Winds Inc.'s separate permit conditions (Permit Extension, PLN2014-00028), and may be repowered in the future with a separate project proposal. The project area is located in the northwestern portion of the APWRA, generally east of the Brushy Peak Regional Preserve, south of the Alameda County-Contra Costa County border, and west of Dyer Road, and north of I-580. Access to the Project will be available through existing private gates and roads emanating off of Vasco Road, Dyer Road, and Altamont Pass Road, all north of I-580.

PROJECT DESCRIPTION

The application is a request to modify Conditional Use Permit PLN2014-00056, the repowering project of Altamont Winds, LLC (an affiliate of Altamont Winds, Inc. or AWI), approved by the East County Board of Zoning Adjustments on January 14, 2016 (Resolution Z-16-01). The Permit (or CUP) allowed for the applicant to decommission 569 obsolete wind turbine generators (WTGs) and to replace them with 27 newer, more efficient WTGs for an aggregate nameplate capacity of up to 54 megawatts (MW), although the pre-existing capacity of the WTGs was 56.9 MW based on a uniform turbine size prior to repowering of 10 kW each. The original application for repowering by Altamont Winds, LLC was to install up to 33 wind turbine sites, and indicated that the typical turbine would have a nameplate capacity of 2.1 MW each. However, the applicant did not anticipate that the final project would yield an aggregate nameplate capacity of more than 54 MW, after final siting decisions, and larger turbines were not expected to be available. The Implementation Checklist, and Affected Environment Analysis prepared for the project evaluated the effects of 33 turbines (including an alternative site) and an aggregate nameplate capacity of 54 MW.

The outcome of the final review process, leading to action by the East BZA in January 2016 (after hearings in November and December 2015) was an agreement by AWI to withdraw 2 of the 33 turbines, and a decision by the East BZA to not approve another 4 turbines, thus reducing the number of turbines that could be sited in the project area to 27. After the approval, AWI coordinated in 2017 with the County's Wind Repowering/Avian Protection Technical Advisory Committee (that had been previously established to implement monitoring and research measures for other wind repowering projects), and by 2018 when it obtained a grading permit to begin road and site preparation and some initial foundation excavation, AWI had only 26 potential turbine sites, including 3 alternate sites. By late 2019, AWI had opted not to utilize any of the alternative sites and now plans a final array of only 23 total turbines and sites, as shown in the attached plans. (The sites are numbered 1 through 33, but a total of 10 sites are not included: #s 8, 18, 19, 23 through 26 and 28 through 30.)

More importantly, and the exclusive reason that the CUP modification is necessary, is the specific language provided in Resolution Z-16-01, defining the approval and authorization (key text underlined):

1. Approval. Approval of this Permit authorizes Altamont Winds, LLC to decommission and remove 569 existing wind turbines, to install up to 27 new approximately 2.1 megawatt (MW) turbines or comparable turbines with a combined capacity of up to 54.0 MW, and make improvements to related infrastructure, on 15 parcels or parts of parcels… [continuing with a description of their location and parcel numbers.]

Due to market conditions and construction schedules, the 2.1-MW turbines anticipated for the project are no longer available, whereas the General Electric (GE) 2.5 MW turbines became available, were ordered, and the resulting output capacity would be 57.5 MW (23 times 2.5 MW). Construction is expected to be complete by October 31, 2020.

In almost all other respects, the project is identical to or reduced in scale from the project as approved in January 2016. Based on site-specific conditions and permitting required by state and federal agencies, and final siting decisions to reduce the number of turbine sites and meteorological equipment towers (METs), the permanent facility footprint of disturbed land area has been reduced from 30.11 acres as approved in 2016 to 24.16 acres, a 20 percent reduction in disturbed land area. It is also a 14 percent reduction in the disturbed area from the estimated 28.09 acres of disturbed area that was evaluated in the 2015 Affected Environment Analysis and CEQA Implementation Checklist prepared for the project.

The following table provides a comparison of the dimensions of the Suzlon 2.1 turbines described in the CEQA Implementation Checklist to the GE 2.5 turbines currently proposed. As shown below, the GE 2.5 WTG model would have an additional 0.4 MW in output, 8 feet in blade length (rotor radius), and 9 feet in maximum overall height than the Suzlon 2.1 WTG model.

Table 2. Wind Turbine Generator Dimensions for the Project

Turbine Feature	Suzlon 2.1		GE 2.5	
Output	2.1 MW		2.5 MW	
	Meters	Feet	Meters	Feet
Tower Hub Height	90	295	90	295
Rotor Radius	55.5	182	58	190
Rotor Diameter	111	364	116	381
Ground Clearance	34.5	113	32	105
Maximum Overall Height	145.5	477	148	486

There are no additional state or federal permits, approvals, or agency consultations required for approval of the CUP modification.

PROJECT REFERRAL AND PUBLIC NOTIFICATION

Although the proposed CUP modification represents relatively very narrow changes in the project, the proposal was referred on April 29, 2020 (letter attached) to typical County agencies, such as the Building Inspection Department, Fire Department and the Development Services section (aka Land Development) of the Public Works Agency. In addition, the proposal was referred to the Livermore Area Recreation District and the East Bay Regional Park District which jointly manage the adjacent Brushy Peak Regional Preserve, and state and federal wildlife resource regulatory agencies. Other stakeholders that received the referral included the office of the state attorney general and the Golden Gate Chapter of the Audubon

Society. The referral specified a due date for response of May 20, 2020, and as of this writing no comments have been received. Other notification occurred in the form of postcards sent to area residents approximately two weeks prior to the hearing. The modified project description and environmental analysis was also provided on the County Planning Department's website and the webpage for wind turbine projects about two weeks in advance.

PROGRAM EIR AND CURRENT PROJECT TIERING

The Program Environmental Impact Report (PEIR), certified by the County in November 2014, addressed the anticipated approval of new CUPs to allow replacement of old generation wind turbines with current generation turbines in the Alameda County portion of the APWRA on a program level for the entire area. The Summit Wind project was among a small number of anticipated projects that were evaluated on a program level, and listed the project as a potential 95 MW repowering project among other future projects. The cumulative impacts analysis in the PEIR was based on a combined development of either of two alternative repowering scenarios, either 417 MW or 450 MW, either of which would have accounted for a 95 MW project, and certainly accounts for a 54 or a 57.5 MW project.

As provided for in the CEQA Guidelines (Section 15168), the certified PEIR allows for subsequent specific project applications to 'tier' from the PEIR, to the extent that the subsequent projects lie within the scope of the PEIR, and do not introduce new or substantially different significant impacts that were not addressed in the PEIR. For the current proposal to increase the aggregate nameplate energy production capacity by 3.5 MW, the same principle is applied, and an Affected Environment Analysis Update (AEAU) has been prepared to describe its environmental effects. The intent of the AEAU is to determine if the modification will result in new significant environmental effects or an increase in the severity of previously identified significant effects pursuant to Sections 15162, 15163 and 15164 of the California Environmental Quality Act (CEQA) Guidelines. For the purposes of CEQA, the AEAU is proposed as an addendum to a previously certified EIR and environmental checklist prepared for the project, pursuant to Section 15164.

The environmental checklist, referred to in Resolution Z-16-01 as the CEQA Implementation Checklist (prepared by Power Engineers) identified a range of specific potential adverse impacts on the environment, which had been previously identified in the PEIR, and for which specific mitigation measures would serve to avoid or reduce most of those impacts to less-than-significant levels. Other impacts would remain significant and are unavoidable if the project is approved, including air quality deterioration during construction, mortality of raptors, other birds, and bats migrating through and wintering in the program area, but are no greater than those considered in the PEIR and can be reduced in part by the identified mitigation measures. Based on the CEQA Implementation Checklist, a Mitigation Monitoring and Reporting Program has been proposed, the implementation of which would be required as a condition of approval.

The significant and unavoidable adverse impacts of the broad repowering program includes the effects of operations for the life of the permits on avian species, including raptors, other birds and bats migrating through and wintering in the program area, as well as some temporary construction-related impacts, on air quality (due to predicted emissions in excess of regional air district standards), and on traffic operations and transportation, if construction-related traffic were to occur concurrently with an earlier iteration of the Sand Hill project (when up to 340 new-technology and smaller "shrouded" turbines were proposed; that version of the Sand Hill project has been abandoned and now no more than 40 conventional turbines are proposed).

The Checklist indicated that avian mortality would result from interaction with the wind turbines; implementation of MM BIO-11a through MM BIO-11d, including designing and siting of turbines to reduce avian impacts, and the use of avian safe measures and practices, would reduce the potential impact but not to a less-than-significant level.

Because the PEIR and the previously considered CEQA Implementation Checklist for the Project rely on MWs as a metric or basis of calculation for predicting or estimating avian and bat mortality due to their interaction with WTGs, the increase in aggregate nameplate generation capacity being proposed (from 54 to 57.5 MWs, an increase of slightly under 6.5 percent) is assumed to have a directly proportional impact of increasing the mortality of bats and birds (i.e., about 6.5 percent). Although this potential impact is one of the paramount concerns for repowering projects in the APWRA, the increase in nameplate capacity of individual turbines would not alter or increase the extent of any other layout feature, roadway, laydown area, grading, excavation, land disturbance, or other aspect for the currently authorized project (CUP PLN2014-00056). More importantly, the MW capacity of the Project was not used as the basis for the determination of significance of any impact other than bird and bat mortality. Therefore the analysis undertaken for the AEAU document of the consequences of the Project changes is limited to biological resources only and more specifically only the potential for adverse impacts on candidate, sensitive and special status avian wildlife species, or the effect quantified and characterized in the PEIR and CEQA Implementation Checklist as Impact BIO-11 – *Avian mortality resulting from interaction with wind energy facilities*, and Impact BIO-14 – *Turbine-related fatalities of special-status and other bats*.

The overall view is that although the increase in MW could proportionally increase mortality of birds and bats, it should also be recognized that a noticeable reduction in the rotor-swept area as compared to the currently authorized project would be achieved as a result of the Project modification (from about 261,280 gross square meters to a little over 243,060 square meters, or just under 7 percent). The County in this AEAU asserts that the actual effect of the increase in MW will be of little or no effect or statistically insignificant. Regardless, the AEAU does not deviate from the prior finding of the PEIR and CEQA Implementation Checklist analysis of the Summit Wind Project regarding Impacts BIO-11 and -14, that the Project will have significant and unavoidable adverse impacts on bird and bat populations.

Hence, the Project modification would not alter any applicable mitigation measure specified in the PEIR and the associated Mitigation Monitoring and Reporting Program (MMRP) adopted for the Project would be unchanged. The PEIR and CEQA Implementation Checklist analyses for all other resource and impact areas is accurate and applicable to the Project modification, and are incorporated herein by reference (Alameda County Community Development Agency 2014; Power Engineers 2015).

The attached Resolution is therefore very narrow in scope and limited to allowing the Authorization section, Condition No. 1, to be revised to permit the total generating capacity to be increased by 3.5 MW, from 54 to 57.5 MW, based on use of twenty-three (23) wind turbines with a nameplate capacity of 2.5 MW per turbine, instead of twenty-seven (27) turbines as originally approved in 2016.

RECOMMENDATION

The Board should receive a staff presentation, take public comment on the proposed modification, review the draft resolution and exhibits, and approve the modified Conditional Use Permit, subject to the attached Resolution.

Attachments:
Affected Environment Analysis Update, including Appendix A – Figures
Draft Resolution

PREPARED BY: Andrew Young	Senior Planner
REVIEWED BY: Sandra Rivera	Assistant Planning Director

DRAFT RESOLUTION NO. Z-20-XX OF
THE EAST COUNTY BOARD OF ZONING ADJUSTMENTS
ADOPTED AT THE HEARING OF MAY 28, 2020
APPROVING A MODIFICATION TO CONDITIONAL USE PERMIT PLN2014-00056, ADOPTING FINDINGS, MITIGATION MONITORING AND REPORTING PROGRAM, AND STATEMENT OF OVERRIDING CONSIDERATIONS, IN COMPLIANCE WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT

WHEREAS ALTAMONT WINDS, LLC filed an application for a MODIFIED CONDITIONAL USE PERMIT PLN2020-00007, to allow the maximum aggregate energy production capacity of Conditional Use Permit PLN2014-00056, previously approved by the East County Board of Zoning Adjustments on January 14, 2016 by Resolution Z-16-01, to be increased by 3.5 megawatts (MW) from 54.0 MW to 57.5 MW for its current wind energy repowering project, on approximately 3,350 acres in the northeastern portion of the Altamont Pass Wind Resource Area (APWRA), encompassing 15 parcels, bearing the following Assessor's Parcel Numbers: 099B-5680-015-00; 099B-5680-001-00; 99B-5610-1-00; 99B-6075-3-00; 99B-6051-1-00; 99B-6051-9-00; 99B-6125-3-00; 99B-6125-4-00; 99B-6125-5-00; 99B-6100-2-10; 99B-6100-2-11; 99B-6100-2-12; 99B-6100-3-11; 99B-6100-3-15; and 99B-6125-2; and

WHEREAS the Applicant, Altamont Winds, LLC is an affiliate of Altamont Winds Inc., which obtained approval on January 14, 2016 to replace 569 pre-existing wind turbines with new up to 27 new approximately 2.1 megawatt (MW) or comparable turbines with a combined capacity of up to 54.0 MW, and to make improvements to related infrastructure; and

WHEREAS the subject project is part of an overall program to repower the entire Altamont Pass Wind Resource Area (APWRA) by replacing older generation turbines with newer, generally larger turbines that serve to improve turbine efficiency but also have the potential to substantially reduce avian mortality, especially for raptor species; and

WHEREAS The County issued a Notice of Preparation (NOP) for the Program Environmental Impact Report for APWRA Repowering (PEIR or Program EIR) on August 24, 2010 and the PEIR was certified in accordance with the provisions of the California Environmental Quality Act (CEQA) by the East County Board of Zoning Adjustments (Board) on November 12, 2014; and

WHEREAS the original permit application PLN2014-00056 was reviewed in accordance with the provisions of CEQA and it was determined that the project would result in potentially significant adverse environmental impacts, was therefore a project subject to CEQA, that the project was described generally as part of the PEIR and more specifically in the Summit Wind Repower Project *CEQA Implementation Checklist and Application Supporting Materials*, dated November 3, 2015 which together document the impacts of the current project on the environment at a detailed project level, and which identify mitigation measures applicable to the project, previously identified generally in the PEIR, which would reduce each significant impact to the greatest extent possible or feasible, in most cases to a level that is less than significant but in other cases without reducing it to a less than significant level; and

WHEREAS, in compliance with Section 15091 of the CEQA Guidelines, the Planning Department has prepared Written Findings of Significant Effects, incorporated herein by reference to Exhibit A of Resolution Z-16-01 regarding the original project PLN2014-00056, which provides a brief explanation of the rationale for each finding, supported by substantial evidence in the record, that changes or alterations have been required in or incorporated into the project, including by identified mitigation measures which would avoid or substantially lessen some but not all identified significant environmental effects, and furthermore that certain mitigation measures or project alternatives identified in the Final Program EIR are infeasible due to specified economic, legal, social, technological, or other considerations; and

WHEREAS, the Program EIR evaluated repowering of the APWRA on a programmatic level consistent with the Section 15168 of the CEQA Guidelines to provide for environmental review for projects that are related geographically, logical parts of contemplated actions, and related as individual activities to be carried out under the same regulatory authority with generally similar environmental effects which can be mitigated in similar ways, of which the Summit Wind Repower Project is such a project; and

WHEREAS the Final Program EIR indicates that activities anticipated under the APWRA Repowering Program, which include the subject project, would result in significant and unavoidable adverse impacts on avian wildlife species including golden eagle and other focal raptor species; and

WHEREAS, on November 12, 2014, the East County Board of Zoning Adjustments adopted Resolution Z-14-40 which certified the Final Program EIR as being in compliance with CEQA, that the Final Program EIR was presented to the Board of Zoning Adjustments, which reviewed and considered the information in the Final Program EIR prior to adopting said Resolution, and that the Final Program EIR reflects the County's independent judgment and analysis; and

WHEREAS, in compliance with Section 15091 of the CEQA Guidelines, the Planning Department has prepared a Mitigation Monitoring and Reporting Program, incorporated herein by reference as Exhibit B to Resolution Z-16-01, which is required to be implemented by the Permittee and by the County as a condition of approval of the project and that are fully enforceable through permit conditions, agreements, or other measures; and

WHEREAS, further in compliance with Section 15093 of the CEQA Guidelines the Planning Department has prepared a Statement of Overriding Considerations, incorporated herein by reference as Exhibit C to Resolution Z-16-01, which states specific reasons, supported by substantial evidence in the record, why the Planning Department and the Board would approve the project although certain significant adverse environmental effects of the project would not be avoided or substantially lessened by the identified mitigation measures; and

WHEREAS, consistent with the provisions of Section 15168(c) of the CEQA Guidelines, when no new effects could occur or new mitigation measures be required for subsequent activities anticipated in Program EIR, such later activities (including discretionary permits such as a CUP) would not require a new environmental document (e.g., Mitigated Negative

Declaration, Subsequent EIR, etc.), but instead allow use of a checklist or similar device to document the evaluation of the site and the activity (such as the Implementation Checklist), to determine if its environmental effects were covered or within the scope of the Program EIR; and

WHEREAS, the East County Board of Zoning Adjustments has determined that approval of the project as modified and conditioned herein, including the implementation of the Mitigation Monitoring and Reporting Program incorporated herein by reference as Exhibit B to Resolution Z-16-01, would provide for all of the significant effects on the environment to have been eliminated or substantially lessened where feasible, as indicated in the Written Findings of Significant Effects, incorporated herein by reference as Exhibit A to Resolution Z-16-01, and that there are certain significant effects on the environment found to be unavoidable which are acceptable due to overriding concerns as indicated in the Statement of Overriding Considerations attached herein as Exhibit C; and

WHEREAS, adoption of the programs, requirements, procedures, legal and financial commitments and all other specifications as set forth in the conditions of approval for the conditional use permit is found to be necessary for the public health and safety and as a necessary prerequisite to ensure that the proposed decommissioning, construction and operation of the facilities are managed in such a way as to serve the goals and objectives of the Alameda County General Plan; and

WHEREAS the East County Board of Zoning Adjustments held a virtual public hearing on the application to modify Conditional Use Permit PLN2014-00056 as described herein at the hour of 1:30 p.m. on the 28th day of May, 2020, as a webinar (digital online seminar meeting on the Zoom™ digital platform), for which public notice was provided as required by state law and as advised by public officials under quarantine conditions due to the Covid-19 viral infection outbreak; and

WHEREAS, the Staff Report was submitted recommending the application be approved subject to the proposed conditions of approval and adoption of the draft Resolution and associated Exhibits; and

WHEREAS a representative present on behalf of the Applicant appeared at said public hearing and presented testimony in support of the application; and

WHEREAS members of the public appeared at said public hearing and presented testimony in support of and in opposition to the application; and

WHEREAS a Staff Report was provided to the Board, the Applicant and interested parties for a virtual hearing to review the staff analysis and the Affected Environment Analysis Update which serves to demonstrate that the CUP modification will not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects over those analyzed in the PEIR and CEQA Implementation Checklist; and

WHEREAS the Board did hear and consider all reports, recommendations and testimony as hereinabove set forth and asserts the information contained in the attached Exhibits reflects the independent judgment of the Board; and

NOW THEREFORE

BE IT RESOLVED that the Board finds that:

1. The use is required by the public need in that wind energy production in the Altamont Pass Wind Resource Area (APWRA) represents a major source of renewable energy that is currently under-utilized by aged, underperforming or defunct wind turbines with documented adverse effects on avian species. The proposed Project would replace existing turbines with more efficient turbines, with the potential to reduce avian impacts. The project would generate and supply 100% emissions-free electricity to California, would support California's renewable energy goals, and would help reduce dependence on fossil fuels, a primary factor in global warming or climate change.

2. The use will be properly related to other land uses and transportation and service facilities in the vicinity in that as an existing wind farm, the Project site is well-suited from a planning and practical perspective for continued use as a windfarm. The Project parcels have been developed with wind power project uses for over 30 years and as finally sited on Exhibit A of the Affected Environment Analysis Update, are located a sufficient distance away from substantial recreational, open space, residential, commercial and industrial uses. Existing supporting facilities will continue to be utilized to transmit the power generated to satisfy the electricity needs of California.

3. The use, if permitted, under all the circumstances and conditions of this particular case, as approved for 23 turbine sites only and excluding ten turbine sites previously under consideration, will not materially affect adversely the health or safety of persons residing or working in the vicinity, or be materially detrimental to the public welfare or injuries to property or improvements in the neighborhood. The proposed project as modified would serve the goals and objectives of the Alameda County East County Area Plan and other County economic development and environmental objectives, would have limited impacts on County services and infrastructure, and as mitigated with the measures to be adopted under the Mitigation Monitoring and Reporting Program incorporated herein as Exhibit B and the conditions of approval as previously adopted January 14 2016, would not negatively impact the surrounding community or environment. As the site is currently occupied by wind turbines and supporting facilities, once construction is complete and the wind turbines have been either repowered or decommissioned, environmental conditions as they currently exist would be maintained, if not improved.

   Furthermore: a) the subject turbines as conditioned herein would be sited in a manner that reduces risks to avian and bat species and according to specified minimum setbacks to reduce any health, safety or aesthetic concerns to any residents in close proximity; b) proper maintenance and operation efforts would be in effect to ensure the safe operation of the turbines; c) fire prevention and security measures would be in place to protect the public and

local property; d) construction activities will be conducted in a manner that reduces potential health, safety and environmental concerns; e) the proposed use would not substantially hinder the continued use of the project sites and surrounding land for cattle grazing as the primary property use; f) any access roads improved for the proposed use would provide improved access to the grazing lands; g) land owners would benefit from the lease payments made by the Permittee, which further supports grazing operations; and h) other improvements, such as roadways, railroads, electrical substations and landfills are not adversely affected by the presence of wind turbines and their associated infrastructure because the proposed Project would replace and/or continue to use existing facilities.

4. The use will not be contrary to the specific intent clauses or performance standards established for the District in which it is to be considered in that the proposed project is located in the A (Agriculture) zoning district, which has as its stated intent: "to promote implementation of General Plan land use policies for agriculture and other nonurban uses; to conserve and protect existing agricultural uses; and to provide space for and encourage such uses in places where more intensive development is not desirable or necessary for the general welfare." The proposed project would be consistent with this intent because the development of wind power projects is both allowed and encouraged in the APWRA by the East County Area Plan, the project removes minimal land from agricultural production, and the use is appropriately located in non-urban areas and serves the public welfare.

BE IT FURTHER RESOLVED that the Board hereby approves allowing the maximum aggregate energy production capacity of Conditional Use Permit PLN2014-00056, previously approved on January 14, 2016, to be increased by 3.5 megawatts (MW), from 54.0 MW to 57.5 MW; and

BE IT FURTHER RESOLVED that the Board finds that pursuant to CEQA Guidelines 15162 and 15168, the project approved herein is within the scope of the Program EIR, no new effects could occur, no new mitigation measures would be required, and no new environmental document is required; and

BE IT FURTHER RESOLVED that the Board adopts the Written Findings of Significant Effects contained in Exhibit A of Resolution Z-16-01 dated January 14, 2016, the Mitigation Monitoring and Reporting Program contained in Exhibit B of Resolution Z-16-01, and the Statement of Overriding Considerations contained in Exhibit C of Resolution Z-16-01), which Exhibits are incorporated herein as if fully set forth; and

BE IT FURTHER RESOLVED that the Board does hereby approve the said application as shown by plans and materials labeled Application Exhibit “B”, which is Exhibit “A” as attached to the Affected Environment Analysis Update, attached to this Resolution, which represents the final configuration of the turbines, on file with the Alameda County Community

Development Agency, Planning Department, 224 West Winton, Rm. 111, Hayward, CA, 94544, subject to the following conditions:

AUTHORIZATION

1. Approval. Approval of this Permit authorizes Altamont Winds, LLC to decommission and remove 569 existing wind turbines, to install 23 new approximately 2.5 megawatt (MW) turbines or comparable turbines with a combined capacity of up to 57.5 MW, thereby allowing the maximum aggregate energy production capacity of Conditional Use Permit PLN2014-00056, previously approved by the East County Board of Zoning Adjustments on January 14, 2016 to be increased by 3.5 megawatts (MW), from 54.0 MW to 57.5 MW for its current wind energy repowering project, on approximately 3,350 acres in the northeastern portion of the Altamont Pass Wind Resource Area (APWRA), encompassing 15 parcels, bearing the following Assessor's Parcel Numbers: 099B-5680-015-00; 099B-5680-001-00; 99B-5610-1-00; 99B-6075-3-00; 99B-6051-1-00; 99B-6051-9-00; 99B-6125-3-00; 99B-6125-4-00; 99B-6125-5-00; 99B-6100-2-10; 99B-6100-2-11; 99B-6100-2-12; 99B-6100-3-11; 99B-6100-3-15; and 99B-6125-2

All other conditions adopted by the East County Board of Zoning Adjustments on January 14, 2016 by Resolution Z-16-01 continue to apply.

EAST COUNTY BOARD OF ZONING ADJUSTMENTS
ALAMEDA COUNTY PLANNING DEPARTMENT

Summit Wind Repower Project

Affected Environmental Analysis Update

Final

April 2020

Altamont Winds LLC

Prepared for

Alameda County Planning Department

224 West Winton Avenue Room 111
Hayward, CA 94544

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Contents

Acronyms and Abbreviations

APWRA	Altamont Pass Wind Resource Area
CEQA	California Environmental Quality Act
CUP	conditional use permit
PEIR	*Altamont Pass Wind Resource Area Repowering Final Program Environmental Impact Report*
GE	General Electric
I	Interstate
MMRP	Mitigation Monitoring and Reporting Program
MW	megawatt
Project	Summit Wind Repower Project
WRAP TAC	Wind Repowering/Avian Protection Technical Advisory Committee
WTG	wind turbine generator

1. Introduction and Project Overview

1.1 Introduction

This Project Description and Affected Environment Analysis Update (AEAU) has been prepared to support Alameda County's review of a modified Conditional Use Permit (CUP) (application PLN2020-00007), which would authorize proposed changes to the Summit Wind Repower Project (Project) as previously approved in 2016 (CUP PLN2014-00056). This review is intended to determine if the modification will result in new significant environmental effects or an increase in the severity of previously identified significant effects pursuant to Sections 15162, 15163 and 15164 of the California Environmental Quality Act (CEQA) Guidelines. The AEAU is proposed as an addendum to a previously certified EIR and adopted environmental checklist for the Project, pursuant to Section 15164.

Alameda County is the lead agency for the *Altamont Pass Wind Resource Area (APWRA) Repowering Final Program Environmental Impact Report* (PEIR) (certified November 2014). The PEIR provided a program-level analysis of the environmental impacts of repowering the APWRA in accordance with the requirements of CEQA for a program EIR (Section 15168 of the CEQA Guidelines). The *Summit Wind Repowering Project CEQA Implementation Checklist and Application Supporting Materials* (CEQA Implementation Checklist) (Power Engineers, 2015) was prepared and tiered from the PEIR to provide a project-level analysis of the Project as provided for by Section 15168 of the CEQA Guidelines. The CEQA Implementation Checklist analyzed the Project as a conditional use permit (CUP) application to allow up to 54 megawatts (MW) of electricity from up to 33 wind turbine generators (WTGs). Alameda County approved CUP PLN2014-00056 for the Project on January 14, 2016, for up to 54 MW of capacity using up to 27 WTGs. The installed capacity of the original wind energy facility was 56.9 MW comprised of 569 old generation WTGs (PLN2011-00102).

This document supports Alameda County's review of a Project modification to allow up to 57.5 MW from the currently planned use of 23 WTGs. **Appendix A** contains graphic figures that illustrate the proposed modified Project.

1.1.1 Lead Agency Contact Information

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1.1.2 Project Sponsor Contact Information

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1.2 Scope of Environmental Review

This AEAU document incorporates the PEIR, certified by Alameda County, and the CEQA Implementation Checklist for the Project, by reference, and demonstrates that the identified impacts described for the Project in those documents will not significantly change with implementation of the Project modification. More specifically, it shows that the Project modification will not result in new significant environmental effects or a substantial increase in the severity of previously identified significant effects over those analyzed in the PEIR and CEQA Implementation Checklist. **Section 2** provides a detailed description of the minor modification to the Project.

Because the PEIR and the previously adopted CEQA Implementation Checklist for the Project rely on MWs as a metric or basis of calculation for predicting or estimating avian and bat mortality due to their interaction with WTGs, the increase in aggregate nameplate generation capacity being proposed (from 54 to 57.5 MWs, an increase of slightly under 6.5 percent) is assumed to have a directly proportional impact of increasing the mortality of bats and birds (i.e., about 6.5 percent). Although this potential impact is one of the paramount concerns for repowering projects in the APWRA, the increase in nameplate capacity of individual turbines would not alter or increase the extent of any other layout feature, roadway, laydown area, grading, excavation, land disturbance, or other aspect for the currently authorized project (CUP PLN2014-00056). More importantly, the MW capacity of the Project was not used as the basis for the determination of significance of any impact other than bird and bat mortality. Therefore the analysis undertaken for this document of the consequences of the Project changes is limited to biological resources only and more specifically only the potential for adverse impacts on candidate, sensitive and special status avian wildlife species, or the effect quantified and characterized in the PEIR and CEQA Implementation Checklist as *Impact BIO-11 – Avian mortality resulting from interaction with wind energy facilities, and Impact BIO-14 – Turbine-related fatalities of special-status and other bats*.

The overall view is that although the increase in MW could proportionally increase mortality of birds and bats, it should also be recognized that a noticeable reduction in the rotor-swept area as compared to the currently authorized project would be achieved as a result of the Project modification (from about 261,280 gross square meters to a little over 243,060 square meters, or just under 7 percent). The County in this AEAU asserts that the actual effect of the increase in MW will be of little or no effect or statistically insignificant. Regardless, the AEAU does not deviate from the prior finding of the PEIR and CEQA Implementation Checklist analysis of the Summit Wind Project regarding Impacts BIO-11 and -14, that the Project will have significant and unavoidable adverse impacts on bird and bat populations.

Hence, the Project modification would not alter any applicable mitigation measure specified in the PEIR and the associated Mitigation Monitoring and Reporting Program (MMRP) adopted for the Project would be unchanged. The PEIR and CEQA Implementation Checklist analyses for all other resource and impact areas is accurate and applicable to the Project modification, and are incorporated herein by reference (Alameda County Community Development Agency 2014; Power Engineers 2015).

1.3 Entitlements Required

A CUP modification is required by the County of Alameda for approval of the Project modification in accordance with the County's Zoning Ordinance, Section 17.54.150 (Conditional uses – changes and renewals). An application for a modified CUP is being submitted concurrently with this Project Description and Affected Environment Analysis Update document.

There are no additional state or federal permits, approvals, or agency consultations required for approval of the Project modification.

2. Project Description

2.1 Background

The PEIR was certified by Alameda County in November 2014 and analyzed the effects of repowering the APWRA at a program level. The CEQA Implementation Checklist for the Summit Wind Repower Project provided a project-level analysis of the planned decommissioning of 569 obsolete WTGs and replacement with up to 33 newer, more efficient WTGs for an aggregate nameplate capacity of up to 54 MW. Alameda County approved CUP PLN2014-00056 for the Project on January 14, 2016, permitting up to 54 MW and up to 27 new WTGs (six turbine sites were eliminated by a combination of withdrawal and disapproval).

Subsequent to CUP issuance, in coordination with Alameda County the Project sponsor completed final micrositing and based on its results and market conditions, proposed a revised array of 26 WTG sites, including three alternate turbine locations. Although a grading permit for 26 WTG sites was initially approved by Alameda County (permit number G07-211038, September 5, 2018), the Project sponsor subsequently determined that the three alternate WTG sites were infeasible. A final array of 23 General Electric (GE) 2.5 MW turbines is now planned, thereby increasing the aggregate nameplate capacity by 3.5 MW to a new total of 57.5 MW. Construction of the Project began on July 10, 2019, and is anticipated to be complete by October 31, 2020.

2.2 Project Location

The Project site is within the boundaries of a pre-existing wind farm in northeastern Alameda County, California. The project is located within the APWRA, which is designated by the State of California and recognized by Alameda County as a Wind Resource Area because the area maintains winds at a level that supports economically viable wind energy projects. The Project site is generally east of the Brushy Peak Regional Preserve, south of the Alameda County-Contra Costa County border, west of Dyer Road, and north of Altamont Pass Road. **Figure 1** shows the regional setting of the Project.

Regional access to the site is via I-580, and local access is via Altamont Pass Road and Dyer Road. The Project boundary comprises approximately 3,302 acres encompassing all or portions of 15 land ownership parcels.

2.3 Project Modification

The minor modification to the Project described herein is a net increase of 3.5 MW over what was analyzed in the CEQA Implementation Checklist and approved in the Project's CUP PLN2014-00056. Due to cost and business decisions based on technological advances, the Project layout will involve higher output, fewer turbines and result in a smaller facility footprint than originally analyzed and currently authorized under CUP PLN2014-00056.

Table 1 compares the Project's permanent facility footprint as described in the CEQA Implementation Checklist to the layout subsequently authorized and the proposed Project modification layout. As calculated in the CEQA Implementation Checklist, the permanent facility footprint was originally anticipated to be 28.09 acres (Power Engineers, 2015). Based on the revised design that was approved in 2016 in the Project's CUP approval, the permanent facility footprint was increased to 30.11 acres. With the proposed Project Modification, which reduces the number of turbines and meteorological equipment towers (METs), the permanent facility footprint would be 24.16 acres. This is a 14 percent reduction in permanent facility footprint from the Project as analyzed in the CEQA Implementation Checklist and a 20 percent reduction from the Project as currently authorized by CUP PLN2014-00056.

Table 1. Project Characteristics

Project Feature	Permanent Facility Footprint (acres)		
	54 MW Project Analyzed in CEQA Implementation Checklist[a]	54 MW Project Currently Authorized by CUP PLN2014-000560[b]	57.5 MW Proposed Project Modification[c]
WTG Pads	0.122	3.105	2.645
Interior Access Roads	25.22	25.6	20.31
Substations	2.7	1	1
MET Pads	0.048	0.4	0.2
Total	**28.09**	**30.11**	**24.16**

[a] Facility footprint comprised of 33 wind turbine pads, 3 MET pads, 2 substations, and a permanent road width of no less than 16 feet (Power Engineers, 2015). According to Power Engineers (2015), the anticipated permanent road network was based on pre-design turbine layout and thus not engineered to meet the specifications of the turbine manufacturer.

[b] Facility footprint comprised of 27 wind turbine pads, 2 MET pads, 2 substations, and a permanent road width of 16 feet. The currently authorized road layout meets the design specifications of the turbine manufacturer.

[c] Facility footprint comprised of 23 wind turbine pads, 1 MET pad, 2 substations, and a permanent road width of 16 feet. The proposed Project modification road layout meets the specifications of the turbine manufacturer.

The configuration of the proposed Project Modification would increase MW output with a reduced number of turbines by using newer technology, and more efficient turbines than originally anticipated. The CEQA Implementation Checklist and CUP PLN2014-00056 anticipated the Project would utilize Suzlon's 2.1 WTG model. General Electric's (GE) 2.5 WTG model is now available with a larger MW output compared to the Suzlon 2.1 WTG model.

Table 2 compares the dimensions of the Suzlon 2.1 turbines described in the CEQA Implementation Checklist to the GE 2.5 turbines currently proposed. As shown below, the GE 2.5 WTG model would have an additional 0.4 MW in output, 8 feet in blade length (rotor radius), and 9 feet in maximum overall height than the Suzlon 2.1 WTG model.

Table 2. Wind Turbine Generator Dimensions for the Project

Turbine Feature	Suzlon 2.1		GE 2.5	
Output	2.1 MW		2.5 MW	
	Meters	Feet	Meters	Feet
Tower Hub Height	90	295	90	295
Rotor Radius	55.5	182	58	190
Rotor Diameter	111	364	116	381
Ground Clearance	34.5	113	32	105
Maximum Overall Height	145.5	477	148	486

Section 4.11 of the CEQA Implementation Checklist (Power Engineers, 2015) analyzed the Project's impacts on avian mortality (Impact BIO-11) based on annual fatalities per MW, and the methodology used in the PEIR (Power Engineers, 2015). Based on the Project modification that would result in 3.5 MW of gross nameplate generating capacity over what was analyzed and approved in January of 2016, potential avian and bat mortality impacts are re-analyzed or re-assessed by MW in **Section 3**.

3. Environmental Analysis

The CEQA Implementation Checklist analyzed the Project in relation to the impact categories identified in the PEIR, including Impacts BIO-11 and BIO-14. The CEQA Implementation Checklist disclosed the potential for the then-proposed Project to result in significant and unavoidable impacts to resident and migratory avian, raptor, and bat species known in the region in addition to movement of native resident or migratory wildlife species with established native resident or migratory wildlife corridors. Mitigation measures identified in the PEIR and subsequently included in the MMRP were required to reduce significant impacts to resident and migratory avian, raptor, and bat species as well as wildlife migration corridors to the maximum extent practicable. As discussed in the CEQA Implementation Checklist (Power Engineers, 2015), impacts to these wildlife species from the Project would remain significant and unavoidable after implementation of the aforementioned mitigation measures.

The aim of this analysis is to demonstrate the Project modification would not result in different or more severe bird and bat fatality impacts with respect to Impacts BIO-11 and BIO-14 as identified in the PEIR. The scope of this analysis is narrowed and limited to these two impacts because the Project modification is not reasonably expected to result in different or more severe impacts on any other aspect of the environment analyzed in the FPEIR and CEQA Implementation Checklist. The Project modification is considered proportionally minor in the context of its trade-off of fewer individual turbines and reduced overall blade-swept area for a modest increase in MWs. Furthermore, although the MW increase of slightly under 6.5 percent is assumed to have a directly proportional impact of increasing the mortality of bats and birds, the increase would not alter or increase the extent of any other layout feature, roadway, laydown area, grading, excavation, land disturbance, or other aspect presented in the Project description, on which the impact analysis is based. It is the County's view that the Project modification will therefore not result in new significant environmental effects, and cannot with certainty be expected to result in an increase in the severity of previously identified significant effects disclosed in the CEQA Implementation Checklist, particularly and exclusively with regard to avian mortality due to interaction with wind turbines (Impact BIO-11) and turbine-related fatalities of special-status and other bats (Impact BIO-14).

The Project will incorporate and implement all applicable mitigation measures specified in the PEIR as certified by Alameda County. Specific mitigation measures relevant to Impact BIO-11 and BIO-14 are cited in the same manner as in the PEIR and the associated MMRP adopted for the Project. Mitigation Measures BIO-11a through BIO-11i and BIO-14a-d remain as conditions of approval for the approved Project and for the proposed Project modification.

3.1 Impact BIO-11

Avian mortality resulting from interaction with wind energy facilities

The following analysis takes into consideration avian mortality data from monitoring reports for the three most recently completed repowering projects in the APWRA: Vasco Winds (Ventus Environmental Solutions, 2016), Golden Hills (H.T. Harvey & Associates, 2020), and Golden Hills North (Great Basin Bird Observatory & H.T. Harvey and Associates, 2020). The monitoring reports from these projects represent the most recent and perhaps best available information for the current Project. Although the latest available data (Years 2 and 3 for Golden Hills and Year 1 from Golden Hills North) are only in draft form and not yet formally reviewed by the Wind Repowering/Avian Protection Technical Advisory Committee (WRAP TAC) as required by the mitigation measures applicable to those projects, the information in these reports is useful for assessing the current proposal to increase nameplate capacity.

The avian mortality data varies as much as 533 percent between these three projects. Many factors influence fatality rates that may or may not be shared between the Project site and neighboring repowered wind energy facilities, including but not limited to turbine hub height, rotor swept area, number and spacing of turbines in the facility, presence of nonfunctional turbine towers that may be attractive as nesting substrate and hunting perches (e.g. ,near the Golden Hills project site), topography, surrounding vegetation

communities, and presence of natural nesting substrate. Differences in survey approach and estimation methodologies among the collection of available data further confounds the issue. According to HT Harvey and Associates (2018), the presence of old turbine arrays (off-site, on the Patterson Pass project site) might have contributed to the nearby raptor hots spots at the Golden Hills facility. The Project's old generation turbines that preceded the Summit Project were removed from 2016 to 2018.

The Project, as approved in 2016, was determined to have significant and unavoidable impacts in relation to avian mortality resulting from interaction with the proposed wind energy facilities on special-status avian species that cannot be reduced to below the level of significance through the incorporation of mitigation measures.

Updated estimated avian mortality for the Project under non-repowered turbine conditions (referred to as pre-Project conditions in the CEQA Implementation Checklist) and the currently authorized 54 MW Project and proposed Project modification under the current 57.5 MW layout are shown in **Table 3** and **Table 4**, respectively. The tables are similar to Table 3.4-13 of the PEIR (for a specific project, Golden Hills), but use both a range and overall average of fatalities rates combined from Vasco Winds (3-year average), Golden Hills (3-year average), and Golden Hills North (Year 1).

Table 3. Estimated Annual Fatality Rates for Non-Repowered and Currently Authorized 54 MW Repowered Turbines at Summit Wind Repower Project

Species/Group	Adjusted Fatality Rates[a]		Estimated Summit Wind Fatalities[b]		Change from Non Repowered to Repowered Based on Average
	Non-Repowered[c]	Repowered Vasco Winds / Golden Hills / Golden Hills North[d]	Non Repowered 56.9 MW	Repowered 54 MW using Vasco Winds / Golden Hills / Golden Hills North Rate and [Average]	
American Kestrel	0.56	0.28 / 0.10 / 0.11	31.86	15.12 / 5.40 / 5.94 [8.82]	72% decrease
Burrowing Owl	0.67	0.06 / 0.19 / 0.03	38.12	3.24 / 10.26 / 1.62 [5.04]	87% decrease
Golden Eagle	0.09	0.05 / 0.16 / 0.08	5.12	2.70 / 8.64 / 4.32 [5.22]	2% increase
Red-tailed Hawk	0.40	0.21 / 0.57 / 0.29	22.76	11.34 / 30.78 / 15.66 [19.26]	15% decrease
All Raptors	2.43	0.64 / 1.15 / 0.64	138.27	34.56 / 62.10 / 34.56 [43.74]	68% decrease

[a] Annual fatalities per MW of nameplate capacity.
[b] Estimated total number of Project-wide fatalities. Calculated by multiplying adjusted fatality rate by MW.
[c] Average of 2005-2013 bird years for entire APWRA (ICF, 2016)
[d] Vasco Winds 3 year average (Ventus Environmental Solutions, 2016) / Golden Hills 3 year average (HT Harvey & Associates, 2020) / Golden Hills North Year 1 (Great Basin Observatory & HT Harvey and Associates, 2020) with the average across the three projects provided in brackets [ ].

The adjusted fatality rates for non-repowered turbines come from APWRA-wide data for 2011-2013 bird years (ICF, 2016). The adjusted fatality rates for repowered turbines were provided by the nearby repowering projects in the order presented in the tables: Vasco Winds (Ventus Environmental Solutions, 2016), Golden Hills (HT Harvey & Associates, 2020), and Golden Hills North (Great Basin Observatory & HT Harvey and Associates, 2020) – seven years of monitoring in total. Only one year of a minimum three-year monitoring program has been completed for the Golden Hills North project. The estimated total number of predicted fatalities resulting from the pre-Project non-repowered turbines is calculated by multiplying the non-repowered adjusted fatality rate by the nameplate capacity of the installed capacity of

the original wind energy facility (56.9 MWs as documented in PLN2011-00102). The estimated total number of predicted fatalities resulting from the currently authorized Project (**Table 3**) and proposed Project modification (**Table 4**) is calculated by multiplying the repowered adjusted fatality rate (as ordered in the tables) by the nameplate capacity of 54 MWs and 57.5 MWs, respectively. The expected change in annual fatalities from non-repowered to the 54 MW authorized Project (**Table 3**) and the 57.5 MW Project modification (**Table 4**) is calculated by subtracting the average annual fatalities for each focal species (shown in brackets [ ]) from the non-repowered fatalities and dividing by non-repowered fatalities.

Table 4. Estimated Annual Fatality Rates for Non-Repowered and 57.5 MW Project Modification at Summit Wind Repower Project

Species/Group	Adjusted Fatality Rates[a]		Estimated Summit Wind Fatalities[b]		
	Non-Repowered[c]	Vasco Winds / Golden Hills / Golden Hills North[d]	Non Repowered 56.9 MW	Repowered 57.5 MW using Vasco Winds / Golden Hills / Golden Hills North Rate and [Average]	Change from Non Repowered to Repowered Based on Average
American Kestrel	0.56	0.28 / 0.10 / 0.11	31.86	16.10 / 5.75 / 6.33 [9.39]	71% decrease
Burrowing Owl	0.67	0.06 / 0.19 / 0.03	38.12	3.45 / 10.93 / 1.73 [5.37]	86% decrease
Golden Eagle	0.09	0.05 / 0.16 / 0.08	5.12	2.88 / 9.20 / 4.60 [5.56]	9% increase
Red-tailed Hawk	0.40	0.21 / 0.57 / 0.29	22.76	12.08 / 32.78 / 16.68 [20.51]	10% decrease
All Raptors	2.43	0.64 / 1.15 / 0.64	138.27	36.80 / 66.13 / 36.80 [46.58]	66% decrease

[a] Annual fatalities per MW of nameplate capacity.
[b] Estimated total number of Project-wide fatalities. Calculated by multiplying adjusted fatality rate by MW.
[c] Average of 2005-2013 bird years for entire APWRA (ICF, 2016)
[d] Vasco Winds 3 year average (Ventus Environmental Solutions, 2016) / Golden Hills 3 year average (HT Harvey & Associates, 2020) / Golden Hills North Year 1 (Great Basin Observatory & HT Harvey and Associates, 2020) with the average across the three projects provided in brackets [ ].

As shown in **Table 3** and **Table 4**, the 57.5 MW Project modification is expected to result in avian fatality comparable to the currently authorized 54 MW Project. In summary, there would be essentially no change in the anticipated significant post repowering reduction in annual fatalities on American kestrel (72 versus 71 percent reduction), burrowing owl (87 versus 86 percent reduction), and all raptors combined (68 versus 66 percent reduction) for the Project modification. Similarly, the anticipated post repowering, modified Project decrease in annual fatalities on red-tailed hawk (10 percent decrease) would be slightly less than the currently authorized 54 MW Project (15 percent decrease). For golden eagle the anticipated annual fatalities for the Project modification would be slightly more than the currently authorized 54 MW Project (9 percent increase versus 2 percent increase).

As previously mentioned, there is a large variance in adjusted fatality rates between Vasco Winds, Golden Hills, and Golden Hills North. For three of the four focal species (burrowing owl, golden eagle, red-tailed hawk) and all raptors combined, Golden Hills' fatality data is notably higher than the other two projects. Additional years of study on the Golden Hills North project will help determine whether the high fatality rates at Golden Hills reflects an unusual event (post drought 2013-2014), unique site conditions, or a new standard pattern for the area (HT Harvey and Associates, 2018). As further explained in the Year 1 report for Golden Hills North, the monitoring results were less concerning for the four focal raptor species,

compared to both the Golden Hills project results and other pre- and post-repowering studies (Great Basin Bird Observatory & H.T. Harvey and Associates. 2020). If the Golden Hills site indeed represents a unique situation, the estimated repowered avian fatality shown in **Tables 3 and 4** for the Summit Wind Project would be an overestimate. For example, the Project modification would be expected to reduce golden eagle fatalities by 10 to 40 percent (instead of 9 percent increase) based on the Vasco Winds and Golden Hills North data which may be more representative of the area. The Summit Wind project is contiguous with Vasco Winds to the north and with Golden Hills North to the east, whereas the Golden Hills site is set apart from all three projects by I-580.

Furthermore, the Project modification will result in a smaller total rotor swept area as compared to the turbine layout described in the CEQA Implementation Checklist. As calculated by the turbine dimensions provided in **Table 2**, **Table 5** compares the rotor swept area for the layout described in the CEQA Implementation Checklist using 33 Suzlon 2.1 WTGs to the current layout which uses 23 GE 2.5 WTGs. While the rotor swept area for the GE 2.5 MW turbine model is 891 square meters larger than the Suzlon 2.1 model, the reduction in the number of turbines results in a smaller rotor swept area for the Project as a whole (76,273 square meters smaller than the 33 WTG layout and 18,215 square meter smaller than the 27 WTG layout).

Table 5. Rotor Swept Area Comparison for the Project

	33 WTG Project included in CEQA Implementation Checklist (Suzlon 2.1)	27 WTG Project Currently Authorized by CUP PLN2014-000560 (Suzlon 2.1)	23 WTG Proposed Project Modification (GE 2.5)
Rotor Swept Area per Turbine (m^2)	9,677	9,677	10,568
Rotor Swept Area for whole project (m^2)	319,337 (33 WTGs)	261,279 (27 WTGs)	243,064 (23 WTGs)

Although uncertainty surrounding the accuracy of the estimated fatality rates and the types of species potentially affected remains, fatalities will still be expected to result from the operation of the repowered turbines. The County has required implementation of Mitigation Measures BIO-11a through BIO-11i and BIO-14a through BIO-14d (for bats) to reduce this impact, but the impact is not expected to be reduced to a less-than-significant-level. Accordingly, the determination of significant and unavoidable impacts remains unchanged with implementation of the Project modification.

As required by BIO-11g, a site-specific post-construction avian fatality monitoring program will be developed by the Project sponsor for review and approval by the WRAP TAC. The fatality monitoring program will include adaptive management procedures for implementation in the event that the actual fatality rates measured onsite exceed those predicted for the Project today. In addition, as listed below, the Project modification would continue to adhere to Mitigation Measures BIO-11a through BIO-11i:

- BIO-11a: Prepare a project-specific avian protection plan
- BIO-11b: Site turbines to minimize potential mortality of birds
- BIO-11c: Use turbine designs that reduce avian impacts
- BIO-11d: Incorporate avian-safe practices into design of turbine-related infrastructure
- BIO-11e: Retrofit existing infrastructure to minimize risk to raptors
- BIO-11f: Discourage prey for raptors
- BIO-11g: Implement post-construction avian fatality monitoring for all repowering projects
- BIO-11h: Compensate for the loss of raptors and other avian species by contributing to conservation efforts
- BIO-11i: Implement an avian adaptive management program, as presented in the PEIR.

3.2 Impact BIO-14

Turbine-related fatalities of special-status and other bats

In its analysis of potential adverse impacts on resident and migratory bats flying in and through the Project area, the PEIR found evidence that they may be killed by collisions with wind turbine blades or towers. The repowered turbines represented by the Project, including the modified Project may thus introduce increased fatality risk unique to migratory bats.

As discussed in the most recent assessment of impacts of wind energy repowering on bat fatalities, for the Sand Hill Wind Repowering Project (2020), existing fatality data and trends observed at other wind energy facilities where fourth-generation turbines have been in operation for a few years, have improved understanding of repowering effects. From analysis of the data and trends it appears that fatalities would: 1) primarily be associated with wind speeds of less than 5-6 m/s; 2) occur with more frequency in the late summer to mid-fall migration period and more sporadically at other times of year; 3) consist mostly of migratory bats, particularly Mexican free-tailed bat and hoary bat; and 4) occur in smaller numbers among one or more other bat species. The impact identified in the 2014 PEIR and the 2016 CEQA Implementation Checklist for the Summit Wind Project regarding bat mortality was that the impact would be significant and unavoidable.

However, additional research and monitoring of the more recently installed wind turbine projects has furthered the understanding of how bats interact with and may be killed or injured by 4th-generation wind turbines, especially with the use of trained dogs in monitoring surveys (as at Golden Hills). The PEIR recognized that repowering old generation turbines with current generation turbines has typically resulted in higher numbers of reported bat fatalities for a number of reasons and hypotheses, but that new peer-reviewed scientific research, emerging technology and analytical methods could improve understanding and help inform effective mitigation strategies and avoidance and minimization measures. The final PEIR, while incorporating a metric of bat deaths per MW per year (expanded on the basis of public comment on the draft PEIR), noted that the common metric can disguise the absence of consistency in the manner of data collection (i.e., the limited ability to research or emphasize bat mortality studies under prior technological regimes vs. more recent research methods and more modern turbine technology). For this reason, use of the mortality/MW/year metric as an indicator of bat mortality prediction for wind turbine operations is not considered useful or reliable for concluding that a seven percent increase in MW, in the context of a concurrent reduction in blade swept area, would result in more severe impacts on bat species.

The Project modifications to increase MWs while reducing the total blade swept area and the individual number of turbines therefore cannot confidently be found to indicate that more severe impacts or greater number of bat fatalities will result. The Project sponsor will be required by the County to undertake the following Mitigation Measures BIO-14a through BIO-14d regardless. The impact on bats will remain significant and unavoidable, but will be reduced to the greatest extent possible by adoption and effective implementation of these measures.

- BIO-14a: Site and select turbines to minimize potential mortality of bats.
- BIO-14b: Implement post-construction bat fatality monitoring program for all repowering projects.
- BIO-14c: Prepare and publish annual monitoring on the finding of bat use of the project area and fatality monitoring results.
- BIO-14d: Develop and implement a bat adaptive management plan.

4. List of Preparers

Lead Agency

Alameda County Planning Department

Andrew Young, Senior Planner

Project Sponsor

Altamont Winds, LLC

Jiddu Tapia

Todd Hopper

Technical Assistance

Jacobs Engineering Group, Inc

5. References

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Appendix A. Figures

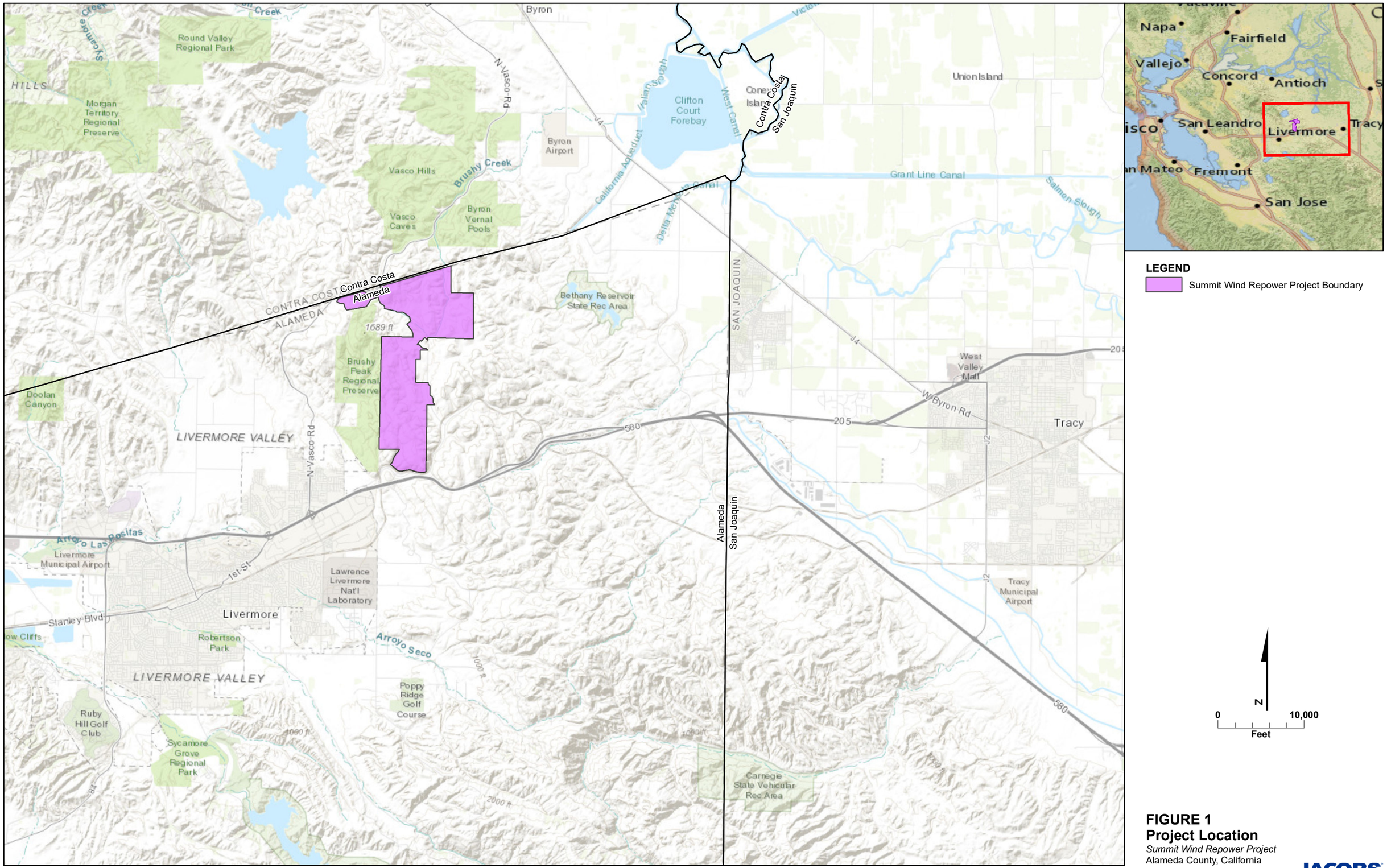

FIGURE 1
Project Location
Summit Wind Repower Project
Alameda County, California

JACOBS

\\BROOKSIDEFILES\GIS_SHARE\ENBG\00_PROJ\A\ALTAMONTWINDS\680957SUMMITWINDPROJ\GIS\MAPFILES\2019\CEQA_ADDENDUM\FIG1_PROJECT_LOCATION.MXD CS055422 12/20/2019 12:47:01 PM

CONTRA COSTA COUNTY
ALAMEDA COUNTY
AIC GATE 24
8565 VASCO RD
AIC GATE 22
8110 VASCO RD
AIC GATE 16
7525 VASCO RD.
AIC GATE 23
8175 VASCO RD
VASCO ROAD
AIC GATE 21
7311 VASCO RD.
ROAD CULVERT
WALKER
99B-6100-2-10
99B-6100-2-11
WALKER
99B-6100-2-12
WALKER
99B-6100-2-11
LIVERMORE REC.
99B-6100-2-1
APPROX. FRONT OF TOMB
APPROX. 1 ACRE CEMETERY ROCK PARCEL
DYER
SUBSTATION
WALKER
99B-6100-3-15
DUNTON
99B-5680-1
FRICK
SUBSTATION
COSTA ROBBIE
99B-5680-15
DEVINCENZI
99B-5610-1
DEVINCENZI
99B-6075-3
DEVINCENZI
99B-6051-2
DEVINCENZI
99B-6051-1
99B-6051-9
JACKSON
99B-6125-005
JACKSON
99B-6125-005
ROONEY
99B-6125-002
EGAN ESTATE RANCH
(GUICHARD TRUST)
99B-6125-003
ELLIOT
99B-6125-004
3.3± ACRES
3.3± ACRES
1.8± ACRES
0.9± ACRES
GATE 12
4595 DYER ROAD
AIC GATE 6
4010 DYER RD.
AIC GATE 17
3579 DYER ROAD
AIC GATE 7
2800 DYER RD.
DYER ROAD
MET 1
WT1
WT2
WT3
WT4
WT5
ALT
WT6
WT7
WT9
WT10
WT11
WT12
WT13
WT14
WT15
WT16
WT17
WT20
WT21
WT22
WT27
WT31
WT32
WT33

LEGEND

- PROJECT BOUNDARY
- PROPERTY LINE
- EASEMENT LINE
- ADJACENT PROPERTY LINE
- PROPOSED GRAVEL ROAD CENTERLINE (11.9± MILES)
- PROPOSED EDGE OF GRAVEL ROAD
- GRADING DAYLIGHT LINE
- EXISTING MAJOR CONTOUR LINE (25') — 25
- EXISTING MINOR CONTOUR LINE (5')
- PAD LINE
- ADJUSTED SURVEY CORRIDOR
- JURISDICTIONAL WATER (PER CH2MHILL)
- RIPARIAN AREA (PER CH2MHILL)
- RARE PLANT (PER CH2MHILL)
- CULTURAL RESOURCE (PER CH2MHILL)
- POOLING BASIN (PER CH2MHILL)
- ROCK OUTCROP (PER CH2MHILL)
- PROPOSED LAYDOWN AREA
- PROPOSED TURBINE AND NUMBER — WT##
- PROPOSED MET TOWER LOCATION — MT##
- PROPOSED COLLECTION LINE

600' 0' 300' 600' 1200' 2400'
(IN FEET)
1 INCH = 600 ft.

ALTAMONT WINDS, LLC

SUMMIT WIND

FIGURE 2

BASE MAP EXHIBIT

ALAMEDA COUNTY
STATE OF CALIFORNIA
JULY 2, 2019

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