

VASCO WINDS REPOWERING PROJECT

Final Environmental Impact Report
SCH No. 2010032094
County File No. LP08-2049

Contra Costa County
Department of Conservation
and Development

April 2011



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CHAPTER 1

Introduction

1.1 Purpose of this Document

The California Environmental Quality Act (CEQA) and its implementing regulations (the “CEQA Guidelines”) require a lead agency to prepare and certify a Final Environmental Impact Report (FEIR) before it may approve a project for which a Draft Environmental Impact Report (DEIR) has been prepared. This document, together with the December 2010 Vasco Winds Repowering Project DEIR (SCH No. 2010032094, County File No. LP08-2049), constitutes the FEIR for the Vasco Winds Repowering Project (the Project) proposed by Vasco Winds, LLC (Applicant).

On December 28, 2010, the Contra Costa County Department of Conservation & Development (DCD, the CEQA lead agency) released the DEIR on the Project for public review and comment. The DEIR is available for public review at the offices of the DCD, which are located in the County Administration Building, 651 Pine Street, 4th Floor - North Wing, Martinez, California, at public libraries located in the vicinity of the Project site, and online at: <http://www.co.contra-costa.ca.us/index.aspx?NID=869>. The DEIR describes the Project and its environmental setting; analyzes potential direct, indirect and cumulative environmental impacts related to the construction, operation, maintenance, and decommissioning; identifies impacts that could be significant; recommends mitigation measures, which, if adopted, could avoid or minimize such impacts; and identifies impacts that are expected to remain significant and unavoidable, even with the implementation of recommended mitigation measures. The DEIR also evaluates alternatives to the Project, including a No Project Alternative, as required by CEQA.

The public review and comment period on the DEIR that began December 28, 2010, and ended February 10, 2011, lasted for a period of 45 calendar days. The County Zoning Administrator held a public hearing on January 24, 2011, to accept comments on the DEIR from agencies, organizations, and individuals. The public hearing was held at 3:30 p.m. in Room 107 of the McBrien Administration Building, 651 Pine Street, Martinez, California. The DCD provided notification of the public review period and the public hearing to: 1) public agencies; 2) adjacent property owners and occupants; and 3) organizations that had demonstrated particular interest in the Project. Oral comments were received at the January 24, 2011, public hearing and written comments were received through February 10, 2011. Some comments were received after the end of the comment period and were accepted. Responses to all comments are provided in Chapter 2, *Comments and Responses*.

This FEIR will be used by DCD in its consideration of the Applicant's Land Use Permit (LUP) application for the Project. The County Planning Commission will decide whether to certify the FEIR and approve the requested LUP at a public hearing anticipated to be held on Tuesday, April 26, 2011. Public notification will be provided in accordance with State law upon confirmation of the hearing date.

1.2 Project Overview

The Applicant operates an existing wind energy facility in southeastern Contra Costa County, California, in the Altamont Pass Wind Resource Area (APWRA). The APWRA has been designated by the State and is recognized by Contra Costa County as a Wind Resource Area because it maintains winds at a level that supports economically viable wind energy projects. The existing facility is approximately 4.5 miles south-southwest of the unincorporated community of Byron, approximately 5 miles north of the City of Livermore, approximately 2 miles west-southwest of the Byron Airport, and adjacent to Los Vaqueros Reservoir.

The Applicant proposes to "repower" the existing wind energy facility by decommissioning and removing 438 obsolete wind turbines and associated infrastructure (including concrete foundations, transformers, and electrical equipment) as well as 286 foundations from which turbines already have been removed, and replacing them with up to 50 new, larger and more efficient turbines. Under the Environmentally Preferred Alternative described in Chapter 2, *Comments and Responses*, of this document, even fewer new wind turbines would be constructed – up to 34 new Siemens wind turbines would be installed, representing a net reduction of 404 turbines at the site. The fewer, larger and more efficient new turbines would increase energy production by approximately 147 percent above existing generation while decreasing the facility's nameplate capacity from approximately 80 megawatts (MW) to 78.2 MW. The Project also would construct a new underground electrical collection system, construct new turbine access roads, and reclaim and restore those areas of the existing wind energy facility that no longer would be used.

The Project is the first of three phases of wind development proposed in the APWRA by the Applicant. Under an agreement with the State Attorney General's Office executed December 3, 2010, *Agreement to Repower Turbines at the Altamont Pass Wind Resource Area*, the Applicant intends to replace approximately 2,400 turbines over the next four years or sooner and will shut down all of its existing turbines no later than 2015. The agreement was designed to satisfy the Applicant's and other settling companies' obligations under the 2007 Settlement Agreement to reduce raptor mortality in the APWRA.

1.3 Organization of the FEIR

CEQA Guidelines Section 15132 requires FEIRs to consist of the following elements:

- (a) The DEIR or a revision of the draft;

- (b) Comments and recommendations received on the Draft EIR either verbatim or in summary;
- (c) A list of persons, organizations, and public agencies that commented on the Draft EIR;
- (d) The responses of the lead agency to significant environmental points raised in the review and consultation process; and
- (e) Any other information added by the lead agency.

Printed copies of this FEIR contain CD copies of the DEIR. Copies of this FEIR will be provided in either printed- or CD-format to all agencies, organizations and individuals who received copies of the DEIR. The following elements of this document, in combination with the DEIR, constitute the complete FEIR for the Project:

Chapter 1, *Introduction.*

Chapter 2, *Comments and Responses.* This chapter contains copies of the written comments received on the DEIR, “Master Responses” that have been prepared to address common issues or themes identified in a number of the written comments, and individual responses to the comments. Each comment is marked with an identifying code shown in the margin. For example, Letter 1 Comment 2 is coded 1-2. Responses to the comments from each letter are presented immediately after that comment letter. The agencies, organizations and individuals identified in **Table 1-1** provided comments on the DEIR.

**TABLE 1-1
COMMENTERS ON THE VASCO WINDS REPOWERING PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT**

Comment Letter	Commenter
1	Contra Costa Water District, Douglas E. Coty, Bold, Polisher, Maddow, Nelson & Judson (February 10, 2011)
2	East Bay Regional Park District, Brad Olson, Environmental Programs Manager (February 9, 2011)
3	California Department of Fish & Game, Scott Wilson, Acting Regional manager, Bay Delta Region (February 10, 2011)
4	California Native Plant Society, Lech Naumovich, Conservation Committee (February 11, 2011)
5	NextEra Energy Resources (Applicant), David Neilsen, Project Director (February 11, 2011)
6	Save Mount Diablo, Jodi L. Bailey, Ph.D., Land Conservation Manager (February 14, 2011)
7	California Department of Transportation, Lisa Carboni, District Branch Chief (February 10, 2011)

Chapter 3, *Text Revisions.* This chapter contains text changes to the DEIR that reflect additions, corrections and clarifications resulting from the analysis conducted by DCD in preparing responses to comments on the DEIR. These changes are incorporated as part of the FEIR.

CHAPTER 2

Comments and Responses

This chapter lists the public agencies, private organizations and individuals who provided comments on the DEIR, provides copies of written comments received, and responds to those comments. As required by CEQA, these responses to comments address significant environmental issues raised by commenters during the review period (Pub. Res. Code § 21091(d); CEQA Guidelines §§ 15088(a), 15132). The County has elected to address concerns and suggestions regarding the adequacy and accuracy of the DEIR that were raised by commenters after the review period closed (Pub. Res. Code § 21091(d)) as well as provide responses to all commenters prior to consideration of the EIR for certification (Pub. Res. Code § 21092.5).

California courts have recognized the unlikelihood that any agency could craft a perfect EIR. *See, e.g., Residents Ad Hoc Stadium Committee v. Board of Trustees of the California State University and Colleges et al.*, 89 Cal.App.3d 274, 285 (1979)). Consequently, key purposes of reviewing a DEIR include checking for accuracy, detecting omissions and discovering public concerns (CEQA Guidelines §§ 15200, 15204). Where the text of the DEIR has been revised in response to a comment or concern, the revised text is included as part of the response with revisions shown using the following conventions: text changes are shown in indented paragraphs, text added to the DEIR is shown in underline, and text deleted from the DEIR is shown in ~~strike through~~. These text changes also appear in Chapter 3, *Revisions to the DEIR*.

A number of written comments submitted on the DEIR raised the same or similar questions. Rather than repeat responses to such comments, the County is providing a comprehensive discussion of the issues and related topics as Master Responses in Section 2.2. Individual, point-by-point responses to each individual comment are provided in Section 2.3 that cross-reference the Master Responses where appropriate. Master Responses are provided for the following topics:

- Environmentally Preferred Alternative
- Biological Resources
- Recirculation

Multiple comments received on the DEIR did not address the adequacy or accuracy of the environmental analysis or identify any other significant environmental issue requiring a response; rather, these comments were directed toward the perceived merits or demerits of the Project, provided information, or expressed an opinion without specifying why the DEIR analysis was inadequate. Contra Costa County, as the CEQA lead agency, acknowledges the receipt of these types of comments; however, limited responses are provided because they do not relate to the adequacy or accuracy of the DEIR or otherwise raise significant environmental issues.

2.1 List of Commenters

The Contra Costa County Zoning Administrator held a public hearing to accept comments on the DEIR on January 24, 2011; however, no comments regarding the adequacy or accuracy of the environmental analysis were received during the hearing. The County received seven comment letters on the DEIR, one each from the parties identified below in **Table 2-1**. Commenters are identified in the order in which the letters were received.

**TABLE 2-1
COMMENTERS ON THE VASCO WINDS REPOWERING PROJECT
DRAFT ENVIRONMENTAL IMPACT REPORT**

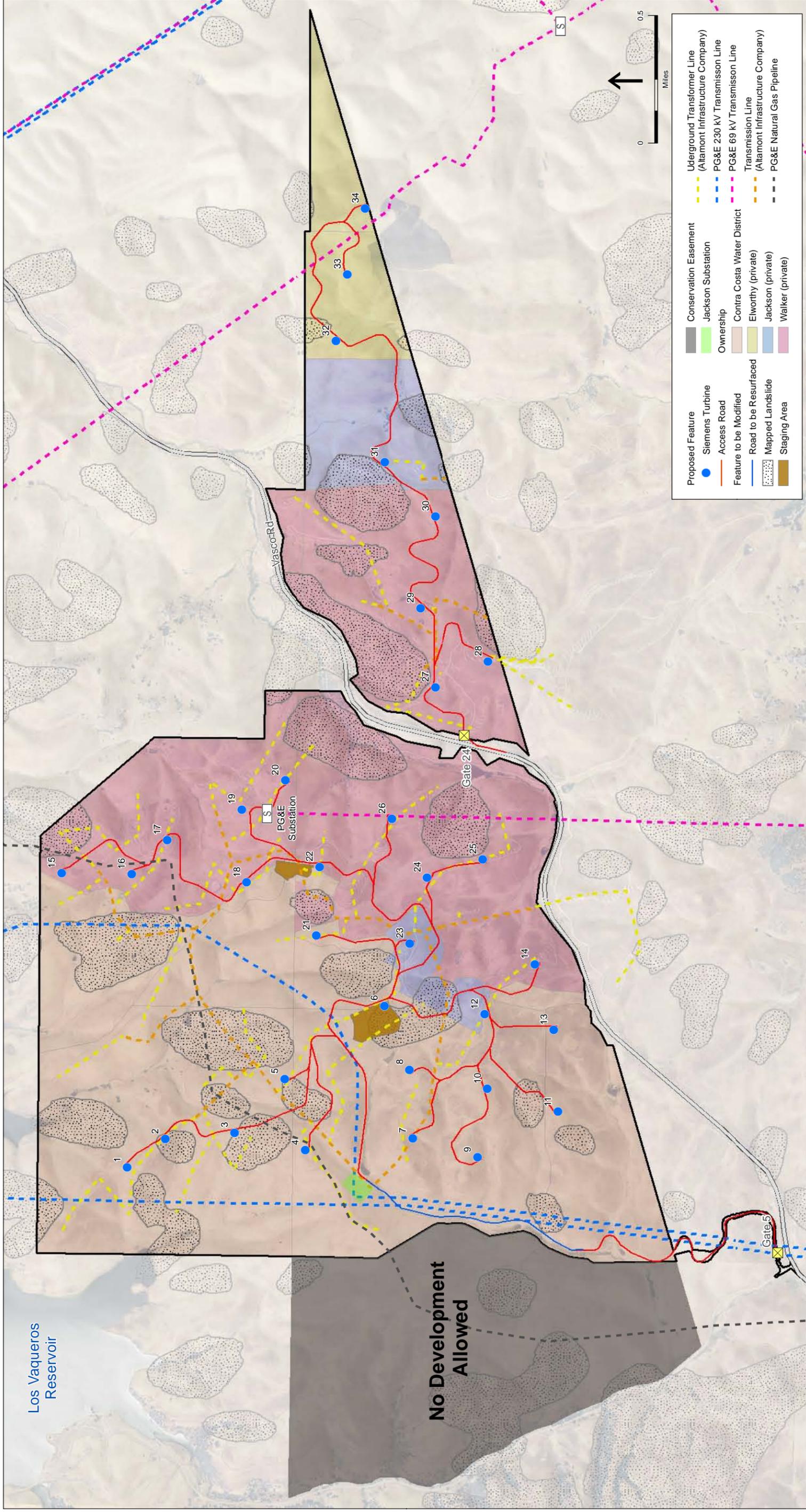
Comment Letter	Commenter	Date
1	Contra Costa Water District, Douglas E. Coty, Bold, Polisner, Maddow, Nelson & Judson	February 10, 2011
2	East Bay Regional Park District, Brad Olson, Environmental Programs Manager	February 9, 2011
3	California Department of Fish & Game, Scott Wilson, Acting Regional Manager, Bay Delta Region	February 10, 2011
4	California Native Plant Society, Lech Naumovich, Conservation Committee	February 11, 2011
5	NextEra Energy Resources (Applicant), David Neilsen, Project Director	February 11, 2011
6	Save Mount Diablo, Jodi L. Bailey, Ph.D., Land Conservation Manager	February 14, 2011
7	California Department of Transportation, Lisa Carboni, District Branch Chief	February 10, 2011

2.2 Master Responses

2.2.1 Environmentally Preferred Alternative

Based on analysis provided in the DEIR and input received from agencies, organizations and the Applicant during and after the review period, an Environmentally Preferred Alternative has emerged. The Environmentally Preferred Alternative is based on Alternative 3, *Revised Siemens [Wind Turbine Generator (WTG)] Layout*, which was identified in DEIR Section 6.6 as the Environmentally Superior Alternative. Alternative 3 has been modified to exclude the two Assessor's Parcel Numbers (APNs) owned by the Contra Costa Water District (CCWD) and located due south of Los Vaqueros Reservoir. The Environmentally Preferred Alternative also reflects refinements proposed or agreed upon by the Applicant, as summarized in the bullet points below. The Environmentally Preferred Alternative is shown in FEIR **Figure 2-1**.

DEIR Section 6.6, *Environmentally Superior Alternative*, identified Alternative 3 as the alternative with the least adverse impacts to the Project area and its surrounding environment. As analyzed in DEIR Section 6.5.4, *Alternative 3: Revised Siemens WTG Layout*, and summarized in Section 6.6, Alternative 3 would repower the existing wind energy facility by decommissioning



SOURCES: NextEra, 2010; USGS, 1998; ESA, 2010

Vasco Wind Repowering Project . 208583
Figure 2-1
 Environmentally Preferred Alternative

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and removing 438 existing WTGs, 286 foundations from which turbines already have been removed, and certain roads and other infrastructure. The existing facility components would be replaced with up to 34 Siemens WTGs, plus necessary roads and related infrastructure, representing a net reduction of 404 turbines at the site. Access roads for Alternative 3 would be realigned relative to the proposed Project to reduce Project impacts to landslide-prone areas, special-status species habitat and jurisdictional waters of the United States.

DEIR Section 6.5.3 describes and analyzes Alternative 2, *Partial Repowering – Same Number of Turbines to be Installed on Reduced Project Area*. Among other things, this alternative would exclude approximately 765 acres of CCWD’s Los Vaqueros Watershed property from the Project area (APNs 005-050-002 and 005-060-002). CCWD and others who commented on the DEIR support this exclusion (see, e.g., Comment 1-4, Comment 1-7, and Comment 1-11). In its comments on the DEIR, CCWD affirmed that this area is subject to a California Department of Fish and Game Conservation Easement and other protections for San Joaquin kit fox, California tiger salamander (CTS) and California red-legged frog (CRLF) (Comments 1-2, 1-3 and 1-4). CCWD asserted that wind turbines in this area would be “unacceptable” as well as inconsistent with the purposes for which CCWD maintains its watershed lands (Comment 1-2). CCWD, as property owner, also indicated that this area is not, and will not be, available for wind energy development (Comments 1-6, 1-12 and 1-26). In the absence of permission from the landowner, the County concludes that any alternative that would include or require development on these two parcels would be legally infeasible (Pub. Res. Code § 21061.1; CEQA Guidelines § 15364). The County would not, and could not approve development on these two parcels.

Based on analysis provided in the DEIR and input received during the comment period, the County has concluded that the Environmentally Preferred Alternative would be feasible and would provide all the environmental benefits of Alternative 3, relative to the Project as proposed. It would reduce the nameplate capacity of the facility to 78.2 MW, but still would increase energy production by approximately 147 percent above existing generation. In addition, the Environmentally Preferred Alternative would further avoid or reduce environmental impacts relative to the Environmentally Superior Alternative identified in DEIR Section 6.6, *Environmentally Superior Alternative*, by:

- Prohibiting wind energy facility development on APNs 005-050-002 and 005-060-002.
- Removing/relocating the five WTGs identified in DEIR Figure 6-3, *Alternative 3 – Siemens Layout*, as Option (Opt)-1, Opt-2, Opt-7, Opt-8, Opt-9, and Opt-10 to provide a greater buffer between the proposed wind energy facility components and the existing PG&E natural gas pipeline.
- Reducing the total acreage of disturbance (temporary and permanent combined) by approximately 122 acres and increasing the acreage of restoration associated with decommissioning of the existing wind energy facility by approximately 12 acres relative to the Project (see **Table 2-2**, *Project Disturbance and Restoration Acreage*).

**TABLE 2-2
PROJECT DISTURBANCE AND RESTORATION ACREAGE**

Facility Components	Environmentally Preferred Alternative (acres)	Proposed Project Siemens Layout (DEIR Table 3-1) (acres)
Permanent		
Turbine pads/towers	21.7	22.9
Jackson Substation upgrade and expansion	2.1	2.0
Roads, new (including passing areas, curves and improvements)	37.4	33.8
New facilities overlapping with existing facilities	(12.5)	<0.1
Subtotal Approximate Disturbance (Net Permanent)	48.7	58.7
Temporary		
34-foot-wide construction roads (includes passing areas crane walking areas, and cut and fill slopes for new roads and new turbine pads)	142.1	235.4
Two construction staging areas	12.0	12.0
Jackson Substation construction area	3.0	3.0
Underground collector system, 3 cross-county routes	4.0	4.0
New facilities overlapping with existing facilities	(18.9)	N/A
Subtotal Approximate Disturbance (Net Temporary)	142.2	254.4
Total Permanent and Temporary Combined	190.9	313.1
Existing Wind Facility Decommissioning/Reclamation		
Existing roads and turbine pads	225.0	213.0
Erosion Repairs and Other Existing Infrastructure to be restored	1.0	1.0
Total Approximate Restoration Acreage:	226.0	214.0

SOURCE: CH2M HILL, 2011; CH2M HILL, 2010

2.2.2 Biological Resources

In recent years, wind power generated in the APWRA has provided about 700 gigawatt-hours annually of renewable energy to California. The environmental trade-offs are well-known, including wind energy facility-related deaths of an estimated 2,230 raptors and 9,300 total birds per year, among other species such as bats (DEIR Section 4.4.2.3, *Regulatory Setting, 2007 Altamont Pass Wind Resource Area Settlement Agreement*, citing Smallwood and Karas, 2009).

Litigation initiated in 2005 that challenged decisions made by Alameda County concerning wind energy facility-related avian impacts resulted in a 2007 settlement agreement (2007 Settlement Agreement) by and among the State of California Attorney General's Office, local chapters of the Audubon Society, Californians for Renewable Energy (CARE), NextEra Energy Resources (the Project Applicant), and others. The 2007 Settlement Agreement identified four species considered to be species of local concern that were shown to be disproportionately affected by wind energy facilities (golden eagle, red-tailed hawk, American kestrel, and burrowing owl – the “Focal Raptor Species”), and required the Applicant to reduce raptor mortality by 50 percent and to

implement adaptive management measures if a 50 percent reduction in Focal Raptor Species mortality was not achieved. Consistent with the analysis presented in DEIR Section 4.4, *Biological Resources*, parties to the 2007 Settlement Agreement believe repowering with newer generation turbines to be the most effective way to reduce wind energy facility-related fatalities for the Focal Raptor Species and the overall mortality rate per MW of capacity for all avian species.

Parties to the 2007 Settlement Agreement reached a new agreement (the 2010 Settlement Agreement or 2010 Agreement) on December 3, 2010, just weeks before the DEIR was issued. Under the 2010 Agreement, NextEra will have satisfied its obligation to reduce raptor mortality by 50 percent provided that it repowers its APWRA facilities by replacing approximately 2,400 WTGs over the next 4 years, including all of the existing turbines on the Project site; by shutting down all of its existing turbines no later than 2015; and otherwise complying with the terms and conditions of the 2010 Agreement. The 2010 Agreement addresses the siting of repowered turbines in Section 4, post-construction and other management requirements in Section 5, compensation for ongoing harm to Focal Raptor Species in Section 6, and other issues. The 2010 Agreement is attached to this FEIR as **Appendix A**.

The DEIR describes the 2010 Agreement in the Executive Summary as well as in Section 4.4.2.3, *Regulatory Setting, Agreement to Repower Turbines at the Altamont Pass Wind Resource Area* (DEIR, pp. ES-4, 4.4-10 et seq.) and imposes mitigation measures that are consistent with its provisions. Section 7.3 of the 2010 Agreement requires parties to use their “best efforts” to ensure that the applicable provisions of the 2010 Agreement are incorporated by lead agencies as mitigation measures in the EIRs for the projects in their respective jurisdictions, and the Applicant has requested that the County do so for the Project. **Table 2-3** summarizes provisions of the 2010 Agreement related to post-construction monitoring, fatality reduction measures and compensation for ongoing harm to Focal Raptor Species, and compares these provisions to comparable mitigation measures recommended in the DEIR.

The County has determined that the provisions of the 2010 Agreement would provide substantially the same protections for avian and bat species as Mitigation Measures 4.4-1b and 4.4-3, respectively, and are comparable in spirit and intent as well as effect. Accordingly, the County has tailored Mitigation Measure 4.4-1b (DEIR, p. 4.4-40) and Mitigation Measure 4.4-3 (DEIR, p. 4.4-47) to amplify their consistency with the 2010 Agreement. As indicated in Section 2.3, *Individual Responses*, these mitigation measures also have been revised in response to individual comments. See also, FEIR Chapter 3, *EIR Text Revisions*.

Mitigation Measure 4.4-1b: The Applicant shall implement a post-construction avian monitoring program consistent with and in accordance with the provisions of the 2010 Settlement Agreement, as follows:

- i. The post-construction monitoring program shall use red-tailed hawks, golden eagles, American kestrels and burrowing owls (“Focal Raptor Species”) and bats as benchmarks for evaluating the effectiveness of the overall Project repowering in reducing turbine-related mortality and informing and updating future siting analyses. The post-construction monitoring program shall commence no later than three (3) months after the commercial operation date of the Project.

**TABLE 2-3
CONSISTENCY BETWEEN THE 2010 SETTLEMENT AGREEMENT AND DEIR MEASURES**

Summary of 2010 Agreement Provisions	Analysis of Consistency with DEIR Mitigation Measures
<p>Section 5.1, Post Construction Monitoring</p> <p>The Project would be subject to three years of post-construction monitoring unless additional monitoring is required pursuant to Section 5.2 below.</p> <p>Post-construction monitoring shall begin no later than three (3) months after the commercial operation date (COD).</p> <p>Post-construction monitoring shall include collecting field data on behavior, utilization and distribution patterns of affected avian and bat species in addition to fatalities. In addition, the Project shall be subject to two years of further monitoring commencing on the 10th anniversary of its COD. NextEra Wind shall provide access to qualified third parties to conduct any additional monitoring after the initial three year monitoring period has expired and before the additional two year monitoring period has commenced, and after the additional two-year monitoring period has expired, provided that such additional monitoring utilizes scientifically valid monitoring protocols that yield results which are reasonably comparable to other efforts to monitor NextEra Wind's repowered turbines. The initial three year monitoring period and the subsequent two year monitoring period together shall constitute the post-construction monitoring Period.</p> <p>NextEra shall implement monitoring of all repowered turbines for fatalities pursuant to an enforceable monitoring program established in consultation with the Contra Costa County pursuant to the Vasco Winds EIR. The monitoring shall use red-tailed hawks, golden eagles, American kestrels and burrowing owls ("Focal Raptor Species") and bats as benchmarks for evaluating the 'effectiveness of the overall NextEra Wind repowering effort and to inform and update siting analyses for future repowering efforts. NextEra also will conduct bird and bat utilization and behavior studies to inform and update siting analyses for future repowering efforts. NextEra also shall monitor each repowered turbine at least once per month for the duration of the post-construction monitoring period for fatalities of the four Focal Raptor Species, bats and all other bird species as appropriate. Finally, NextEra Wind shall monitor a subset (30%) of the repowered turbines at least twice per month for the duration of the post-construction monitoring period for fatalities and bird and bat utilization and/or behavior.</p> <p>Post-construction monitoring shall be conducted by a reputable consultant with applicable experience ("Monitor"). Post-construction monitoring for the Project shall not exceed \$300,000 annually, including the production of monitoring reports, as adjusted for inflation.</p> <p>The Monitor shall prepare interim, annual monitoring reports within three (3) months of completing each year of post-construction monitoring, and shall prepare a final 3 year Monitoring Report within 6 months of completing 3 years of post-construction monitoring for each phase of repowering and a final 2 year Monitoring Report within 6 months of completing 2 years of post-construction monitoring. All monitoring reports shall report adjusted and unadjusted annual fatalities for the Focal Raptor Species, bats and all other bird species on a per-turbine and per megawatt basis. The monitoring reports also shall summarize the results of the bird and bat behavior and use studies for the preceding 1 or 3 years, as applicable. The Monitor shall supplement the final 3 year Monitoring Report for the Project with subsequent monitoring data collected in accordance with the 2010 Agreement.</p>	<p>DEIR Mitigation Measure 4.4-1b, Post-Construction Avian Monitoring</p> <p>DEIR Mitigation Measure 4.4-3, Common and Special Status Bat Species</p> <p>Like the 2010 Agreement, these DEIR Mitigation Measures would:</p> <ul style="list-style-type: none"> • Require post-construction avian monitoring by a qualified consultant (Mitigation Measure 4.4-1b (birds); Mitigation Measure 4.4-3(b), (d), (f) (bats)); • Subject the proposed wind energy generation facility to 3 years of post-construction monitoring unless additional monitoring is required in accordance with the required Adaptive Management Plan (Mitigation Measure 4.4-1b(i), (iv)(b) (birds); Mitigation Measure 4.4-3(f) (bats)); • Require the monitoring of avian use and behavior to explore how birds and use the Project site, and how their behavior affects their risk for collision (Mitigation Measure 4.4-1b(ii) (birds); Mitigation Measure 4.4-3 (bats)); • Use red-tailed hawks, golden eagles, American kestrels and burrowing owls ("Focal Raptor Species") and bats as benchmarks for evaluating the effectiveness of the overall repowering in reducing turbine-related mortality (Mitigation Measure 4.4-1b (birds); Mitigation Measure 4.4-3 (bats)); and • Limit the financial exposure of the Applicant: The 2010 Agreement establishes an annual cap on the potential expense of post-construction monitoring of \$300,000. The DEIR similarly endeavored to keep costs with a financially feasible range by limiting the number of bat monitoring days per year to 90 (Mitigation Measure 4.4-3(f)). In this FEIR, the County has removed the DEIR's limitation on the Applicant's financial exposure from Mitigation Measure 4.4-3(f) in response to Comment 3-7 from the Department of Fish and Game and Comment 6-46 from Save Mount Diablo as well as because it would not minimize any environmental impact on avian or bat species. <p>The mitigation measure would require the three-year period to begin on (rather than within three months of) the commercial operation date of the Project (Mitigation Measure 4.4-1b (birds); Mitigation Measure 4.4-3(f) (bats)). The County intended reasonable flexibility in identifying "day 1" of each monitoring effort and has determined that anytime within three months of the commercial operation date would be reasonable.</p> <p>The 2010 Agreement supplements the frequency of the monitoring recommended in Mitigation Measures 4.4-1b and 4.4-3 by requiring an additional two-year monitoring period upon the 10th anniversary of the COD.</p>

**TABLE 2-3
CONSISTENCY BETWEEN THE 2010 SETTLEMENT AGREEMENT AND DEIR MEASURES**

Summary of 2010 Agreement Provisions	Analysis
<p>Section 5.2 Fatality Reduction Measures</p> <p>Contra Costa County shall review the final three (3) year Monitoring Report for the Project to evaluate whether any repowered turbines are causing significantly disproportionate Focal Raptor and/or bat fatalities relative to other turbines. If one or more turbines are causing significantly disproportionate Focal Raptor or bat fatalities, then Contra Costa County may consider additional focused monitoring and/or management measures designed to reduce the fatalities attributable to those turbines; provided, however, that such measures shall not include relocation or permanent shutdown of any repowered turbine.</p>	<p>The DEIR would require an Adaptive Management Plan for avian and bat species (Mitigation Measure 4.4-1b(iv) (birds) and Mitigation Measure 4.4-3(g) (bats)). As indicated in the DEIR, the goal of the Adaptive Management Plan is to reduce mortality with the least impact on wind energy production by continually incorporating effective mitigation measures that are based on the best available science over the life of the Project. The 2010 Settlement is equally clear about the goal: to reduce wind energy facility-related avian and bat fatalities. Adaptive management is not intended to be punitive: the goal of such a plan is to reduce fatalities, not penalize the Applicant. If, as anticipated, the combination of repowering and micro-siting adequately reduces avian and bat mortality (e.g., relative to baseline conditions for purposes of the EIR or by 50% for purposes for the 2010 Agreement), an adaptive management response would not be required.</p> <p>Like the 2010 Agreement, these DEIR Mitigation Measures would:</p> <ul style="list-style-type: none"> • Initiate Adaptive Management Plan revisions to the project or mitigation measures based on input supplied by the first 3 years of monitoring data; • Consider whether individual turbines are causing significantly disproportionate Focal Raptor or bat fatalities relative to other turbines (as indicated by the use of “e.g.,” the DEIR included 50% more raptor kills than other turbines as an example of a significantly disproportionate impact and did not intend 50% to be the definition of a significantly disproportionate impact). • Provide for the incorporation of new or replacement mitigation measures designed to reduce fatalities based on the best available science (CDFG’s suggestion of a compensatory mitigation option to protect and enhance bird and bat populations could be among the suite of adaptive management options if the purpose of compensation is to reduce fatalities based on the best available science); • Include the possibility of seasonal or weather condition-specific shutdown of individual turbines if determined to be necessary; and • Preclude a requirement that any repowered turbine be relocated or permanent shutdown.

iii. The post-construction monitoring program shall be 3 years in duration. Following the 3 years of post-construction monitoring, 2 years of further monitoring shall commence on the 10th anniversary of the Project’s commercial operation date. The initial 3-year monitoring period and the subsequent 2-year monitoring period together shall constitute the post-construction monitoring period.

iv. The monitoring program shall be conducted by a qualified consultant (“Monitor”) approved by Contra Costa County.

v. Post-construction monitoring shall include collecting field data on behavior, utilization and distribution patterns of affected avian species in addition to fatalities and shall report data in aggregated and by-turbine by-month formats.

- vi. The program shall monitor each repowered turbine at least once per month for the duration of the post-construction monitoring period for fatalities of the Focal Raptor Species and all other bird species, as recommended by the Contra Costa County Technical Advisory Committee (TAC) or an equivalent entity, which will be convened by the County for this purpose. The Applicant shall monitor a subset (30 percent) of the repowered turbines at least twice per month for the duration of the post-construction monitoring period for fatalities and bird utilization and behavior.

- vii. The Monitor shall prepare interim, annual monitoring reports and submit them to Contra Costa County and the Altamont Pass Wind Resource Area Scientific Review Committee (APWRA SRC) within 3 months of completing each year of post-construction monitoring, and shall prepare and submit a final 3-year Monitoring Report within 6 months of completing 3 years of post-construction monitoring and a final 2-year Monitoring Report within 6 months of completing 2 years of post-construction monitoring. All monitoring reports shall report adjusted and unadjusted annual fatalities for the Focal Raptor Species and all other bird species on a per-turbine and per megawatt basis. Monitoring reports also shall summarize the results of the bird behavior and use studies for the preceding 1 or 3 years, as applicable.

- viii. Adaptive Management Plan: Contra Costa County will review the final three (3) year Monitoring Report for the Project to evaluate whether any repowered turbines are causing significantly disproportionate Focal Raptor and/or bat fatalities relative to other turbines. If one or more turbines are causing significantly disproportionate Focal Raptor or bat fatalities, then Contra Costa County may, in consultation with the TAC, consider additional focused monitoring and/or management measures designed to reduce the fatalities attributable to those turbines, with the least impact on wind energy production, by continually incorporating effective mitigation measures that are based on the best available science over the life of the Project. Binding instruments of this Plan could include:
 - a. Specific percentage-goal reductions in avian mortality or type-specific avian mortality, such as a reduction in overall raptor mortality or species-specific raptor mortality achieved within a specified time period. The percentage-goal reductions may be measured from APWRA-wide fatality per MW/year data, which, as reported by Smallwood and Karas (Smallwood and Karas, 2009) are 2.2 raptors/MW/year and 7.5 birds/MW/year, or from the best data available at the time the adaptive management measures go into effect.

 - b. Seasonal or weather condition-specific shutdowns of individual turbines identified by data included in the annual monitoring reports required by Mitigation Measure 4.4-1(b)(iii) if, in the best professional judgment of the Monitor approved by the County, annual fatality monitoring data identifies the need (e.g., 50 percent more raptor kills than other turbines), and identifies that it cannot be effectively met in any other fashion.

 - c. Extension of the 3-year monitoring period in up to 3-year increments.

 - d. Binding instruments of this Plan shall not include relocation or permanent shutdown of any repowered turbine.

Mitigation Measure 4.4-1b: A post construction avian monitoring program conducted by a qualified consultant approved by Contra Costa County shall be implemented for a period of 3 years (unless additional monitoring is required pursuant to the Adaptive Management Plan described below). The program shall use red-tailed hawks, golden eagles, American kestrels and burrowing owls (“Focal Raptor Species”) as benchmarks for evaluating the effectiveness of the overall repowering in reducing turbine-related avian mortality. The 3-year period shall begin on the commercial operation date of the Project. This monitoring program shall include:

- i. Gathering post construction data for the first 3 years of operation, including conducting and refining scavenger removal and searcher detection trials to determine the most reliable methods for the search team to implement.
- ii. Monitoring avian use and behavior to explore how birds use the Project site, and how their behavior affects their risk for collision.
- iii. Publishing an annual monitoring report for the 3-year monitoring period, reporting the findings of post construction monitoring and avian use.
- iv. A site specific Adaptive Management Plan shall be prepared and implemented by the Applicant to guide studies and operations. Plan development and approval shall be coordinated with appropriate agencies including the County, CEC, USFWS, and CDFG. The goal of the Adaptive Management Plan is to reduce avian mortality with the least impact on wind energy production by continually incorporating effective mitigation measures that are based on the best available science over the life of the Project. Binding instruments of this Plan could include:
 - a. Specific percentage goal reductions in avian mortality or type-specific avian mortality, such as a reduction in overall raptor mortality or species-specific raptor mortality (i.e., specific to golden eagles, red-tailed hawks, American kestrels, and burrowing owls) achieved within a specified time period. The percentage goal reductions will be measured from APWRA wide fatality per MW/year data, which are 2.2 raptors/MW/year and 7.5 birds/MW/year as reported by Smallwood and Karas (Smallwood and Karas, 2009).
 - b. If the goals in Mitigation Measure 4.4-1(b)(iv)(1) are not achieved within 3 years, the following additional monitoring and/or mitigation steps shall be taken by the Applicant:
 - Seasonal shutdowns of individual turbines identified by data included in the annual monitoring reports required by Mitigation Measure 4.4-1(b)(iii) if, in the best professional judgment of the biologist approved by the County, annual fatality monitoring data identifies the need (e.g., 50 percent more raptor kills than other turbines), and identifies that it cannot be effectively met in any other fashion.
 - Extension of the 3-year monitoring period in 3-year increments.

Mitigation Measure 4.4-3: The Applicant shall implement a pre- and post-construction bat monitoring program in accordance with the provisions of the 2010 Settlement Agreement and the following mitigation measures, which are based upon the California Bat Working Group Guidelines for Assessing and Minimizing Impacts to Bats at Wind Energy

Development Sites in California (CBWG, 2006). These measures will help to mitigate the Project's effects on bats by addressing the data gaps that prevent adequate assessment of the Project's effects on bats, such as what bat species are using the APWRA and how they are using the Project area.

- a. Pre-construction surveys will be performed in the Project area. Bat investigations shall be conducted in the Project area by a qualified biologist to identify species that may be present in the immediate Project vicinity and in the existing and proposed rotor-swept zones, and to identify any maternal roosts. The qualified biologist shall be experienced in bat research and detection methods, and could employ such methods as acoustic surveys, use of image intensifiers and/or thermal imaging, and radar.
- b. Post-construction bat monitoring shall be conducted in the Project area and reported in accordance with the same terms and conditions as provided in Mitigation Measure 4.4-1b, but for bats, and with the following measures:
 - i. Post-Project monitoring shall utilize long-term acoustic monitoring equipment. The Applicant shall install and maintain in working order acoustic monitoring equipment for the duration of the survey period.
 - ii. Post-construction fatality surveys shall be conducted throughout the Project area as directed by a qualified biologist. These surveys may be seasonal, or dependent upon an initial intense survey, as directed by the designing biologist.
- c. ~~g.~~ The Applicant shall prepare and implement the same Adaptive Management Plan principles for bats that are being applied to avian species under Mitigation Measure 4.4-1b. Binding instruments of an adaptive management plan for bats could include, for example, increasing the cut-in speed of one or more turbines (curtailment) during times of increased bat activity.
- a. ~~The Applicant shall strive to minimize operations related impacts on common and special status bats by contributing to the body of knowledge on bat/turbine interactions by performing pre construction and post construction surveys, and post construction monitoring within the Project area.~~
- b. ~~Bat investigations shall be conducted in the Project area by a qualified biologist to identify species that may be present in the immediate Project vicinity and in the existing and proposed rotor swept zones, and to identify any maternal roosts.~~
- e. ~~Pre construction surveys shall be performed in the Project area.~~
- d. ~~Pre construction and post construction surveys shall be designed by a qualified biologist, experienced in bat research and detection methods, and could include acoustic surveys, use of image intensifiers and/or thermal imaging, and radar.~~
- e. ~~Post Project monitoring may include long term acoustic monitoring equipment. The Applicant shall install and maintain in working order acoustic monitoring equipment for the duration of the survey period.~~
- f. ~~Post construction fatality surveys shall be conducted throughout the Project area as directed by the designing biologist, but shall not exceed 90 monitoring days per year.~~

~~These surveys may be seasonal, or dependent upon an initial intense survey, as directed by the designing biologist.~~

~~A post construction monitoring program conducted by a qualified, County approved consultant shall be implemented for a period of 3 years (unless additional monitoring is required pursuant to the Adaptive Management Plan described below). The 3 year period shall begin on the commercial operation date of the Project. This monitoring program shall include:~~

- ~~• Gathering post construction data for the first 3 years of operation, including conducting and refining scavenger removal and searcher detection trials to determine the most reliable methods for the search team to implement.~~
- ~~• Monitoring bat use and behavior to explore how bats use the Project site, and how their behavior affects their risk for collision.~~

~~g. The Applicant shall prepare and implement the same Adaptive Management Plan principles for bats that are being applied to avian species under Mitigation Measure 4.4.1.~~

2.2.3 Recirculation

Several comments suggest that the DEIR should be recirculated because significant new information should be added in order to give the public a meaningful opportunity to review and comment on the Project (see, e.g., Comments 1-1 and 1-7).

CEQA and the CEQA Guidelines require recirculation of a DEIR for an additional round of agency and public comment only if significant new information is added after the close of the public comment period (Pub. Res. Code § 21092.1; CEQA Guidelines § 15088.5). “Information” can include revisions in the project or the environmental setting as well as additional data or other information (CEQA Guidelines § 15088.5). Recirculation is intended to be the exception, not the general rule. *Save Our Peninsula Committee v. Monterey County Board of Supervisors*, 87 Cal.App.4th 99 (2001). CEQA Guidelines Section 15088.5(a) provides four examples of “significant new information” requiring recirculation, including:

- (1) A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
- (2) A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
- (3) A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it.
- (4) The DEIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

The fourth example is based on the court’s decision in a specific lawsuit and is intended to capture circumstances in which fundamental information is omitted in the DEIR and then added

after the public comment period has closed. In *Mountain Lion Coalition v. Fish & Game Commission*, 214 Cal.App.3d 1043 (1989), an environmental organization challenged the Fish and Game Commission’s adoption of regulations that would have allowed sport hunting of mountain lions to resume within the State based on an environmental analysis that failed to adequately consider cumulative impacts: the analysis inadequately addressed or completely ignored important environmental issues that had been drawn to the agency’s attention by the superior court, ignored input from scientists, and failed to support conclusions with references to specific scientific and empirical evidence. In reaching its decision, the court stated: “While technical perfection in a cumulative impact analysis is not required, courts have looked for ‘adequacy, completeness, and a good faith effort at full disclosure.’ ‘A good faith effort to comply with a statute resulting in the production of information is not the same, however, as an absolute failure to comply resulting in the omission of relevant information.’” Id. at 1052 (citations omitted).

In contrast to the environmental analysis questioned in the *Mountain Lion Coalition* case, the DEIR for the Project provides an adequate and complete disclosure of direct, indirect, and cumulative impacts related to construction, operation and decommissioning of the Project, the Environmentally Superior Alternative identified in DEIR Section 6.6, and other alternatives. Baseline conditions are described on a resource-by-resource basis throughout DEIR Chapter 4, *Environmental Setting, Impacts and Mitigation Measures*. Direct and indirect impacts are analyzed and mitigation measures are identified where appropriate to avoid or reduce anticipated effects. DEIR Chapter 5, *Other CEQA Considerations*, analyzes cumulative, significant unavoidable, significant irreversible, and growth-inducing impacts. Alternatives, the heart of any EIR, are described and evaluated in DEIR Chapter 6, *Alternative Analysis*.

Courts have found the addition of information to a DEIR not to constitute “significant new information” so as to require recirculation in myriad other circumstances. For example:

- Recirculation is not required when new information merely clarifies, amplifies or makes insignificant modifications to a previously circulated draft EIR. CEQA Guidelines § 15088.5(b); *Marin Municipal Water District v. KG Land California Corp.*, 235 Cal.App.3d 1652 (1991) (extended moratorium on water hookups would not cause significant impacts).
- Recirculation is not required when substantial evidence demonstrates that a preferred approach carried forward for agency approval is more environmentally sensitive than the mitigated alternative that was analyzed fully in the EIR. *Western Placer Citizens for an Agricultural and Rural Environment v. County of Placer*, 144 Cal.App.4th 890 (2006). Comment 1-7 suggests that the DEIR should be revised to exclude the portion of CCWD’s Los Vaqueros Watershed property that is subject to a conservation easement and other biological resource protections and then recirculated. As analyzed in Master Response 2.2.1, *Environmentally Preferred Alternative*, the exclusion of this portion of CCWD’s property would be more environmentally sensitive than the Environmentally Superior Alternative identified in DEIR Section 6.6 and analyzed as Alternative 3 (*Revised Siemens WTG Layout*).

- Information submitted by an expert challenging the conclusions on a subject already evaluated in the EIR also does not trigger recirculation. *Cadiz Land Co., Inc. v. Rail Cycle, L.P.*, 83 Cal.App.4th 74, 97 (2000). The inclusion of supplemental data and analysis also does not trigger recirculation when the new information reaches the same conclusion as was reached in the draft EIR. *Laurel Heights Improvement Assn. v. Regents of University of California*, 6 Cal.4th 1112 (1993).

2.3 Individual Responses

This section includes the letters received, with individual comments delineated as indicated above, followed by responses to each comment.

Comment Letter 1

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February 10, 2011

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2011 FEB 10 P 4: 37

DEPARTMENT OF
CONSERVATION
AND DEVELOPMENT

SHARON M. NAGLE
DOUGLAS E. COTY

Mr. William Nelson, Project Planner
Community Development Department
Contra Costa County Administration Building
651 Pine Street, North Wing, Fourth Floor
Martinez, CA 94553-0095

Re: Receipt of Request for Comments on a Draft EIR on the Proposed Vasco Winds Repowering Project (File No. LP08-2049/State Clearinghouse No. 2010032094)

Dear Mr. Nelson:

This law firm represents Contra Costa Water District ("CCWD" or "District") in the capacity of General Counsel. I am writing on behalf of CCWD to register its serious concerns over the adequacy of the environmental review and analysis that has been performed to support the Vasco Winds Repowering Project ("Project"). Review of the Draft Environmental Impact Report ("DEIR") has revealed several serious inadequacies and a failure to properly analyze the preferred alternative in light of existing site conditions. The DEIR is so flawed in these respects that the document and analysis require serious revisions prior to further consideration, and should therefore be withdrawn, revised and re-circulated.

1-1

CCWD understands that Vasco Winds, LLC (100% owned by NextEra Energy, formerly Florida Power and Light) is the applicant seeking approval of the Project. The Contra Costa County Community Development Department has issued the Vasco Winds Repowering Project DEIR to document the impacts of repowering an existing wind farm that is largely on CCWD Los Vaqueros Watershed property. The proposed Project seeks to remove all of the 438 remaining (1980's vintage and up to 137-feet in height) wind turbine generators ("WTG") and replace them with up to 50 new and larger (up to 436-feet high) modern turbines generating in excess of 150% the current WTG capacity.

The proposed Project seeks to expand the footprint of the turbine locations from 3,331 acres to 4,267 acres, an increase of 936 acres. Significantly, 765 acres of this increase comes at the expense of CCWD Los Vaqueros Watershed property that is not subject to any wind energy leases or other similar agreements, and is protected under a California Department of Fish and Game (DFG) Kit Fox Conservation Easement ("Conservation Easement").

1-2

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CCWD Correspondence on this Matter

CCWD has carefully followed this matter and has previously advised NextEra Energy that it is unacceptable to propose wind turbines on CCWD property outside the existing wind resource area where they have current rights. Locating wind turbines outside the area of current rights is not compatible with the purposes for which these watershed lands are maintained.

1-3

As stated in CCWD's earlier April 26, 2010 comment letter on the Notice of Preparation ("NOP") on the project, the potential impact of the wind farm project on the Los Vaqueros Watershed is the District's primary concern. Significant to this concern is the September 3, 1993 United States Fish and Wildlife Service ("USFWS") Biological Opinion ("BO") on the construction and operation of the Los Vaqueros Reservoir within the Los Vaqueros Watershed. The BO proscribes land management objectives and practices for the watershed lands. A second relevant document is the February 17, 1994 DFG Memorandum of Understanding ("MOU") for the Los Vaqueros Project. Attachment B of the MOU is a Plan for Habitat Management that proscribes the management practices of the MOU. Lastly, and importantly, is the Conservation Easement granted by CCWD to DFG (recorded on September 8, 1994) that contains various property management provisions related to the Los Vaqueros Project and the Los Vaqueros Watershed.

1-4

CCWD has been advised independently by DFG and USFWS ("Resources Agencies") that each will oppose expansion of the new wind turbines being sited on the DFG Conservation Easement. Further, CCWD previously refused to grant the applicant the right to perform geotechnical borings for the wind turbine locations in the Conservation Easement area. Accessing these areas would involve potentially significant impacts to sensitive habitat and a variety of endangered species including California Tiger Salamander, Red Legged Frog and San Joaquin Kit Fox. Proposing wind turbines in the conservation easement area overlooks the fact that use of this area for windpower generation is not allowed by CCWD and indicates an utter disregard for the concerns of the Resource Agencies, and the potential for significant impacts to the species directly and indirectly protected by the conservation easement.

1-5

CCWD comments on the DEIR can be summarized as follows:

1. The preferred project, Alternative 3 ("Revised Siemens Layout"), within the DEIR is fatally flawed and fails to meet the stated project objectives. The preferred project alternative proposes to install up to ten WTGs on 765 acres of CCWD property that is not subject to any wind energy leases, agreements, or other control of the applicant; is subject to a recorded DFG conservation easement; and has been otherwise dedicated by CCWD to support watershed, recreational, and resource uses since construction of the Los Vaqueros Reservoir. Since this land area is not, and will never be, available for the

1-6

1-7

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installation of wind turbines, preferred project Alternative 3 is patently infeasible and fails to meet the basic Project objectives as stated in the DEIR.

↑ 1-7
| cont.

Furthermore, the DEIR fails to analyze the significant environmental impacts that would result from installing WTGs throughout the areas subject to the DFG Conservation Easements, nor are mitigation measures proposed that would minimize these impacts. The failure to recognize the protected status of these lands and the significant environmental impacts that would result from approval of the preferred alternative results in a fundamental failure of the DEIR to accurately and fairly describe the environmental setting of the Project. The DEIR must be withdrawn, revised to remove this area from further consideration, re-analyzed without including these valuable protected watershed lands, and re-circulated with a revised project area and description consistent with the limitation to those areas with existing wind energy leases.

1-8

2. EIR Alternatives 1 (Partial Repowering – Reduced Number of Turbines to be Installed on Reduced Project Area) and Alternative 2 (Partial Repowering - Same Number of Turbines to be Installed on a Reduced Project Area) do not require new property rights to be acquired by the applicant. However, further public review of both Alternative 1 or Alternative 2 as the potential preferred project needs to more fully and accurately reflect:

a. The appropriate habitat and species impact analysis from the installation of large (up to 2.3 MW) wind turbines. The ground level area measurements of the Project footprint summarized on Table 3-1 (page 3-10) greatly underestimate the impact from large 436-foot tall wind turbines on sensitive species and habitat. Furthermore, the proposed mitigation for sensitive species habitat is only indicated to be at a ratio of 1:1 based on ground level impacts. This is a very low and unrealistic estimate of the likely mitigation that will be required for this Project. The Resource Agencies have required that CCWD's expanded reservoir habitat impacts be mitigated at ratios as high as 9:1. The proposed mitigations should be revised to accurately reflect the mitigation requirements likely to be imposed on the proposed Project.

1-9

b. Review and consideration of the approved recreational improvements that are occurring as a component of the Los Vaqueros Reservoir Expansion Project.

1-10

c. Review and consideration of potential future expansion of the reservoir consistent with the certified Final EIR for the Los Vaqueros Reservoir Expansion Project and establishment of appropriate setbacks on CCWD property within, or adjacent to, the existing NextEra wind turbine area consistent with current and future reservoir expansion.

1-11

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- d. Considering the large size and visual impacts of the new turbines, it is recommended that wind turbine placement setbacks as described be significantly greater than proposed and relocated to the south of their present location. Under no circumstances should new wind turbines be proposed for any lands protected by DFG conservation easements. 1-12

- 3. The EIR incorrectly states on page 4.4-3 that the Project site does not include any of the CCWD mitigation sites. The preferred Project (Alternative 3) includes 765 acres located within the DFG conservation easement that was required mitigation for the original Los Vaqueros Project. As has been stated previously, CCWD will not allow wind turbines to be located within the Conservation Easement area. 1-13

- 4. Cumulative Impacts: Section 5.4.3.1 erroneously concludes that the significant and unavoidable visual impacts to views from the Vista Grande Trail are reduced to "less than significant" levels through the implementation of Mitigation Measure 4.1-2. That conclusion is inconsistent with the conclusion at Page 4.1-36 that the impacts to Vista Grande Trail remain "significant and unavoidable" after the implementation of the noted mitigation measure. As noted earlier, and explained in more detail below, CCWD has concluded that Mitigation Measure 4.1-2, is not supported by evidence in the DEIR and does not adequately mitigate the visual impacts of the proposed project. 1-14
1-15

Specific Comments on the Draft EIR

The specific comments below reflect CCWD's concerns with significant species and habitat impacts, the significant impacts to the recreational values of the Los Vaqueros Watershed, as well as to the potential future expansion of the Los Vaqueros Reservoir as identified in the certified Final EIR for the Los Vaqueros Reservoir Expansion Project.

- 1. *Biological Impacts* - The DEIR attempts, but fails, to accurately summarize within Section 4.4 Biological Resources (pages 4.4-3 and 4.4-4) the BO, MOU and Conservation Easement documents that proscribe the management objectives and practices that apply to Los Vaqueros Watershed lands. Nor does this summary accurately describe the potential impacts to habitat and species protected by those documents. The permanent and temporary impacts estimates within Section 4.4 to San Joaquin Kit Fox, Bald Eagle, California Red Legged Frog and Fairy Shrimp are based solely on physical, ground-level disturbance and therefore greatly underestimate actual habitat and species impacts. The DEIR should require that USFWS and DFG be consulted immediately to better estimate and determine the total habitat and species impacts and required mitigation for the substantially larger (436 foot) wind turbines proposed for installation. As described 1-16
1-17
1-18

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above, the expected mitigation requirements will be far greater than 1:1 and the proposed mitigation plans should be fully disclosed in the DEIR and not left to a future permit requirement.

↑ 1-18
cont.

The construction mitigation measures outlined on pages 4.4-52 through 4.4-54 do not appear to capture recent (2011) DFG and USFWS requirements for the protection of sensitive species that may be harmed by construction. These measures should be reflected in the final mitigation plan for this project. These measures include the need to hand excavate burrows in construction areas, and establish setback buffers from wetlands during certain times of year and certain times of day. These measures may impact the timing of project construction.

↑ 1-19

2. *Visual Impacts* - Given the DEIR's acknowledgment of the severity of the visual impacts of such large wind towers, and the proximity of the proposed towers to the DFG Conservation Easement and the expanded Los Vaqueros Reservoir (as approved and as proposed for future additional expansion)¹, it will be necessary to redo the viewpoints showing the removal of wind turbines from the DFG Conservation Easement area, as well as the establishment of proper setbacks as described herein.

↑ 1-20

The significant and unavoidable impacts to the Marina, as well as the Vista Grande Trail, are of serious concern to CCWD. Simply changing the color of the turbines from white to grey is not an adequate mitigation for these significant impacts. Even in light of the lesser number of wind turbines proposed in the DEIR, the massive size and stature of the proposed turbines will overwhelm the scenic recreational uses surrounding the reservoir. The viewpoint simulations in the DEIR provide clear evidence that while views of the existing turbines may be broken up and mitigated in part by ridgelines and vegetation, the taller and more massive structures proposed will have significantly more impact on views over a greater area of land. Given the significant and unavoidable impacts from installation of the new modern wind turbines on these key visitor areas within the watershed, a larger buffer area should be established to mitigate these impacts.

↑ 1-21

It is clear that several towers within the preferred Project Alternative 3, in both the Siemens and GE layouts, would significantly and dramatically impact recreational values given the existing and proposed trail use in the watershed. The simulated views of the Marina and from Vista Grande Trail, for instance, should be redone to reflect both

↑ 1-22
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¹ Los Vaqueros Reservoir Expansion Project, Final EIS/EIR, Figure 2-1, pages 2-4.

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removal of towers from the DFG Conservation Easement area as well as a relocation of the south towers from their present Siemens locations (1, 2, 3, 4; Opt 1, 16, 17, 18, and 19) and GE locations (11, 12, 13, 14, 15, 29, 30, 31, and 32). While it is difficult to establish a hard and fast rule, the removal or relocation of these tower locations approximately one mile to the south would provide some visual relief to recreational users in the area.

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1-22
cont.

The DEIR recognizes that the large size of the wind turbines when painted stark white creates significant visual impacts to the surrounding area and skyline. The DEIR then proposes as a mitigation measure painting the turbines a warm nonreflective grey as a means to mute the stark white finish turbines visual impacts. Yet no visual renderings are provided to illustrate how this mitigation would change the impacts at the key observation viewpoints. The subsequent conclusion that the proposed color change will reduce the visual impact is speculative and devoid of any evidentiary support in the DEIR.

1-23

CCWD believes that further consideration of the paint color is required. For example, would painting the turbines a blue/buff iridescent paint color be preferable to grey? A revised EIR should provide more information on possible paint colors for the new turbines. Mitigation measure 4.1-2 should be modified to allow more time and additional options for consideration of the color that the wind turbines would be painted. CCWD should be included as an approving agency for the choice of turbine paint color.

1-24

3. *Noise Impacts* - The DEIR states incorrectly that there would be no noise impacts on recreational users because the noise impacts from turbine operations would fall within the "normally acceptable" standard for land use compatibility established by the Contra Costa County General Plan (60 dBA Ldn for the most noise-sensitive land uses). It fails to fully evaluate, however, that the tower locations are proposed for a pristine natural environment where ambient noise levels are very low. The significant and unmitigated noise impacts associated with the proposed expansion of wind turbines into the DFG conservation area are also of great concern. Figure 4.13-2 in the Draft EIR shows noise impacts at the base of tower locations on hilltops reaching as high as 73-74 dBA Ldn.

1-25
1-26

CCWD's concerns about noise impacts reinforce its concerns over the visual impacts of the tower locations as discussed in "Visual Impacts" above and their cumulative impacts on recreational activities in and around the watershed.

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February 10, 2011

Conclusion

CCWD will not allow any turbines in the DFG conservation easement area. The Vasco Winds Repowering Project DEIR does not provide a site plan with all of the proposed turbines located solely within the existing wind energy lease areas. In the absence of such an accurate site plan, it is impossible to adequately evaluate the impacts related to the proposed repowering project. Turbine locations should be relocated to the south from their present locations as discussed in "Visual Impacts" and "Noise Impacts". Additionally, CCWD is in the process of designing several new trails described in the Final EIS/EIR for the Los Vaqueros Reservoir Expansion Project that will be in the same area as the wind turbine development plan and these should be analyzed to ensure that there will be no impact to these trail users. While conceptually the Siemens turbines, which are taller and fewer in number (resulting in a smaller overall ground-level footprint) may appear to be preferable to GE towers which are greater in number, review of a revised site plan that relocates the towers outside the DFG conservation easement and reflects the towers mitigated color, will be necessary in order to accurately evaluate the impacts on Los Vaqueros watershed recreational values and potential future expansion of the Los Vaqueros Reservoir.

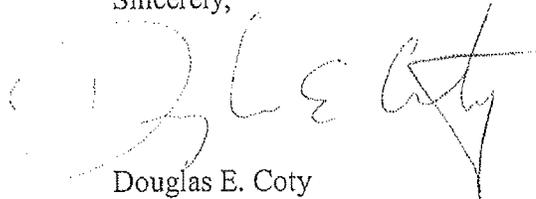
1-27

1-28

1-29

Please feel free to contact CCWD Principal Planner, Mark Seedall at (925) 688-8119 should you have questions.

Sincerely,



Douglas E. Coty
Attorney at Law

DEC:jhj

- cc: Greg Gartrell, CCWD
- Mark Seedall, CCWD
- Sheila Larsen USFWS
- Randi Adair DFG
- Craig Weightman DFG

2.3.1 Letter 1 – Responses to Comments from Contra Costa Water District (CCWD)

- 1-1 The comment offers an opinion and provides insufficient facts or other details to allow the County to provide a substantive response. Comments suggesting the DEIR should be recirculated are addressed in Master Response 2.2.3, *Recirculation*.
- 1-2 As explained in Master Response 2.2.1, *Environmentally Preferred Alternative*, the County would not, and could not approve development of wind energy facility components or other infrastructure on the 765 acres of CCWD land identified in this comment.
- 1-3 Comment noted. See Master Response 2.2.1, *Environmentally Preferred Alternative*.
- 1-4 Comment noted.
- 1-5 Comment noted. See Master Response 2.2.1, *Environmentally Preferred Alternative*.
- 1-6 Alternative 3, *Revised Siemens WTG Layout*, feasibly would attain most of the basic objectives of the Project in accordance with CEQA Guidelines Section 15126.6. The Applicant's Project Objectives are detailed in DEIR Section 3.2, *Project Objectives*. To aid in the consideration of alternatives, the Project's basic objectives are summarized in DEIR Section 6.2, *Project Objectives*, as follows: "The basic objective for the Project is to provide an economically viable source of wind-generated electricity within the APWRA that (i) produces significantly more wind energy than the existing WTGs without exceeding the presently installed WTG capacity on the Project site, (ii) minimizes adverse environmental impacts, including impacts on avian and bat species, to the maximum extent feasible; and (iii) contribute positively to economic activity by providing construction-related employment opportunities. Alternative 3 feasibly would attain the basic objectives of the Project because it would provide a source of wind-generated electricity within the APWRA, produce approximately 150 percent more wind energy than the existing facility, maintain the existing nameplate capacity of approximately 80 MW, minimize impacts to avian and bat species as well as other environmental resources as summarized in DEIR Section 6.6, *Environmentally Superior Alternative*, and provide new work for an average of approximately 120 construction workers (with a peak workforce of 150). Further, the Applicant was willing to pursue Alternative 3 as an economically viable option.
- 1-7 The County disagrees with the comment. The turbine locations proposed on the 765-acre CDFG conservation easement were optional. Up to 35 Siemens turbines could have been constructed under Alternative 3 by avoiding the conservation easement and utilizing the site labeled "Opt-3" in DEIR Figure 6-3. Regardless, as explained in Master Response 2.2.1, *Environmentally Preferred Alternative*, the County would not, and could not approve development of wind energy facility components or other infrastructure on the 765 acres of CCWD land identified in this comment.

- 1-8 See Master Response 2.2.1, *Environmentally Preferred Alternative*, and Master Response 2.2.3, *Recirculation*.
- 1-9 This comment incorrectly characterizes Alternative 1 and Alternative 2 as “the potential preferred project.” DEIR Section 6.6, *Environmentally Superior Alternative*, identifies Alternative 3 as the alternative with the least adverse impacts to the project area and its surrounding environment. See also, Master Response 2.2.1, *Environmentally Preferred Alternative*.

This comment offers an opinion with respect to DEIR Table 3-1, as it provides no data, facts or other information demonstrating that the information in the table is inaccurate.

Concerning mitigation ratios, each of the mitigation measures that would impose such a ratio would ensure that impacts would be offset on at least a one-for-one basis and expressly reserves the authority of the resource agencies with jurisdiction over the subject matter (i.e., the United States Fish and Wildlife Service (USFWS), California Department of Fish and Game (CDFG), United States Army Corps of Engineers (USACE) and the Regional Water Quality Control Board (RWQCB)) to impose the most appropriate mitigation ratio based on their special expertise. For example, Mitigation Measure 4.4-4 states, “The Applicant shall provide compensation for permanent impacts on CTS and CRLF aestivation habitat at a 1:1 ratio (at least one square foot of compensation for each square foot of net impact) **or a higher ratio if required by USFWS or CDFG** during the permitting process. . . .” (emphasis added). Mitigation Measure 4.4-6b (regarding San Joaquin kit fox) and Mitigation Measure 4.4-9 (regarding riparian habitat) similarly reserve USFWS’s and CDFG’s authority to impose the most appropriate site-specific, project-specific, impact-specific mitigation based on these agencies’ mission and expertise. Mitigation Measure 4.4-10 (regarding jurisdictional waters) similarly reserves to USACE and the RWQCB full authority to impose an appropriate requirement.¹

The County is aware that resource agencies like USFWS and CDFG are concerned primarily with the quality of the habitat to be conserved. While mitigation ratios of 1:1 for temporary impacts and 3:1 for permanent impacts commonly are imposed, the actual ratios imposed for the Project have not yet been determined and will depend on site-specific, project-specific, impact-specific considerations for each of the affected species. For these reasons, the ratios stated in the mitigation measures in DEIR Section 4.4, *Biological Resources*, have not been revised. Also based on relative habitat value considerations, the County notes that the resource agencies’ determination of a “higher ratio” may result in a less than 1 square foot by 1 square foot replacement on the ground if higher quality habitat than that affected by the Project is obtained.

¹ Under the Environmentally Preferred Alternative (see FEIR Section 2.2.1), Mitigation Measure 4.4-6c, which establishes a mitigation ratio for conservation easement acreage, would not be required. Nonetheless, it, too, would have reserved maximum flexibility to the resource agencies.

- 1-10 Potential impacts related to recreation are analyzed in DEIR Section 6.5.2.1 (DEIR, p. 6-20) with respect to Alternative 1: Partial Repowering – Reduced Number of Turbines to be Installed on Reduced Project Area, and in Section 6.5.3.1 (DEIR, p. 6-25) with respect to Alternative 2: Partial Repowering – Same Number of Turbines to be Installed on Reduced Project Area. The comment offers an opinion about the adequacy of this analysis and provides insufficient facts or other details to allow the County to provide additional detail. In any event, the Environmentally Superior Alternative identified in DEIR Section 6.6, *Environmentally Superior Alternative*, and the environmentally preferred alternative described in Master Response 2.2.1, *Environmentally Preferred Alternative*, both are feasible and would achieve most of the basic objectives of the Project. The County would approve such an alternative before it would approve either Alternative 1 or Alternative 2. Additional analysis of Alternatives 1 and 2 would not alter the County’s preference for a workable alternative that would cause the least adverse impacts to the environment.
- 1-11 See Response to Comment 1-10: Additional analysis of Alternative 1 and Alternative 2 relative to the future expansion of the reservoir would not alter the County’s preference for a workable alternative that would cause the least adverse impacts to the environment.
- 1-12 The comment provides no facts or other details demonstrating how the setbacks required by County Code Section 88-3.602 are insufficient or could be remedied to address aesthetic concerns. Accordingly, the County is not able to provide a detailed response to this aspect of the comment. Concerning CCWD’s conservation easement lands, on which the County would not and could not approve the proposed wind energy facility components or other infrastructure, see Master Response 2.2.1, *Environmentally Preferred Alternative*.
- 1-13 The County agrees with this comment – the Project site evaluated in the DEIR did in fact include CCWD mitigation sites. However, the error is irrelevant because the Environmentally Preferred Alternative, which is the only layout that the County would approve, does not include CCWD conservation easement lands.
- 1-14 The County agrees that the text referenced by the commenter contains an error that causes the DEIR to be internally inconsistent. Section 5.4.3.1 should have restated the conclusion from Section 4.1.6 that the impact to the Vista Grande Trail would be significant and unavoidable. As shown in FEIR Chapter 3, Impact 5-1 in DEIR Section 5.4.3.1, *Aesthetics*, page 5-12, paragraph two, last sentence is revised in response to this comment as follows:
- Impacts to views from the Vista Grande Trail, ~~and the Morgan Territory Regional Preserve, and the Los Vaquero Marina would remain significant and unavoidable~~ would be reduced to less than significant with implementation of Mitigation Measure 4.1-2, ~~while impacts to the marina would remain significant and unavoidable.~~
- 1-15 Mitigating the turbines’ appearance through application of color is complicated by two factors. First, the turbines would be viewed from many different angles, so some viewers would see them against a background of sky while others would see them against a

background of hills. This is demonstrated in DEIR Figures 4.1-3, 4.1-5, and 4.1-8, which depict views from Vasco Caves Regional Preserve, the Vista Grande Trail, and the Upper Whipsnake Trail, respectively. The second factor is that the color of the background hills cycles between light and dark.

The County considered different colors and color applications for the turbines, but rejected all as being ineffective except for light grey (RAL 7035). A yellowish-brown color best described as “wheat” was considered because it would blend well with the hillsides during the dry seasons. This color was rejected because it would contrast with the sky and with the hills once they turned green during the wet seasons. All dark hues were rejected because they would contrast with the sky and with the hills during dry seasons. Bluish hues similar to the sky were rejected because while they would blend better with the sky, they would contrast with the hillsides during all seasons. Multi-colored turbines were rejected because of the problem presented by different viewing angles. A turbine whose upper portion was painted blue to blend with the sky and whose lower portion was painted an earth tone to blend with the hills (during a particular portion of the year) would contrast differently with the background when viewed from above or below. When viewed from above, the blue portion would contrast with the hills, while when viewed from below the earth tone would contrast with the sky.

Considering the changing appearance of the hills and the various angles from which the turbines would be viewed, the County determined that the most effective mitigation would be application of a neutral color that was more muted than the standard stark white turbine color. Light grey was found to be the most appropriate color for this purpose.

- 1-16 A meaningful response cannot be provided due to the comment’s generality. DEIR Section 4.4.2.1, *Regional and Local Setting*, provides summaries of the biological resource-specific protections that apply on CCWD’s Los Vaqueros Watershed lands. No specific examples of errors or deficiencies in these summaries have been provided. In the absence of specific examples, there is no basis for the County to provide clarifications or corrections. Consequently, the DEIR has not been revised in response to this comment.
- 1-17 The comment provides no factual basis for the County to clarify or correct the analysis of actual habitat and species impacts evaluated in DEIR Section 4.4.6, *Discussion of Impacts and Mitigation Measures*, for the species identified in the comment. The County notes that neither USFWS nor CDFG submitted comments indicating that the analysis is flawed. Concerning mitigation requirements of USFWS and CDFG, including mitigation ratios for species-specific impacts, see Response to Comment 1-9.
- 1-18 See Response to Comment 1-9, concerning 1:1 mitigation ratios. Establishing a mitigation ratio of 1:1 or higher if required by USFWS or CDFG does not improperly defer mitigation. “Impermissible deferral of mitigation measures occurs when an EIR puts off analysis or orders a report without either setting standards or demonstrating how the impact can be mitigated in the manner described in the EIR.” *City of Long Beach v. Los Angeles Unified School District*, 176 Cal.App.4th 889, 915-16 (2009). The mitigation measures at issue in the

DEIR set a standard: they impose a ratio of 1:1 or otherwise as required by the resource agencies with subject matter expertise. Further, the analysis in DEIR Section 4.4.6, *Discussion of Impacts and Mitigation Measures*, demonstrates how providing at least one square foot of compensation for each square foot of net impact, in combination with the rest of the suite of mitigation measures identified, would reduce each of the relevant impacts to a level that would be less than significant. Consequently, no change has been made to the DEIR in response to this comment.

1-19 The DEIR was issued in 2010, and so could not have relied on guidance issued by USFWS or CDFG in 2011. The comment does not reference specific documents that the County could consult. The County recognizes that the USFWS issued its Biological Opinion for the Los Vaqueros Reservoir Expansion Project on February 24, 2011, and that CDFG issued an Incidental Take Permit for that project on March 1, 2011. However, both of these approvals occurred after the February 10, 2011, comment letter on the DEIR was submitted, so the County presumes that the comment is not in reference to those documents. Because the comment lacks adequate specificity or detail, a more detailed response cannot be provided.

1-20 The visual simulations in DEIR Section 4.1, *Aesthetics*, were created using an early site plan for the Siemens Layout as the base document. This layout included 40 possible turbine locations (35 proposed locations and 5 alternates). For each simulation, all turbines that could possibly be seen in the view depicted in the base photograph, e.g., those actually proposed as well as the alternates, were modeled. Thus, each simulation is a worst-case scenario for the view shown in the photograph.

The Project's design has been refined and its size has been reduced since the visual simulations were developed. The Environmentally Preferred Alternative described in Master Response 2.2.1 includes 34 Siemens turbines, no alternate turbine locations, and no development on the CDFG conservation easement area (see FEIR Figure 2-1, *Environmentally Preferred Alternative*). The existing simulations illustrate the visual impacts of up to 40 turbines spread out over a wider geographic area than would be developed, and with a density similar to what is currently under consideration. The simulations therefore are adequate for CEQA purposes because they illustrate visual impacts that are more severe than could actually occur.

CEQA Guidelines Section 15204(a) states that a lead agency is not required to conduct every test or perform all research, study, and experimentation recommended or demanded by commenters. Because the existing visual simulations are adequate for CEQA purposes, they have not been redone as suggested.

1-21 Comment noted. This comment offers opinions and does not question the adequacy of the analysis in the DEIR.

1-22 As explained in Master Response 2.2.1, *Environmentally Preferred Alternative*, GE turbines are no longer being considered for the Project and no development would occur within the CDFG conservation easement.

For two reasons the County disagrees with the suggestion to remove or relocate Siemens turbines 1, 2, 3, 4, 16, 17, 18, and 19 at least 1 mile to the south. First, the severity of the visual impacts is a subjective matter. The DEIR identifies impacts from several locations, including the Vista Grande Trail, the Los Vaqueros Marina, and the Vasco Road corridor, as significant and unavoidable primarily because there would be a significant degree of change within these visually sensitive areas. However, in the context of aesthetic considerations a change does not necessarily equate to a negative impact. Whether an aesthetic change constitutes a positive or negative impact depends on the opinions of individual viewers. The subjectivity of the issue is demonstrated by the following excerpt from the DEIR comment letter submitted by Save Mount Diablo, which directly contradicts many of the aesthetics-related comments submitted by the CCWD:

The DEIR does a good job of describing the visual impacts of the Project and providing simulations of the new wind turbines. The newly installed turbines are much larger and so because of their size more prominent on the landscape and more visible from a distance – including areas that previously were not impacted – they are also many fewer in number. The topography of the Project site and surrounding areas helps to obscure views of the new turbines, which also reduces their impact on trail users in nearby open space areas as well as to motorists in passing cars on nearby roads and highways. On balance, except for the impacts on Vasco Caves described above, it generally appears that visual impacts will be reduced by the Project and aesthetic conditions improved.

The CCWD has provided an opinion that several of the proposed towers would cause a significant dramatic change related to aesthetic values associated with recreation in the watershed, but not a compelling argument that the DEIR’s analysis of aesthetic impacts is flawed. The County disagrees that the Project would cause a significant adverse impact in this regard for the reasons provided in DEIR, which are based on the County’s direct observation and analysis, and the observations of others, including those of Save Mount Diablo. Consequently, no change has been made to the DEIR in response to this comment.

The second point of disagreement is that the County considers the proposed mitigation to be arbitrary. While the commenter acknowledges the difficulty in establishing “a hard and fast rule” for establishing a setback requirement, CEQA Guidelines Section 15126.4(a)(4)(B) states that a mitigation measure must be roughly proportional to the impact. The commenter states that removing or relocating the cited turbines would provide “visual relief” for recreational users in the area. However, the commenter does not acknowledge the visual relief inherent in the Project without any additional setback. Approximately 16 of the 438 turbines to be removed are closer to the reservoir’s existing and proposed waterline, marina location, and recreational trails than Siemens 1, the closest proposed turbine. The marina is currently located approximately 3,600 feet from the closest existing turbine, while the Siemens 1 location is approximately 5,000 feet away. A new recreational trail proposed as part of the Los Vaqueros Reservoir Expansion Project would be located approximately 1,500 feet from the nearest existing turbine, while it would be approximately 3,000 feet from Siemens 1. Thus, while the Project involves installation of turbines that would be 292 to

338 feet taller than the existing turbines, it includes substantial increases in setbacks from the existing and proposed reservoir waterline and recreational facilities. The Project also provides visual relief through the removal of hundreds of obsolete turbines from the landscape and reclamation of decommissioned turbine pads and roads. For these reasons, the County disagrees that an additional 1-mile setback is necessary and declines to impose one.

As the County will not require relocation or removal of the turbines as recommended, the visual simulations in the DEIR remain representative of the Project. For this reason and the reasons cited in Response to Comment 1-20, the visual simulations will not be redone as suggested by the commenter.

1-23 In some of the visual simulations in the DEIR, the Siemens turbines appear stark white, while in others the turbine towers are light grey (RAL 7035) and the blades are white. The two-tone is shown in DEIR Figure 4.1-4 (DEIR, p. 4.1-26), which illustrates views along Vasco Road. As shown in the figure, the stark white applied to the blades contrasts more against the sky than does the light grey on the non-shaded sides of the towers. DEIR Figure 4.1-5 illustrates views from the Vista Grande Trail and depicts the turbines entirely in white, which is the most conservative depiction. The high contrast between the turbines and hillsides is evident in this simulation, and while not depicted, it is clear that a more muted color such as light grey would lessen the contrast. For additional discussion on turbine colors, see Response to Comment 1-15.

1-24 See Response to Comment 1-15.

1-25 The comment mischaracterizes the DEIR's conclusions regarding noise impacts. Appendix G of the CEQA Guidelines, upon which the analysis in the DEIR is based, contains questions regarding potential noise impacts. One of these asks whether a project would result in exposure of persons to, or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. As evaluated in Section 4.13.5, *Discussion of No Noise Impacts*, the Project's operational noise levels would be within the acceptable noise levels for water recreation uses as identified by the County General Plan's land use compatibility standards and they would not cause a new exceedance of the turbine noise limits specified in Chapter 88-3 of the Contra Costa County Code. Thus, the DEIR is correct in stating that there would be no impact related to noise levels in excess of applicable standards.

Appendix G also asks whether a proposed project would cause a substantial permanent increase in local ambient noise levels. This question is more relevant to the concern stated in the comment. Regarding the Project's actual noise impact, the analysis in DEIR Section 4.13.6, *Discussion of Impacts and Mitigation Measures*, supports the conclusion reached: i.e., the Project would cause less-than-significant permanent impacts. DEIR Figure 4.13-2 illustrates sensitive noise receptors and *baseline* (pre-Project) noise levels. The figure shows that operational noise levels of the existing turbines are as high as 73-74 decibels and exceed 70 decibels in the vicinity of Los Vaqueros Reservoir. The County therefore disagrees with the comment's assertion that the area is a "pristine natural

environment where noise levels are very low.” DEIR Figure 4.13-3 shows sensitive noise receptors and *future* (post-Project) noise levels. Comparison of the two figures reveals a marked overall decrease in noise as a result of the Project, including a reduction in noise levels of approximately 8-9 decibels at the Los Vaqueros Marina. The County notes that like the DEIR’s visual simulations, the acoustical study upon which the DEIR’s noise impact analysis is based represents a worst-case scenario. The study modeled the impacts of 39 Siemens turbines across a geographic area that includes the CDFG conservation easement. The Project now proposes 34 turbines, all outside of the easement. Thus, Project-generated noise would likely be less than indicated in Figure 4.16-3 and limited to a smaller geographic area.

- 1-26 The comment incorrectly characterizes DEIR Figure 4.13-2 as illustrative of post-Project conditions. The noise levels shown in this figure, including the 73-74 dBA L_{dn} noise levels shown on some hilltops, illustrate pre-Project conditions. DEIR Figure 4.13-3 illustrates post-Project conditions, and shows a substantial decrease in noise levels in and around most of the Project area. As explained in Master Response 2.2.1, *Environmentally Preferred Alternative*, the County would not, and could not approve development of turbines within the CDFG conservation easement area. Thus, the post-Project noise levels within the conservation easement would be lower than shown in Figure 4.13-3.
- 1-27 As explained in Master Response 2.2.1, *Environmentally Preferred Alternative*, the County would not, and could not approve turbines within the CDFG conservation easement. The County agrees that the DEIR does not provide a site plan that shows all of the proposed turbines located within existing wind energy lease areas. However, the DEIR analyzes a reasonable worst case scenario because it evaluates impacts related to more turbines than the Applicant could construct based on its existing wind rights. Consequently the DEIR has not been changed in response to this comment.
- 1-28 Comment noted. See Responses to Comments 1-22 and 1-25.
- 1-29 As explained in Master Response 2.2.1, *Environmentally Preferred Alternative*, the County would not and could not approve the development of turbines within the CCWD conservation easement in the vicinity of the proposed trails. See also the Response to Comment 1-22, which explains how far the closest Project elements would be from CCWD existing and proposed recreational facilities. Accordingly, no additional analysis related to the development of this land is warranted.



2950 PERALTA OAKS COURT P.O. BOX 5381 OAKLAND CALIFORNIA 94605-0381 T. 1 888 EBPARKS F. 510 569 4319 TDD. 510 633 0460 WWW.EBPARKS.ORG

February 9, 2011

Will Nelson
Department of Conservation & Development
Contra Costa County
651 Pine Street, 4th floor, north wing
Martinez, CA 94533-0095

Subject: Comments for Vasco Winds Repowering Project DEIR

Dear Mr. Nelson,

Thank you for providing the East Bay Regional Park District (“District”) with the draft Environmental Impact Report (DEIR) for the proposed Vasco Winds Repowering Project (“project”) in eastern Contra Costa County. As you are aware, the proposed Project is located adjacent to Vasco Caves Regional Preserve (“Preserve”).

The District is very concerned about the potential project impacts to the Preserve. While the project will greatly reduce the number of existing turbines the new turbines will be highly visible from Vasco Caves. The noise impact analysis improperly uses noise levels from operating turbines when in fact no turbines are operating in the project area. Project construction mitigation measures do not protect cultural resources within the Preserve. We remain concerned about the scarce amount of avian mortality data that has been collected on repowered turbines to make informed decisions on repowering projects. The DEIR does not provide adequate evaluation, mitigation or monitoring of these potentially significant impacts.

Please call me at (510) 544-2622 should you have any questions regarding our comments.

Sincerely,

Brad Olson
Environmental Programs Manager

Enclosure

cc. Bob Doyle, General Manager
Nancy Wenninger, Assistant General Manager

Board of Directors

Beverly Lane
President
Ward 6

Carol Severin
Vice-President
Ward 3

John Sutter
Treasurer
Ward 2

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Ward 4

Ted Radke
Ward 7

Robert E. Doyle
General Manager

**Comments on the Draft EIR
Vasco Winds Repowering Project
East Bay Regional Park District
February 9, 2011**

1. Background Information

The proposed project is located adjacent to Vasco Caves Regional Preserve (“Preserve”) in eastern Contra Costa County. The 3,563-acre Preserve has substantial natural, cultural and scenic resources of regional significance. The Preserve was established in 1997 as mitigation for the Los Vaqueros Reservoir Project. Approximately 722-acres of the Preserve are jointly owned by Contra Costa Water District and East Bay Regional Park District (“District”). The entire Preserve is operated and managed by the District. The Preserve is closed to general access by the public, but can be accessed by special interpretive trips that are conducted several times per year.

2. Visual and Aesthetic Impacts

The proposed project calls for turbines that are substantially larger than the existing turbines. Some turbines would be as tall as 428 feet. Such tall turbines will be significantly more visible within the Preserve and will become visible within the Preserve where no turbines are presently visible. The DEIR concludes that because these turbines will not “block” views that their visual impacts are considered less than significant. However, the DEIR fails to address the visual impacts of a structure looming overhead that will create a new visual distraction. The net effect will be a degradation of the visitor experiencing an industrialized landscape while the focus of the preserve is on its significant natural and cultural resources. Reduction in the number of turbines and/or relocation of some turbines away from the Preserve can mitigate for this significant impact.

2-1

The hillsides in the project area historically contained substantial amounts of debris from the past 25 years of wind energy generation, including derelict turbines, obsolete anemometers, unused electrical poles, broken turbine blades and abandoned roads. While these conditions have improved in recent years, the aesthetic environment surrounding the Preserve has been badly degraded. The proposed project provides the opportunity for the better management of these facilities. Regular inspection and enforcement of mitigation measures and conditions of approval by the County would improve the aesthetics of the areas adjacent to the Preserve.

2-2

On page 3-31 there is a statement in the second paragraph that wind turbine parts may be “temporarily” stored on-site. The EIR should establish specific time periods in which on-site storage can occur and identify mechanisms to enforce storage restrictions. There is also a requirement for fencing to screen views of laydown areas, however, there is no discussion of the size of materials “laid down” compared to the height of proposed fences.

2-3

3. Noise Impacts

Page 4.0-4 first paragraph in the DEIR states that the environmental baseline for noise impact analyses is 2008 when the applicant submitted its Land Use Permit application. We believe that this is no longer the baseline condition because the applicant stopped operating wind turbines in the project area after its 2008 application. This constitutes a significant change in the environment that warrants reconsideration of noise impact analyses or recirculation of the DEIR. Accordingly, the noise impacts of the new turbines should be compared against the existing conditions where there are no wind turbines in operation. We believe that the repowering project will result in significant adverse noise affects to the Preserve. These impacts can be mitigated by a reduction and/or relocation of turbines nearest the Preserve.

2-4

3. Cultural Resource Impacts

The applicant should establish procedures for securing the site during project construction to reduce the potential for vandalism and theft of cultural artifacts at Vasco Caves. This would include site security and closure of certain roads to prevent contractors from unnecessarily entering areas where there may be cultural artifacts.

2-5

Site security at the Preserve has been an on-going concern. Unauthorized individuals have entered the Preserve and vandalized cultural artifacts. The DEIR should identify mitigation measures to improve site security, including new gates that open and close properly, new fencing where needed, signage, regular inspections by the site supervisor and employee training about the sensitive cultural resources in the area.

4. Biological Resource Impacts

3.1.4 Applicant-Proposed Siting Measures. Please provide a summary discussion or table of the siting recommendations that came out of the Smallwood and Neher (2010) report or provide the reasons for final proposed turbine locations (e.g. risk map of golden eagle, red-tailed hawk, American kestrel or burrowing owl or other). Alternatively, we recommend appending the Smallwood and Neher (2010) report to the EIR.

2-6

Mitigation Measure 4.4-1b:

- The EIR states that post construction monitoring shall be implemented for a period of 3 years. Given high inter-year variability in fatality rates (see Insignia, Inc. Annual report for the Buena Vista Project), a post-construction monitoring period of 5 years would be more desirable, especially given that this may be the first wind farm in the Altamont to employ New Generation wind turbines larger than 1.0 MW.
- The 2010 Agreement between the NextEra Wind and the parties calls for a 2 year monitoring period commencing on the 10th year of its COD. This language should be included in the mitigation measures.
- The development of a site-specific Adaptive Management Plan is to be lauded. Language should be included to tie-in the development of the plan as soon as practical after annual

2-7

monitoring reveals a particularly deadly circumstance or after completion of the monitoring period, whichever comes first.

- The benchmark targets for annual mortality rates of 2.2 raptors/MW/year and 7.5 birds/MW/year, against which reduction in mortalities through repowering are to be measured, are based on a Smallwood and Karas paper from 2009. Several newer papers and SRC reports have been released with revised mortality figures. The EIR should use the most recent, Altamont-wide avian fatality estimates to take into account new insights into scavenger bias studies, such as Smallwood SRC Document PI45. This information should be included under section 4.4.3 Avian Fatality Baseline, as well.
- We suggest changing language under 4.4-I.iv. “binding instruments of this plan could include” to “binding instruments of this plan shall include”.

2-7
cont.

Mitigation Measure 4.4-3.f. Please explain why post-construction fatality searches for bats “shall not exceed 90 monitoring days per year”.

2-8

Mitigation Measure 4.4-4. Please include visual inspection of small mammal burrows for California red-legged frog, and especially California tiger Salamander, within the construction work site prior to construction start to avoid direct take.

2-9

Mitigation Measure 4.4-11. b. 3. The statement that “typical buffers include 500 feet for (nesting) raptors” is misleading. Most agencies recommend buffers of 0.5 miles or more for nesting raptors.

2-10

Page 4.4-10 to 4.4-11. Agreement to Repower Turbines at the Altamont Pass Wind Resource Area: To more accurately reflect the terms and conditions of the 2010 Agreement there needs to be wording change of the last sentence in section from “NextEra will also pay approximately \$2.5 million in mitigation fees,...and half to the East Bay Regional Park District and the Livermore Area Regional Park District **for raptor habitat creation**”, to “NextEra will also pay approximately \$2.5 million in mitigation fees,...and half to the East Bay Regional Park District or the Livermore Area Regional Park District **for conservation efforts** for the benefit of those bird and bat species and their habitat...”.

2-11

Appendix B.4.1 Birds - Federal or State Threatened and Endangered Species:

- Page B-8. American Peregrine Falcon. Peregrine falcon nest sites are also reported from Mount Diablo State Park 10 miles northwest of the project area and the Antioch Bridge, about 12 miles north of the site (SCPBRG).
- Page B-11. Golden Eagle. The location of proposed Siemens turbine 21 is not in the same location as turbine GE 45 (see Figs. 3-4 and 3-5). Fig. 3-5 does not indicate the location of proposed turbine Siemens 35.
- Page B-16. California Horned Lark. Horned Larks are documented nesting at Vasco Caves (Annual Reports to the EBRPD, Grassland Monitoring Project, UC Berkeley).

2-12

- Page B-17. Prairie Falcon. One pair of Prairie Falcons are actively breeding in 2008 (not 2010) at Vasco Caves (Doug Bell, pers. Comm., 2010). Also, one pair is actively breeding on LARPD land at Brushy Peak in 2010. RMBO (2007) was not listed in references. The estimate of two to four prairie falcons killed annually in the Altamont would adversely affect the local population, given the small number of nesting pairs (approx. 6-10 in any given year) and the fact that many of the local pairs overlap in use of the Altamont (EBRPD data).

2-12
cont.

Fig. 3-2. Proposed Project – Siemens Layout. This figure is confusing. Please provide a description of labeled turbine locations (e.g. locations labeled with a number versus those labeled with the prefix “Opt-“).

2-13

Additional Mitigation Measures:

- Given the complex siting plans, alternate sites for proposed turbine locations, and possible last-minute site specific construction constraints, we suggest including language to ensure final review of siting plan by a visit to construction sites prior to start of construction. Site visits should include the risk mapping team as well as independent 3rd party. This would help inform future siting efforts as repowering moves forward.
- Page 3-34 in the first paragraph states that lights would be placed on every turbine. We request that those turbines closest to the Preserve not contain lights so they do not disrupt the behavior of wildlife within the Preserve.

2-14

2.3.2 Letter 2 – Responses to Comments from East Bay Regional Park District

- 2-1 The comment makes the following assertions regarding visual impacts at Vasco Caves Regional Preserve: (1) the DEIR concludes that because the turbines would not block views, the visual impacts would be less than significant; (2) the DEIR fails to address the visual impacts of a structure looming overhead that would create a new visual distraction; and (3) the net effect of the Project “will be a degradation of the visitor experiencing an industrialized landscape while the focus of the preserve is on its significant natural and cultural resources.” The County disagrees with these assertions.

In response to the first and second assertions, the following is stated on DEIR pages 4.1-37 and 4.1-38:

...the proposed turbines would be taller, but fewer in number...The new turbines would be constructed with tubular-style towers instead of the antiquated lattice towers that are characteristic of the existing turbines. This would result in a sleeker and more streamlined appearance and the perception of a less cluttered landscape. As a result, *the Project would cause an increase in structure prominence* within the landscape, but not an increase in industrial character. Like the existing turbines, the proposed turbines would not block scenic views from the Preserve. *The new turbines would attract attention and co-dominate the landscape*, though not substantially more than the existing turbines due primarily to the reduction in number. The proposed turbines would be similar to the existing turbines in terms of visual contrast. (emphasis added)

This DEIR excerpt clearly demonstrates that factors in addition to view blockage were considered in the course of determining the significance of the visual impact. DEIR Figure 4.1-3c shows the visual simulation of the Project using the Siemens layout. FEIR **Figure 2-2, Comparative Simulation**, demonstrates the difference in structure prominence between the existing and proposed turbines when viewed from a key observation point on the guided tour route within the Preserve (note that FEIR Figure 2-2 shows that one fewer Siemens turbine would be visible than are shown in DEIR Figure 4.1-3c; this is the result of refinements made to the site plan after completion of the visual simulations). Ultimately the County determined that an impact resulting from the height of the new turbines was mitigated to a less-than-significant level by the substantial reduction in numbers and improved turbine design/appearance. Thus, the DEIR has not been revised in response to the first two assertions. Regarding the third assertion, as demonstrated below, the visitor experience would not be altered substantially as a result of the Project.

The East Bay Regional Park District provided detailed information about the Vasco Caves tour route to the County. Public access to the Preserve is limited (total annual visits averaged 256 persons from 2008 through 2010) and visitors generally are not allowed to venture far beyond the established guided tour route. The tour begins at the staging area



Visual simulation of Project from Vasco Caves Regional Preserve looking west: Siemens layout

located at an elevation of approximately 740 feet and proceeds southwest along the Stonehouse Trail, descending to a cistern located at an elevation of approximately 690 feet. The route then turns northwest and ascends to an elevation of approximately 820 feet before turning due west. After a short and relatively flat segment, the route turns north and ascends to the top of a rock outcrop, reaching a final elevation of approximately 910 feet. The trail proceeds north along the outcrop then continues west and south, looping back to the 820-foot plateau and doubling-back to the staging area. The extended tour includes the Eagle Roost Loop Trail, which proceeds south from the 820-foot plateau, rises to an elevation of approximately 980 feet, and then turns northeast and descends, reconnecting to the Stonehouse Trail near the cistern at an elevation of approximately 700 feet.

The photographs in FEIR **Figure 2-3**, *Vasco Caves Tour Route*, demonstrate that wind turbines are already an established feature along the guided tour route. Photo 1, looking north from the staging area, demonstrates the visibility of the Tres Vaqueros Windfarm, while Photo 2, looking east from the same location, demonstrates the visibility of the Buena Vista Wind Energy Project. Photo 3, looking south along the descent to the cistern, demonstrates that turbines, including some located on the Project site, are visible to the south. Photo 4, looking east in the vicinity of the 820-foot plateau, again demonstrates the visibility of the Buena Vista Project (note the staging area for the tour in the lower left portion of the photo). Photos 5, 6 and 7 depict views from the top of the rock outcrop (the same outcrop pictured in DEIR Figure 4.1-3 and FEIR Figure 2-2, *Comparative Simulation*). Photo 5 looks east and shows the Buena Vista Project with additional turbines beyond (the 820-foot plateau is in the lower right portion of the photo). Photos 6 and 7, looking southwest and west, respectively, demonstrate the visibility of existing turbines on the Project site. Photos 6 and 7 are noteworthy because they illustrate the number of turbines currently located in close proximity to the Preserve that would be removed as a result of the Project.

Reviewers should explain the basis for their comments and should submit data or references offering facts, reasonable assumptions based on facts, or expert opinion supported by facts, in support of comments (CEQA Guidelines § 15204(c)). Wind turbines surround the Preserve and numerous turbines are clearly visible from most locations along the guided tour route. The Project would remove 438 turbines, many of which are visible from the Preserve, and replace them with up to 34 turbines, for a net decrease of at least 404 WTGs. The comment provides no evidence, such as visual simulations or photographs, showing that the Project would further “industrialize” the landscape. While certain locations within the Preserve offer scenic views and some of these views would change, this particular preserve is unique because of specific cultural resources present within. The Project has no potential to impact the ability of visitors to view the cultural resources. Thus, the assertion that, “The net effect will be a degradation of the visitor experiencing an industrialized landscape while the focus of the preserve is on its significant natural and cultural resources” is unsubstantiated. The comment provides no evidence demonstrating that the DEIR’s analysis or conclusions are flawed. Consequently, the DEIR has not been revised in response to this comment.



Photo 1



Photo 2

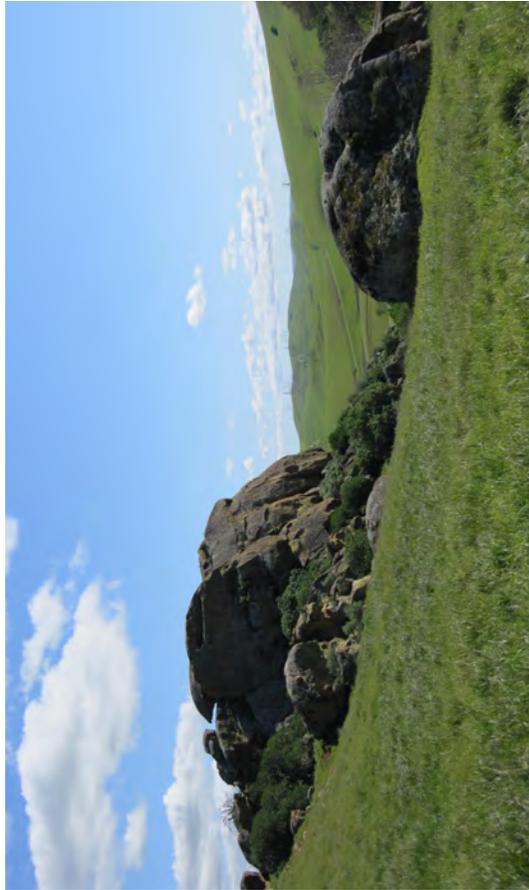


Photo 3



Photo 4

SOURCE: ESA

Vasco Wind Repowering Project . 208583
Figure 2-3
Vasco Caves Tour Route



Photo 5

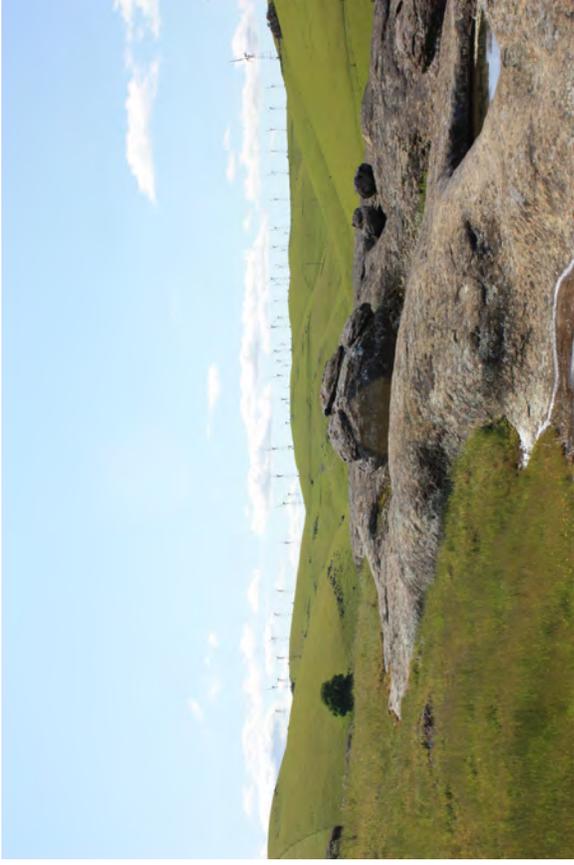


Photo 6

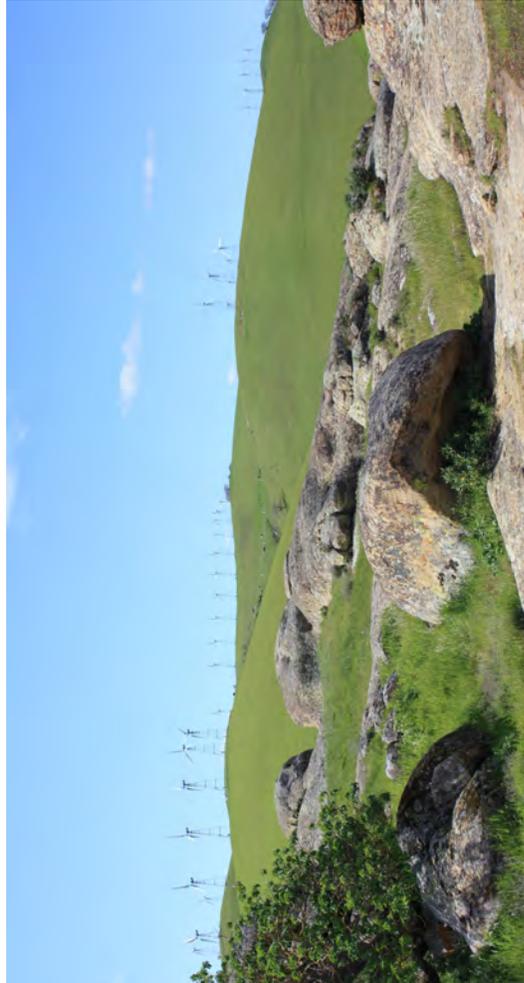


Photo 7

SOURCE: ESA

Vasco Wind Repowering Project . 208583
Figure 2-3
Vasco Caves Tour Route

- 2-2 The County shares the Park District's concern in this regard. However, the County's authority to impose mitigation measures in an EIR is subject to the constitutional requirement that there must be a nexus, or reasonable relationship, between the impact to be mitigated and the project proposed (CEQA Guidelines § 15041(a), 15126.4(a)(4); *Nollan v. California Coastal Commission*, 483 U.S. 825 (1987)). The aggregation of wind energy facility-related debris on Preserve-area hillsides over the past 25 years bears no causal link with the Project. In other words, the Project now under consideration is not the source of the existing problem. Thus, the County is not authorized under CEQA to require clean-up of these areas as a mitigation measure in the EIR.

Nonetheless, the County expects that existing conditions would be remedied if the Project is approved. As described in DEIR Section 3.5, *Initial Decommissioning: Removal of Existing Turbines, Related Facilities and Additional Foundations*, and analyzed throughout Chapter 4, *Environmental Setting, Impacts, and Mitigation Measures*, the Applicant is proposing as part of the Project to remove all existing turbines, foundations and related infrastructure from the site, and roads no longer needed to gain access to Project facilities would be decommissioned and reclaimed in accordance with County requirements. These activities would result in the removal of the type of debris cited in the comment. Further, if the Project was approved, then the Land Use Permit issued by the County would likely include conditions of approval requiring improved site management as well as periodic public hearings to review the Applicant's compliance with the permit's conditions.

- 2-3 DEIR Section 3.4.4, *Staging and Laydown Areas*, states, "A temporary laydown area would be constructed at each new WTG pad to accommodate off-loading and storage of the tower sections, nacelle, rotor hub, and blades, as well as some construction equipment" and, after construction, "the temporarily-disturbed area would be recontoured and seeded." The tallest piece of equipment, on its side, would be the base of the tower, with a height of 16 feet. The laydown area fencing required in DEIR Mitigation Measure 4.1-1b would be 12 feet to provide substantial screening of the tower base and shorter equipment temporarily stored on the Project site. As indicated in FEIR Chapter 3, Mitigation Measure 4.1-1b has been clarified to include the fence height.

As discussed in DEIR Section 3.4.1 (Table 3-5), the construction schedule would be 10 months in duration. Within this timeframe, turbine foundations would be constructed and turbines would be installed starting in month 4 and commercial delivery would initiate in month 7: this represents a total period of temporary storage of no more than 3 months. DEIR Section 4.1.6, *Discussion of Impacts and Mitigation Measures*, includes two mitigation measures that would address the specified aesthetic concerns: Mitigation Measure 4.1-1a would preclude the Applicant from placing equipment or materials in laydown areas visible from Vasco Cave tours any sooner than 2 weeks before their required use. Mitigation Measure 4.1-1b specifies that the Vasco Caves tour route will be visually screened using temporary fencing that uses appropriate, non-reflective materials, such as a chain link fence with brown or green vinyl slats. Mitigation Measure 4.1-1b has been clarified as shown in FEIR Chapter 3 to specify the height of the fence. Approved

mitigation measures would be enforced pursuant to a Mitigation Monitoring, Reporting and Compliance Program (MMRCP) adopted for the Project. The limited construction period combined with implementation of these mitigation measures are adequate to mitigate any temporary aesthetic impact that could occur to viewers from the Vasco Caves.

- 2-4 As explained in DEIR Section 4.0.2, *Section Contents and Definition of Terms*, ambient noise conditions in the vicinity of the Project as they existed in March 2010 did not adequately represent the operational noise at the site (see also, DEIR Section 4.13.3, *Project Baseline*). By comparison, the 2008 period more accurately reflected actual conditions at the operating wind energy facility; 2008 was chosen because that is when the County officially was notified by the Applicant that it planned to repower the site and would begin to curtail operations in anticipation of that event. In other words, decommissioning in anticipation of the proposed repowering already was well-underway in March 2010 and, but for the Project, it is likely that the number of turbines operating on the site in 2010 would have been at or near 2008 levels.

The CEQA Guidelines provide that the environmental conditions existing at the time the Notice of Preparation (NOP) is published, or if a NOP is not published, those conditions existing at the time the environmental analysis is commenced, “normally” will constitute the baseline to be used by a lead agency in considering whether an impact is significant (CEQA Guidelines §§ 15125(a), 15126.2(a)). Inclusion of the word “normally” provides lead agencies with the discretion to adopt a different baseline in appropriate situations. Courts have recognized a lead agency's authority to adopt such an alternative approach. As emphasized last year by the California Supreme Court, “Neither CEQA nor the CEQA Guidelines mandates a uniform, inflexible rule for determination of the existing conditions baseline. Rather, an agency enjoys the discretion to decide, in the first instance, exactly how the existing physical conditions without the project can most realistically be measured, subject to review, as with all CEQA factual determinations, for support by substantial evidence.” *Communities for a Better Environment v. South Coast Air Quality Management District*, 48 Cal.4th 310, 327-28 (2010); see also, *Save Our Peninsula Committee v. Monterey County Board of Supervisors*, 87 Cal.App.4th 99, 125 (2001) (“the date for establishing baseline cannot be a rigid one”).

In light of the County’s considerable discretion in establishing an appropriate baseline and substantial evidence in support of the baseline identified in the DEIR for noise, no change has been made to the DEIR in response to this comment. Accordingly, no change has occurred that warrants the requested reconsideration and recirculation. See Master Response 2.2.3, *Recirculation*.

The comment provides no facts or other information in support of the commenter’s belief that the Project would result in “significant adverse noise affects to the [Vasco Caves Regional] Preserve.” To the contrary, as discussed in Response to Comment 1-25, DEIR Figure 4.13-2 illustrates noise receptors and baseline (pre-Project) noise levels while Figure 4.13-3 illustrates such receptors and future (post-Project) noise levels. The caretaker

residence at the Preserve and the Preserve itself are identified in each figure as sensitive receptors for purposes of the noise analysis, and were analyzed as such in Section 4.13, *Noise*. Comparison of the two figures reveals a marked overall decrease in noise as a result of the Project, including a reduction in noise levels at the Preserve. Accordingly, there is no basis under CEQA for the County to impose mitigation measures to address Project-related noise at the Preserve.

- 2-5 Concerning on-going security concerns at Vasco Caves and the suggestion that the County impose mitigation measures on the Project to address them, see the discussion of nexus in Response to Comment 2-2. Since the Project is not the cause of existing security concerns, the County has no authority to impose mitigation to resolve them.

The Vasco Caves complex is located on property outside of, but adjacent to, the Project site boundary. No Project-related activities are proposed within the boundaries of the Preserve and fences and gates marking the boundary between the Project site and the Preserve are already in place. Furthermore, as required by General Biological Resources Mitigation Measure 7, “Construction personnel shall be restricted to the immediate construction area and shall not venture beyond the work area identified in the approved final site plan.” Thus, the concern regarding potential construction-period vandalism necessarily assumes that construction workers on the Project site would ignore the mitigation measure and marked boundary, trespass onto EBRPD property, and commit other illegal acts. The commenter has submitted no evidence to reasonably demonstrate that that this would occur. Therefore, the DEIR is correct in identifying no impacts or mitigation measures related to security.

The commenter indicates that employees should receive training regarding the sensitive cultural resources in the area. Mitigation Measure 4.5-2a, set forth in DEIR Section 4.5.6 (p. 4.5-19), requires such training. However, in response to this comment, the County has clarified Mitigation Measure 4.5-2a as indicated below and in FEIR Chapter 3 to ensure that the required archaeological sensitivity instruction specifically would address the sensitivity of the resources at Vasco Caves:

Mitigation Measure 4.5-2a: Project personnel, including construction crews, shall be alerted to the archaeological sensitivity of the Project area and the importance of protecting cultural resources. Project personnel shall be required to attend a mandatory on-site instruction led by a qualified archaeologist and a Native American representative that discusses what types of cultural materials are and could be present in the Project area. The instruction shall include appropriate training to identify and protect cultural resources in the event that they are inadvertently unearthed. All Project personnel shall be informed that they are prohibited from entering the adjacent Vasco Caves Regional Preserve property owned by the East Bay Regional Park District and that entry onto said property constitutes trespassing punishable by law. Information about the specific locations of ~~the area’s~~ cultural resources on the Project site and in the surrounding area must shall be kept confidential and provided only on a need-to-know basis.

- 2-6 The Smallwood and Neher report relied upon in the DEIR has been updated to provide an assessment of the Environmentally Preferred Alternative (see paragraph 2 under “Discussion” on page 15). The following additional language has been added: “We also note that the repowering project reduces the number of wind turbines on the project area by up to 94%, while also shifting much of the rotor-swept area to greater heights above ground. Many of the flights thought to be hazardous to raptors are performed relatively low to the ground, where more of the rotor-swept areas of the old-generation turbines are located. If the 2.3 MW Siemens turbines are used, the project will also open up considerable turbine-free landscape. Smallwood et al. (2009c) recommended opening up turbine-free habitat space as part of repowering, based on their observations of much greater foraging activity in areas free of wind turbines at Vasco Caves Regional Preserve. Smallwood et al. (2009c) concluded that when given a choice, raptors will more often forage in areas free of wind turbines. The Environmentally Preferred Alternative will enable raptors to choose to forage in significant turbine-free areas in the north-central and western aspects of the Project area, as well as in several smaller areas between clusters of wind turbines. This attribute of the study should further reduce raptor fatalities.” As revised to include this language, the Smallwood and Neher report is included in the FEIR as **Appendix B**.
- 2-7 While it is clear that a longer post-construction monitoring period would be “more desirable,” the comment provides no evidence that the initial 3-year period, plus the 2-year period following the 10th anniversary of the Project’s commercial operation date, plus any additional monitoring that may be required in accordance with the Adaptive Management Plan (as required in Mitigation Measure 4.4-1b) is inadequate. As shown in FEIR Table 2-2, this mitigation measure and the 2010 Agreement are in substantial accord (see Master Response 2.2.2, *Biological Resources*).

The suggestion that the DEIR be revised to reflect the APWRA-wide data identified by the commenter as “new” is not supported by any data, evidence or other information indicating that the data relied upon in the DEIR is inaccurate or inadequate. In any event, the data relied upon in the DEIR, as explained in DEIR Section 4.4.3, *Avian Fatality Baseline*, is an APWRA-wide estimate.

Mitigation Measure 4.4-1b(viii) if adopted, would require preparation of a site-specific Adaptive Management Plan. The goal of the Adaptive Management Plan is to reduce avian mortality with the least impact on wind energy production by continually incorporating effective mitigation measures that are based on the best available science over the life of the Project. Instruments of the Plan recommended as binding are illustrative only: so long as the plan is prepared and implemented to the satisfaction of the County and relevant State and federal agencies in furtherance of the stated goal, the County intended for there to be flexibility in crafting its specific provisions so that the best available science at the time the Plan is developed could inform its drafting. The use of “could” in this case was intentional.

As discussed in Master Response 2.2.2, *Biological Resources*, the adaptive management response envisioned in the DEIR and in the 2010 Agreement would be informed by an initial 3 years' worth of data. This amount of time would allow for trends in need of correction to be identified at the earliest practical time: 1 year's data could reflect a spike or dip that could be accounted for by any number of reasons independent of the proposed repowering; 2 years could reflect the natural correction of such an anomaly. With 3 years of data, wildlife agencies and the County could begin to correlate a Project-related cause with a species-related effect. Consequently, the DEIR has not been revised to require adaptive management to begin any earlier.

- 2-8 Mitigation Measure 4.4-3 would result in the development and implementation of a pre- and post-construction bat monitoring program in accordance with the provisions of the 2010 Agreement and the California Bat Working Group Guidelines for Assessing and Minimizing Impacts to Bats at Wind Energy Development Sites in California (CBWG, 2006) (see also, Master Response 2.2.2, *Biological Resources*). This mitigation measure would reduce the Project's effects on bats by addressing the data gaps that prevent adequate assessment of the Project's effects on bats, such as what/which bat species are using the APWRA and how they are using the Project area.

The 2010 Agreement states the following about post-construction monitoring: "NextEra Wind also shall monitor each repowered turbine at least once per month for the duration of the post-construction monitoring period for fatalities of the four Focal Raptor Species, bats and all other bird species, as recommended by the TAC and the SRC, as appropriate. Finally, NextEra Wind shall monitor a subset (30%) of the repowered turbines at least twice per month for the duration of the post-construction monitoring period for each phase of repowering for fatalities, bird and bat utilization and/or behavior, in consultation with the TAC or the SRC, as appropriate."

As indicated in Master Response 2.2.2, Mitigation Measure 4.4-3 has been revised to more closely reflect the 2010 Settlement Agreement and the reference to a 90-day limitation on bat monitoring has been deleted.

- 2-9 Mitigation Measure 4.4.4 currently requires a pre-construction survey for California tiger salamander and California red-legged frog as follows: "The County-, USFWS- and CDFG-approved biologist shall survey the work sites no more than 2 weeks before the onset of construction. If CTS or CRLF are found, the biologist shall inform the County and contact USFWS and CDFG to determine whether moving these individuals is appropriate." Neither CDFG nor USFWS prescribes the visual inspection of all small mammal burrows in the project footprint prior to the start of construction for all projects. The comment provides no evidence that the analysis or proposed mitigation measure is insufficient or inadequate. Consequently, the DEIR has not been revised in response to this comment.

- 2-10 The DEIR provides information about typical buffers for avian species and states, "The size of the buffer zones and types of construction activities allowed in these areas, if any, could be further modified during construction in coordination with CDFG and shall be based on

existing noise and human disturbance levels in the Project area.” The comment does not suggest that the related analysis is insufficient or inadequate. Furthermore, comments received on the DEIR from the California Department of Fish and Game did not challenge the accuracy of the statement describing the buffers. Consequently, the DEIR has not been revised in response to this comment.

- 2-11 The DEIR text referenced in the comment summarizes the terms of the 2010 Agreement and was not intended to include all of its details. Although the DEIR accurately summarized those provisions, DEIR Section 4.4.2.3 (p. 4.4-11) has been revised to include the requested clarification. The revision is set forth below and in FEIR Chapter 3:

NextEra will also pay approximately \$2.5 million in mitigation fees, half to the California Energy Commission's Public Integrated Energy Research Program and half to East Bay Regional Park District ~~or and~~ the Livermore Area Regional Park District for conservation efforts for the benefit of those bird and bat species and their habitat...raptor habitat creation.

- 2-12 The comment refers to DEIR Appendix B, which is a detailed description of the existing environment for biological resources related to the Project site and vicinity. The comment adds sightings of American Peregrine Falcon nest sites 10 and 12 miles from the Project site and California horned larks and prairie falcons nesting at Vasco Caves. Although the sources cited in the comment were not verified, the County acknowledges these additional references and notes that they do not alter the findings of impacts or the mitigation measures presented in the DEIR. The comment is correct: Figure 3-5, *Proposed Project – Siemens Layout*, does not identify a Siemens WTG number 35, and GE 45 and Siemens 21 are not in the same location. These facts do not affect the DEIR’s analysis or conclusions. FEIR Figure 2-1 accurately depicts the locations of the proposed Siemens turbines.

Specifically concerning prairie falcon, Appendix B cites a document prepared by Rocky Mountain Bird Observatory as (RMBO, 2007). The full citation for this document is: Rocky Mountain Bird Observatory. 2007, *PIF Landbird Population Estimates Database*, http://www.rmbo.org/pif_db/laped/PED4.aspx, visited May 20, 2010. DEIR Section 4.4 states that large rock outcrops with vertical walls greater than 20 feet tall are present at Vasco Caves and provide nesting habitat for prairie falcon (DEIR, p. 4.4-15). Impact 4.4-1, analyzing direct and indirect impacts on birds, considered the fact that “the Altamont Pass and vicinity (e.g., 15-mile radius) is an area of high raptor abundance, supporting large resident populations of some species along with lesser numbers of prairie falcon, and concludes that the impacts of the Project on avian species would be significant and unavoidable” (DEIR, pp. 4.4-35, 4.4-39). Consequently, the data and information provided in the comment do not change the analysis or the conclusions of the DEIR.

- 2-13 DEIR Figure 3-2 depicts land ownership, not the Siemens turbines. The Siemens turbine layout is shown in DEIR Figure 3-5. DEIR Section 3.3.2 explains that this figure shows “42 potential WTG locations, seven of which are optional: only up to 35 Siemens WTGs actually would be constructed.” The County acknowledges the discrepancy between

Figure 3-5 and the DEIR text; the figure shows 34 turbines and 10 optional locations. FEIR Figure 2-1 depicts the Environmentally Preferred Alternative, which includes 34 Siemens turbines with no optional locations. The discrepancy in the DEIR is inconsequential because the Environmentally Preferred Alternative is the only viable layout.

- 2-14 In addition to the environmental review conducted in the DEIR, if the Project was approved, the County would review the Applicant's final site plan to ensure that it was consistent with the analysis in the FEIR. No additional third-party review is necessary or required.
- 2-15 Regarding the lighting of turbines, the Project must comply with Federal Aviation Administration regulations. As discussed in DEIR Section 3.6.4, "Federal Aviation Administration (FAA) regulations require structures over 200 feet high to be lit in compliance with the FAA Obstruction Marking and Lighting Advisory Circular (AC70/7460-1K)." Impact 4.1-7 discussed in DEIR Section 4.1, *Aesthetics*, further explains that the FAA would review the Project prior to construction, and that its recommendations on marking and lighting structures vary among projects depending on terrain, local weather patterns, geographic location, and, in the case of wind energy facilities, the cumulative number of towers and overall site layout. As a result of its review process for the Project, the FAA could recommend that tower markings or aviation safety lighting be installed on all of the proposed turbine towers; however, it is anticipated that lights instead would be mounted on select, strategically-located towers in order to adequately mark the Project while minimizing attractants for birds during night migrations. It is expected that about half of the new turbines – 17 Siemens WTGs under the Environmentally Preferred Alternative – would be lighted. The minimum number of required lights would be used.

The impact of FAA-required lighting was found in the DEIR to be less than significant and no evidence has been provided demonstrating that the lighting would create a significant impact. In the absence of such evidence, no mitigation is required. Additionally, because the County has no control or influence over the FAA's review process and its determination as to which turbines must be lighted, a mitigation measure prohibiting lighting on certain turbines could conflict with the FAA's determination, thereby rendering the mitigation measure infeasible and unenforceable.



State of California – The Natural Resources Agency
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EDMUND G. BROWN, Jr. Governor
JOHN McCAMMAN, Director



February 10, 2011

Mr. William Nelson
Contra Costa County
Department of Conservation & Development
651 Pine Street, 4th Floor
Martinez, CA 94553

Dear Mr. Nelson:

Subject: Vasco Wind Repowering Project, Draft Environmental Impact Report,
SCH #2010032094, Alameda and Contra Costa Counties

The Department of Fish and Game (DFG) appreciates the opportunity to comment on the Vasco Winds Repowering Project (Project) draft Environmental Impact Report (EIR). The Project is located on 4,267 acres almost entirely within Contra Costa County (County) in the Altamont Pass Wind Resource Area. The Project will decommission and remove 438 existing turbines, remove 286 foundations, decommission and restore non-essential roads, install either 35 Siemens 2.3-megawatt turbines or 50 General Electric (GE) 1.5-megawatt turbines for a total of 80.5 megawatts of nameplate capacity, and install associated infrastructure such as electrical collection lines. On December 10, 2010, a settlement agreement (2010 Agreement) was announced between local chapters of the Audubon Society, Californians for Renewable Energy, the State of California Attorney General's Office, and NextEra. NextEra is the Project proponent. The 2010 Agreement identified requirements for a monitoring program, monetary compensation, siting considerations for turbines, and a repowering schedule for this Project and others proposed by NextEra. The 2010 Agreement is incorporated by reference in the draft EIR.

DFG has been informed by the Project proponent's consultant that the Siemens turbines will be used in this project (CH2M, pers. comm.). DFG recommends that reference to the GE turbines be removed from the analysis in the draft EIR. If the GE turbines are to remain in the draft EIR, DFG will require the previously submitted Incidental Take Permit (ITP) application be amended to analyze both turbine technologies.

3-1

In order for the draft EIR to be consistent with the Lake and Streambed Alteration application and the ITP application, the east-west road segment, removed in Alternative 3, should be removed from the Project description.

3-2

The draft EIR suggests micrositing of the turbine structures as a measure to minimize and avoid on-going impacts to birds and bats. While the use of the Smallwood and Neher (Smallwood and Neher, 2010) model to accomplish this appears appropriate, full

3-3

Mr. William Nelson
February 10, 2011
Page 2

assessment of the effectiveness of the model in achieving avoidance will require a more species-specific approach. To this end, we recommend County request and analyze maps of the model overlaid with the various turbine placements and identify which species model was used to determine the micro-siting of turbines.

↑
3-3
cont.

The 2010 Agreement requires that the siting of repowered turbines be based on field data that confirms the behavior, utilization and distribution patterns of affected avian and bat species prior to the installation of new turbines. Except for the four modeled raptor species, the draft EIR does not contain an analysis of bird use in the area, such as the Bird Use Counts recommended in the California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development (Guidelines). The baseline identified in the draft EIR is based on mortality estimates and surveys, not on bird use, with the exception of the four modeled raptor species. To gain a more complete picture of potential impacts, a pre-construction bird use survey should be conducted to which post-construction bird use monitoring could be compared.

↑
3-4

Table 4.4-2 provides the number of bat species that have been acoustically detected at the Project site as well as the pass count. For a more complete assessment of potential impacts to bats, the County should analyze occurrence and distribution in the Project area by month in relation to monitoring locations. DFG would be interested in viewing this information in tabular and map format.

↑
3-5

Mitigation Measure 4.4-3 requires the Project proponent to prepare and implement the same adaptive management plan principles for bats as are being applied to avian species under Mitigation Measure 4.4-1. Unlike Mitigation Measure 4.4-1, Mitigation Measure 4.4-3 does not indicate a threshold for adaptive management or a course of action should adaptive management goals fail to be reached. Recent research by Arnett, et al. (2010), indicates that by increasing the "cut-in" speed of a turbine (curtailment) during times of increased bat activity, bat fatality can be substantially reduced. This research found that bat fatality was reduced between 44% and 93% with a corresponding reduction in annual energy production of 1% or less. DFG recommends curtailment be included as a potential adaptive management option if monitoring indicates high or moderately high numbers of bat fatalities, or a disproportionate number of bats being killed at specific turbines.

↑
3-6

We recommend a bat mortality monitoring program that is consistent in scope and effectiveness as the one in the Guidelines. Mitigation Measure 4.4-3(f) sets a maximum of 90 days of monitoring per year, which may not be sufficient to adequately assess true bat mortality.

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3-7

The threshold for identifying a turbine that has a disproportionate risk to birds and bats is identified in Mitigation Measure 4.4-1 as 50%. DFG recommends this threshold be based on a statistical analysis that takes into account the sample size and other site-specific factors rather than an arbitrary percentage.

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3-8

Mr. William Nelson
February 10, 2011
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Mitigation Measure 4.4-1b does not incorporate the use of bats as a benchmark for measuring the effectiveness of repowering to reducing impacts to bird and bat species. This language should be changed to include bats as a benchmark and be more reflective of the 2010 Agreement language.

3-9

The Project description and Alternatives are laid out in a confusing manner. The Project description includes the possibility of either 35 Siemens 2.3-megawatt turbines or 50 GE 1.5-megawatt turbines. The Project description for the Siemens Layout describes 42 potential locations of which 7 are optional locations, while the GE Layout has no optional locations. In contrast to the description, Figure 3-5 (Siemens Project Layout) indicates 34 numbered locations and 10 optional locations (designated with Opt-#), for a total of 44 locations. DFG recommends this discrepancy be resolved in order to aid in analysis of the Alternatives.

3-10

DFG recommends the cumulative impact analyses for the Project focus on likely impacts to bird or bat populations over the entire estimated operational life of the Project. The draft EIR describes the impacts based on fatality per megawatt/year. A more practical description of cumulative impacts would identify the total number of bird and bat fatalities that could occur over the life of the Project. Based on this analysis, the draft EIR could identify and call for biologically meaningful mitigation to compensate for the significant and unavoidable impacts to bird and bat species. The Guidelines identifies several forms of compensatory mitigation that are known to protect and enhance bird and bat populations. Options for mitigation include off-site conservation and protection of essential habitat, off-site conservation and habitat restoration to restore habitat function and/or increase carrying capacity, and off-site habitat enhancement. To be successful, these mitigation options need to be properly designed, located and implemented where they would be effective.

3-11

3-12

DFG recommends that compensatory mitigation for Project biological impacts should consist, in part, of land-based conservation (fee title or easement) that supports breeding, foraging, or other attributes of the impacted species life history related to sustaining and enhancing populations. Funding for management of conservation lands is part of ensuring these lands provide the intended values over time.

3-13

If you have any questions, please contact Mr. Craig Weightman, Staff Environmental Scientist, at (707) 944-5577 or cweightman@dfg.ca.gov; or myself at (707) 944-5584.

Sincerely,



Scott Wilson
Acting Regional Manager
Bay Delta Region

cc: See next page

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cc: State Clearinghouse

Mr. Mike Thomas
U.S. Fish and Wildlife Service
2800 Cottage Way, W-2605
Sacramento, CA 95825

References

- Edward B Arnett, Manuela MP Huso, Michael R Schirmacher, and John P Hayes. 2010. Altering turbine speed reduces bat mortality at wind-energy facilities. *Frontiers in Ecology and the Environment* (e-View) doi:10.1890/100103
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2.3.3 Letter 3 – Responses to Comments from California Department of Fish and Game

- 3-1 The DEIR analyzed the Project as it was proposed at the time of the DEIR's publication. At that time the Applicant was considering a GE layout and a Siemens layout. The analysis in the DEIR was intended to support the Applicant's pursuit of either option. The Environmentally Preferred Alternative is a Siemens-only option, and is the only layout that would be approved by the County. As the GE layout could not be implemented, an update to the Incidental Take Permit (ITP) application is not necessary.
- 3-2 The east-west road segment that was eliminated in Alternative 3 has also been eliminated in the Environmentally Preferred Alternative. See Figure 2-1, *Environmentally Preferred Alternative*.
- 3-3 See FEIR Appendix B and Response to Comment 2-6. The comment questions neither the adequacy nor the accuracy of the information relied upon in the DEIR. Consequently, the DEIR was not revised in response to this comment.
- 3-4 DEIR Section 4.4.3, *Avian Fatality Baseline*, explains that, in the absence of site-specific avian fatality data for the Project site, for avian species, the baseline is the APWRA-wide estimated fatality per MW/year data, which are 2.2 raptors/MW/year and 7.5 birds/MW/year as reported by Smallwood and Karas (Smallwood and Karas, 2009). Although bird use and other types of data, if available, could have informed a different type of baseline, the comment questions neither the adequacy nor the accuracy of the baseline relied upon in the DEIR. Concerning post-Project monitoring, see the discussion in Master Response 2.2.2, *Biological Resources*, regarding the 2010 Settlement Agreement.
- 3-5 DEIR Table 4.4-2 summarizes the information known about bat use of the Project site based on review of the October 2010 preliminary findings of Pandion Systems, Inc., entitled *Altamont Vasco Repower –Acoustic Bat Monitoring*. Figure 1 included in the report is a map of the Project area that identifies meteorological towers containing acoustic bat monitoring equipment. Results are presented by season rather than by month. Figure 2 shows average bat passes per analyzed night for the 2010 monitoring season. The Pandion 2010 report relied upon in the DEIR is included in the FEIR as **Appendix C**.
- 3-6 As discussed in Master Response 2.2.2, *Biological Resources*, the adaptive management provisions of DEIR Mitigation Measure 4.4-3, which addresses Project impacts to bats, would require the Applicant to prepare and implement the same Adaptive Management Plan principles for bats that are being applied to avian species under Mitigation Measure 4.4-1b. In response to this comment, curtailment has been identified in Mitigation Measure 4.4-3 as a potential adaptive management option (see Master Response 2.2.2, *Biological Resources*, and FEIR Chapter 3 for the specific language).

- 3-7 The limitation on the maximum number of days per year of bat mortality monitoring has been eliminated from Mitigation Measure 4.4-3. The change is shown in Master Response 2.2.2, *Biological Resources*, and in FEIR Chapter 3.
- 3-8 The 50 percent threshold is established in the 2007 and 2010 Agreements. Mitigation Measures 4.4-1b and 4.4-3 have been revised to emphasize the consistency between these mitigation measures as they were provided for review and comment in the DEIR and the terms of the 2010 Agreement. See Master Response 2.2.2, *Biological Resources*.
- 3-9 Mitigation Measure 4.4-1b(i) has been revised as indicated in Master Response 2.2.2, *Biological Resources*, and FEIR Chapter 3 to emphasize consistency with the 2010 Agreement. As revised, Mitigation Measure 4.4-1b(i) identifies bats as a benchmark for evaluating the effectiveness of the overall Project repowering in reducing turbine-related mortality.
- 3-10 The comment is correct about the inconsistency. DEIR Figure 3-5, *Proposed Project – Siemens Layout*, shows 34 turbines and 10 options, for a total of 44, not a total of 42 as indicated in DEIR page 3-12. DEIR page 3-12 has been corrected as follows to indicate a total of 44 (also see FEIR Chapter 3):

The Siemens Layout includes ~~44~~ 42 potential WTG locations, ~~nine~~ seven of which are optional: only up to 35 Siemens WTGs actually would be constructed.

Clarification of how many of which turbine model could be constructed under each of the alternatives (including the Environmentally Preferred Alternative described in FEIR Section 2.2.1) is provided in **Table 2-4**.

- 3-11 This comment suggests a different approach to analyzing cumulative impacts related to avian and bat mortality than the one taken in the DEIR, but does not suggest that the DEIR's approach is flawed. As discussed in Master Response 2.2.2, *Biological Resources*, and shown in FEIR Chapter 3, mitigation measures addressing Project impacts to avian and bat species are consistent with the 2010 Settlement Agreement, including the adaptive management provisions set forth in Section 5.2 of the 2010 Agreement. Mitigation Measures 4.4-1b and 4.4-3 have been tailored in this FEIR to amplify the consistency. Consistent with Section 6 of the 2010 Agreement, binding instruments of the adaptive management plan required in Mitigation Measures 4.4-1b and 4.4-3 could include the type of compensatory mitigation suggested in the comment. Also, please note that Section 6 of the 2010 Agreement provides for the mitigation of ongoing impacts to Focal Raptors.
- 3-12 See Response to Comment 3-11.
- 3-13 See Response to Comment 3-11.

**TABLE 2-4
ALLOWABLE TURBINE TYPES BY ALTERNATIVE**

Alternative	Turbine Number and Type	Where Identified in the DEIR
Proposed Project	<ul style="list-style-type: none"> Siemens Layout: 44 possible WTG locations, only 35 of which would be constructed. GE Layout: 50 WTG locations; 50 of which would be constructed. <p>If the proposed Project were approved by the County, the Applicant could elect to construct either layout.</p>	See, e.g., DEIR Section 3.3.2, <i>Construction of New WTGs and Related Infrastructure</i> , and Section 4.0, <i>Approach to the Analysis of Impacts</i> . See also, Figures 3-4, <i>Proposed Project – GE Layout</i> , and 3-5, <i>Proposed Project – Siemens Layout</i> .
No Project Alternative	<ul style="list-style-type: none"> Zero Siemens WTGs Zero GE WTGs 	DEIR Section 6.5.1, <i>No Project Alternative</i> .
Alternative 1: Partial Repowering – Reduced Number of Turbines to be Installed on Reduced Project Area	<ul style="list-style-type: none"> 27 Siemens turbines or 35 GE turbines <p>Under Alternative 1, the Applicant could have elected to construct either type of turbine.</p>	DEIR Section 6.5.2, <i>Alternative 1: Partial Repowering – Reduced Number of Turbines to be Installed on Reduced Project Area</i> ; Figures 6-1, <i>Alternative 1 – GE Layout</i> , and 6-2, <i>Alternative 1 – Siemens Layout</i> .
Alternative 2: Partial Repowering – Same Number of Turbines to be Installed on Reduced Project Area	<ul style="list-style-type: none"> Same as proposed Project: 35 Siemens turbines or 50 GE turbines <p>Under Alternative 2, the Applicant could have elected to construct either type of turbine.</p>	DEIR Section 6.5.3, <i>Alternative 2: Partial Repowering – Same Number of Turbines to be Installed on Reduced Project Area</i> .
Alternative 3: Revised Siemens WTG layout	<ul style="list-style-type: none"> 35 new Siemens WTGs <p>Under Alternative 3, the Applicant could have constructed only Siemens WTGs.</p>	DEIR Section 6.5.4, <i>Alternative 3: Revised Siemens WTG layout</i> ; see also, Section 6.6, <i>Environmentally Superior Alternative</i>
Environmentally Preferred Alternative	<p>Similar to Environmentally Superior Alternative (Alternative 3):</p> <ul style="list-style-type: none"> 34 new Siemens WTGs <p>Under the Environmentally Preferred Alternative, the Applicant could construct only Siemens WTGs.</p>	FEIR Section 2.2.1, <i>Environmentally Preferred Alternative</i> .

Feb. 11, 2011

William Nelson, Contra Costa County
651 Pine St. No. Wing, 5th Fl.
Martinez, CA 94553

RE: Vasco Winds Repowering Project DEIR, SCH No. 2010032094

Dear Mr. Nelson,

The East Bay Chapter of the California Native Plant Society (EBCNPS) appreciates the opportunity to comment on the Vasco Winds Repowering DEIR (Vasco Winds DEIR). The California Native Plant Society (CNPS) is a non-profit organization of more than 10,000 laypersons, professional and academic botanists organized into 33 chapters throughout California. The mission of the CNPS is to increase the understanding and appreciation of California's native plants and to preserve them in their natural habitat through scientific activities, education, and conservation.

CONSIDERATIONS

EBCNPS is concerned that none of the digitally accessible public documents [through the Contra Costa County website at <http://www.co.contra-costa.ca.us> (accessed 02/11/11)] clearly state where DEIR comments should be sent and when the comment period closes. To this effect, EBCNPS offers the below comments with hope that the ensuing process will provide a higher standard of notification as required by CEQA.

4-1

EBCNPS is supportive of meeting our state's energy needs through the development of alternative energy sources. Although we believe wind power is a viable energy source, we still want to ensure that proper site surveys are conducted (according to wildlife agency protocol and established precedent) and that requisite mitigations are enacted and completed prior to ground-breaking for the energy generation facility. While we believe that the footprint of the turbines will be reduced in this repowering project, it is apparent that the actual footprint and ground disturbance will INCREASE due to this project. The report should candidly present this in terms of total acres impacted with new turbines, infrastructure and construction, while also reporting total acres where old turbines were removed. EBCNPS would like the DEIR to acknowledge that in this acreage where old turbines currently exist, the soils have been highly modified and it is highly unlikely that these new acres provide any "native habitat".

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The Vasco Winds DEIR fails to report that targeted surveys for special status plants were conducted. The rare plant occurrences that are represented by polygons in the report match those found in the California Natural Diversity Database (CNDDB). This would lead us to believe that this information was simply transposed from the CNDDB, and targeted surveys for known special status plants and potential occurrences of special status plants were forgone. We ask for targeted surveys to occur according to DFG and CNPS survey guidelines. Without targeted surveys for CEQA protected plants, EBCNPS believes that this DEIR is inadequate and incomplete.

4-5

As consistent with CEQA's Article 9 and Guidelines 15125(a) and 15380 which state that "special emphasis should be placed on environmental resources that are rare or unique to that region" and with CNPS's goal of preserving plant biodiversity on a regional and local scale, Lake has assessed the occurrence of locally significant plant species. Locally significant plant species, also known as "peripheral populations," are those considered to be at the outer limits of their

4-6

known distribution, a range extension, a rediscovery, or rare or uncommon in a local context (CNPS 2001, CDFG 2009, Lake 2010). EBCNPS see not mention of these resources in this document and believes that this document requires surveys for appropriate locally rare plants in order to meet CEQA compliance standards.

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cont.

The Vasco Winds DEIR project falls within the Byron Botanical Priority Protection Area of the East Bay. EBCNPS believes this area contains outstanding habitat for plant conservation (See attached Appendix A). We would also like to inform the lead agency that this area is also denoted as high quality habitat in the Eastern Contra Costa Habitat Conservation Plan – NCCP. EBCNPS believes that impacts to this area are both not covered by HCP permits and the proposed development further impacts some of the resources that the HCP seeks to protect: namely plant, raptor, and bat resources. EBCNPS sits on the Public Advisory Committee for the ECC-HCP and we have concerns over the impact of repowering large-scale wind facilities in an area designated for habitat conservation.

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EBCNPS most agrees with the planning/siting efforts of Alternative 3 – the environmentally superior alternative. Still, we believe that a true environmentally superior alternative should be presented where major impacts to vegetation and environment are redirected. To this end, we ask the developer to consider eliminating the road that travels though **Kellogg creek**, and instead direct major traffic to the alternative entrance. Since all the ridgeline roads connect, it would be preferable to direct traffic and road improvements away from **Kellogg creek**, avoiding state protected plants, vegetation, and improving water quality in the long term. Public Resources Code Section 21002 asks that the scope of alternatives to be examined in an EIR, the public agency must be guided by the doctrine of “feasibility.” The Legislature has defined “feasible” for purposes of CEQA review as “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social and technological factors.” (Public Resources Code Section 21061.1; Guidelines Section 15364) EBCNPS believes this alternative arrangement circulating major traffic through Gate 24, while retaining emergency egress through Gate 5 is a feasible, and environmentally superior to all presented alternatives, and should be analyzed given the resource constraints of this area.

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4-9
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Please contact us with any questions at 510 734 0335.

Sincerely,

Lech Naumovich
Conservation Committee
California Native Plant Society
East Bay Chapter
lechroy@gmail.com

Laura Baker
Conservation Chair
EBCNPS
lbake66@aol.com

CC: David Twa, CC County

REFERENCES

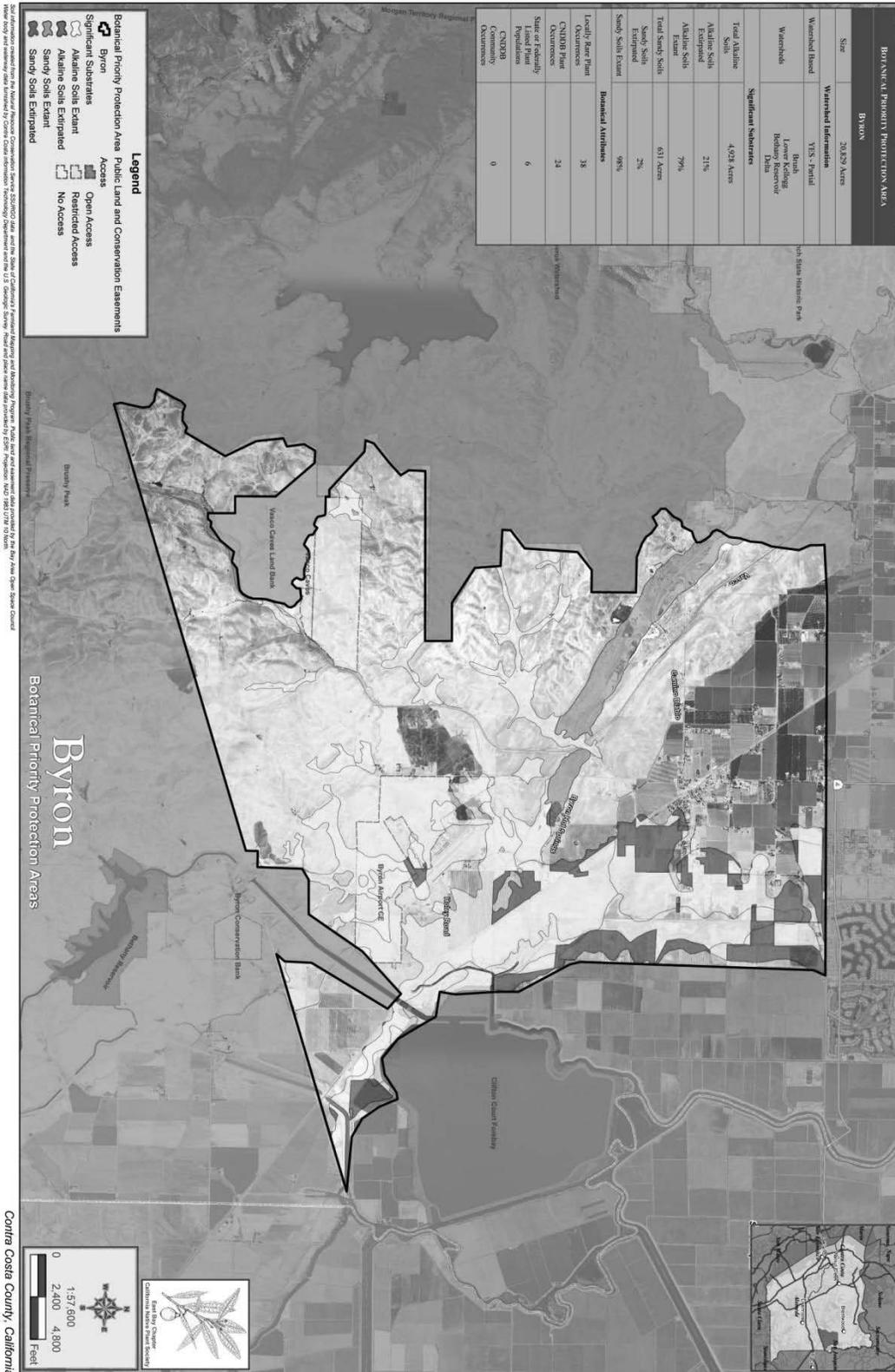
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APPENDIX A: Byron Botanical Priority Protection Area



2.3.4 Letter 4 – Responses to Comments from California Native Plant Society

- 4-1 The comment is correct that the online version of the DEIR did not indicate where or by when comments on the DEIR should be sent. The County will work to avoid such an omission in the future, but notes that online posting of EIRs is not required by CEQA. As required by the CEQA Guidelines, responsible and trustee agencies, property owners and occupants adjacent to the Project site, and interested private organizations and individuals were mailed the *Notice of Availability* stating where comments on the DEIR should be submitted and the deadline for submittal. The County sent copies of the DEIR and the *Notice of Availability* to the East Bay Chapter of the CNPS and to CNPS's headquarters in Sacramento via certified mail. CNPS's comments were submitted past the deadline, but the County has elected to accept the comments and provide responses.
- 4-2 Site surveys were conducted for the Project in accordance with wildlife agency protocol and established precedent. For example, the Botanical Inventory Report for the Vasco Winds Repowering Project prepared by Sycamore Environmental Consultants, Inc., that was relied upon in DEIR Section 4.4, *Biological Resources*, was prepared following the guidelines set forth by USFWS (1996), DFG (2009a), and California Native Plant Society (CNPS 2001), where applicable (Sycamore, 2010, p. 8). Sycamore, 2010 is provided in the FEIR as **Appendix D**. Compliance with adopted mitigation measures would be enforced in accordance with their terms via the Mitigation Monitoring, Reporting and Compliance Program adopted for the Project.
- 4-3 No data or other evidence has been provided demonstrating that ground disturbance would increase due to implementation of the Project. DEIR Table 3-1 presents the area that would be disturbed during the initial decommissioning and construction of the Project as well as during its operation and maintenance. As shown in Table 3-1, development of the proposed Siemens layout temporarily would disturb approximately 254.4 acres and permanently would disturb approximately 58.7 acres. Temporary impacts would be associated with decommissioning and construction-related activities and generally would be short-term. As explained in DEIR Section 3.4.1, the acreages of disturbance shown in Table 3-1 would not occur concurrently during the construction period. For purposes of analysis, disturbance conservatively is considered to be "permanent" if, for example, it would be long-term, such as the disturbance associated with the presence of turbine pads/towers, the Jackson Substation and new roads necessary for operation and maintenance of the Project. Table 3-1 also shows that approximately 214 acres would be restored as a result of the removal and restoration of roads not needed for the Project as well as the removal of turbine pads and erosion-related restoration. See also, FEIR Table 2-2, *Project Disturbance and Restoration Acreage*, which shows that the Environmentally Preferred Alternative described in Master Response 2.2.1 would cause less disturbance both temporarily and permanently than the Environmentally Superior Alternative identified in DEIR Section 6.6: temporarily, the Environmentally Preferred Alternative would disturb 10 fewer acres and permanently would disturb 112.2 fewer acres.

- 4-4 No data or other evidence has been provided demonstrating that soils within the existing wind energy facility footprint are, as asserted in the comment, “highly unlikely” to provide native habitat. Native habitat on the Project site is described in DEIR Section 4.4, *Biological Resources*, and in DEIR Appendix B. Consequently, the DEIR has not been revised in response to this comment.
- 4-5 DEIR Section 4.4, *Biological Resources*, analyzed Project-related impacts on special-status plants. See, for example, Impact 4.4-8, which considers whether Project construction could affect populations of special-status plant species, including San Joaquin saltbush and round-leaved filaree, and concludes that such impacts would be less than significant with mitigation incorporated. Discussion of this impact confirms that plants identified by the California Native Plant Society in its Inventory of Rare and Endangered Plants of California are evaluated as special-status plants. This discussion also clearly states, “Complete focused botanical surveys were performed within the 831.64-acre botanical study area established for the Project for special-status plants by Sycamore Environmental Consultants, Inc., as documented in its August, 2010, *Botanical Inventory Report for the Vasco Winds Repowering Project* (Sycamore, 2010).” Section III of the report describes the study methods used in its preparation, including literature search, three pedestrian surveys representing 328 person hours spent in the field, and mapping (see FEIR Appendix D). As stated in Section III, “The botanical surveys for this report follow the guidelines set forth by USFWS (1996), DFG (2009a), and California Native Plant Society (CNPS 2001), where applicable.” No data or other information has been provided suggesting that this work was either inadequate or inaccurate. Consequently, the DEIR was not revised in response to this comment.
- 4-6 Among its many references, Sycamore Environmental Consultants, Inc.’s August, 2010, *Botanical Inventory Report for the Vasco Winds Repowering Project* (Sycamore, 2010), relied upon in DEIR Section 4.4, cites two CNPS publications (including CNPS’s 2001 botanical survey guidelines) and seven CDFG publications (including CDFG’s 2009 protocols for surveying and evaluating impacts to special status native plant populations and natural communities). The commenter does not provide a full citation for “Lake, 2010” although the County assumes the comment is referring to work by Dianne Lake, who has maintained a list of unusual and significant plants of Contra Costa and Alameda since 1992 for CNPS’s East Bay Chapter. An EIR need not consider every study recommended by a commenter so long as the report, as a whole, reflects a good faith effort at disclosure (CEQA Guidelines § 15204(a)).

As indicated in the comment, CEQA Guidelines Section 15125(a) requires an EIR to include a description of baseline conditions in the vicinity of the project. The DEIR does so. See, for example, DEIR Section 4.4.2, which describes the physical and regulatory setting for the Project specifically with respect to biological resources, including special status plants. Subsection (c) of CEQA Guidelines Section 15125 states, “Knowledge of the regional setting is critical to the assessment of environmental impacts. Special emphasis should be placed on environmental resources that are rare or unique to that region and would be affected by the

project. The EIR must demonstrate that the significant environmental impacts of the proposed project were adequately investigated and discussed and it must permit the significant effects of the project to be considered in the full environmental context.” Knowledge of the regional setting for this Project is demonstrated by the description of it provided in DEIR Section 4.4.2, *Setting*, in the analysis of potential impacts within the context of this setting (as provided throughout Section 4.4, *Biological Resources*, and in DEIR Appendix B), and by the County’s reliance on underlying scientific data and analysis provided by CDGF, CNPS, Sycamore Environmental Consultants, and others who specialize in such resources. As demonstrated by the discussion and analysis relating to Impact 4.4-8, which considers whether Project construction could affect populations of special-status plant species, including San Joaquin saltbush and round-leaved filaree, the DEIR adequately investigates and discusses significant effects of the Project to be considered in the full environmental context. It concludes that Project-related impacts to special status plant species would be less than significant with the incorporation of Mitigation Measure 4.4-8, which would require avoidance of special-status plants to the maximum extent practicable; installation of exclusion fencing and/or silt fencing with as large a buffer as possible around special status plant population to minimize the potential for fugitive dust, accidental intrusion into sensitive areas, and other direct and indirect impacts; compensation when avoidance is not feasible; implementation of a Noxious Weed and Invasive Plant Control Plan; and other actions. For these reasons, County has determined that the DEIR adequately analyzes potential impacts to plant species.

The commenter contends that the County should conduct additional research. However, additional research is required if and only if the initial research is insufficient. As CEQA Guidelines Section 15204(a) and California courts have made clear, “CEQA does not require a lead agency to conduct every recommended test and perform all recommended research to evaluate the impacts of a proposed project. The fact that additional studies might be helpful does not mean that they are required.” See, e.g., *Gray v. County of Madera*, 167 Cal.App.4th 1099, 1115 (2008); *Association of Irrigated Residents v. County of Madera*, 107 Cal.App.4th 1383, 1396 (2003). Consequently, the DEIR has not been revised in response to this comment.

- 4-7 Comment noted. The privately-owned parcels within the Project site do fall within the boundary of the Byron Botanical Priority Protection Area of the East Bay (BBPPAEB). However, none of the significant substrates identified in this area (i.e., alkaline soils extant, alkaline soils extirpated, sandy soils extant, and sandy soils extirpated) are present on the site. There is no evidence that the overlap of the BBPPAEB and Project site causes an adverse impact on the environment. Accordingly, the DEIR was not revised in response to this comment.
- 4-8 The County respects the commenter’s concern about the environmental impacts of large-scale wind energy facilities in sensitive resource areas such as the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan (East County HCP/NCCP) area and its role in the protection of such areas. DEIR Section 4.4, *Biological*

Resources, and Section 4.11, *Land Use and Planning*, provide detailed analysis of the consistency of the Project with the East County HCP/NCCP. Table 4.11-1, for example, proceeds on a measure-by-measure basis to compare the anticipated results of Project implementation with the results that are expected to occur from the implementation of the landscape-level, natural community-level, and species-level conservation measures set forth in the East County HCP/NCCP. On the basis of this analysis, the DEIR determines that the Project is consistent with the East County HCP/NCCP. The comment provides no data or other information demonstrating a flawed analysis or conclusion. Consequently, the DEIR has not been revised in response to this comment.

- 4-9 Project traffic routed through Gate 24 could not reach the portion of the Project site located west of the north-south trending portion of Vasco Road, where a majority of the Project is located. Gate 24 provides access only to the east side of Vasco Road. As described in DEIR Section 4.17.2, Vasco Road is primarily a two-lane arterial (with some four-lane segments, and some three lane segments for truck climbing and passing in the southbound direction) that has heavy use during morning and evening commute hours. Vasco Road has a posted speed limit of 55 miles per hour. The traffic flow on Vasco Road would make it difficult to enter the west side of the site at Gate 24. Gate 5 currently provides access to that portion of the site located west of the north-south trending portion of Vasco Road. Gate 5 is an existing, active access point for the facility. Much of the road between Gate 5 and the Jackson Substation is an existing feature that would be retained in service of the Project.

Project-related impacts to Kellogg Creek are analyzed in DEIR Section 4.10, *Hydrology and Water Quality*. As discussed in connection with Impact 4.10-5, implementation of the Project would involve construction of roads and stream crossings within FEMA-defined 100-year hazard areas, and other areas that would be subject to flooding, such as stream crossings along upper Kellogg Creek. With the implementation of Mitigation Measure 4.10-5, related impacts would be reduced to a less-than-significant level.

By contrast, the construction of a new access point and roadway from the west side of Vasco Road essentially across from Gate 24 would require additional soil disturbance and construction-related air emissions as well as careful navigation of steep (30-50 percent) slopes shown in the USACE Delineation of Wetlands and Other Waters for the Vasco Winds Repowering Project (see, Figure 5 of CH2M HILL, 2010b, cited in DEIR Section 4.4); the mapped landslide area in that vicinity shown in DEIR Figure 6-3; a USGS blue line creek that roughly parallels Vasco Road (CH2M HILL, 2010b, Figures 2 and 3); and permanently flooded/diked impounded wetlands (CH2M HILL, 2010b, Figure 4) that provide habitat for CTS, a special-status species as shown in the Wildlife Habitat Characterization Report prepared for the Project (Figure 4 of CH2M HILL, 2010a, cited in DEIR Section 4.4).

For the reasons indicated, the County disagrees with the commenter's conclusion that "circulating Project traffic through Gate 24, while retaining emergency egress through Gate 5 is a feasible, and environmentally superior to all presented alternatives." Consequently, the DEIR has not been revised in response to this comment.



February 11, 2011

William R. Nelson, Senior Planner
Contra Costa County
Department of Conservation & Development
Community Development Division
651 Pine Street, 4th Floor - North Wing
Martinez, CA 94553

Subject: NextEra Energy Resources Comments on the Vasco Winds Repowering Project Draft Environmental Impact Report

Dear Mr. Nelson:

NextEra Energy Resources appreciates the opportunity to provide comments on the Draft Environmental Impact review (DEIR) for the Vasco Winds Repowering Project. This comment letter provides general comments on the Project and specific comments on the DEIR.

I. GENERAL COMMENTS

The Vasco Winds Repowering Project (Project) will repower the existing wind energy facility by decommissioning and removing approximately 438 obsolete wind turbines and associated infrastructure (including concrete foundations, transformers, and electrical equipment) and 286 foundations from which turbines already have been removed, and replacing them with up to 50 new, larger and more efficient wind turbine generators (WTG). The new WTGs would maintain the same 80-megawatt (MW) nameplate capacity as the existing wind energy facility, but the Project would increase energy production, at a minimum, 150 percent above existing generation because of the efficient and improved design of the new WTGs.

Repowering existing, older wind energy facilities is recognized as a way to achieve the country's energy independence while reducing impacts that occur from existing and outdated facilities. By design, repowering projects are an improvement to the existing condition whereby numerous and obsolete wind turbines are replaced with fewer and more efficient WTGs.

Repowering has been identified as the most effective method for reducing avian fatality associated with wind energy facilities in the Altamont Pass Wind Resource Area (APWRA), seconded by the incorporation of micro-siting WTGs during the repowering process.¹

¹ California Energy Commission (CEC). 2009. "Range Management Practices to Reduce Wind Turbine Impacts on Burrowing Owls and Other Raptors in the Altamont Pass Wind Resource Area." Prepared for California Energy Commission by East Bay Regional Park District. October, 2009.

Accordingly, the Project will repower first-generation turbines by reducing the number of existing turbines and replacing them with fewer and more efficient WTGs located based on the results and indications of predictive modeling and other available science as well as a site-specific micro-siting report designed to reduce hazards to avian species.

The Project is designed to avoid and minimize impacts to sensitive resources:

- The majority of Project-related impacts will occur in higher-elevation areas (i.e., WTGs sited at locations to maximize wind energy generation) that represent lower-value habitat for the listed species based on the distance from known and potential breeding sites and lack of small mammal burrows. This assessment was based on habitat characterizations and biological surveys that have been conducted from spring of 2008 through fall of 2010.
- The Project has been designed to avoid all potential and known California red-legged frog and California tiger salamander breeding sites. No known kit fox dens occur in the Project area.
- The Project was designed using site-specific behavior use modeling of golden eagle flights, red-tailed hawk and American kestrel hovering and kiting, and burrowing owl nest burrow locations to minimize encounter frequencies between raptors and operating WTGs. All micro-siting recommendations by avian experts were incorporated where possible in the Project design to reduce avian impacts.
- All temporary impacts will occur in phases, based on the proposed construction schedule (not all disturbance will occur at the same time).
- All temporary work areas will be in a disturbed state for less than 12 months, or less than one breeding cycle for the listed species. The construction schedule will be staggered so that temporary disturbance will occur only intermittently over the 12-month construction schedule.
- The Project would disturb California annual grassland considered to be suitable habitat for state and federally listed species, including San Joaquin kit fox, California red-legged frog, and California tiger salamander. The restored acreage will be of a higher habitat quality than the existing acreage being decommissioned.

II. AESTHETIC RESOURCES

1. *Impact 4.1-2: Vista Grande Trail and Marina (Operation and maintenance of the Project would have a substantial adverse effect on a scenic vista.) Findings of significant and unavoidable conclusory and not supported by analysis and existing setting defined in DEIR.*

Section 4.1.2.1 of the DEIR states that “Wind turbines are a common and established industrial visual feature of the region,” which includes the Project site. The DEIR further acknowledges that wind turbines in the Los Vaqueros Watershed “are an established feature along the ridgeline east and southeast of the reservoir, and are visible from throughout the

watershed.” The DEIR defines three levels of visual quality, one of which is “Indistinctive, sometimes industrial, defined as generally lacking in natural or cultural visual resource amenities typical of the region.” Further, the DEIR acknowledges in Section 1.4.2.1 that the visual setting is “dominated by the presence of the existing wind energy facility. Features within the wind facility include: 438 existing turbines totaling approximately 80 MW; related electrical infrastructure; the Jackson Substation that connects the Project into a 230 kilovolt (kV) PG&E transmission line; turbine access and maintenance roads; and 286 existing foundations from which turbines already have been removed.” The Project will remove 438 existing wind energy turbines and replace them with no more than 50 turbines under the most conservative scenario analyzed in the DEIR. Although the turbines will be taller than the existing turbines, they will be fewer in number and, most importantly, will not alter the existing industrial views of the landscape.

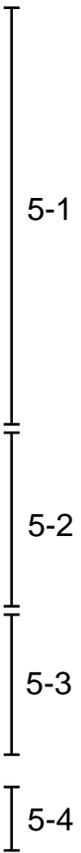
Despite acknowledging the historic and existing use of the site as an industrial wind energy facility, the DEIR finds visual resources impacts to be significant and unavoidable during operation from Vista Grande Trail and the Marina in the Los Vaqueros Watershed (Impact 4.1.2: Operation and maintenance of the Project would have a substantial adverse effect on a scenic vista).

The DEIR makes conclusory statements that the new turbines would dominate the landscape. This finding is not supported by the analysis. Although the DEIR clearly states that the existing wind energy facility is an industrial feature in the existing landscape, the analysis does not factor that existing condition into the initial determination of the visual quality of views. By doing this, the DEIR establishes a false basis for comparing existing-to-future conditions and to assessing impacts. The DEIR defines an “Indistinctive” visual quality as one that is “sometimes industrial, defined as generally lacking in natural or cultural visual resource amenities typical of the region.” Table 4.1, however, defines no view of the Project site as “Indistinctive,” and defines the viewpoints of the Project site within the Los Vaqueros Watershed as “Distinct” and “Open and Panoramic Views in Middleground.”

Figures 4.1.5 and 4.1-6 do not support this classification based on the existing turbines in the selected views. In addition, the findings of significant and unavoidable are based on a finding that the change in visual character following Project implementation is high, when the change, based on the existing industrial use as an existing wind facility, is “Low to Moderate” or “Moderate.” The DEIR finds that the change in views with the Project (fewer but taller turbines) is significant and unavoidable but provides no rationale for that conclusory finding. The DEIR also states that the Project would “partially obstruct views of Brushy Peak, particularly under the Siemens layout,” but this is not evident from the visual simulation in the DEIR. The finding that the visual change would be high is not supported by the analysis.

Using these more appropriate classifications that take into account the existing facility use, the findings should be less than significant.

2. ***Impact 4.1-3: Operations and Maintenance, Vasco Road (The Project would substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a State or county-designated scenic***



highway or route.) Findings of significant and unavoidable conclusory and not supported by analysis and existing setting defined in DEIR.

As in Aesthetic Resources Comment 1, the DEIR acknowledges the industrial nature of the existing wind energy facility, but it fails to assess the impacts relative to the existing industrial characterization of the area.

Section 4.1.4 defines the CEQA criterion for assessing significance to be, in part, whether the Project would “Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway.” The DEIR finds a significant and unavoidable impact during operations along Vasco Road. The DEIR, however, states that the existing wind turbines are key factors in defining the nature of that scenic view. The DEIR states the following:

- “Wind turbines are a common and established industrial visual feature of the region.” (Section 4.1.2.1)
- “The area is dominated by turbines of varying sizes and configurations, and views generally encompass a rural landscape characterized by wind turbines and associated infrastructure such as access roads and distribution and transmission lines.” (Section 4.1.2.1)
- “The Project would span Vasco Road just north of the intersection with Los Vaqueros Road, and would be visible to motorists from select locations along Vasco Road for up to seven miles. This stretch of road offers the unique opportunity to drive through a wind energy facility and to see active wind turbines operating up close in an otherwise natural setting.” (Italics added).
- “the existing windmills are one of the most distinctive qualities in this landscape.” (Section 4.1.2.1)
- “the Project would be visible (on and off) for approximately 7.5 minutes.”

It is internally inconsistent to define the scenic County-designated view along Vasco Road to include the existing wind turbines and also to find that replacing those existing turbines with fewer turbines would result in a “a substantial adverse effect on a scenic vista” and a significant and unavoidable impact.

5-5

After describing the existing use of the site, the presence of turbines and the defined uniqueness of the opportunity to observe an operating permitted wind farm, the DEIR concludes significant unavoidable impacts based on proximity to the road and the skylining of the turbines. This conclusion is not borne out by the analysis, however, particularly given that the area is a permitted existing industrial use, replacement turbines are of the same use, and the DEIR states that Vasco Road provides the “*unique opportunity* (emphasis added) to view an operating wind farm.” The DEIR states that “the presence of the turbines is a part of the scenic quality of the road itself,” but then concludes that the contrast from the new and fewer turbines would be high and, therefore, a significant impact would occur. This analysis is flawed and internally inconsistent given the industrial nature of the existing facility in determining the scenic value of the view. In addition, motorists who drive along

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Vasco Road would be commuters who are attuned to the view and, when traveling at posted speeds, would view the area for fewer than 8 minutes.

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III. BIOLOGICAL RESOURCES

1. **Mitigation Measure 4.4.1b. Post-construction avian monitoring program. This mitigation measure should be revised to be consistent with the 2010 Settlement Agreement.** Section 4.4.2.3 of the DEIR accurately summarizes the 2010 “Agreement to Repower Turbines at the Altamont Pass Wind Resource Area” executed December 3, 2010. Next Era intends to replace approximately 2,400 turbines over the next 4 years or sooner and will shut down all its existing turbines no later than 2015. As noted in the DEIR, under the 2010 Settlement Agreement, Next Era will have satisfied its obligations under the 2007 Settlement Agreement to reduce raptor mortality by 50 percent. Under Impact 4.4-1 (DEIR section 4.4.6.2), Mitigation Measure 4.4-1b includes measures to mitigate avian impacts, and Mitigation Measure 4.4-3 includes measures to mitigate bat impacts. The DEIR should be revised to include the provisions of the 2010 Settlement Agreement in these two measures to be consistent with the terms of that agreement. Specifically, the text in Mitigation Measure 4.4-1b should be replaced with the following text to reflect accurately the provisions of the 2010 Settlement Agreement for this impact:

Mitigation Measure 4.4.1b. Post-construction avian monitoring program. The Applicant will implement a post-construction avian monitoring program in accordance with the provisions of the 2010 Settlement Agreement, as follows:

- i. The post-construction monitoring program will use red-tailed hawks, golden eagles, American kestrels and burrowing owls (“Focal Raptor Species”) as benchmarks for evaluating the effectiveness of the overall Project repowering to inform and update siting analyses.
- ii. The post-construction monitoring program will be 3 years in duration initiated no later than three (3) months after the commercial operation date of the Project. Following the 3 years of post construction monitoring, two years of further monitoring will commence on the tenth anniversary of the Project’s commercial operation date. The initial 3 year monitoring period and the subsequent 2 year monitoring period together shall constitute the post-construction monitoring period.
- iii. The monitoring program will be conducted by a qualified consultant with applicable experience (“Monitor”) and in accordance with the terms of the 2010 Settlement Agreement.
- iv. Post-construction monitoring shall include collecting field data on behavior, utilization and distribution patterns of affected avian species in addition to fatalities.
- v. The program will monitor each repowered turbine at least once per month for the duration of the post-construction monitoring period for fatalities of the four focal raptor species and all other bird species, as recommended by the TAC and in accordance with the 2010 Settlement Agreement. The Applicant will monitor a subset (30 percent) of the

5-7

repowered turbines at least twice per month for the duration of the post-construction monitoring period for fatalities and bird utilization and/or behavior.

- vi. The Monitor shall prepare interim, annual monitoring reports within 3 months of completing each year of post-construction monitoring, and shall prepare a final 3 year Monitoring Report within 6 months of completing 3 years of post-construction monitoring and a final 2 year Monitoring Report within 6 months of completing 2 years of post-construction monitoring. All monitoring reports shall report adjusted and unadjusted annual fatalities for the Focal Raptor Species and all other bird species on a per-turbine and per megawatt basis. The monitoring reports shall also summarize the results of the bird behavior and use studies for the preceding 1 or 3 years, as applicable.
- vii. If the monitoring report indicates that one or more turbines are causing significantly disproportionate Focal Raptor fatalities, then recommendations can be made to the Contra Cost County Planning Director that additional focused monitoring and/or management measures designed to reduce the fatalities attributable to those turbines be conducted; provided, however, that such measures shall not include relocation or permanent shutdown of any repowered turbine.
- viii. Mitigation Fee for Ongoing Harm to Focal Raptor Fatalities. To compensate for ongoing fatalities of the bird species identified in the monitoring reports, the Applicant will pay a mitigation fee of \$10,500 per megawatt of installed capacity for the Project and in accordance with the payment terms of the 2010 Settlement Agreement. Before providing funding for the Project, the Applicant will meet with the fund recipients to negotiate a Memorandum of Understanding (“MOU”) ensuring that the funds will be used consistent with the 2010 Settlement Agreement.

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2. Mitigation Measure 4.4.3. Bats. The text in Mitigation Measure 4.4-3 should be replaced with the following text to reflect accurately the provisions of the 2010 Settlement Agreement for this impact.

Mitigation Measure 4.4-3: The Applicant will implement a pre- and post-construction bat monitoring program in accordance with the provisions of the 2010 Settlement Agreement. The measures are also based upon the California Bat Working Group Guidelines for Assessing and Minimizing Impacts to Bats at Wind Energy Development Sites in California (CBWG, 2006). These measures will help to mitigate the Project’s effects on bats by addressing the data gaps that prevent adequate assessment of the Project’s effects on bats, such as what bat species are using the APWRA and how they are using the Project area.

5-8

- a. Pre-construction surveys will be performed in the Project area. Bat investigations shall be conducted in the Project area by a qualified biologist to identify species that may be present in the immediate Project vicinity and in the existing and proposed rotor-swept zones, and to identify any maternal roosts. The qualified biologist will be experienced in bat research and detection methods, and could include acoustic surveys, use of image intensifiers and/or thermal imaging, and radar.
- b. Post-construction bat monitoring will be conducted in the Project area and reported in accordance with the same terms and conditions as provided in Mitigation

Measure 4.4-1b (ii), (iii), (iv), (v), and (vi), but for bats, and with the following measures:

- i. Post-Project monitoring may include long-term acoustic monitoring equipment. The Applicant shall install and maintain in working order acoustic monitoring equipment for the duration of the survey period.
- ii. Post-construction fatality surveys shall be conducted throughout the Project area as directed by the designing biologist, but shall not exceed 90 monitoring days per year. These surveys may be seasonal, or dependent upon an initial intense survey, as directed by the designing biologist.

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3. Assigning a percentage-goal reduction based on APWRA-wide fatality per MW/year data of 2.2 raptors/MW/year and 7.5 birds/MW/year is an arbitrary data point not related to site specific monitoring data that will be developed during the Project and is inconsistent with the terms of the 2010 Settlement Agreement.

The DEIR discloses that avian mortality would decrease under the proposed Project when compared with existing conditions under current facility operation (Section 4.4.6.2). This finding is based on the available monitoring data that documents a decrease in avian mortality for the two operational repowered projects in the APWRA (Buena Vista and Diablo Winds) and the fact that the Project will decommission twice the number of turbines as either of those operating repowered projects.

5-9

Identifying and requiring specific percentage goal reductions in avian mortality or type-specific avian mortality, such as a reduction in overall raptor mortality or species-specific raptor mortality, are not appropriate for use in assessing avian reduction. The DEIR (Section 4.4.2.3) discloses that the terms and conditions of the 2010 Settlement Agreement agreed upon by signatory parties, including the Audubon Society and Californians for Renewable Energy, are appropriate for assessing reductions in impacts to avian species and that those measures will satisfy NextEra’s obligations under the 2007 Settlement Agreement to reduce raptor mortality by 50 percent.

4. Additional text should be added to Section 4.4.5 to support the beneficial effects of decommissioning.

In the interim since the DEIR was released for comment, Vasco Winds LLC has continued to conduct micrositing of the Project layout within the existing survey corridor. As a result of these additional efforts areas of disturbance have been reduced for the Siemens layout compared with what is described in the DEIR. The following additional relevant information should be added in the FEIR.

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Text to add to Section 4.4.5: The repowered Project will result in a substantial acreage reduction of lands occupied by wind turbines, access roads, and related infrastructure. The Project will result in permanent and temporary disturbance from constructing new roads,

installing new turbine pads, and other repowering construction activities. Construction of the new facilities will result in permanent disturbance to approximately 44.6 acres of undeveloped lands that potentially support the life functions of San Joaquin kit fox and California tiger salamander. The Project will restore more than 219 acres of previously disturbed land by reclaiming existing access roads and decommissioning the obsolete turbines and turbine foundations (including surrounding gravel pads). Compared with the permanent acreage loss of 44.6 acres, the 219 acres of restoration will result in a net increase in suitable grassland habitat at the site of 174.8 acres and achieves the conservation goals for an NCCP.

In addition to creating habitat in excess of the acreage that would be disturbed by the project, the restored acreage will be of a higher quality habitat than the existing acreage being decommissioned. The decommissioning areas are covered with a highly compacted gravel surface and are routinely used and maintained by the Applicant during O&M of the existing wind energy facility, which also includes periodic burning and/or spraying to maintain vegetation clearances. This level of disturbance will generally preclude San Joaquin kit fox from denning onsite or in the vicinity, but other more prolific small mammals, such as ground squirrels and pocket gophers could create burrows in less compacted areas or under foundations that would provide potentially suitable aestivation habitat for California tiger salamander.

Restoration of the existing wind energy facility will result in multiple benefits to both the San Joaquin kit fox and California tiger salamander not in effect under existing conditions (i.e., prior to decommissioning of existing turbines and restoration of the affected area). The restored grassland over time will function as a natural ecosystem and likely support a variety of fauna and potential prey items for kit fox. The restored grassland will also provide potential denning habitat for kit fox and the California tiger salamander vegetative cover against predation during interpond dispersal (and such vegetative cover does not exist now). Any mammal burrows created by ground squirrels or other rodents could be used by California tiger salamander during aestivation. Decommissioning will also remove a significant source of potential O&M-related direct mortalities caused by vehicles and maintenance and repair of roads and turbine pads. Operationally, onsite human activity is expected to be lower than current levels.

Initial decommissioning, followed by restoration of these areas, will result in a net increase in grassland habitat compared with existing conditions and is in excess of what would be affected by the proposed Project’s implementation. Temporary impacts from decommissioning would be less than 12 months in duration.

5. *The finding of significant and unavoidable impacts to bats (Impact 4.4-) from implementing the Project is not supported by the evidence.*

The DEIR discloses that direct impacts to bats would be less than what occurs under the existing condition based on the removal of 438 existing turbines from the Project site and replacing them with up to 50 turbines. Specifically, the DEIR states in Impact 4.4.3 (Section 4.4.6.2) that “Removing wind turbines would avoid potential collision hazards associated with those turbines (CEC, 2007). By decommissioning and removing WTGs, the Project



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would decrease the potential for collision-related direct mortality to bats on the Project site.” The DEIR further discloses that “Current acoustical monitoring at the Project site suggests that the area supports relatively low bat activity (Pandion, 2010).”

Although the DEIR acknowledges that the potential for bat collisions with wind turbines varies among locations (Johnson, et al., 2004) and that the reasons for such collisions are poorly understood, it nevertheless concludes that impacts are significant and unavoidable. In addition, the DEIR analysis relies on general studies of bats that are not specific to the APWRA and erroneously applies conclusions of general studies at non-APWRA locations in making that finding. For example, on page 4.4-46, the DEIR states that “Studies indicate that a substantial portion of bat fatalities occur during low-wind conditions coinciding with the summer-fall migration period.”

The study in which this conclusion was made (Arnett, et al., 2008) focuses on the effectiveness of changing turbine cut-in speed on reducing bat fatality at wind turbines at the Casselman Wind Project in Somerset County, Pennsylvania. The findings pertain to changing cut-in speeds at existing or new facilities in Pennsylvania, not to comparing the presence of fewer turbines under repowering. In the APWRA, the summer-fall period is a high wind period, not a low-wind period. These findings are not directly relevant to the Project site, nor does the geographic location of the study correlate to conditions in the APWRA and, therefore, are not appropriate for making a finding of significant and unavoidable site impacts.

The DEIR acknowledges that “Existing information about bat migration and habitat use is limited in California (CBWG, 2006), so there is no corollary data set to the detailed level of knowledge that has emerged about turbine micro-siting in relationship to raptor use of the landscape.” In addition, the referenced studies evaluated operating wind energy facilities and were not assessing the change in mortality attributable to repowering. The DEIR analysis ignores the required comparison of the proposed Project’s CEQA baseline condition (i.e., an operating wind energy facility) and instead assesses impacts based on comparing the Project to an undeveloped site.

The Project is following the CEC’s “California Guidelines for Reducing Impacts to Birds and Bats from Wind Energy Development.” Micro-siting for turbine layout was incorporated into Project design, as described in Section 3.1.4 of the DEIR. Operations monitoring for repowering projects, in accordance with the CEC’s guidance, is incorporated as a Project mitigation measure and should be based on the terms of the 2010 Settlement Agreement (as discussed in Comment III.2 of this comment letter). Based on the known limited use of the site by bats (from the site-specific 2010 monitoring, the adherence to the CEC’s guidelines for micro-siting and follow-on monitoring, and the use of general and nonrelevant study findings to extrapolate to Project impacts, the significant and unavoidable finding is not supported.

6. Impact 4.4-4(1): The mitigation measure that identifies a ratio of mitigation should be clarified for accuracy.

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cont.

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Project construction and operation would result in temporary and permanent impacts on California red-legged frog and California tiger salamander, including loss of upland aestivation habitat for these species. The DEIR states that permanent impacts on California tiger salamander and California red-legged frog aestivation habitat should be a 1:1 ratio or a higher ratio if required by USFWS or CDFG during the permitting process. This condition should be revised to clarify that the 1:1 ratio account for equivalent habitat. This proposed revision is also consistent with the mitigation language in the DEIR for impacts to waters of the United States regarding the authority of the permitting agency.

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cont.

The text should be revised as:

“The Applicant shall provide compensation for permanent impacts on California tiger salamander and California red-legged frog aestivation habitat at an equivalent 1:1 ratio or a ratio acceptable to the USFWS or CDFG during the permitting process.”

7. **Impact 4.4-4(1): The mitigation measure should be revised to acknowledge the limited duration to temporary impacts to California tiger salamander and California red-legged frog.**

Mitigation should not be required for temporary impacts. As discussed in the General Comments section of this comment letter, all temporary work areas will be disturbed for less than 12 months, or less than one breeding cycle for the listed species. The construction schedule will be staggered so that temporary disturbance will occur only intermittently over the 12-month construction schedule. Also, as discussed in Comment III.4 above, “During decommissioning, the potential for lethal take of California tiger salamander and San Joaquin kit fox is considered negligible given site conditions and the protective measures proposed by the Applicant if these species are encountered onsite.” Based on the short duration of construction and the identified negligible potential for impacts, this mitigation measure should be deleted in the Final EIR.

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Please feel free to contact me at anytime at 561-389-2804.

Sincerely,



David Neilsen
Project Director

2.3.5 Letter 5 – Responses to Comments from NextEra Energy

- 5-1 Although the aesthetics analysis in the DEIR acknowledges the industrial nature of the existing wind energy facility, the DEIR also considers in the discussion of the regional setting that the overall landscape is rural, dominated by rolling hills. Specifically, Section 4.1.2.1, *Regional and Local Setting* (Existing Visual Quality of the Region), states, “The Project is located in a rural area of southeastern Contra Costa County, in the Byron Hills. The visual character of this portion of the County is typified by the undulating hills of grassland typical of the northern San Joaquin Valley, agricultural and rural landscapes, and the Delta. The hills provide a backdrop to the agricultural landscape and the Delta, where open views of distant horizons are available and are generally unobstructed by local topography or tall vegetation.” This characterization is a key factor in assessing the quality of the views and the impacts when comparing existing conditions to future conditions under the Project. Defining the views of the Project site from within the Los Vaqueros Watershed as “Distinct” and “Open and Panoramic Views in Middleground” is consistent with the general rural nature of the area.
- 5-2 DEIR Figure 4.1-5 provides a visual simulation of the proposed Siemens layout on the Project site from the Vista Grande Trail on Los Vaqueros Watershed property looking southeast. Project impacts with respect to this key observation point (KOP) are analyzed in the context of Impact 4.1-2 on DEIR page 4.1-36. DEIR Figure 4.1-6 simulates the Siemens layout from the Los Vaqueros Watershed Marina looking east. Project impacts with respect to this KOP are analyzed in the context of Impact 4.1-2 on DEIR page 4.1-37. On the basis of the analysis provided, the County disagrees with the opinions expressed in this comment about the change in visual character that would be caused by the Project. The DEIR has not been revised in response to this comment.
- 5-3 With respect to views from the Vista Grande Trail, DEIR page 4.1-36 states, “Furthermore, the Project would partially obstruct views of Brushy Peak, particularly under the Siemens layout. Overall, the degree of visual change would be high. Considering the moderate to high visual sensitivity of the Vista Grande Trail and connecting trails within the Los Vaqueros Watershed, the impact would be significant.” The views selected for simulations are intended represent the broader set of views of the Project in the surrounding landscape. They are not intended to foreclose views from the same general location, such as the Vista Grande Trail, that are not apparent in the initial photograph but that may be apparent just a few feet away. In any event, as explained on DEIR page 4.1-24, “The evaluation of potential impacts associated with the Project is based, in part, on comparing the ‘before’ and ‘after’ visual conditions as portrayed in the set of simulations and assessing the degree of visual change that the Project would cause.” Accordingly, the commenter’s opinion about the partial obstruction of views from the Vista Grande Trail based on Figure 4.1-5 is neither persuasive nor substantiated. Consequently, the DEIR has not been revised in response to this comment.

- 5-4 The County disagrees with the commenter's conclusion for the reasons stated in Response to Comments 5-2 and 5-3.
- 5-5 The County disagrees with the commenter's assertion of internal inconsistency related to the view along Vasco Road. As explained on DEIR page 4.1-43, the conclusion that the repowered turbines would cause a significant and unavoidable impact along Vasco Road during the operation and maintenance phase of the Project is based in part on the increased size of the turbines, their proximity to Vasco Road, and the resulting "significant increase in turbine dominance even though the existing wind energy character of the landscape set amongst rolling hills would remain." Further, the sheer magnitude of tower height as seen from the road and the fact that turbines would be entirely skylined also contribute to the finding that the impact would be significant and unavoidable (DEIR, p. 4.1-44).
- 5-6 For the reasons stated in Response to Comment 5-5, the County disagrees with the opinion expressed in this comment. The County's conclusion that the repowered Project would cause a significant unavoidable impact related to views along Vasco Road is supported by substantial evidence.
- 5-7 The DEIR has been revised to clarify the consistency between the avian monitoring provisions of the 2010 Agreement and Mitigation Measure 4.4.1b as it was provided in the DEIR. See Master Response 2.2.2 and FEIR Chapter 3 for the revised language.
- 5-8 The DEIR has been revised to clarify the consistency between the provisions of the 2010 Agreement as they relate to bats and Mitigation Measure 4.4.3 as it was provided in the DEIR. See Master Response 2.2.2 and FEIR Chapter 3 for the revised language.
- 5-9 In the context of Impact 4.4-1, concerning impacts on avian species, and as noted in the comment, the DEIR discloses that avian mortality is expected to decrease as a result of the Project when compared with existing conditions under current facility operation (see, e.g., DEIR, p. 4.4-35). In that section, Mitigation Measure 4.4.1 (impacts to birds) states:

The contemporary strategy for reducing potential impacts of wind energy facilities on avian species is to combine repowering with micro-siting of individual turbines in areas or orientations that are less risky for eagles and other raptors. The Project would accomplish repowering by replacing 438 existing, older-generation 100 kW- and 400 kW-rated turbines that are thought to contribute inordinately to avian fatalities in the APWRA (Smallwood, 2010b) and with up to 50 new turbines. This ratio of turbines removed to turbines installed would be greater than occurred as part of either the Diablo Winds or Buena Vista project. The conclusion that avian mortality would decrease as a result of the Project is based on the available monitoring data documenting a decrease in avian mortality for the two operational repowered projects in the APWRA and the fact that the Project would decommission twice the number of turbines as either of those operating repowered projects.

The DEIR (Section 4.4.6.2, *Assessment of Avian Risk*) concludes that fewer, taller, and larger-output turbines offer lower risk for turbine-related avian mortality in the than do the

many, existing smaller, lower-output turbines. Additionally, preliminary results of all studies of repowered sites in the APWRA indicate that repowering with newer generation turbines has resulted in a reduction in the estimated total number of avian fatalities and the overall mortality rate per MW of capacity for all species groups and individual species.

Although this reduction in avian impacts is anticipated, the County cannot be sufficiently certain that it will occur. Site-specific monitoring data was not available at the time the DEIR was prepared; however, such data will be collected, reported and acted upon as appropriate if the proposed repowering is approved. The APWRA-wide estimated fatality per MW/year data or the best data available allows for a benchmark demonstrating APWRA-wide data. This was one approach used by Smallwood and Karas in their comparison of pre- and post-construction fatality rates for the Diablo Winds repowering project (Smallwood and Karas, 2009). The avian impact analysis in the DEIR, however, also compares the broader existing body of scientific literature that documents the estimated avian mortality in the APWRA to the proposed Project. A summary of the existing body of research as it relates to the Project is included in Appendix B of the DEIR.

- 5-10 The DEIR analyzes a reasonable worst-case scenario in terms of impacts of the Project on the environment and acknowledges benefits associated with the proposed decommissioning and restoration of grassland habitat areas. See, for example, DEIR page 4.4-38 (“Decommissioning of the old turbines is identified as the first step in Project construction, a process which has been identified as critical for reducing avian fatality: ‘...[R]emoval of the existing operational turbines may reduce avian fatality more than the potential reductions achieved by repowering over a phased period of time’”) and page 4.4-44 (“By decommissioning and removing 438 existing turbines from the Project site and replacing them with [fewer] WTGs, the Project would decrease the potential for collision-related direct mortality to bats on the Project site.”). Specifically with respect to decommissioning-related grassland habitat restoration, see DEIR page 4.4-52 (“Initial decommissioning, followed by restoration of these areas, will result in a net increase in grassland habitat compared with existing conditions and is in excess of what would be affected by the proposed Project’s implementation.”). Additional analysis of the expected benefits of decommissioning, including with respect to grassland habitat restoration, is not warranted.
- 5-11 The comment correctly states that the DEIR acknowledges that the potential for bat-related collisions with WTGs varies among locations, the reasons for such collisions are poorly understood, and the Project is expected to reduce bat fatalities. The comment also correctly states the conclusion of the analysis (i.e., Project impacts on bats would remain significant and unavoidable). The County disagrees with the assertion that this conclusion lacks support in the document. The County reached the conclusion that impacts on bat species would be significant and unavoidable because, as stated in Impact 4.4-3, “...in the absence of site-specific monitoring data following repowering, it cannot be ascertained whether the expected reductions would reduce the impact to a less-than-significant level. Based on this uncertainty and to exercise a conservative approach to impact assessment, impacts to bat species are considered to be significant and unavoidable” (DEIR, p. 4.4-46).

5-12 Mitigation Measure 4.4-4 would require the Applicant to provide compensation for permanent impacts on CTS and CRLF aestivation habitat at a 1:1 ratio or a higher ratio if required by USFWS or CDFG during the permitting process. Other mitigation measures, including Mitigation Measures 4.4-6b, 4.4-9 and 4.4-10 also impose a 1:1 mitigation ratio. (See generally, Response to Comment 1-9). In response to this comment, the definition of “higher ratio” has been clarified as shown in FEIR Chapter 3 to reflect the concept of habitat equivalency, meaning that if higher quality habitat than that affected by the Project is provided, the square footage of the compensation property may be less than the square footage of the property affected.

Mitigation Measure 4.4-4: The Applicant shall avoid or minimize take of individual CRLF and CTS by implementing temporary protection measures before and during construction, and by providing habitat compensation and enhancement for permanent impacts.

...

- 1) The Applicant shall provide compensation for permanent impacts on California tiger salamander and California red-legged frog aestivation habitat at a 1:1 ratio (at least one square foot of compensation for each square foot of net impact) or a higher ratio if required by USFWS or CDFG during the permitting process. A “higher ratio” may result in a less than 1 square foot by 1 square foot replacement on the ground if higher quality habitat than that affected by the Project is obtained. Compliance with required mitigation ratios shall be verified by the USFWS and CDFG during Project permitting.

5-13 As explained on pages 4.4-48 and 4.4-50 of the DEIR in the discussion of Impact 4.4-4, the Project site is located within designated critical habitat (Unit CCS-2b) for the CRFL (see DEIR Figure 4.4-6) and within suitable aestivation and migration habitat for the CTS. The CRLF is listed as “threatened” under the federal Endangered Species Act, and is listed under State law as a California Species of Concern. CTS is listed as “threatened” under federal and State law. The commenter is correct that the construction period would be less than 1 year (DEIR Section 3.4.1, *Schedule*, p. 3-22). However, the analysis of impacts on CRLF and CTS beginning on DEIR page 4.4-48 is very clear that Project-related construction activities could result in direct mortality, injury, or harassment of individuals as a result of encounters with vehicles, heavy equipment, or with workers’ or visitors’ pets. Individuals of these species also could be crushed or entombed in their burrows, or their behavior disrupted by noise or vibrations from the heavy equipment. Construction worker-related trash could attract predators such as ravens and coyotes. Based on this analysis and consistent with CDFG guidance received during the scoping period for the Project, the County disagrees with the commenter’s opinion that mitigation should not be required for construction-related impacts to CRLF and CTS.



s a v e MOUNT DIABLO

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February 14, 2011

Mr. Will Nelson, Senior Planner
Department of Conservation and Development
651 Pine Street, 5th Floor, North Wing
Martinez, CA 94553

RE: Vasco Winds Repowering Project dEIR, SCH No. 20100332094, County File No. LP08-2049

Staff

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Admin. & Finance Director

Dear Mr. Nelson:

Thank you for the opportunity to comment on the draft Environmental Impact Report for the Vasco Winds Repowering Project (County File No. LP08-2049). We appreciate the chance to participate in the public comment process on this regionally significant project. We have several general comments on the dEIR as a whole, as well as some specific comments related to particular portions of the document, all of which are provided below.

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Website

www.SaveMountDiablo.org

Save Mount Diablo (SMD) is a forty-year-old non-profit environmental organization dedicated to protecting open space and natural habitat on and around Mount Diablo. Our area of interest includes much of eastern Contra Costa County and portions of eastern Alameda County, which includes the Vasco Winds Repowering site and anticipated repowering projects in the Altamont Pass area. We have been actively involved in conservation efforts throughout the region through direct acquisition of land as well as by monitoring and commenting on land use projects in the area.

Founders

Arthur Bonwell

Mary L. Bowerman

As part of our mission, we have been deeply involved in the expansion of public lands in the project vicinity. Collectively these lands represent tens of millions of dollars of investment by the public, much of it for the purpose of protecting and enhancing special status wildlife species.

Proud member of



Save Mount Diablo's primary concerns with the project are:

- impacts from the wind turbines on current and future visitors (aesthetics and noise) at the open space areas operated by the East Bay Regional Park District and Contra Costa Water District-Los Vaqueros Reservoir which are adjacent to the Vasco Winds' site, including recent acquisitions funded by the East Contra Costa county Habitat Conservancy;

- terrestrial impacts on wildlife within and in the vicinity of the project’s area; and
- impacts on avian species including both birds and bats.

We were pleased to see that the repowering project appears to have fewer visual and aesthetic impacts than the existing conditions on the site. It also appears that noise impacts affecting the experience of visitors to the nearby and adjacent open spaces should decrease. We do, however, have some outstanding reservations related to impacts on wildlife, especially birds and bats. Altamont Pass is a great place for birds and bats because of its tens of thousands of acres of grassland supporting their prey species (as well as many grassland and aquatic special status species), combined with frequent winds, thermals and updrafts, which decrease these species’ energy output while hunting. Many of these flying species are special status and protected. The same topography that funnels wind currents through Altamont Pass also concentrates bird species there.

Years of controversy over windmill related wildlife kills also make it clear that Altamont Pass is an awful place for windmills, despite its wind profiles for energy generation, because of these terrestrial and flying special status species. Flatter sites not located in migration flyways would be better. 6-1

We recognize and support the potential for decreased impacts by repowering and replacing the old wind turbines with newer designs as well as efforts to incorporate the best available science into site planning for repowering projects. If used appropriately, they have the potential to decrease mortality of special status species. Even if mortality of special status species is decreased, wind power generation nonetheless represents a substantial and ongoing killing or “take” of these species.

There are as-yet unanswered questions about the effectiveness of new micro-siting methods which are themselves based on models of bird flight and behavior. In addition, given that this project will use new wind turbines which are more than double the height of the existing towers, it is unclear if the additional height and length of the rotor blades of the new turbines will offset gains made against avian mortality rates by either impacting different species or because the wind swept area is actually proposed to slightly increase over the existing conditions. 6-2
6-3

As a result of these uncertainties, we suggest:

- a longer monitoring period of five years for the initial phase; 6-4
- greater explanation in the final EIR of how adaptive management will be used to pursue remedies for unacceptable levels of impact to wildlife; and 6-5
- identification of specific target criteria for adopting changes in turbine operations. 6-6

We also suggest that the EIR explore other options for limiting avian and bat mortality through such things as: 6-7

- adopting a cap on energy production based on current output rather than nameplate capacity ratings.

Our other main comment pertains to mitigation. In general, we find the offer of mitigation at a ratio of only 1:1 to be insufficient for most of the impacts described in the dEIR. This is particularly important since many of the impacts are on-going, have regional significance, involve state and federally listed species, and because of their cumulative affects when considered with other major landscape-level changes in the area. Most projects represent a one-time “take” and one-time mitigation of protected species; wind power projects represent additional take every year.

6-8

Project Description

The project proponent, Vasco Winds, LLC, a subsidiary of NextEra Energy Resources (the Applicant) which is owned by Florida Power and Light, is seeking a land use permit from Contra Costa County (the County) to “repower” its wind energy facility in the southeastern portion of unincorporated Contra Costa County within what is known as the Altamont Pass Wind Resource Area (APWRA). A small fragment the 4,267-acre Project site is within Alameda County, but all land use permitting authority for this project has been granted to Contra Costa County. The applicant currently operates a wind energy facility at the site, which is about 4.5 miles south-southwest of unincorporated Byron, about five miles north of Livermore, roughly two miles south-southwest of the Byron Airport, and immediately adjacent to the Los Vaqueros reservoir watershed and Vasco Caves Regional Preserve.

As we understand it, the project has four main components:

- decommissioning old wind turbines and their ancillary facilities;
- restoration of the no longer need turbine pad sites and access roads;
- construction of new pad sites, access roads to previously unused pad sites, and electrical collection lines from the new turbines ; and
- upgrade of the existing Jackson power substation.

Specifically, the project involves removing 438 standing wind turbines, some functioning, some not. In addition to removing those turbines and their associated infrastructure such as transformers, electrical equipment and foundations, the foundations of 286 wind turbines at the site that have already been removed will be also be restored as part of the project. Following the removal and decommissioning activities, the project will construct as many as 50 new, but larger turbines (although we have also heard that 34 to 38 towers are the likely total for the project).

The new turbines will be as much as 429 feet in height (more than double the height of the tallest of the existing turbines). For a comparative sense of how tall these towers will be, see Figure 1. The Applicant will also upgrade the Jackson sub-station as part of the Project. Two access points to Vasco Road, one in the Contra Costa and the other in Alameda County, will be improved to accommodate construction and future maintenance traffic. The Project will also include construction of a new underground electrical collection system and access roads to the new turbine sites. Roads no longer needed as access to service the removed, but not replaced, turbines will also be decommissioned and restored.

There are also numerous temporary construction-related aspects to the Project including a portable batch plant for producing cement on-site, a portable rock crusher, and up to three



Figure 1. A simulation showing the proposed Siemens 1.5 MW wind turbine compared to a well-known landmark: the Statue of Liberty.

temporary laydown areas for staging the wind turbine components. Additional laydown areas will be constructed around each new turbine pad site during assembly and installation.

General Comments on the Importance of Repowering

The APWRA, including the part within Contra Costa County, has been designated as a Wind Resource area by the State and by the County because of the consistent, strong, and predictable winds that circulate air through the relatively small Altamont Pass gateway through the interior Coast Range into the Central Valley. This topography combined with prevailing wind patterns makes the Altamont Pass an excellent site for producing wind energy.

As we all know, development of alternative “clean” energy is a high priority in California as evidenced by the passage of such legislation as Senate Bill 375 and other measures to address climate change. However, increasing our use of renewable energy sources should not come at the cost of excessive harm to this area’s rich, diverse populations of wildlife and native plants, some of which are already state and federally listed as endangered and can scarcely sustain additional impacts. Placing wind turbines on otherwise relatively undeveloped land represents an intensification of land use and one which is essentially industrial in character. See Figures 2

6-9

In fact, the terrain, wind patterns, and relatively undeveloped character of the APWARA also make it a very attractive place for a wide variety of resident and migratory bird species. When the first wind turbines were installed in the APWRA, little was known, much less understood, about how birds and wind turbines would interact. In the intervening years, we have learned that



Figure 2. A cluster of the existing wind turbines illustrates how much these machines change the visual character of the site.

wind turbines are cause of significant fatalities to a variety of birds, particularly raptors, such as golden eagles, kestrels, and peregrine falcons. Burrowing owls have also been frequent casualties of the turbines. The impact of the turbines on the bat species found in the area is less well known and documented, but has been significant at other wind resource sites in California and elsewhere in the United States.

Furthermore, the impacts of the wind energy facilities as a result of the roads and an increased human activity in the area on terrestrial species – including rare and endangered species like the San Joaquin kit fox – is not very well documented or understood. Because of the hilly characteristics of the site, there are numerous small creeks and seasonal wetlands in addition to the stock ponds for cattle that graze the area. These water sources are known habitat for the listed, endangered California Red-legged frog and California Tiger Salamander. All of these important water sources may be heavily impacted by excess sediment caused by erosion from poorly constructed or maintained culverts and roads that serve as access to the site and its various turbines.

The project to repower the Vasco Winds site is also important because the new approaches used here may well become a model for other repowering projects which are likely to come up in the

next few years. For that reason, fully and properly identifying the impacts and mitigation measures for them in the Project is all the more important since it is likely to shape how future projects are developed, permitted, and managed. If handled well, repowering may well be the best way to reduce the impacts of wind energy on birds by replacing the old turbines with many fewer, but more efficient machines.

General Comments on the dEIR

In general, the dEIR does a good job of identifying impacts to the resources found at the Project site. It also demonstrates that the Applicant attempted to reduce the impacts of the Project on bird species through the use of the best available science and predictive models of bird flight and behavior patterns that identified the most and least risky areas to place the turbines with respect to birds. We applaud those efforts.

6-10

Addressing Uncertainties

However, we also believe that the document is not clear enough in outlining the extent to which the scientific data and the models that were developed from them still rest on many estimates and assumptions, ranging from the accuracy of the estimates of baseline avian mortality to the as yet unproven micrositing methodology that was used to identify the locations for the new turbines.

6-11

In addition, some current research suggests that rotor or wind swept area, which is the total area that the wind turbine blades spin through as they move around their central hub on the tower, is a significant variable in predicting the number of birds killed. The greater the wind swept area, the more birds killed. Although this project will retire over 400 turbines and replace them with only a maximum of 50, the rotor swept area will actually remain about the same or increase slightly. This raises the question of whether better siting will offset the amount of rotor swept area or not.

6-12

As a result of these kinds of uncertainties, we suggest that the final EIR include specific targets, goals, and criteria to measure how successful the new larger turbines are in reducing avian mortality and that trigger a reassessment of the operations if the targets are not reached.

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Furthermore, the document should, at a minimum, make available a list of potential remedial actions that could be taken if the newly repowered site is not achieving the goal of a 50 percent reduction avian mortality (the amount agreed upon in a 2010 settlement agreement that resolved legal action between the energy producers and local organizations).

6-14

Adaptive Management and Specific Criteria for Action

We are also pleased that the dEIR includes mention of using an adaptive management based strategy for operating the facility. However, the dEIR does not discuss the *adaptive* part of that plan: it makes almost no mention of how the results of monitoring will be incorporated into the on-going daily operation of the turbines. As described above, the EIR should clearly specify what criteria will trigger changes and what those changes could be to operating procedures.

6-15

For example, the dEIR makes brief mention in a couple of places of potentially instituting seasonal shutdowns of some turbines. This should receive more attention in the EIR. Although the Applicant may be somewhat unwilling to commit to that step, some research still indicates that seasonal shutdowns of wind turbines may reduce avian mortality, especially to migratory

6-16

species such as the ones that use the Altamont Pass region on their transit through the area. This option should be fully described for reviewers' evaluation. ↑ 6-16
cont.

In addition, shutdowns during particular wind conditions should also be explained, since this may be another means of reducing avian mortality, which can vary based not only on season, but in specific wind/weather conditions. What other strategies could be used? What level of bird mortality would trigger their use? These and related issues should be more fully examined in the EIR. 6-17

Mitigation

On the whole, given the on-going nature of the impacts from the turbines on birds and terrestrial species that use site, we would suggest that the Applicant's offer of 1:1 mitigation throughout the document for all Project impacts is simply inadequate. This is especially true in light of the cumulative impacts to the general area from other projects, including the expansion of the Los Vaqueros Reservoir, upgrades to Vasco Road, as well as the additional repowering projects that are likely to follow closely in succession with this project and in the same region. 6-18
6-19

For bird and bat mortality, design criteria and siting may reduce impacts, but impacts will continue. What is the mitigation for ongoing take of special status bird and bat species? A fee, additional habitat protection, conservation easements over lands encumbered with windmills? 6-20

Terrestrial impacts are somewhat more straightforward, but SMD still has concerns about the amount of mitigation, the on-going nature of the impacts, and how temporary impacts will be mitigated. 6-21

- At a minimum, terrestrial impacts should be mitigated at a land preservation ration of 3:1, or best available direction from the wildlife regulatory agencies.
- However, how will temporary impacts be mitigated? The Applicant has offered 1:1 mitigation, but there should be triggers and penalties included and designed to encourage speedy completion and full cleanup for all habitat disturbance.
- Mitigation should include cleanup criteria and bonding to ensure that existing debris and obsolete or non-functioning turbines and equipment are removed now, and in the future.
- In addition to the low rate offered for mitigation success criteria, specific timelines, and guidelines or triggers for remedial action should be established and fully explained in the dEIR.

The Project's impacts to water resources should also receive greater mitigation. The dEIR identifies impacts to roughly 10 acres of streams and wetlands and offers 1:1 mitigation to compensate for them. Typical agency requirements for impacts to wetlands are 3:1. The EIR should offer mitigation more in line with standards or justify why the much lower ratio is sufficient. These resources are of particular importance as habitat for California Red-legged Frog and California Tiger Salamander, so every effort should be made to provide adequate and appropriate levels of mitigation for any impacts to them and the systems they rely for their survival. 6-22

Overall, the dEIR also frequently defers description of mitigation to the agency permitting phase of the process. However, since most agencies have well-established standard policies regarding 6-23

mitigation, the public’s evaluation of the Project and participation in the decision-making process would be better served if additional information were provided and appropriate and expected mitigation included for public review.

↑ 6-23
cont.

Monitoring

The Applicant offers three years of monitoring, with an additional year after 10 years of operation. If results of monitoring do not demonstrate that avian mortality rates are reduced from previous operations, then the dEIR notes that another three-year increment of monitoring would ensue. As noted above, given the large number of estimates, assumptions, and best-educated-guesses that went into the siting of the new, larger turbines that will be deployed by the Project, three years of monitoring is inadequate to determine how overall population health of state and federally listed species are being affected by the new wind turbines.

6-24

This is particularly important since many of the rarest, most endangered species, and most heavily impacted species found at the site are birds. Given the variable nature of weather and available forage for prey species and other similar factors, teasing out the overall impact of turbine fatalities on the health and viability of bird populations, a three-year monitoring period is insufficient.

6-25

- The initial monitoring increment should be a minimum of 5 years to allow better opportunity to distinguish among the variables that influence bird populations.

6-25

Furthermore, the method and frequency of monitoring are central to producing useful data. The dEIR fails to describe the monitoring system at all and as such does not offer enough information to evaluate whether critical data that are collected are a valid reflection of the impacts resulting from the new turbines.

6-26

- The monitoring system and criteria should be described.
- Results of the monitoring should be published in a peer reviewed journal and submitted to the APWRA Scientific Review Committee for their evaluation and to add to the body of literature and research on the impacts of wind turbines on avian species.

6-26

It cannot be stressed enough that the new turbines that will be used at the Vasco site are substantially larger and than the ones they will replace and although significantly fewer in number, despite the careful planning and use of best scientific knowledge, it remains largely speculation precisely how they will affect avian species.

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In addition, if all does not go well, there appears to be no penalty other than additional monitoring.

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- How will the applicant compensate for impacts to birds that fall above the predicted or hoped for mortality levels?
- How will the results of additional monitoring be used to remedy that situation?

Finally, although even less is known about the impacts of the new larger turbines on bats in California than on birds, even less information in the document is provided about how

monitoring for impacts to bats will be carried out. The EIR should rectify that lack of information.

6-29

- How will monitoring of bat species impacts be conducted and given what criteria?

Impacts from the Jackson Substation Upgrade

The dEIR notes that the existing Jackson Substation will need substantial upgrades to serve the new project. However, the description of the parts of the Project pertaining to the upgrade leaves several things unclear. The temporary impacts are described as taking up to five acres, with the final substation and its final enclosed area ending up at two acres.

- Why will such a large amount of land be impacted by the construction of the new substation?

6-30

The dEIR also states that the new substation will be “in the vicinity” of the existing substation. However, it is unclear whether or not or to what extent the new substation overlaps with the footprint of the existing substation.

- A map should be included showing the specific site for the new/newly upgraded substation along with a basic plan showing its footprint and any occurrences of special status plants and wetlands or streams.

6-31

These issues should be addressed in the EIR in order for reviewers to assess whether proposed mitigation is sufficient for the impacts caused.

Post Construction Restoration Activities

Throughout the dEIR reference is made to restoration of decommissioned roads and pad sites as well as the restoration of temporarily impacted construction areas. However, the dEIR provides very little information about the extent of these efforts.

- Areas to be decommissioned and restored should be quantified and mapped.
- To what extent will impacts from the laydown and staging areas be restored? For example, will the gravel placed in the individual laydown areas around the new wind turbine towers be removed?
- To what extent will the excess land around the Jackson substation impacted during construction but that is not part of the new facility, be restored?
- The EIR should not only provide more information about the restoration, but should also include a deadline for completion of restoration following the end of construction.
- With respect to removing no longer needed access roads, the dEIR reports that the former roads will be recontoured to match the adjacent terrain. Where the restoration involves slopes, criteria for evaluating success and the need for any additional/remedial grading should be described.
- We suggest that any unused culverts be removed along with the roads; unmaintained culverts could still be a source of erosion problems even once the road is no longer used. This was left unclear in the dEIR.

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At a minimum, language noting that all decommissioned pad sites and roads will be restored to pre-project conditions should be added to the EIR along with timelines, success criteria and specific triggers for remedial action should restoration not go as anticipated.

6-38

Comments on Specific Topical Elements of the dEIR

Recreational Impacts

The project is adjacent to Vasco Caves Regional Preserve and the Los Vaqueros watershed. While tower numbers are reduced, larger towers will be visible from much more of the acreage of the Regional Preserve, affecting the experiences of park visitors.

6-39

East Bay Regional Park District has requested that the four turbine sites most visible from Vasco Caves be removed or located further from the boundary of the Regional Preserve. SMD supports this request.

- The EIR should evaluate how much of Vasco Caves Regional Preserve is affected by the proposed turbines and mitigation, and that a buffer area between the turbines and the Preserve should be established to decrease or at least minimize impacts on the Preserve to less than current levels.

6-40

Aesthetic Impacts

The dEIR does a good job of describing the visual impacts of the Project and providing simulations of the new wind turbines. The newly installed turbines are much larger and so because of their size more prominent on the landscape and more visible from a distance – including areas that previously were not impacted – they are also many fewer in number. The topography of the Project site and surrounding areas helps to obscure views of the new turbines, which also reduces their impact on trail users in nearby open space areas as well as to motorists in passing cars on nearby roads and highways. On balance, except for the impacts on Vasco Caves described above, it generally appears that visual impacts will be reduced by the Project and aesthetic conditions improved.

6-41

Biological Resources

The impacts from the Project on biological resources including both the flora and the fauna found on the site are of great importance to Save Mount Diablo. Our main concerns are outlined above under the headings of monitoring, mitigation, adaptive management, and restoration. The primary issue is clearly identifying the magnitude of impacts from the new, larger, taller turbines, and how they will impact the various species of raptor and owl populations over time. These answers are key to determining if the APWRA is an ‘ecological sink’ for some species and, therefore, to what extent and how the Project’s impacts can be appropriately mitigated.

6-42

We are somewhat concerned that the use of megawatt/year for tracking avian mortality may obscure information about impacts from specific turbines and/or during specific parts of the year.

- Monitoring data should not only be aggregated, but reported by month per turbine so that appropriate management decisions can be made about the operation of individual turbines.

6-43

We also think that the dEIR should provide additional information about the potential impacts of on-going, low-level human activity at the Project site.

- How frequent will service and maintenance be for the new turbines?
- How much vehicle traffic will result?

6-44

- How will this impact species like the San Joaquin kit fox? This animal is known to be somewhat shy and it tends to avoid human activity; so the additional presence of people on-site may further stress animals already under significant threat from habitat loss.

6-45

The dEIR notes that given the relative lack of data on bats and wind turbines, that impacts to bats must be considered significant and unavoidable. This is also based on limited research suggesting that taller turbines tend to cause greater bat mortalities while reducing mortality to some bird species. Given this gap in knowledge, it is puzzling that the monitoring proposed for bats in the dEIR is offered at “no more than 90 days per year.” It would seem prudent to make greater effort to investigate impacts to bats and promptly implement specific mitigation measures to address bat mortality from turbines.

6-46

- The EIR should be amended to provide more information on how bat mortality will be assessed, managed, and mitigated.

Other Considerations

Temporary and Cumulative Impacts

The temporary impacts associated with the Project are significant and widespread. For example, the roads that will be used by the Project during decommissioning of the old turbines and pad sites as well as those used for the new construction will be 52 feet wide – more than tripling their current 16-foot width. This is particularly notable since the road network at the site is extensive; how they are managed during construction as well as how they are decommissioned is especially important for that reason. See Figure 3 for a sense of how many roads currently crisscross the site. Two general staging areas will be required for setting up various components of the project. Laydown areas of up to .5 acre area will be required around each new turbine during the final phases of assembly and construction. Even with installation of fewer than 50 new turbines, a substantial amount of habitat will be disturbed by these activities.

6-47

- The EIR should more fully describe mitigation for these impacts, particularly in light of their contribution to cumulative impacts when other large projects in the vicinity are considered.

Conclusions

There is much to be hopeful about in the repowering of the Vasco Winds site. NextEra Energy is to be lauded for its efforts at transparency – they met with us in our offices and took us on a site visit of the existing Vasco Winds facility – and for attempting to incorporate the best available science in its project. The dEIR demonstrates an effort and interest in reducing the impacts from their business on the environment.

However, the dEIR needs revisions to amplify its descriptions of monitoring and how the results of the monitoring program will be used in the adaptive management plan for the site. In addition, we suggest that the Applicant offer greater mitigation for both temporary and permanent impacts to the biological and water resources at the site, particularly in the context of the cumulative impacts to the area from expansion of Los Vaqueros Reservoir, construction on Vasco Road, and from additional, planned repowering projects in the vicinity. We also support the East Bay Regional Park District’s request to reduce the number of turbines near Vasco Caves Regional Preserve to protect the visitor experience and biological resources at the site.

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Figure 3. The road network at the site as it is currently will be reduced by the Project, but how the roads are used during construction and how well they are restored following construction are important to determining the full scope of their impacts.

We appreciate the opportunity to comment on the Vasco Winds Repowering project and look forward to reviewing the final EIR.

Sincerely,

Jodi L. Bailey, Ph.D.
Land Conservation Manager

cc:

- Laura Baker, CNPS
- Sharon Burnham, Tri-Valley Conservancy
- Brad Olson, East Bay Regional Park District
- Craig Weightman, California Department of Fish and Game
- Sheila Larsen, US Fish and Wildlife Service
- Peter Colby, Contra Costa Water District
- John Kopchik, East Contra Costa County Habitat Conservancy

2.3.6 Letter 6 – Responses to Comments from Save Mount Diablo

- 6-1 DEIR Section ES-3, *Project Setting and Location*, and DEIR Section 4.4, *Biological Resources*, describe the Altamont Pass as a topographical low point in the interior coastal range that provides a “doorway” into California’s Central Valley – a doorway that combines with favorable wind currents to make the area ideal for wind energy development and for raptor species. Wind power generated in the APWRA provides about 700 gigawatt-hours (GWH) annually of renewable energy to California, but also causes the deaths of an estimated 2,230 raptors and 9,300 total birds per year (Smallwood and Karas, 2009). DEIR Section 4.4.6, *Discussion of Impacts and Mitigation Measures*, says that the presence of certain contributing factors appears to correlate with a higher incidence of high avian mortality. As identified by the USFWS (USFWS, 2010b), such factors include: (1) placement of a wind energy facility within a migration corridor; (2) placement in areas where the microclimate impedes visibility; and (3) placement within areas of high bird abundance. The APWRA appears to meet all these criteria.” The County agrees with the comment that it would be better for wind energy facilities to be located outside of migration corridors, but disagrees with the assertion that flatter sites would be better for wind generation. As explained in the DEIR, the topography of the APWRA plays a key role in the area’s value for wind energy production.
- 6-2 The County agrees. Consistent with the comment, DEIR Section 4.4.6.2, *Specific Biological Resources Mitigation Measures*, identifies repowering and micrositing as the two most effective methods for reducing avian fatality associated with wind energy facilities in the APWRA. The DEIR explains what these terms mean, and discusses preliminary results of studies concerning the two operational repowering projects in the APWRA – Diablo Winds and Buena Vista. The Applicant relied on a site-specific micrositing report in designing the proposed turbine layout for the Project that incorporated State and federal strategies for micro- and meso-siting of turbines, and supplemented them for site-specific conditions (Smallwood and Neher, 2010). This report was updated in 2011 to evaluate the most recent micrositing that occurred with respect to the Environmentally Preferred Alternative (see FEIR Appendix B). Despite expected reductions in avian mortality, in the absence of site-specific monitoring data following repowering, it cannot be ascertained with certainty that the Project would achieve this result. Based on this uncertainty and to exercise a conservative approach to impact assessment, impacts to avian species are considered in the DEIR to be significant and unavoidable.
- 6-3 The County acknowledges uncertainty concerning the final results of the Project related to avian mortality. See Response to Comment 6-2.
- 6-4 While a 5-year post-construction monitoring period would be more desirable, the comment provides no evidence that the initial 3-year period plus any additional monitoring that may be required in accordance with the Adaptive Management Plan (as proposed in Mitigation Measure 4.4-1b) is inadequate. As shown in FEIR Table 2-2, Mitigation Measure 4.4-1b

and the 2010 Agreement are consistent with respect to the initial duration of post-construction monitoring (see Master Response 2.2.2, *Biological Resources*).

- 6-5 Adaptive management provides a guided approach to learning from monitoring the results of actions intended to reduce avian and bat mortality – actions for which many scientific and social uncertainties exist. The adaptive management plan required by Mitigation Measures 4.4-1b and 4.4-3 for avian and bat species, respectively, has been clarified in the FEIR as described in Master Response 2.2.2, *Biological Resources*. The adaptive management plan would be used to tailor the mitigation measures provided in 4.4-1b and 4.4-3 if the results of the 3-year monitoring report suggest that any of the repowered turbines is causing significantly disproportionate Focal Raptor and/or bat fatalities relative to other turbines. The adaptive management process would inform changes in the initially-imposed measures that are determined by monitoring to be ineffective in adequately reducing avian or bat mortality. Where results indicate that the initial measures are insufficient as applied to one or more of the repowered turbines, additional focused monitoring and/or management measures could be imposed based on the best science available at the time the determination is made. In this way, the adaptive management plan could be used to update the initially-imposed measures as determined necessary to reduce wind energy facility-related avian and bat mortality.
- 6-6 The criteria established in Mitigation Measure 4.4-1b for birds and incorporated for bats into Mitigation Measure 4.4-3 is “whether any repowered turbines are causing significantly disproportionate Focal Raptor and/or bat fatalities relative to other turbines.” Revisions to these mitigation measures to emphasize their consistency with the 2010 Agreement are provided in Master Response 2.2.2, *Biological Resources*. Based on this standard, if one or more turbines cause significantly disproportionate Focal Raptor or bat fatalities, then the adaptive management provisions would apply. This is a qualitative rather than a quantitative standard.
- 6-7 The comment does not question the adequacy or accuracy of the analysis provided in the DEIR, but rather suggests an additional option for limiting avian and bat mortality: limiting the Project’s energy output to the output of the existing facility. In other words, fewer turbines would result in fewer fatalities. The range of alternatives analyzed in the DEIR includes Alternative 1, which focuses on a reduction in the number of turbines based on reduced nameplate capacity instead of reduced production, as well as the No Project Alternative (denial of the LUP application), which would eliminate wind energy facility-related avian and bat mortality on the Project site over time. Alternative 1 is analyzed in DEIR Section 6.5.2, *Alternative 1: Partial Repowering – Reduced Number of Turbines to be Installed on Reduced Project Area* (DEIR, p. 6-13 et seq.). Concerning the No Project Alternative, see DEIR Section 6.5.1 (DEIR, p. 6-5 et seq.). The County acknowledges the suggested option as one of several ways avian and bat mortality could be reduced on the Project site. However, CEQA does not require that every alternative be considered and implementation of the suggested option would hinder efforts to satisfy the requirements of the California Renewable Energy Portfolio.

- 6-8 The commenter's concern is noted. Concerning mitigation ratios, see Response to Comment 1-9. The DEIR analyzes impacts and recommends mitigation measures that, if approved by the County, would avoid or reduce impacts associated with operation and maintenance of the Project. Specifically with respect to birds and bats, the adaptive management plan required in Mitigation Measures 4.4-1b and 4.4-3 could include compensatory mitigation to offset losses to Focal Raptor and bat species. Further, as stated in Section 6 of the 2010 Settlement Agreement, "To compensate for ongoing fatalities of the bird and bat species... NextEra Wind agrees to pay a mitigation fee of \$10,500 per megawatt of installed capacity [for the repowering Project]." Under the Environmentally Preferred Alternative described in Master Response 2.2.1, 78.2 MW would be installed, and so would result in a payment by the Project Applicant of \$821,100 in compensatory mitigation. If Project operation and maintenance resulted in take of protected species, the requirements of the federal and State endangered species acts would apply, as appropriate.
- 6-9 Comment noted. This comment offers opinions about the placement of wind turbines on undeveloped land and does not question the adequacy of the analysis in the DEIR.
- 6-10 Comment noted.
- 6-11 The estimates, assumptions and micro-siting methodology used to identify locations for proposed turbines are set forth in the Smallwood and Neher report, which is included in the FEIR as Appendix B. More generally, the County believes that DEIR Section 4.4 is clear about the uncertainty inherent in the analysis of impacts and recommended mitigation measures related to birds and bats. This section repeatedly identifies uncertainty as a key factor in the conclusions reached. For example, it states: "significant uncertainties remain concerning the mechanisms of avian-turbine collisions (Smallwood and Neher, 2010)," "Based on this uncertainty...impacts to avian species are considered to be significant and unavoidable," "in light of uncertainty about their effectiveness, impacts to avian species would remain significant and unavoidable," and recommends an adaptive management approach in light of USFWS guidance under these circumstances. Consequently, the DEIR has not been revised in response to this comment.
- 6-12 DEIR Section 4.4 considers rotor-swept area as one of several factors in the assessment of impacts to birds and bats. See, for example, the Project-specific micro-siting report prepared by Smallwood and Neher and included in FEIR Appendix B.

Because the comment does not identify what "current research" suggests that rotor- or wind-swept area is a significant factor in predicting avian mortality, the County is unable to review or respond to that work. However, data and analysis reviewed by the County in preparing the DEIR suggests the opposite conclusion. For example, Barclay, et al. (2007) prepared a study entitled *Variation in Bat and Bird Fatalities at Wind Energy Facilities: Assessing the Effects of Rotor Size and Tower Height*, which found that across North American wind energy facilities, the diameter of the turbine rotor (the blade swept area) did not influence the rate of bird or bat fatality.

- 6-13 The 2007 Settlement Agreement requires the Applicant to reduce raptor mortality by 50 percent and to implement adaptive management measures if a 50 percent reduction is not achieved. According to the 2010 Agreement, the Applicant will have satisfied its obligations under the 2007 Agreement if it complies with the 2010 Agreement. Mitigation Measures 4.4-1b and 4.4-3 as provided in the DEIR have been revised as shown in Master Response 2.2.2, *Biological Resources*, to emphasize their consistency with the 2010 Agreement.
- 6-14 See Master Response 2.2.2, *Biological Resources*. Adaptive management and potential remedial actions are discussed in FEIR Table 2-3 and Mitigation Measures 4.4-1b and 4.4-3.
- 6-15 The “adaptive” part of the adaptive management plan is described in Response to Comment 6-5. The criteria that will be used as a trigger to initiate the adaptive management plan are discussed in Response to Comment 6-6.
- 6-16 Seasonal shutdown of one or more of the repowered turbines is identified in Mitigation Measure 4.4-1b (and incorporated in Mitigation Measure 4.4-3) as one of the potential additional mitigation or management measures that could be imposed as part of an adaptive management response. A seasonal shutdown requirement would mean that the affected turbines would not turn except at high wind speeds and at very low RPMs, as Wallace Erickson and Dale Strickland explained in their unreviewed *Interim Summary on the Effectiveness of the Winter Period Turbine Shutdown in the Altamont Pass Wind Resource Area* prepared for WEST Inc., dated April 8, 2007 (http://www.altamontsrc.org/alt_doc/r35_seasonal_shutdown_prelim_results.pdf).² Because the best science available about seasonal shutdown would be used to impose any such a requirement as part of the adaptive management plan, this option cannot be “fully described” at this time as requested in the comment. As shown below, in Master Response 2.2.2, *Biological Resources*, and FEIR Chapter 3, Mitigation Measure 4.4-1b (and therefore also Mitigation Measure 4.4-3) has been revised to clarify that seasonal shutdown could be part of the adaptive management approach:

Mitigation Measure 4.4-1b: The Applicant shall implement a post-construction avian monitoring program consistent with and in accordance with the provisions of the 2010 Settlement Agreement, as follows:

....

- viii. Adaptive Management Plan: Contra Costa County shall review the final three (3) year Monitoring Report for the Project to evaluate whether any repowered turbines are causing significantly disproportionate Focal Raptor and/or bat fatalities relative to other turbines. If one or more turbines are causing significantly disproportionate Focal Raptor or bat fatalities, then Contra Costa County may, in consultation with the TAC, consider additional focused

² The Interim Summary identified “some measured effect of seasonal shutdown on raptors overall” as well as the authors’ puzzlement about “the fact that some raptor casualties were observed during the shutdown periods” (Erickson and Strickland, 2007, p. 3).

monitoring and/or management measures designed to reduce the fatalities attributable to those turbines with the least impact on wind energy production by continually incorporating effective mitigation measures that are based on the best available science over the life of the Project. Binding instruments of this Plan could include:

....

- b. Seasonal or weather condition-specific shutdowns of individual turbines identified by data included in the annual monitoring reports required by Mitigation Measure 4.4-1(b)(iii) if, in the best professional judgment of the biologist approved by the County, annual fatality monitoring data identifies the need (e.g., 50 percent more raptor kills than other turbines), and identifies that it cannot be effectively met in any other fashion.

- 6-17 A wind/weather-related shutdown period could be imposed as part of an adaptive management response just like a seasonal shutdown could be. See Response to Comment 6-16 for more information on the seasonal shutdown option.
- 6-18 Concerning the mitigation ratios, see Response to Comment 1-8. Concerning mitigation of the Project's ongoing impacts, see Response to Comment 6-8.
- 6-19 See Response to Comment 6-8, discussing the mitigation payment for ongoing (cumulative) take/mortality. See also DEIR Section 5.4.3.4, *Biological Resources*, which evaluates the potential for incremental Project-specific impacts to combine with the impacts of other projects to cause or contribute to significant cumulative effects to biological resources. This comment offers an opinion about Project impacts to avian and terrestrial species, but provides no evidence that the analysis is inadequate or inaccurate. The County notes that CDFG did not express any concerns with the mitigation ratios or the analysis of cumulative impacts to terrestrial species.
- 6-20 Regarding the mitigation of Project-related avian and bat mortality, see Mitigation Measures 4.4-1b and 4.4-3, as discussed in Master Response 2.2.2, *Biological Resources*, and Responses to Comments 6-5, 6-6 and 6-8, which discuss the adaptive management plan that each of these mitigation measures would require. Mitigation is provided for ongoing take of avian and bat species in the 2010 Agreement.
- 6-21 Concerning the appropriateness of the mitigation ratios stated in the DEIR, see Response to Comment 1-9. Concerning clean-up of existing and future debris, see Response to Comment 2-2. The County notes that Contra Costa County Code Section 88-3.414 requires the Applicant to submit a cash deposit to be used by the County, if necessary, to address permit violations, and County Code Section 88-3.806 requires submittal of a cash deposit or surety bond to ensure that site reclamation occurs upon final decommissioning of the Project. Concerning adaptive management and remedial action, see Master Response 2.2.2, *Biological Resources*.

- 6-22 Concerning the appropriateness of the mitigation ratios stated in the DEIR, see Response to Comment 1-9.
- 6-23 For an explanation of why the DEIR does not improperly defer mitigation to the resource agencies' permitting phase, see Response to Comment 1-18.
- 6-24 Mitigation Measure 4.4-1b requires at least 3 years of initial post-construction monitoring and an additional 2 years of monitoring to be performed after 10 years of Project operation; additional monitoring would be required if indicated by the site-specific Adaptive Management Plan also required by the mitigation measure. Regardless of whether a longer post-construction monitoring period would be more desirable, the comment provides no evidence that the proposed monitoring is inadequate. As shown in FEIR Table 2-3, the monitoring requirements of Mitigation Measure 4.4-1b and the 2010 Agreement are in substantial accord (see Master Response 2.2.2, *Biological Resources*).
- 6-25 See Response to Comment 2-7, which also suggested a 5-year monitoring period. As discussed in Master Response 2.2.2, *Biological Resources*, Mitigation Measure 4.4-1b has been developed to be adequately protective of the Focal Raptors Species, which are species of local concern (as described in see DEIR Section 4.4) and have been identified by local chapters of the Audubon Society, CARE and others as indicator species for continued monitoring and research in the APWRA. Measures to protect these more sensitive species, by design, also would protect other avian species regardless of the variables that influence avian species more generally.
- 6-26 As described in the DEIR, Mitigation Measure 4.4-1b(iii) required the “[p]ublishing [of] an annual monitoring report for the 3-year monitoring period, reporting the findings of post-construction monitoring and avian use.” As described in Master Response 2.2.2, *Biological Resources*, Mitigation Measure 4.4 1b has been revised in the FEIR to amplify its consistency with the 2010 Agreement. As shown in Master Response 2.2.2, Mitigation Measure 4.4-1b(vii) also has been revised in response to this comment to clarify that the monitoring reports shall be provided to the APWRA Scientific Review Committee as requested in this comment.

Mitigation Measure 4.4-1b: The Applicant shall implement a post-construction avian monitoring program consistent with and in accordance with the provisions of the 2010 Settlement Agreement, as follows:

. . . .

- vii. The Monitor shall prepare interim, annual monitoring reports and submit them to Contra Costa County and the Altamont Pass Wind Resource Area Scientific Review Committee (APWRA SRC) within 3 months of completing each year of post-construction monitoring, and shall prepare and submit a final 3 year Monitoring Report within 6 months of completing 3 years of post-construction monitoring and a final 2 year Monitoring Report within 6 months of completing 2 years of post-construction monitoring. All monitoring reports shall report adjusted and unadjusted annual fatalities for the Focal Raptor

Species and all other bird species on a per-turbine and per megawatt basis. The monitoring reports also shall summarize the results of the bird behavior and use studies for the preceding 1 or 3 years, as applicable.

- 6-27 As explained in Responses to Comments 6-2, 6-7, and 6-11, the DEIR acknowledges uncertainty related to the Project's affect on avian species.
- 6-28 Details on adaptive management and compensation are provided in Master Response 2.2.2, *Biological Resources*.
- 6-29 Details on bat monitoring are provided in Master Response 2.2.2, *Biological Resources*.
- 6-30 The existing Jackson Substation would be replaced with a larger substation because it would need to accommodate additional equipment that was not required by PG&E when the existing substation was constructed. For example, the new substation would include air core inductors, capacitor banks, filters, a back-up generator, and a 1,000-gallon propane above-ground storage tank. The DEIR analyzed impacts associated with the largest size that could be constructed because the exact footprint of the new substation is not yet known: the final size will be contingent on utility requirements, the number of WTGs installed, the resulting nameplate capacity, and other factors. The substation could be smaller, causing less disturbance than the substation work analyzed in the DEIR.
- 6-31 As explained in DEIR Section 3.3.2, the existing substation would be replaced in the same general location. The existing location is shown in Figure 3-3 and the proposed location is shown in Figures 3-4 and 3-5 for the Project as originally proposed, and in Figures 6-1, 6-2 and 6-3 for the alternatives. FEIR Figure 2-1, *Environmentally Preferred Alternative*, also depicts the substation location. The new substation would entirely encompass the site of the existing substation, so the net increase in substation footprint would be up to 1.5 acres. Special-status plant locations in the vicinity of the existing/proposed substation location are shown on Sheet 5 of 11 included in Sycamore, 2010 (FEIR Appendix D). Wetlands and streams in the vicinity of the existing/proposed substation location are shown in figures included in the USACE Delineation of Wetlands and Other Waters for the Vasco Winds Repowering Project prepared by CH2M HILL (May 2010) (see, e.g., Figure4).
- 6-32 Quantification of disturbance associated with restoration activities is provided in DEIR Table 3-1, *Approximate Disturbance and Restoration Acreage of Project Components*. Restoration that would occur as part of the initial decommissioning phase, during which existing turbines, infrastructure, and roads not needed for the Project would be removed, is described in DEIR Section 3.5. Ultimately, as described in DEIR Section 3.8, the Project would be decommissioned and removed and the affected area restored. The specific areas to be restored as part of each of these phases can be seen by comparing Figure 3-3, which provides a snapshot of pre-Project conditions, with one or more of the figures showing post-Project conditions, such as Figure 6-3 (showing Alternative 3, determined in the DEIR to be the Environmentally Superior Alternative) or FEIR Figure 2-1 (showing the Environmentally Preferred Alternative).

- 6-33 DEIR Section 3.4 explains that the staging areas and laydown areas would be temporary. All temporary areas/yards would be removed (including gravel), ripped, contoured to grade, and reseeded as appropriate.
- 6-34 The temporary laydown area around the Jackson Substation would be restored in the manner described in Response to Comment 6-33.
- 6-35 As indicated in DEIR Table 3-5, decommissioning and construction (including restoration) would last for a period of 10 months. While site reclamation/restoration is proposed as part of the Project, and the impacts are evaluated in the DEIR, reclamation ultimately is required and enforced pursuant to Article 88-3.8 of the Contra Costa County Code. The Applicant would be required to submit a reclamation plan providing the details of the proposed reclamation activities for County review and approval. The County reserves the right to enforce its ordinance as it considers appropriate, and would set appropriate standards, including a timing requirement, as part of the reclamation plan approval process. Therefore, the DEIR has not been revised to include a deadline for reclamation.
- 6-36 As indicated in Response to Comment 6-35, the County would review and approve the Applicant's reclamation plan. No strict standards or success criteria have been established at this time because too many variables exist and different areas within the Project site would necessarily require different treatment. For instance, in areas where burrows possibly used by CTS were present, recontouring requirements would be different than for areas that were less sensitive to disturbance. The overarching goal is to remove as much evidence of the existing facility as possible while minimizing environmental impacts and the approved reclamation plan would reflect that goal.
- 6-37 Suggestion noted. The County agrees that unused culverts generally should be removed and would require this as part of the approved reclamation plan. Exceptions would be where removal of such culverts could result in new or more intense environmental impacts than were analyzed in the EIR.
- 6-38 The County disagrees with the comment. As indicated in Responses to Comments 6-35 and 6-36, reclamation is ultimately governed by County ordinance and the County reserves its right to establish standards and success criteria as part of the approval process for the reclamation plan. Consequently, the DEIR has not been revised in response to this comment.
- 6-39 The County disagrees with the assertion that turbines would be visible from "much more of the acreage" within Vasco Caves Regional Preserve. See Response to Comment 2-1.
- 6-40 See Response to Comment 2-1.
- 6-41 Comment noted.

- 6-42 Comment noted. The various issues raised in this comment are addressed throughout this chapter of the FEIR.
- 6-43 As discussed in Master Response 2.2.2, *Biological Resources*, post-construction monitoring would be designed to identify which, if any, of the repowered turbines are causing significantly disproportionate avian or bat mortality. Mitigation Measure 4.4-1b has been revised to amplify the consistency of DEIR Mitigation Measures 4.4-1b and 4.4-3 and the 2010 Agreement. As shown in Master Response 2.2.2 and FEIR Chapter 3, Mitigation Measure 4.4-1b(v) and Mitigation Measure 4.4-3, which incorporates this language, have been further revised to require post-construction monitoring reports to present data in aggregated and by-turbine by-month formats as requested in this comment.
- Mitigation Measure 4.4-1b:** The Applicant shall implement a post-construction avian monitoring program consistent with and in accordance with the provisions of the 2010 Settlement Agreement, as follows:
-
- v. Post-construction monitoring shall include collecting field data on behavior, utilization and distribution patterns of affected avian species in addition to fatalities and shall report data in aggregated and by-turbine by-month formats.
- 6-44 As explained in DEIR Section 3.7, *Operation and Maintenance*, O&M activities for the Project would be similar to the O&M activities presently conducted for the existing wind energy facility. As stated in Section 3.7.2, *Operation and Maintenance Activities*, O&M staff would travel via pickup or other light-duty trucks. As explained in DEIR Section 4.17.2.1, *Regional and Local Setting*, typical operations at the existing facility involve up to three maintenance crews consisting of two technicians each. The frequency of vehicle trips required for these activities is not expected to increase relative to O&M activities for the existing facility. In fact, the frequency of maintenance trips may decrease because there would be significantly fewer turbines on the site and these turbines would be in significantly better operating condition.
- 6-45 See Response to Comment 6-44. O&M activities for the Project would be similar to those that have been occurring on the site since the existing wind energy facility began operating more than two decades ago. Thus, the “on-going, low-level human activity at the Project site” (in commenter’s words) would not be “additional” compared to baseline conditions and would not constitute a change under CEQA for purposes of potential impacts to San Joaquin kit fox. Consequently, the DEIR has not been revised in response to this comment.
- 6-46 DEIR Mitigation Measure 4.4-3, concerning impacts to bats, has been revised in this FEIR to amplify consistency with the 2010 Agreement. Mitigation Measure 4.4-3, as revised, is provided in Master Response 2.2.2, *Biological Resources*. For the reasons provided in Master Response 2.2.2, the 90-day limitation has been removed.

6-47 The comment does not provide any evidence that the DEIR's analysis of decommissioning-related road work is inadequate or inaccurate. The existing road network, including roads to be decommissioned as well as those to remain, is shown in DEIR Figure 3-3, *Existing Facilities*. Existing roads, which are maintained to facilitate O&M activities, are up to 16 feet wide (DEIR Section 3.3.2). Temporary (up to 10 months), construction-related road widths and turning radii would be dictated by turbine and equipment transportation requirements and crane specifications and are expected to be up to 52 feet wide, including a maximum 40-foot width plus two 6-foot shoulders; after construction, the permanent access roads would be reduced to 16-feet wide and the remaining disturbed area would be reclaimed (DEIR Section 3.6.1). The post-Project road network can be seen in the site plans for the Project and each of the alternatives except for the No Project Alternative. The interior circulation roads that would be 52-feet wide, and then reduced to 16 feet wide, are depicted with solid red lines in FEIR Figure 2-1, *Environmentally Preferred Alternative*.

The comment does not provide any evidence that the DEIR's analysis of construction-related activities, including with respect to the staging areas, is inadequate or inaccurate. The amount of habitat that would be disturbed during Project-related construction activities is identified and impacts associated with this disturbance are analyzed in DEIR Section 4.4. The Project's incremental contribution to cumulative habitat loss is analyzed in DEIR Section 5.4.3.4, *Biological Resources*. No evidence indicates that the mitigation measures proposed to avoid or reduce impacts to biological resources are inadequate. Consequently, the DEIR has not been revised in response to this comment.

6-48 Monitoring would be required for avian and bat species by Mitigation Measures 4.4-1b and 4.4-3, respectively and, more generally, by the mitigation monitoring reporting and compliance plan (MMRCP) that will be prepared for the Project as required by Public Resources Code Section 21081.6 and CEQA Guidelines Section 15097. DEIR Mitigation Measures 4.4-1b and 4.4-3 have been revised in this FEIR to amplify consistency with the 2010 Agreement. As revised, these measures are provided and discussed in Master Response 2.2.2, *Biological Resources*. The monitoring requirements for birds and bats includes an adaptive management plan component that is described in Master Response 2.2.2 as well as in Response to Comment 6-5 and other comments in this letter.

Cumulative impacts to biological, water and other resources are analyzed in DEIR Section 5.4, *Cumulative Impacts*. The comment provides no evidence that the DEIR is inadequate or inaccurate in these respects.

6-49 Comment noted. See Response to Comment 2-1.

DEPARTMENT OF TRANSPORTATION

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February 10, 2011

CC004050
SCH# 2010032094

Mr. William Nelson
Contra Costa County
Department of Conservation and Development
651 Pine Street, 4th Floor, North Wing
Martinez, CA 94553

Dear Mr. Nelson:

Vasco Winds Repowering Project – Draft Environmental Impact Report

Thank you for continuing to include the California Department of Transportation (Department) in the environmental review process for the Vasco Winds Repowering Project. The following comments are based on the DEIR.

Landscape Architecture

The document concludes that project features would be visible to a limited degree from State Route 4 (SR) 4 and Interstate 580 (I) 580, but will not result in significant visual impacts as viewed from these State Eligible Scenic Highways. The Department suggests that the authors add a statement that new visual intrusions in views from State Eligible Scenic Highways could potentially impact their future designation as Scenic Highways. However the features proposed by this project would not appear as substantial new visual intrusions in views from SR-4 and I-580.

7-1

Encroachment Permit

Please be advised that any work or traffic control that encroaches onto the state right of way (ROW) requires an encroachment permit that is issued by the Department. To apply, a completed encroachment permit application, environmental documentation, and five (5) sets of plans clearly indicating state ROW must be submitted to the address below. Traffic-related mitigation measures should be incorporated into the construction plans during the encroachment permit process. See the website link below for more information.

7-2

<http://www.dot.ca.gov/hq/traffops/developserv/permits/>

Mr. William Nelson/ Contra Costa County
February 10, 2011
Page 2

Michael Condie, District Office Chief
Office of Permits
California DOT, District 4
P.O. Box 23660
Oakland, CA 94623-0660

Please feel free to call or email Luis Melendez of my staff at (510) 286-5606 or Luis_Melendez@dot.ca.gov with any questions regarding this letter.

Sincerely,



LISA CARBONI
District Branch Chief
Local Development – Intergovernmental Review

c: State Clearinghouse

2.3.7 Letter 7 – Responses to Comments from California Department of Transportation

- 7-1 Concerning aesthetics, DEIR Section 4.1.2.1 identifies State Route 4 in Contra Costa County and Interstate 580 in Alameda County as eligible State Scenic Highways. In the discussion of Impact 4.1-4, which considers whether the Project would substantially damage scenic resources within a State scenic highway or a County-designated scenic route, the DEIR concludes that temporary construction-related and longer-term operation-related impacts to these routes would be less than significant. In response to this comment, the first paragraph in the Impact 4.1-4 discussion (DEIR p. 4.1-42) has been revised as follows to include the suggested language:

As indicated above in the discussion of the Project's visual setting, there are no State-designated scenic highways with views of the Project. Thus, there would be no impact within a State-designated scenic highway. However, there are numerous County-designated scenic highways and routes in the vicinity of the Project, as well as an eligible State Scenic Highway. As indicated above in the discussed of the visual setting, Vasco Road and SR 4 are County-designated scenic highways and expressways, and Byron Highway and Morgan Territory Road are County-designated scenic routes. In Alameda County, I-580 is an eligible State Scenic Highway. New visual intrusions in views from State Eligible Scenic Highways could impact their future designation as Scenic Highways. The following viewpoint analysis assesses the impacts to views from these scenic highways and routes. As indicated below, the features proposed by the Project would not appear as substantial new visual intrusions in views from SR 4 and I-580.

- 7-2 Comment noted. Thank you.

CHAPTER 3

EIR Text Revisions

3.1 Introduction

The following changes have been made to the previously published text of the DEIR. These changes include: minor corrections made by the section authors to improve writing clarity, grammar, and consistency; clarifications, additions, or deletions resulting from specific responses to comments; and County staff-initiated text changes to update information in the DEIR. These text revisions are organized by the chapter and page number that appear in the DEIR. An explanation of the change, including identification of where it would be made, is presented in *italics*. The specific additions and deletions use the following conventions:

- Text deleted from the EIR is shown in ~~strike-out text~~.
- Text added to the EIR is shown in underline text.

These changes also include the description and analysis of a change in the amount and source of construction water necessary for development of the Project. Specifically, subsequent to the release of the DEIR, the Applicant learned that an increase in total construction-related water use from approximately 10 million gallons to 50.0 million gallons and a change in the source of that water from Los Vaqueros Reservoir to an irrigation canal along Camino Diablo Road just west of the community of Byron would be necessary. Related changes are described in more detail in the next few paragraphs and in each of the resource areas (see Section 3.2 below) that would be affected.

3.2 Construction Water-related Project Changes

Based on the final grading plans and geotechnical report, the Applicant has revised the reasonable upper limit of the amount of construction water that would be needed from about 10 million gallons as reported and analyzed in the DEIR to 50 million gallons (CH2M HILL, 2011).¹ The Byron Bethany Irrigation District (BBID) has issued a 2011 Permit to Pull Construction Water at Canal 45 for this purpose. DEIR Section 4.10, *Hydrology and Water Quality* (p. 4.10-17) stated, “The Contra Costa Water District would provide water necessary for Project construction (Pappalardo, 2010).” However, after the issuance of the DEIR, CCWD advised that it would not provide Project construction water. BBID’s Canal 45 has been identified as a construction water source to be used in lieu of Los Vaqueros Reservoir, the impacts of which had been analyzed in the DEIR. Canal 45 is 10-15 feet wide, about 4-5 feet deep, rock and soil-lined. As shown in **Figure 3-1**, *Construction*

¹ CH2M HILL, 2011. *Response to March 17, 2011 Data Request*, E-mail from Ms. Christine Roberts on behalf of NextEra Energy to William R. Nelson, Contra Costa County (March 24, 2011).



Vasco Wind Repowering Project . 208583

Figure 3-1
Construction Water

SOURCE: CH2M HILL, 2011

Water, the proposed point of extraction is located off of Camino Diablo Road in Contra Costa County. Extraction would occur as follows: a 6-inch intake hose with a screened cover would be placed into Canal 45, where a diesel powered 71 horsepower (hp) 6-inch water pump would extract the water into a water stand for loading into the water tanker truck. Water tanker trucks would be turned off as soon as they were in position to receive and deliver water at the extraction and delivery locations: no idling would occur. All water tanker trucks would access the Project site via Gates 5 and 24. Water would be off-loaded from the tanker trucks to storage containers to facilitate on-site use. Water storage locations are shown on Figure 3-1.

**TABLE 3-1
CONSTRUCTION WATER EQUIPMENT NEEDS**

Equipment	QTY	Fuel Type	Use	HP	HRS/Day
Water truck-(tanker) 5400 Gallons	12	Clear Diesel	Transport water to site	450	9
Water truck-4000 Gallons	13	Clear Diesel	Transport water for Dust control & Compaction (on-site only.	350	9
6" Water Pump	5	Dyed Diesel	1 for extraction, 4 for filling on-site water trucks from storage tanks.	71	9

SOURCE: CH2M HILL, 2011

The DEIR is revised as indicated below to describe and analyze the environmental impacts related to the increase in construction-related water demand and the change in extraction point and water delivery. These modifications to the Project do not trigger recirculation of the DEIR (Pub. Res. Code § 21092.1; CEQA Guidelines § 15088.5). For a discussion of recirculation and the types of changes that do trigger it, see Master Response 2.2.3 in FEIR Chapter 2.

3.3 Text Revisions

3.3.1 Executive Summary

In response to County staff-initiated text changes to update information in the DEIR and in response to individual comments as noted in FEIR Chapter 2, the below-listed individual rows of Table ES-1, Summary of Environmental Impacts of Project and Alternatives, and DEIR, Table 2-1, Summary of Environmental Impacts of Project and Alternatives, are revised as shown on the following page.

3.3.2 Chapter 1, Introduction

No change.

TABLE ES-1 REVISED
SUMMARY OF ENVIRONMENTAL IMPACTS OF PROJECT AND ALTERNATIVES

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
<p>Aesthetics, Visual Quality, Light and Glare</p> <p>Impact 4.1-1: Construction of the Project, decommissioning of the existing turbines, and the process of decommissioning the Project at the end of its life, would have a substantial adverse effect on views from Vasco Caves Regional Preserve.</p>	<p>Potentially Significant</p>	<p>Mitigation Measure 4.1-1b: All laydown areas visible from the Vasco Cave tour route shall be visually screened using 12-foot tall temporary fencing. Fencing shall incorporate aesthetic treatment through use of appropriate, nonreflective materials, such as chain link fence with light brown or green vinyl slats. The Applicant shall submit final construction plans demonstrating compliance with this measure to the County Zoning Administrator for review and approval at least 30 days prior to issuance of grading or building permits.</p>	<p>Less than Significant</p>
<p>Air Quality</p> <p>Impact 4.3-2: The Project would result in short-term construction emissions of criteria pollutants that would contribute to existing air quality violations.</p>	<p>Significant and Unavoidable</p>	<p>Mitigation Measure 4.3-2b: The Applicant shall reduce construction-related air pollutant emissions by implementing measures based on BAAQMD's additional construction mitigation measures. The Applicant shall require all contractors to comply with the following requirements for all areas with active construction activities:</p> <ul style="list-style-type: none"> • All excavation, grading, and/or demolition activities shall be suspended when average ground level wind speeds exceed 20 miles per hour. • Wind breaks (e.g., fences) shall be installed on the windward side(s) of actively disturbed areas of construction. Wind breaks should have a maximum 50 percent air porosity. • Vegetative ground cover shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established. The seed mix and plant varieties must be approved by the County Zoning Administrator prior to planting. • A wash-off station shall be established at each Project exit point. All trucks and equipment, including their tires, shall be washed off prior to leaving the site. • Site accesses to a distance of 100 feet from the paved road shall be treated with a six to 12 inch compacted layer of wood chips, mulch, or gravel. • Consistent with the approved Storm Water Pollution Prevention Plan, sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent. • The idling time of diesel-powered construction equipment shall be limited to two minutes. • For off-road construction equipment of more than 50 horsepower and all on-road heavy-duty trucks, the Applicant shall ensure achievement of a Project-wide fleet-average 48-30 percent ROG reduction and 20 percent NO_x reduction compared to the most recent CARB fleet average. A plan to achieve these reductions shall be submitted to Contra Costa County for review and approval prior to commencement of construction activities. Construction activities cannot commence until the plan has been approved. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as such become available. 	<p>Significant and Unavoidable</p>

**TABLE ES-1 REVISED (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS OF PROJECT AND ALTERNATIVES**

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
<p>Air Quality (cont.)</p> <p>Impact 4.3-4: <u>The Project may expose sensitive receptors to short-term construction pollutant emissions. Long-term operations that would be associated with the Project would result in no new emissions. Construction activities would generate air pollutant emissions, including diesel particulate matter (DPM), which is considered to be a toxic air contaminant. Construction activities would occur over a relatively short period of approximately 10 months and the closest sensitive receptor to the wind energy facility Project site is a residence located approximately 3,400 feet east of a string of existing turbines to be removed. The Project would require the operation of one 71 hp diesel pump at the construction water extraction point along Camino Diablo Road, which would be located at a distance of approximately 100 feet from the nearest residence. Diesel operated water tanker trucks that would be filled with water at the extraction point would be turned off as soon as they would be in position to begin pumping.</u></p> <p><u>Although operation of the diesel pump would be temporary, it would constitute a new source of emissions and therefore would be subject to the requirements of BAAQMD Rules and Regulations, particularly Regulation 2. Permits: Rule 1: General Requirements; Rule 2: New Source Review; and Rule 5: New Source Review of Toxic Air Contaminants. Operations of the diesel pump also would be required to comply with the BAAQMD-administrated statewide air toxic control measures (ATCM) for Stationary Diesel Engines (CARB, 2008). The proposed diesel pump would be required to adhere to the more stringent of the following operating requirements and particulate matter (PM) emission standards:</u></p> <ul style="list-style-type: none"> • <u>Diesel PM limit of ≤ 0.01 grams per break horsepower hour (g/bhp-hr); or</u> 	<p>Less-than-Significant Impact</p>	<p><u>None required.</u></p>	<p>Less than Significant</p>

**TABLE ES-1 REVISED (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS OF PROJECT AND ALTERNATIVES**

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Air Quality (cont.)	<ul style="list-style-type: none"> Off-Road Engine Certification Standard for an off-road engine of the same horsepower rating. <p>It is anticipated that the 71 hp diesel pump would operate up to 9 hours per day, 5 days a week, for approximately 8 months. Given the anticipated relatively short period of potential exposure, the relatively low pump hp rating, and the required adherence to BAAQMD Rules and Regulations, including compliance with statewide ATCM for Stationary Diesel Engines, TAC emissions that would be associated with the diesel pump would be sufficiently diluted and would not be substantial at the nearest residential locations. Therefore, impacts associated with the short-term use of the diesel pump at the construction water extraction location would be less than significant.</p>		
Biological Resources	<p>Impact 4.4-1: Project operation would result in direct and indirect impacts on birds, including species listed under Federal and State Endangered Species Acts, eagles protected under the BGEPA, Fully Protected species, State Species of Special Concern, and birds protected under the Migratory Bird Treaty Act.</p>	<p>Mitigation Measure 4.4-1b: The Applicant shall implement a post-construction avian monitoring program consistent with and in accordance with the provisions of the 2010 Settlement Agreement, as follows:</p> <ol style="list-style-type: none"> The post-construction monitoring program shall use red-tailed hawks, golden eagles, American kestrels and burrowing owls ("Focal Raptor Species") and bats as benchmarks for evaluating the effectiveness of the overall Project repowering in reducing turbine-related mortality and informing and updating future siting analyses. The post-construction monitoring program shall commence no later than three (3) months after the commercial operation date of the Project. The post-construction monitoring program shall be 3 years in duration. Following the 3 years of post-construction monitoring, 2 years of further monitoring shall commence on the 10th anniversary of the Project's commercial operation date. The initial 3-year monitoring period and the subsequent 2-year monitoring period together shall constitute the post-construction monitoring period. The monitoring program shall be conducted by a qualified consultant ("Monitor") approved by Contra Costa County. Post-construction monitoring shall include collecting field data on behavior, utilization and distribution patterns of affected avian species in addition to fatalities and shall report data in aggregated and by-turbine by-month formats. 	Significant and Unavoidable

**TABLE ES-1 REVISED (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS OF PROJECT AND ALTERNATIVES**

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Biological Resources (cont.)			
Impact 4.4-1 (cont.)		<p>vi. <u>The program shall monitor each repowered turbine at least once per month for the duration of the post-construction monitoring period for fatalities of the Focal Raptor Species and all other bird species, as recommended by the Contra Costa County Technical Advisory Committee (TAC) or an equivalent entity, which will be convened by the County for this purpose. The Applicant shall monitor a subset (30 percent) of the repowered turbines at least twice per month for the duration of the post-construction monitoring period for fatalities and bird utilization and behavior.</u></p> <p>vii. <u>The Monitor shall prepare interim, annual monitoring reports and submit them to Contra Costa County and the Altamont Pass Wind Resource Area Scientific Review Committee (APWRA SRC) within 3 months of completing each year of post-construction monitoring, and shall prepare and submit a final 3-year Monitoring Report within 6 months of completing 3 years of post-construction monitoring and a final 2-year Monitoring Report within 6 months of completing 2 years of post-construction monitoring. All monitoring reports shall report adjusted and unadjusted annual fatalities for the Focal Raptor Species and all other bird species on a per-turbine and per megawatt basis. Monitoring reports also shall summarize the results of the bird behavior and use studies for the preceding 1 or 3 years, as applicable.</u></p> <p>viii. <u>Adaptive Management Plan: Contra Costa County will review the final three (3) year Monitoring Report for the Project to evaluate whether any repowered turbines are causing significantly disproportionate Focal Raptor and/or bat fatalities relative to other turbines. If one or more turbines are causing significantly disproportionate Focal Raptor or bat fatalities, then Contra Costa County may, in consultation with the TAC, consider additional focused monitoring and/or management measures designed to reduce the fatalities attributable to those turbines, with the least impact on wind energy production, by continually incorporating effective mitigation measures that are based on the best available science over the life of the Project. Binding instruments of this Plan could include:</u></p> <ul style="list-style-type: none"> a. <u>Specific percentage-goal reductions in avian mortality or type-specific avian mortality, such as a reduction in overall raptor mortality or species-specific raptor mortality achieved within a specified time period. The percentage-goal reductions will be measured from APWRA-wide fatality per MW/year data, which, as reported by Smallwood and Karas (Smallwood and Karas, 2009) are 2.2 raptors/MW/year and 7.5 birds/MW/year, or from the best data available at the time the adaptive management measures go into effect.</u> b. <u>Seasonal or weather condition-specific shutdowns of individual turbines identified by data included in the annual monitoring reports required by Mitigation Measure 4.4-1(b)(iii) if, in the best professional judgment of the biologist approved by the County, annual fatality monitoring data identifies the need (e.g., 50 percent more raptor kills than other turbines), and identifies that it cannot be effectively met in any other fashion.</u> c. <u>Extension of the 3-year monitoring period in up to 3-year increments.</u> d. <u>Binding instruments of this Plan shall not include relocation or permanent shutdown of any repowered turbine.</u> 	

**TABLE ES-1 REVISED (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS OF PROJECT AND ALTERNATIVES**

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Biological Resources (cont.) Impact 4.4-1 (cont.)			
		<p>Mitigation Measure 4.4-1b. A post-construction avian monitoring program conducted by a qualified consultant approved by Contra Costa County shall be implemented for a period of 3 years (unless additional monitoring is required pursuant to the Adaptive Management Plan described below). The program shall use red-tailed hawk, golden eagles, American kestrels and burrowing owls (“Focal Raptor Species”) as benchmarks for evaluating the effectiveness of the overall repowering in reducing turbine-related avian mortality. The 3-year period shall begin on the commercial operation date of the Project. This monitoring program shall include:</p> <ul style="list-style-type: none"> i. Gathering post-construction data for the first 3 years of operation, including conducting and refining scavenger removal and searcher-detection trials to determine the most reliable methods for the search team to implement. ii. Monitoring avian use and behavior to explore how birds use the Project site, and how their behavior affects their risk for collision. iii. Publishing an annual monitoring report for the 3-year monitoring period, reporting the findings of post-construction monitoring and avian use. iv. A site-specific Adaptive Management Plan shall be prepared and implemented by the Applicant to guide studies and operations. Plan development and approval shall be coordinated with appropriate agencies including the County, CEC, USEFWS, and CDFG. The goal of the Adaptive Management Plan is to reduce avian mortality with the least impact on wind energy production by continually incorporating effective mitigation measures that are based on the best available science over the life of the Project. Binding instruments of this Plan could include: <ul style="list-style-type: none"> a. Specific percentage goal reductions in avian mortality on type-specific avian mortality, such as a reduction in overall raptor mortality or species-specific raptor mortality (i.e., specific to golden eagles, red-tailed hawks, American kestrels, and burrowing owls) achieved within a specified time period. The percentage goal reductions will be measured from APWRA-wide fatality per MW/year data, which are 2.2 raptors/MW/year and 7.5 birds/MW/year as reported by Smallwood and Karas (Smallwood and Karas, 2009). b. If the goals in Mitigation Measure 4.4-1(b)(iv)(1) are not achieved within 3 years, the following additional monitoring and/or mitigation steps shall be taken by the Applicant: <ul style="list-style-type: none"> — Seasonal shutdowns of individual turbines identified by data included in the annual monitoring reports required by Mitigation Measure 4.4-1(b)(iii) if, in the best professional judgment of the biologist approved by the County, annual fatality monitoring data identifies the need (e.g., 50 percent more raptor kills than other turbines), and identifies that it cannot be effectively met in any other fashion. — Extension of the 3-year monitoring period in 3-year increments. 	

**TABLE ES-1 REVISED (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS OF PROJECT AND ALTERNATIVES**

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Biological Resources (cont.)	Impact 4.4-3: Project operation would result in direct impacts on special-status and common bats.	<p>Mitigation Measure 4.4-3: The Applicant shall implement a pre- and post-construction bat monitoring program in accordance with the provisions of the 2010 Settlement Agreement and the following mitigation measures, which are based upon the California Bat Working Group Guidelines for Assessing and Minimizing Impacts to Bats at Wind Energy Development Sites in California (CBWG, 2006). These measures will help to mitigate the Project's effects on bats by addressing the data gaps that prevent adequate assessment of the Project's effects on bats, such as what bat species are using the APWRA and how they are using the Project area.</p> <p>a. Pre-construction surveys will be performed in the Project area. Bat investigations shall be conducted in the Project area by a qualified biologist to identify species that may be present in the immediate Project vicinity and in the existing and proposed rotor-swept zones, and to identify any maternal roosts. The qualified biologist shall be experienced in bat research and detection methods, and could employ such methods as acoustic surveys, use of image intensifiers and/or thermal imaging, and radar.</p> <p>b. Post-construction bat monitoring shall be conducted in the Project area and reported in accordance with the same terms and conditions as provided in Mitigation Measure 4.4-1b, but for bats, and with the following measures:</p> <ul style="list-style-type: none"> i. Post-Project monitoring shall utilize long-term acoustic monitoring equipment. The Applicant shall install and maintain in working order acoustic monitoring equipment for the duration of the survey period. ii. Post-construction fatality surveys shall be conducted throughout the Project area as directed by a qualified biologist. These surveys may be seasonal, or dependent upon an initial intense survey, as directed by the designing biologist. <p>c. The Applicant shall prepare and implement the same Adaptive Management Plan principles for bats that are being applied to avian species under Mitigation Measure 4.4-1b. Binding instruments of an adaptive management plan for bats could include, for example, increasing the cut-in speed of one or more turbines (curtailment) during times of increased bat activity.</p> <p>d. The Applicant shall strive to minimize operations-related impacts on common and special status bats by contributing to the body of knowledge on bat/turbine interactions by performing pre-construction and post-construction surveys, and post-construction monitoring within the Project area.</p> <p>e. Bat investigations shall be conducted in the Project area by a qualified biologist to identify species that may be present in the immediate Project vicinity and in the existing and proposed rotor-swept zones, and to identify any maternal roosts.</p> <p>f. Pre-construction surveys shall be performed in the Project area.</p> <p>g. Pre-construction and post-construction surveys shall be designed by a qualified biologist, experienced in bat research and detection methods, and could include acoustic surveys, use of image intensifiers and/or thermal imaging, and radar.</p> <p>h. Post-Project monitoring may include long-term acoustic monitoring equipment. The Applicant shall install and maintain in working order acoustic monitoring equipment for the duration of the survey period.</p>	Significant and Unavoidable

**TABLE ES-1 REVISED (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS OF PROJECT AND ALTERNATIVES**

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Biological Resources (cont.) Impact 4.4-3 (cont.)	<p>Impact 4.4-4: Project construction and operation would result in temporary and permanent impacts on California red-legged frog and California tiger salamander, including loss of upland aestivation habitat for these species.</p>	<p>f. Post construction fatality surveys shall be conducted throughout the Project area as directed by the designing biologist, but shall not exceed 90 monitoring days per year. These surveys may be seasonal or dependent upon an initial intense survey, as directed by the designing biologist.</p> <p>— A post construction monitoring program conducted by a qualified, County approved consultant shall be implemented for a period of 3 years (unless additional monitoring is required pursuant to the Adaptive Management Plan described below). The 3 year period shall begin on the commercial operation date of the Project. This monitoring program shall include:</p> <ul style="list-style-type: none"> • Gathering post construction data for the first 3 years of operation, including conducting and refining scavenger removal and searcher detection trials to determine the most reliable methods for the search team to implement; • Monitoring bat use and behavior to explore how bats use the Project site, and how their behavior affects their risk for collision; g. The Applicant shall prepare and implement the same Adaptive Management Plan principles for bats that are being applied to avian species under Mitigation Measure 4.4-1. 	Less than Significant
	Potentially Significant	<p>Mitigation Measure 4.4-4: The Applicant shall avoid or minimize take of individual California red-legged frogs and California tiger salamanders by implementing temporary protection measures before and during construction, and by providing habitat compensation and enhancement for permanent impacts.</p> <p>Construction Measures <u>Before Construction (i.e., before staging activities)</u></p> <ol style="list-style-type: none"> a. A Sensitive Species Relocation Plan shall be prepared at least 3 weeks before the start of groundbreaking, and submitted to Contra Costa County, USFWS and CDFG for review and approval. The purpose of the plan is to standardize relocation methods and relocation sites. b. The Applicant shall submit the name and credentials of a biologist qualified to act as construction monitor to Contra Costa County, USFWS and CDFG for review and approval at least 15 days before construction work begins. General minimum qualifications are a 4-year degree in biological sciences or other appropriate training and/or experience in surveying, identifying, and handling California tiger salamanders and California red-legged frogs. c. At least 15 days before work begins, the Applicant and its contractors shall install frog-exclusion fencing (i.e., silt fences) around all construction areas that are within 100 feet of potential California red-legged frog or California tiger salamander aquatic breeding habitat. d. The County-, USFWS- and CDFG-approved biologist shall survey the work sites no more than 2 weeks before the onset of construction. If California tiger salamanders or California red-legged frogs are found, the biologist shall inform the County and contact USFWS and CDFG to determine whether moving these individuals is appropriate. If USFWS and CDFG approve moving the animals, 	

**TABLE ES-1 REVISED (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS OF PROJECT AND ALTERNATIVES**

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Biological Resources (cont.) Impact 4.4-4 (cont.)		<p>then the Applicant shall allow the approved biologist sufficient time to move frogs and/or salamanders from the work sites before work begins. If these species are not identified, construction can proceed at these sites.</p> <p>e. To-be-reclaimed turbine pad areas shall be reviewed on a case-by-case basis, by a qualified biologist, to determine the presence and extent of burrow complexes. Survey results shall be provided to the County to inform the reclamation of turbine pad areas (further details are provided in "After Construction," below).</p> <p><u>During Construction</u></p> <p>f. Active work areas, including areas where construction equipment and materials are staged, shall be monitored during construction to identify, capture, and relocate sensitive amphibians, if present.</p> <p>g. The County-, USFWS- and CDFG-approved biologist shall use professional judgment to determine whether (and if so, when) the California tiger salamanders and/or California red-legged frogs are to be moved. The approved biologist shall have authority to halt construction work, if necessary, to avert avoidable take of listed species.</p>	
		<u>After Construction</u>	
		<p>h. Depending on the pre-construction survey results of to-be-reclaimed turbine pad areas, pads may be restored in a manner that achieves the benefits of reclamation while retaining the benefits of existing burrow-complex habitat.</p>	
		Other Measures	
		<p>1) The Applicant shall provide compensation for permanent impacts on California tiger salamander and California red-legged frog aestivation habitat at a 1:1 ratio (at least one square foot of compensation for each square foot of net impact) or a higher ratio if required by USFWS or CDFG during the permitting process. A "higher ratio" may result in a less than 1 square foot by 1 square foot replacement on the ground if higher quality habitat than that affected by the Project is obtained. Compliance with required mitigation ratios shall be verified by the USFWS and CDFG during Project permitting.</p>	
		<p>2) The Applicant shall provide compensation for temporary impacts on California tiger salamander and California red-legged frog aestivation habitat at a 1:1 ratio (at least one square foot of compensation for each square foot of net impact) or a higher ratio if required by USFWS or CDFG during the permitting process. Compliance with required mitigation ratios shall be verified by the USFWS and CDFG during Project permitting.</p>	
		<p>3) Suitable compensation consists of: (1) purchasing and enhancing suitable habitat, converting it to a conservation easement, and conveying the easement to a managing agency or institution in perpetuity; (2) participating in a resource agency-approved mitigation bank that provides offset mitigation credits for loss of California tiger salamander and California red-legged frog habitat; or (3) a combination of both.</p>	

**TABLE ES-1 REVISED (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS OF PROJECT AND ALTERNATIVES**

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Biological Resources (cont.)			
Impact 4.4-6: Project construction would have temporary and permanent impacts on potential San Joaquin kit fox habitat.	Potentially Significant	<p>Mitigation Measure 4.4-6b: To compensate for impacts on San Joaquin kit fox grassland habitat, the Applicant shall provide mitigation either through acquiring and dedicating lands into conservation easements or purchasing mitigation credits at compensation ratios that have been approved by USFWS and CDFG.</p> <p>a. The Applicant shall acquire San Joaquin kit fox mitigation lands based on anticipated impacts on up to 334.7 acres of suitable habitat (up to 121.4 acres of permanent impacts and up to 213.3 acres of temporary impacts). Mitigation ratios applied for impacts on San Joaquin kit fox habitat shall be 1:1 for temporary impacts and 1:1 for permanent impacts (at least one square foot of compensation for each square foot of net impact) or a higher ratio if required by USFWS or CDFG during the permitting process. A "higher ratio" may result in a less than 1 square foot by 1 square foot replacement on the ground if higher quality habitat than that affected by the Project is obtained. Compliance with required mitigation ratios shall be verified by the USFWS and CDFG during Project permitting.</p>	Less than Significant
Impact 4.4-9: Project construction activities could result in impacts on riparian habitat.	Potentially Significant	<p>Mitigation Measure 4.4-9: To reduce potential impacts on riparian habitat, the Applicant shall implement the following:</p> <p>a. Based on the documented distribution of riparian woodland and scrub habitat, Project design shall avoid and minimize impacts on these areas to the extent feasible.</p> <p>b. Where avoidance of riparian woodland and scrub habitat is not possible, the Applicant shall provide on-site compensation through habitat creation, enhancement, and preservation for temporary and permanent impacts.</p> <p>c. Mitigation for the permanent loss of riparian habitat shall be provided by on-site preservation and enhancement of riparian areas at a 1:1 ratio or a higher ratio if required by USFWS or CDFG during the permitting process. A "higher ratio" may result in a less than 1 square foot by 1 square foot replacement on the ground if higher quality habitat than that affected by the Project is obtained.</p>	Less than Significant
Impact 4.4-10: Project construction could affect potentially jurisdictional wetlands or waters, and streambeds and banks	Potentially Significant	<p>d. Riparian trees, if impacted and meeting the criteria set forth under Contra Costa County's Tree Preservation and Preservation Ordinance, shall be removed only with permit approval, and shall be mitigated in accordance with the ordinance.</p> <p>Mitigation Measure 4.4-10: To reduce the potential impact on jurisdictional wetlands or waters, and streambeds and banks, the following mitigation measures shall be implemented:</p> <p>a. Final Project design shall avoid and minimize the fill of wetlands and other waters to the greatest practicable extent.</p> <p>b. Areas that are avoided shall be subject to current Best Management Practices (BMPs) under the County's most recent General National Pollutant Discharge Elimination System Permit (NPDES), including implementation of an effective Stormwater Pollution Prevention Program (SWPPP), presence of an on-site spill kit, and installation of silt fences along/around construction areas to inhibit soil movement into wetland features.</p> <p>c. Where jurisdictional wetlands and other waters cannot be avoided, the following measures shall apply:</p>	Less than Significant

**TABLE ES-1 REVISED (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS OF PROJECT AND ALTERNATIVES**

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Biological Resources (cont.)			
Impact 4.4-10 (cont.)		<p>1) Construction activities in drainage channel crossings shall be limited to low-flow periods: approximately April 15 to October 15 to the extent practicable. Excavation and grading activities performed during the wet season (October 15 to April 30) shall be conducted in accordance with the conditions of Hydrology Mitigation Measure 4.10-3a. For channels or wetlands for which temporary soil removal is necessary, the top layer of the drainage or wetland bottom shall be stockpiled and preserved during construction. After Project construction, the stockpiled material shall be placed back into the drainage or wetland feature to return the beds to approximately their original composition.</p> <p>d. To offset temporary and permanent impacts that occur as a result of the Project, restoration and compensatory mitigation shall be provided through the following mechanisms:</p> <p>1) The square footage of impacted jurisdictional waters shall be determined based on the USACE-approved wetland delineation and during USACE permitting. The Applicant shall then purchase or dedicate land to provide for wetland preservation, restoration or creation at a 1:1 ratio, or a ratio acceptable to USACE and/or RWQCB. A "higher ratio" may result in a less than 1 square foot by 1 square foot replacement on the ground if higher quality habitat than that affected by the Project is obtained. On-site mitigation is preferred and shall be implemented where practical and feasible. Development rights to the on-site mitigation land shall be grant deeded to the County or another acceptable public agency.</p> <p>2) If the Applicant restores and/or creates wetlands on site, the Applicant shall prepare a wetland mitigation and monitoring plan. The plan, developed by a qualified biologist in coordination with USACE, CDFG, and/or RWQCB, shall detail mitigation and monitoring obligations for temporary and permanent impacts to wetlands and other waters as a result of construction activities. The plan shall quantify the total acreage lost and describe the following: mitigation ratios for lost habitat; annual success criteria; mitigation sites; monitoring and reporting requirements; and site-specific plans to compensate for wetland losses resulting from the Project.</p> <p>3) The Applicant shall submit the wetland mitigation and monitoring plan to the appropriate regulatory agencies for approval (e.g., USACE, CDFG, and/or RWQCB).</p>	
Cultural Resources			
<p>Impact 4.5-2: The Project could cause a substantial adverse change in the significance of a unique archaeological resource that are within the Project area, but have not yet been discovered.</p>	Potentially Significant	<p>Mitigation Measure 4.5-2a: Project personnel, including construction crews, shall be alerted to the archaeological sensitivity of the Project area and the importance of protecting cultural resources. Project personnel shall be required to attend a mandatory on-site instruction led by a qualified archaeologist and a Native American representative that discusses what types of cultural materials are and could be present in the Project area. The instruction shall include appropriate training to identify and protect cultural resources in the event that they are inadvertently unearthed. All Project personnel shall be informed that they are prohibited from entering the adjacent Vasco Caves Regional Preserve property owned by the East Bay Regional Park District and that entry onto said property constitutes trespassing, punishable by law. Information about the specific locations of the area's cultural resources on the Project site and in the surrounding area must shall be kept confidential and provided only on a need-to-know basis.</p>	Less than Significant

**TABLE ES-1 REVISED (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS OF PROJECT AND ALTERNATIVES**

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Geology and Soils			
Impact 4.7-4: Project implementation would expose people or structures to potential substantial adverse effects as a result of landslides.	Potentially Significant	<p>Mitigation Measure 4.7-4a: Site-Specific Slope Stability Evaluation. The Applicant shall perform a site-specific slope stability evaluation for project improvements that require grading or excavation in areas where slopes exceed 30 percent. The slope stability evaluation shall assess the localized potential for slope instability in these areas, and shall identify appropriate design and construction measures to incorporate into final project plans. The site-specific slope stability evaluation shall include, but not be limited to, the following measures:</p> <p>a. Where landslides are confirmed within or immediately adjacent to planned improvements, provide a slope stability evaluation for static and pseudo-static conditions. The approach utilized shall be consistent with the California Geological Survey, 2008, <i>Guidelines for Evaluating and Mitigating Seismic Hazards in California</i> (CGS Special Publication 117A) or other generally accepted methodology. The project geologic consultant shall explain the methodology used and justify the assumptions that are made regarding the engineering properties of soil, rock and saturation.</p> <p>b. The slope stability evaluation shall provide specific geotechnical design measures to achieve long-term stability. These shall include, but will not necessarily be limited to, corrective grading of landslides or colluvial wedges that present the potential to effect improvements. Additionally, standard practices such as minimizing the amount of grading required in areas that are deemed to be stable in their existing condition; installing adequate drainage; avoiding grading activities and excavations during and immediately following periods of heavy rainfall; geotechnical monitoring of slopes for stability during construction; minimizing the gradient of engineered slope; following natural topography; and, salvaging topsoil for use during final grading to facilitate revegetation, shall be implemented during construction.</p> <p>c. For construction requiring excavations, such as foundations, appropriate support and protection measures shall be implemented to maintain the stability of excavations and to protect construction worker safety. Where excavations are adjacent to existing structures, utilities, or other features that may be adversely affected by potential ground movements, bracing, underpinning, or other methods of support for the affected facilities shall be implemented. Measures to support and protect excavations shall be identified in the slope stability evaluation and shown on the construction plans.</p>	Less than Significant
Greenhouse Gas Emissions			
Impact 4.8-2: The Project could conflict with CARB's Climate Change Scoping Plan.	Potentially Significant	<p>Mitigation Measure 4.8-2: Low SF6 Leak Rate Circuit Breakers and Monitoring. Prior to issuance of building permits for the substitution, the Applicant shall ensure that the new circuit breaker installed at the proposed new substation has a guaranteed SF6 leak rate of 0.5 percent by volume or less. The Applicant shall provide Contra Costa County with documentation of compliance, such as specification sheets, prior to installation of the circuit breaker. In addition, the Applicant shall monitor the SF6-containing circuit breaker at the substation consistent with Scoping Plan Measure H-6 for the detection and repair of leaks.</p>	Less than Significant

**TABLE ES-1 REVISED (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS OF PROJECT AND ALTERNATIVES**

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Hydrology and Water Quality			
Impact 4.10-3: Project construction and operation could alter drainage patterns on site in a manner which could result in erosion, sedimentation, or flooding on site or off site.	Potentially Significant	Mitigation Measure 4.10-3b: Prior to issuance of grading or building permits and initiation of construction activities for the Project, the Applicant shall prepare complete a Drainage Management Plan. The plan shall be submitted to the Contra Costa County Flood Control and Water Conservation District for review and approval as part of the Flood Control District's issuance of a Drainage Permit, as required by the County's 1010 Drainage Ordinance. The and the Applicant shall be required to implement and adhere to the plan approved by the reviewing agency plan . The plan shall include measures necessary to ensure that stormwater drainage from the proposed roadways, new substation, and other facilities is channeled into appropriately-sized drainage ditches, channels, culverts, stormwater retention ponds, and/or stormwater infiltration facilities. The plan shall require that all new or modified facilities are designed so as to ensure no net increase in stormwater discharge rates, flow velocities, or sediment transport would result from Project implementation, and that discharges from these facilities are designed so as to avoid concentrating of flow and subsequent downstream scouring or sedimentation. Proposed roadways shall be designed so as to ensure that potential for slope failure and erosion is minimized. The Drainage Management Plan shall be incorporated into all design drawings and specifications as appropriate.	Less than Significant
Noise			
Impact 4.13-2: Project construction and decommissioning activities would temporarily increase local ambient noise levels.	Potentially Significant	Mitigation Measure 4.13-2: The Applicant construction contractor(s) shall schedule prohibit all nighttime deliveries at Gate 5 to ensure a free flow of truck traffic. Trucks making nighttime deliveries at Gate 5 shall proceed directly into the Project site without stopping, idling, or queuing on any portion of on-site access roads within 4,000 feet of residences. Use of compression release engine brakes (also known as "Jake brakes") shall be prohibited within 4,000 feet of any residence. In addition, all on-site nighttime delivery routes shall be planned in a fashion that would eliminates the need for delivery trucks to drive in reverse, thereby in order to eliminate after hours back-up alarm soundings. For example, the nighttime delivery drop-off staging area shall include an access road loop and all drivers shall be instructed to use the loop as opposed to to not driving in reverse at the staging area.	Less than Significant
Transportation/Traffic			
Impact 4.17-1: Project construction activities would intermittently and temporarily increase traffic congestion on area roadways due to vehicle trips generated by construction workers and construction vehicles.	Potentially Significant	Mitigation Measure 4.17-1: Prior to the start ing of construction-related activities, the Applicant shall prepare and implement a Traffic Management and Safety Plan that will reduce or eliminate impacts associated with the Project. The plan shall adhere to Contra Costa County and Caltrans requirements, and must be submitted for the review and approval of the Contra Costa County Public Works Department prior to implementation. In preparing this plan, the Applicant shall take into account the cumulative traffic impacts of the overlapping construction schedules of the Contra Costa County's Vasco Road Safety Improvements Project, the Tres Vaqueros Windfarm Project, and any other projects in the area that	Less than Significant

**TABLE ES-1 REVISED (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS OF PROJECT AND ALTERNATIVES**

Environmental Impact	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
Transportation/Traffic (cont.)	<p>Impact 4.17-2: Project construction activities could substantially increase traffic hazards due to construction in or adjacent to roads or due to possible road wear.</p>	<p>Mitigation Measure 4.17-2a: Where needed to maintain safe driving conditions, traffic control devices and procedures shall be installed/implemented as specified in Caltrans' California Manual on Uniform Traffic Control Devices, Part 6: Temporary Traffic Control. The Applicant shall submit a plan for temporary traffic control to the Contra Costa County Public Works Department for review and approval prior to implementation. This plan may be part of the Traffic Management and Safety Plan required by Mitigation Measure 4.17.1. If directed to do so by any agency that has jurisdiction over a right-of-way that would be impacted by the Project, the Applicant shall submit a temporary traffic control plan or its equivalent to that agency for review and approval.</p> <p>Mitigation Measure 4.17-2b: The Applicant shall be responsible for repairing all damage to Contra Costa County and Alameda County roads resulting from construction activities. Prior to issuance of grading, building, or encroachment permits, the Applicant shall prepare a plan for mitigating construction-related road damage within both counties. The plan shall be submitted for the review and approval of the Contra Costa County <u>Public Works Department</u> Zoning Administrator and shall include, at minimum, the following elements:</p> <p>Part A - Haul Routes. Indicate roads to be used as haul routes. An exhibit shall be provided that shows haul routes and county lines.</p> <p>Part B - Road Survey and Monitoring. Perform pre- and post-construction surveys of the approved haul routes in order to document their condition before and after Project construction. Monitor roads during Project construction to identify any damage that requires immediate repair.</p> <p>Part C - Financial Security. Provide a security, such as a bond or other acceptable instrument, to ensure that funding is available to undertake any necessary road repairs. The Applicant shall calculate the amount of the required security and submit the calculation to the Contra Costa County <u>Public Works Department</u> Zoning Administrator for review and approval.</p> <p>Mitigation Measure 4.17-2c: If any severe road damage results from construction activities, especially damage that would make the impacted road unsafe to the public, then the Applicant shall complete necessary repairs immediately, per the direction of either the Contra Costa County or <u>Alameda County Public Works Department</u> or Alameda County, depending on the agency having who has jurisdiction over the damaged road segment. Emergency road repairs shall be completed at the Applicant's expense. Any potentially hazardous road segment must be flagged until the road is repaired.</p>	Less than Significant

3.3.3 Chapter 2, Summary of Environmental Impacts

See FEIR Section 3.3.1 for changes to Table 2-1, *Summary of Environmental Impacts of Project and Alternatives*, above.

3.3.4 Chapter 3, Project Description

In response to a County staff-initiated text change to correct a typographical error, paragraph 2, sentence 1 of DEIR Section 3.1.1, Introduction (p. 3-1), is revised as follows:

The Project would repower the existing wind energy facility, Altamont Power, by decommissioning and removing all 438 existing wind ~~turbine turbines~~ generators (WTGs) on the site.

In response to California Fish and Game Comment 3-10, sentence 2 of DEIR Section 3.3.2, under the subheading Wind Turbine Generators (p. 3-12) is revised as follows:

The Siemens Layout includes ~~44~~ 42 potential WTG locations, ~~nine seven~~ of which are optional: only up to 35 Siemens WTGs actually would be constructed.

In response to information provided by the Applicant after the DEIR was issued (CH2M HILL, 2011), the third-to-last sentence of paragraph 1 of DEIR Section 3.4.7, Water and Wastewater Needs (p. 3-29), is revised as follows:

Project construction would require up to approximately ~~50~~ 40 million gallons (~~153.5~~ 30.7 acre-feet) of water for this purpose.

3.3.5 Chapter 4, Environmental Setting, Impacts and Mitigation Measures

4.1 Aesthetics

In response to East Bay Regional Park District Comment 2-3, sentence 1 of Mitigation Measure 4.1-1b (p. 4.1-35) has been clarified/amplified as follows:

Mitigation Measure 4.1-1b: All laydown areas visible from the Vasco Cave tour route shall be visually screened using 12-foot tall temporary fencing. Fencing shall incorporate aesthetic treatment through use of appropriate, nonreflective materials, such as chain link fence with light brown or green vinyl slats. The Applicant shall submit final construction plans demonstrating compliance with this measure to the County Zoning Administrator for review and approval at least 30 days prior to issuance of grading or building permits.

In response to California Department of Transportation Comment 7-1, the first paragraph in DEIR Section 4.1.2.1's discussion of Impact 4.1-4 (p. 4.1-42) has been clarified as follows:

As indicated above in the discussion of the Project's visual setting, there are no State-designated scenic highways with views of the Project. Thus, there would be no impact within a State-designated scenic highway. However, there are numerous County-designated scenic highways and routes in the vicinity of the Project, as well as an eligible State Scenic Highway. As indicated above in the discussed of the visual setting, Vasco Road and SR 4 are County-designated scenic highways and expressways, and Byron Highway and Morgan Territory Road are County-designated scenic routes. In Alameda County, I-580 is an eligible State Scenic Highway. New visual intrusions in views from State Eligible Scenic Highways could impact their future designation as Scenic Highways. The following viewpoint analysis assesses the impacts to views from these scenic highways and routes. As indicated below, the features proposed by the Project would not appear as substantial new visual intrusions in views from SR 4 and I-580.

4.2 Agriculture and Forestry Resources

No change.

4.3 Air Quality

DEIR Table 4.3-3 (p. 4.3-14) is revised as indicated below in response to information provided by the Applicant after the DEIR was issued (CH2M HILL, 2011). Revisions reflect the following updated emissions considerations: Under the BBID construction water scenario, up to 65 water tanker truck trips per day would occur during the peak of construction, and it is assumed that a total of approximately 5,850 water tanker truck trips would be required for duration of construction activities. The amount of proposed on-site water trucks also has increased from two to 13. In addition, it is anticipated that four 71 hp diesel-powered pumps would be required at the on-site water storage site and one 71 hp diesel-powered pump would be required at the canal extraction site.

The increased emissions that would occur due to the trips and equipment use that would be required as a result of the proposed water usage revision assumptions have been estimated and are presented below. Table 4.3-3 on DEIR page 4.3-3 is revised as follows to reflect the updated emission estimates. See Revised Appendix C for all revisions to the construction estimates, which are highlighted due to spreadsheet underline and ~~strikeout~~ constraints.

As shown in Revised Table 4.3-3, all emissions would increase due to the Project revisions; however, emissions of CO, PM10, and PM2.5 would continue to be less than significant. The emissions of ROG and NOx would increase by 31 and 27 percent, respectively. These increases alone would not be considered substantial; however, ROG emissions would increase to the point that DEIR Mitigation Measure 4.3-2b would not be effective in reducing the emissions to below the BAAQMD significance threshold.

**TABLE 4.3-3 REVISED
PROJECT CONSTRUCTION EXHAUST EMISSIONS ESTIMATES FOR THE BAY AREA**

Construction Activity	Estimated Average Daily Emissions (pounds/day)				
	ROG	NOx	CO	PM10	PM2.5
Existing Turbine Removal and Restoration of Turbine Sites	11.77	108.80	36.48	4.02	3.69
Road, Pad, and Collector Line Construction	29.84 <u>45.07</u>	283.32 <u>411.48</u>	92.73 <u>141.04</u>	40.62 <u>16.57</u>	9.68 <u>15.25</u>
Concrete Batch Plant	1.55	18.08	5.15	0.57	0.53
Turbine Installation	3.88	36.12	12.23	1.33	1.23
Restoration of Temporary Roads and Temporary Disturbance Areas	3.42	33.31	10.31	1.20	1.11
Off-site Vehicle Trips	8.54 <u>11.66</u>	85.79 <u>110.38</u>	65.84 <u>92.52</u>	3.92 <u>5.01</u>	3.64 <u>4.61</u>
Total Average Emissions in Bay Area	58.94 <u>77.36</u>	565.42 <u>718.17</u>	222.75 <u>297.73</u>	24.56 <u>28.71</u>	49.84 <u>26.41</u>
BAAQMD Significance Threshold	54	54	NA	82	54
Significant Impact?	Yes	Yes	No	No	No

NOTES: Project construction emissions estimates were made using CARB's Offroad 2007 and EMFAC 2007 emission models. Equipment numbers and types are based on information provided by the Applicant and experience of the consultant. See Appendix C for details.

Therefore, Mitigation Measure 4.3-2b (DEIR, p. 4.3-15) is revised as follows to ensure that the short-term construction ROG emissions impact would continue to be mitigated to a less-than-significant level. The scope of Mitigation Measure 4.3-2b has expanded to include on-road heavy-duty trucks to ensure that the ROG and NOx emission increases that would be associated with the Project revisions would not be substantial.

Mitigation Measure 4.3-2b: The Applicant shall reduce construction-related air pollutant emissions by implementing measures based on BAAQMD's additional construction mitigation measures. The Applicant shall require all contractors to comply with the following requirements for all areas with active construction activities:

- All excavation, grading, and/or demolition activities shall be suspended when average ground level wind speeds exceed 20 miles per hour.
- Wind breaks (e.g., fences) shall be installed on the windward side(s) of actively disturbed areas of construction. Wind breaks should have a maximum 50 percent air porosity.
- Vegetative ground cover shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established. The seed mix and plant varieties must be approved by the County Zoning Administrator prior to planting.
- A wash-off station shall be established at each Project exit point. All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
- Site accesses to a distance of 100 feet from the paved road shall be treated with a six to 12 inch compacted layer of wood chips, mulch, or gravel.

- Consistent with the approved Storm Water Pollution Prevention Plan, sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.
- The idling time of diesel-powered construction equipment shall be limited to two minutes.
- For off-road construction equipment of more than 50 horsepower and all on-road heavy-duty trucks, the Applicant shall ensure achievement of a Project-wide fleet-average ~~40~~ 30 percent ROG reduction and 20 percent NO_x reduction compared to the most recent CARB fleet average. A plan to achieve these reductions shall be submitted to Contra Costa County for review and approval prior to commencement of construction activities. Construction activities cannot commence until the plan has been approved. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as such become available.

To reflect the new requirements of Mitigation Measure 4.3-2b, the impact determination on DEIR page 4.3-16 is revised as follows.

Level of Impact Significance after Mitigation: Implementation of Mitigation Measures 4.3-2a and 4.3-2b would ensure that impacts related to fugitive dust emissions would be less than significant. It is estimated that implementation of these mitigation measures would reduce total ROG and NO_x exhaust emissions identified in Table 4.3-3 by up to approximately ~~40~~ 30 percent and 20 percent, respectively. Therefore, Project emissions would be reduced to below the ROG significance threshold, but would not be reduced to below the NO_x significance level. The ROG impact would be mitigated to a less-than-significant level and the NO_x impact would remain significant and unavoidable.

As mentioned above, it is assumed that one 71 hp diesel-powered pump would be required at the canal extraction site. The closest residence to the canal extraction site is located on the south side of Camino Diablo Road, at a distance of approximately 100 feet. To reflect this new short-term emission source, the following no impact discussion in Section 4.3.5 on DEIR page 4.3-12 related to exposing sensitive receptors to substantial pollutant concentrations has been removed.

~~d) The Project would not expose sensitive receptors to substantial pollutant concentrations.~~

~~Long term operations that would be associated with the Project would result in no new emissions. Construction activities would generate air pollutant emissions, including suspended and inhalable particulate matter as well as equipment exhaust emissions. However, construction activities would occur over a relatively short period of approximately 10 months and associated emissions would be spatially dispersed over the approximately 4,267-acre Project site. In addition, the closest sensitive receptor to the Project site is a residence located approximately 3,400 feet east of a string of existing turbines to be removed. Therefore, Project related construction emissions would be sufficiently diluted at the nearest sensitive receptor location. There would be no impacts related to the Project exposing sensitive receptors to substantial pollutant concentrations.~~

The following impact discussion has been added to Section 4.3.6 (DEIR, p. 4.3-17) to disclose the potential impacts to sensitive receptors related to the proposed use of the 71 hp diesel pump at the construction water extraction location.

Impact 4.3-4: The Project may expose sensitive receptors to short-term construction pollutant emissions. (Less-than-Significant Impact)

Long-term operation of the Project would result in no new emissions. Construction activities would generate air pollutant emissions, including diesel particulate matter (DPM), which is considered to be a toxic air contaminant. Construction activities would occur over a relatively short period of approximately 10 months and the closest sensitive receptor to the wind energy facility Project site is a residence located approximately 3,400 feet east of a string of existing turbines to be removed. The Project would require the operation of one 71 hp diesel pump at the construction water extraction point along Camino Diablo Road, which would be located at a distance of approximately 100 feet from the nearest residence. Diesel operated water tanker trucks that would be filled at the extraction point would be turned off as soon as they would be in position to begin pumping.

Although operation of the diesel pump would be temporary, it would constitute a new source of emissions and therefore would be subject to the requirements of BAAQMD Rules and Regulations, particularly Regulation 2: Permits; Rule 1: General Requirements; Rule 2: New Source Review; and Rule 5: New Source Review of Toxic Air Contaminants. Operations of the diesel pump also would be required to comply with the BAAQMD-administrated statewide air toxic control measures (ATCM) for Stationary Diesel Engines (CARB, 2008). The proposed diesel pump would be required to adhere to the more stringent of the following operating requirements and particulate matter (PM) emission standards:

- Diesel PM limit of ≤ 0.01 grams per break horsepower hour (g/bhp-hr); or
- Off-Road Engine Certification Standard for an off-road engine of the same horsepower rating.

It is anticipated that the 71 hp diesel pump would operate up to 9 hours per day, 5 days a week, for approximately 8 months. Given the anticipated relatively short period of potential exposure, the relatively low pump hp rating, and the required adherence to BAAQMD Rules and Regulations, including compliance with statewide ATCM for Stationary Diesel Engines, TAC emissions that would be associated with the diesel pump would be sufficiently diluted and would not be substantial at the nearest residential locations. Therefore, impacts associated with the short-term use of the diesel pump at the construction water extraction location would be less than significant.

4.4 Biological Resources

In response to a County staff-initiated text change to correct an editorial error (incorrect numbering of a Chapter 4 subsection) in the DEIR, page 4.4-6, line 1 is revised as follows:

4.4.2.23 Regulatory Setting

In response to East Bay Regional Park District Comment 2-11, DEIR Section 4.4.2.3 (p. 4.4-11), which summarizes the terms of the 2010 Settlement Agreement, is revised as follows:

NextEra will also pay approximately \$2.5 million in mitigation fees, half to the California Energy Commission's Public Integrated Energy Research Program and half to East Bay Regional Park District ~~or and~~ the Livermore Area Regional Park District for conservation efforts for the benefit of those bird and bat species and their habitat ~~raptor habitat creation.~~

In response to a County staff-initiated text change to correct an editorial error (the incomplete deletion of a measure determined by the County to be infeasible) in the DEIR, page 4.4-39, paragraph 3, sentence 1 is revised as follows:

~~Implementation of General Biological Resources Mitigation Measure 18 and implementation~~ of the mitigation measures below ~~is~~ are likely to reduce avian mortality relative to the Project as proposed; however, in light of uncertainty about their effectiveness, impacts to avian species would remain significant and unavoidable.

DCD received multiple requests to revise Mitigation Measure 4.4-1b, concerning post-construction avian monitoring program, to emphasize its consistency with the 2010 Settlement Agreement, to identify possible adaptive management responses that could be implemented in accordance with an adaptive management plan for the Project (see, e.g., Save Mount Diablo Comments 6-16 and 6-17), to require the submittal of requisite monitoring reports to the Altamont Pass Wind Resource Area Scientific Review Committee (see, Save Mount Diablo Comment 6-26), and to require data to be reported in a specified way (see, Save Mount Diablo Comment 6-43). An analysis of the consistency between Mitigation Measure 4.4-1b and the 2010 Agreement is provided in FEIR Master Response 2.2.2, Biological Resources. Accordingly, Mitigation Measure 4.4-1b (DEIR, p. 4.4-40 et seq.) is revised as follows:

Mitigation Measure 4.4-1b: The Applicant shall implement a post-construction avian monitoring program consistent with and in accordance with the provisions of the 2010 Settlement Agreement, as follows:

- i. The post-construction monitoring program shall use red-tailed hawks, golden eagles, American kestrels and burrowing owls (“Focal Raptor Species”) and bats as benchmarks for evaluating the effectiveness of the overall Project repowering in reducing turbine-related mortality and informing and updating future siting analyses. The post-construction monitoring program shall commence no later than three (3) months after the commercial operation date of the Project.
- iii. The post-construction monitoring program shall be 3 years in duration. Following the 3 years of post-construction monitoring, 2 years of further monitoring shall commence on the 10th anniversary of the Project’s commercial operation date. The initial 3-year monitoring period and the subsequent 2-year monitoring period together shall constitute the post-construction monitoring period.
- iv. The monitoring program shall be conducted by a qualified consultant (“Monitor”) approved by Contra Costa County.

- v. Post-construction monitoring shall include collecting field data on behavior, utilization and distribution patterns of affected avian species in addition to fatalities and shall report data in aggregated and by-turbine by-month formats.
- vi. The program shall monitor each repowered turbine at least once per month for the duration of the post-construction monitoring period for fatalities of the Focal Raptor Species and all other bird species, as recommended by the Contra Costa County Technical Advisory Committee (TAC) or an equivalent entity, which will be convened by the County for this purpose. The Applicant shall monitor a subset (30 percent) of the repowered turbines at least twice per month for the duration of the post-construction monitoring period for fatalities and bird utilization and behavior.
- vii. The Monitor shall prepare interim, annual monitoring reports and submit them to Contra Costa County and the Altamont Pass Wind Resource Area Scientific Review Committee (APWRA SRC) within 3 months of completing each year of post-construction monitoring, and shall prepare and submit a final 3-year Monitoring Report within 6 months of completing 3 years of post-construction monitoring and a final 2-year Monitoring Report within 6 months of completing 2 years of post-construction monitoring. All monitoring reports shall report adjusted and unadjusted annual fatalities for the Focal Raptor Species and all other bird species on a per-turbine and per megawatt basis. Monitoring reports also shall summarize the results of the bird behavior and use studies for the preceding 1 or 3 years, as applicable.
- viii. Adaptive Management Plan: Contra Costa County will review the final three (3) year Monitoring Report for the Project to evaluate whether any repowered turbines are causing significantly disproportionate Focal Raptor and/or bat fatalities relative to other turbines. If one or more turbines are causing significantly disproportionate Focal Raptor or bat fatalities, then Contra Costa County may, in consultation with the TAC, consider additional focused monitoring and/or management measures designed to reduce the fatalities attributable to those turbines, with the least impact on wind energy production, by continually incorporating effective mitigation measures that are based on the best available science over the life of the Project. Binding instruments of this Plan could include:
- a. Specific percentage-goal reductions in avian mortality or type-specific avian mortality, such as a reduction in overall raptor mortality or species-specific raptor mortality achieved within a specified time period. The percentage-goal reductions will be measured from APWRA-wide fatality per MW/year data, which, as reported by Smallwood and Karas (Smallwood and Karas, 2009) are 2.2 raptors/MW/year and 7.5 birds/MW/year.
- b. Seasonal or weather condition-specific shutdowns of individual turbines identified by data included in the annual monitoring reports required by Mitigation Measure 4.4-1(b)(iii) if, in the best professional judgment of the biologist approved by the County, annual fatality monitoring data identifies the need (e.g., 50 percent more raptor kills than other turbines), and identifies that it cannot be effectively met in any other fashion.
- c. Extension of the 3-year monitoring period in 3-year increments.

- d. Binding instruments of this Plan shall not include relocation or permanent shutdown of any repowered turbine.

~~**Mitigation Measure 4.4-1b:** A post-construction avian monitoring program conducted by a qualified consultant approved by Contra Costa County shall be implemented for a period of 3 years (unless additional monitoring is required pursuant to the Adaptive Management Plan described below). The program shall use red-tailed hawks, golden eagles, American kestrels and burrowing owls (“Focal Raptor Species”) as benchmarks for evaluating the effectiveness of the overall repowering in reducing turbine-related avian mortality. The 3-year period shall begin on the commercial operation date of the Project. This monitoring program shall include:~~

- i. ~~Gathering post-construction data for the first 3 years of operation, including conducting and refining scavenger removal and searcher-detection trials to determine the most reliable methods for the search team to implement.~~
- ii. ~~Monitoring avian use and behavior to explore how birds use the Project site, and how their behavior affects their risk for collision.~~
- iii. ~~Publishing an annual monitoring report for the 3-year monitoring period, reporting the findings of post-construction monitoring and avian use.~~
- iv. ~~A site-specific Adaptive Management Plan shall be prepared and implemented by the Applicant to guide studies and operations. Plan development and approval shall be coordinated with appropriate agencies including the County, CEC, USFWS, and CDFG. The goal of the Adaptive Management Plan is to reduce avian mortality with the least impact on wind energy production by continually incorporating effective mitigation measures that are based on the best available science over the life of the Project. Binding instruments of this Plan could include:

 - a. ~~Specific percentage goal reductions in avian mortality or type-specific avian mortality, such as a reduction in overall raptor mortality or species-specific raptor mortality (i.e., specific to golden eagles, red-tailed hawks, American kestrels, and burrowing owls) achieved within a specified time period. The percentage goal reductions will be measured from APWRA-wide fatality per MW/year data, which are 2.2 raptors/MW/year and 7.5 birds/MW/year as reported by Smallwood and Karas (Smallwood and Karas, 2009).~~
 - b. ~~If the goals in Mitigation Measure 4.4-1(b)(iv)(1) are not achieved within 3 years, the following additional monitoring and/or mitigation steps shall be taken by the Applicant:

 - ~~Seasonal shutdowns of individual turbines identified by data included in the annual monitoring reports required by Mitigation Measure 4.4-1(b)(iii) if, in the best professional judgment of the biologist approved by the County, annual fatality monitoring data identifies the need (e.g., 50 percent more raptor kills than other turbines), and identifies that it cannot be effectively met in any other fashion.~~
 - ~~Extension of the 3-year monitoring period in 3-year increments.~~~~~~

In response to a County staff-initiated text change to correct an editorial error (incomplete deletion of a measure determined by the County to be infeasible) in the DEIR, page 4.4-46, paragraph 5, sentence 1 is revised as follows:

Implementation of General Biological Resources Mitigation Measure 18 along with ~~implementation~~ of the following specific mitigation measure would likely reduce Project impacts on bats; however, in the absence of site-specific monitoring data following repowering, it cannot be ascertained whether the expected reductions would reduce the impact to a less-than-significant level.

DCD received multiple requests to revise Mitigation Measure 4.4-3, concerning Project-related impacts to bats, to emphasize its consistency with the 2010 Settlement Agreement and to identify possible adaptive management responses that could be implemented in accordance with an adaptive management plan for the Project (see, e.g., California Department of Fish and Game Comment 3-6). An analysis of the consistency between Mitigation Measure 4.4-3 and the 2010 Agreement is provided in FEIR Master Response 2.2.2, Biological Resources. Accordingly, Mitigation Measure 4.4-3 (DEIR, p. 4.4-47) is revised as follows:

Mitigation Measure 4.4-3: The Applicant shall implement a pre- and post-construction bat monitoring program in accordance with the provisions of the 2010 Settlement Agreement. ~~the following mitigation~~ The measures ~~also, which~~ are based upon the California Bat Working Group *Guidelines for Assessing and Minimizing Impacts to Bats at Wind Energy Development Sites in California* (CBWG, 2006). These measures will help to mitigate the Project's effects on bats by addressing the data gaps that prevent adequate assessment of the Project's effects on bats, such as what bat species are using the APWRA and how they are using the Project area.

- a. Pre-construction surveys will be performed in the Project area. Bat investigations shall be conducted in the Project area by a qualified biologist to identify species that may be present in the immediate Project vicinity and in the existing and proposed rotor-swept zones, and to identify any maternal roosts. The qualified biologist will be experienced in bat research and detection methods, and could include acoustic surveys, use of image intensifiers and/or thermal imaging, and radar.
- b. Post-construction bat monitoring will be conducted in the Project area and reported in accordance with the same terms and conditions as provided in Mitigation Measure 4.4-1b, but for bats, and with the following measures:
 - i. Post-Project monitoring may include long-term acoustic monitoring equipment. The Applicant shall install and maintain in working order acoustic monitoring equipment for the duration of the survey period.
 - ii. Post-construction fatality surveys shall be conducted throughout the Project area as directed by the designing biologist. These surveys may be seasonal, or dependent upon an initial intense survey, as directed by the designing biologist.
- c. ~~g.~~ The Applicant shall prepare and implement the same Adaptive Management Plan principles for bats that are being applied to avian species under Mitigation Measure 4.4-1b. Binding instruments of an adaptive management plan for bats could include,

for example, increasing the cut-in speed of one or more turbines (curtailment) during times of increased bat activity.

- a. ~~The Applicant shall strive to minimize operations-related impacts on common and special-status bats by contributing to the body of knowledge on bat/turbine interactions by performing pre-construction and post-construction surveys, and post-construction monitoring within the Project area.~~
- b. ~~Bat investigations shall be conducted in the Project area by a qualified biologist to identify species that may be present in the immediate Project vicinity and in the existing and proposed rotor-swept zones, and to identify any maternal roosts.~~
- c. ~~Pre-construction surveys shall be performed in the Project area.~~
- d. ~~Pre-construction and post-construction surveys shall be designed by a qualified biologist, experienced in bat research and detection methods, and could include acoustic surveys, use of image intensifiers and/or thermal imaging, and radar.~~
- e. ~~Post-Project monitoring may include long-term acoustic monitoring equipment. The Applicant shall install and maintain in working order acoustic monitoring equipment for the duration of the survey period.~~
- f. ~~Post-construction fatality surveys shall be conducted throughout the Project area as directed by the designing biologist, but shall not exceed 90 monitoring days per year. These surveys may be seasonal, or dependent upon an initial intense survey, as directed by the designing biologist.~~

~~A post-construction monitoring program conducted by a qualified, County-approved consultant shall be implemented for a period of 3 years (unless additional monitoring is required pursuant to the Adaptive Management Plan described below). The 3-year period shall begin on the commercial operation date of the Project. This monitoring program shall include:~~

- ~~Gathering post-construction data for the first 3 years of operation, including conducting and refining scavenger removal and searcher-detection trials to determine the most reliable methods for the search team to implement.~~
- ~~Monitoring bat use and behavior to explore how bats use the Project site, and how their behavior affects their risk for collision.~~

- g. ~~The Applicant shall prepare and implement the same Adaptive Management Plan principles for bats that are being applied to avian species under Mitigation Measure 4.4-1.~~

In response to the Applicant's request in Comment 5-12 for clarification that the 1:1 mitigation ratio in Mitigation Measure 4.4-4(1) on DEIR page 4.4-53 includes the concept of equivalent habitat value, this mitigation measure is revised as follows:

Mitigation Measure 4.4-4: The Applicant shall avoid or minimize take of individual California red-legged frogs and California tiger salamanders by implementing temporary protection measures before and during construction, and by providing habitat compensation and enhancement for permanent impacts.

Construction Measures

Before Construction (i.e., before staging activities)

- a. A Sensitive Species Relocation Plan shall be prepared at least 3 weeks before the start of groundbreaking, and submitted to Contra Costa County, USFWS and CDFG for review and approval. The purpose of the plan is to standardize relocation methods and relocation sites.
- b. The Applicant shall submit the name and credentials of a biologist qualified to act as construction monitor to Contra Costa County, USFWS and CDFG for review and approval at least 15 days before construction work begins. General minimum qualifications are a 4-year degree in biological sciences or other appropriate training and/or experience in surveying, identifying, and handling California tiger salamanders and California red-legged frogs.
- c. At least 15 days before work begins, the Applicant and its contractors shall install frog-exclusion fencing (i.e., silt fences) around all construction areas that are within 100 feet of potential California red-legged frog or California tiger salamander aquatic breeding habitat.
- d. The County-, USFWS- and CDFG-approved biologist shall survey the work sites no more than 2 weeks before the onset of construction. If California tiger salamanders or California red-legged frogs are found, the biologist shall inform the County and contact USFWS and CDFG to determine whether moving these individuals is appropriate. If USFWS and CDFG approve moving the animals, then the Applicant shall allow the approved biologist sufficient time to move frogs and/or salamanders from the work sites before work begins. If these species are not identified, construction can proceed at these sites.
- e. To-be-reclaimed turbine pad areas shall be reviewed on a case-by-case basis, by a qualified biologist, to determine the presence and extent of burrow complexes. Survey results shall be provided to the County to inform the reclamation of turbine pad areas (further details are provided in “After Construction,” below).

During Construction

- f. Active work areas, including areas where construction equipment and materials are staged, shall be monitored during construction to identify, capture, and relocate sensitive amphibians, if present.
- g. The County-, USFWS- and CDFG-approved biologist shall use professional judgment to determine whether (and if so, when) the California tiger salamanders and/or California red-legged frogs are to be moved. The approved biologist shall have authority to halt construction work, if necessary, to avert avoidable take of listed species.

After Construction

- h. Depending on the pre-construction survey results of to-be-reclaimed turbine pad areas, pads may be restored in a manner that achieves the benefits of reclamation while retaining the benefits of existing burrow-complex habitat.

Other Measures

- 1) The Applicant shall provide compensation for permanent impacts on California tiger salamander and California red-legged frog aestivation habitat at a 1:1 ratio (at least

one square foot of compensation for each square foot of net impact) or a higher ratio if required by USFWS or CDFG during the permitting process. A “higher ratio” may result in a less than 1 square foot by 1 square foot replacement on the ground if higher quality habitat than that affected by the Project is obtained. Compliance with required mitigation ratios shall be verified by the USFWS and CDFG during Project permitting.

- 2) The Applicant shall provide compensation for temporary impacts on California tiger salamander and California red-legged frog aestivation habitat at a 1:1 ratio (at least one square foot of compensation for each square foot of net impact) or a higher ratio if required by USFWS or CDFG during the permitting process. Compliance with required mitigation ratios shall be verified by the USFWS and CDFG during Project permitting.
- 3) Suitable compensation consists of: (1) purchasing and enhancing suitable habitat, converting it to a conservation easement, and conveying the easement to a managing agency or institution in perpetuity; (2) participating in a resource agency-approved mitigation bank that provides offset mitigation credits for loss of California tiger salamander and California red-legged frog habitat; or (3) a combination of both.

The Applicant’s request in Comment 5-12 for clarification of the 1:1 mitigation ratio with respect to the concept of equivalent habitat value is equally applicable to other mitigation measures that include this language. Accordingly, Mitigation Measure 4.4-6b (DEIR, p. 4.4-58), Mitigation Measure 4.4-9 (DEIR, p. 4.4-65) and Mitigation Measure 4.4-10 (DEIR, p. 4.4-68) are revised as follows:

Mitigation Measure 4.4-6b: To compensate for impacts on San Joaquin kit fox grassland habitat, the Applicant shall provide mitigation either through acquiring and dedicating lands into conservation easements or purchasing mitigation credits at compensation ratios that have been approved by USFWS and CDFG.

- a. The Applicant shall acquire San Joaquin kit fox mitigation lands based on anticipated impacts on up to 334.7 acres of suitable habitat (up to 121.4 acres of permanent impacts and up to 213.3 acres of temporary impacts). Mitigation ratios applied for impacts on San Joaquin kit fox habitat shall be 1:1 for temporary impacts and 1:1 for permanent impacts (at least one square foot of compensation for each square foot of net impact) or a higher ratio if required by USFWS or CDFG during the permitting process. A “higher ratio” may result in a less than 1 square foot by 1 square foot replacement on the ground if higher quality habitat than that affected by the Project is obtained. Compliance with required mitigation ratios shall be verified by the USFWS and CDFG during Project permitting.

Mitigation Measure 4.4-9: To reduce potential impacts on riparian habitat, the Applicant shall implement the following:

- a. Based on the documented distribution of riparian woodland and scrub habitat, Project design shall avoid and minimize impacts on these areas to the extent feasible.
- b. Where avoidance of riparian woodland and scrub habitat is not possible, the Applicant shall provide on-site compensation through habitat creation, enhancement, and preservation for temporary and permanent impacts.

- c. Mitigation for the permanent loss of riparian habitat shall be provided by on-site preservation and enhancement of riparian areas at a 1:1 ratio or a higher ratio if required by USFWS or CDFG during the permitting process. A “higher ratio” may result in a less than 1 square foot by 1 square foot replacement on the ground if higher quality habitat than that affected by the Project is obtained.
- d. Riparian trees, if impacted and meeting the criteria set forth under Contra Costa County’s Tree Preservation and Preservation Ordinance, shall be removed only with permit approval, and shall be mitigated in accordance with the ordinance.

Mitigation Measure 4.4-10: To reduce the potential impact on jurisdictional wetlands or waters, and streambeds and banks, the following mitigation measures shall be implemented:

- a. Final Project design shall avoid and minimize the fill of wetlands and other waters to the greatest practicable extent.
- b. Areas that are avoided shall be subject to current Best Management Practices (BMPs) under the County’s most recent General National Pollutant Discharge Elimination System Permit (NPDES), including implementation of an effective Stormwater Pollution Prevention Program (SWPPP), presence of an on-site spill kit, and installation of silt fences along/around construction areas to inhibit soil movement into wetland features.
- c. Where jurisdictional wetlands and other waters cannot be avoided, the following measures shall apply:
 - 1) Construction activities in drainage channel crossings shall be limited to low-flow periods: approximately April 15 to October 15 to the extent practicable. Excavation and grading activities performed during the wet season (October 15 to April 30) shall be conducted in accordance with the conditions of Hydrology Mitigation Measure 4.10-3a. For channels or wetlands for which temporary soil removal is necessary, the top layer of the drainage or wetland bottom shall be stockpiled and preserved during construction. After Project construction, the stockpiled material shall be placed back into the drainage or wetland feature to return the beds to approximately their original composition.
- d. To offset temporary and permanent impacts that occur as a result of the Project, restoration and compensatory mitigation shall be provided through the following mechanisms:
 - 1) The square footage of impacted jurisdictional waters shall be determined based on the USACE-approved wetland delineation and during USACE permitting. The Applicant shall then purchase or dedicate land to provide for wetland preservation, restoration or creation at a 1:1 ratio, or a ratio acceptable to USACE and/or RWQCB. A “higher ratio” may result in a less than 1 square foot by 1 square foot replacement on the ground if higher quality habitat than that affected by the Project is obtained. On-site mitigation is preferred and shall be implemented where practical and feasible. Development rights to the on-site mitigation land shall be grant deeded to the County or another acceptable public agency.

- 2) If the Applicant restores and/or creates wetlands on site, the Applicant shall prepare a wetland mitigation and monitoring plan. The plan, developed by a qualified biologist in coordination with USACE, CDFG, and/or RWQCB, shall detail mitigation and monitoring obligations for temporary and permanent impacts to wetlands and other waters as a result of construction activities. The plan shall quantify the total acreage lost and describe the following: mitigation ratios for lost habitat; annual success criteria; mitigation sites; monitoring and reporting requirements; and site-specific plans to compensate for wetland losses resulting from the Project.
- 3) The Applicant shall submit the wetland mitigation and monitoring plan to the appropriate regulatory agencies for approval (e.g., USACE, CDFG, and/or RWQCB).

4.5 Cultural Resources

In response to East Bay Regional Park District Comment 2-5, Mitigation Measure 4.5-2a, set forth in DEIR Section 4.5.6 (p. 4.5-19), is revised to clarify that the archaeological sensitivity instruction required by the mitigation measure specifically shall address the sensitivity of the resources at Vasco Caves:

Mitigation Measure 4.5-2a: Project personnel, including construction crews, shall be alerted to the archaeological sensitivity of the Project area and the importance of protecting cultural resources. Project personnel shall be required to attend a mandatory on-site instruction led by a qualified archaeologist and a Native American representative that discusses what types of cultural materials are and could be present in the Project area. The instruction shall include appropriate training to identify and protect cultural resources in the event that they are inadvertently unearthed. All Project personnel shall be informed that they are prohibited from entering the adjacent Vasco Caves Regional Preserve property owned by the East Bay Regional Park District and that entry onto said property constitutes trespassing punishable by law. Information about the specific locations of ~~the area's~~ cultural resources on the Project site and in the surrounding area must shall be kept confidential and provided only on a need-to-know basis.

4.6 Energy Conservation

No change.

4.7 Geology and Soils

In response to a County staff-initiated text change, Mitigation Measure 4.7-4a, set forth in Section 4.7.6 of the DEIR (pp. 4.7.21, 4.7-22), is revised as follows to clarify the approach to performing the slope stability evaluation:

Mitigation Measure 4.7-4a: Site-Specific Slope Stability Evaluation. The Applicant shall perform a site-specific slope stability evaluation for project improvements that require grading or excavation in areas where slopes exceed 30 percent. The slope stability evaluation shall assess the localized potential for slope instability in these areas, and shall identify appropriate design and construction measures to incorporate into final project

plans. The site-specific slope stability evaluation shall include, but not be limited to, the following measures:

- a. Where landslides are confirmed within or immediately adjacent to planned improvements, provide a slope stability evaluation for static and pseudo-static conditions. The approach utilized shall be consistent with the California Geological Survey, 2008, *Guidelines for Evaluating and Mitigating Seismic Hazards in California* (CGS Special Publication 117A) or other generally accepted methodology. The project geologic consultant shall explain the methodology used and justify the assumptions that are made regarding the engineering properties of soil, rock and saturation.
- b. The slope stability evaluation shall provide specific geotechnical design measures to achieve long-term stability. These shall include, but will not necessarily be limited to, corrective grading of landslides or colluvial wedges that present the potential to effect improvements. Additionally, standard practices such as minimizing the amount of grading required in areas that are deemed to be stable in their existing condition; installing adequate drainage; avoiding grading activities and excavations during and immediately following periods of heavy rainfall; geotechnical monitoring of slopes for stability during construction; minimizing the gradient of engineered slope; following natural topography; and, salvaging topsoil for use during final grading to facilitate revegetation, shall be implemented during construction.
- c. For construction requiring excavations, such as foundations, appropriate support and protection measures shall be implemented to maintain the stability of excavations and to protect construction worker safety. Where excavations are adjacent to existing structures, utilities, or other features that may be adversely affected by potential ground movements, bracing, underpinning, or other methods of support for the affected facilities shall be implemented. Measures to support and protect excavations shall be identified in the slope stability evaluation and shown on the construction plans.

4.8 Greenhouse Gas Emissions

In response to information provided by the Applicant after the DEIR was issued about a change in amount and source of construction water (CH2M HILL, 2011), the greenhouse gas (GHG) emissions analysis in the DEIR is revised. It is assumed that water tanker trucks would haul the water from the canal to a water storage pond or tanks at the Project site where on-site water trucks would access the water for distribution throughout the site. It previously was assumed that the water trucks would be filled at Los Vaqueros Reservoir. Under the BBID scenario, up to 65 water tanker truck trips per day would occur during the peak of construction. For the purpose of estimating emissions that would be associated with the proposed changes, it is assumed that a total of approximately 5,850 water tanker truck trips would be required. The number of proposed water trucks that would operate on-site has also increased due to the Project revisions from two water trucks per day to 13 water trucks per day. In addition, it is anticipated that four 71 hp diesel-powered pumps would be required at the on-site water storage site and one 71 hp diesel-powered pump would be required at the canal extraction site.

The GHG emissions that would occur due to the increased trips and equipment use that would be required as a result of the revised water usage assumptions have been estimated and are presented below. Table 4.8-2 on DEIR page 4.8-9 is revised as follows to reflect the emission estimates associated with the revised construction water use assumptions. See Revised Appendix C, which is provided in **Appendix E**, Revised DEIR Air Quality Appendix C, for all revisions to the construction estimates.

**TABLE 4.8-2 REVISED
PROJECT GHG EMISSION ESTIMATES**

Source or Activity	Metric Tons			
	CO2	CH4	N2O	CO2e
Construction				
Existing Turbine Removal and Restoration of Turbine Sites	1,298	0.10	0.03	1,310
Road, Pad, and Collector Line Construction	3,074 <u>4,479</u>	0.26 <u>0.39</u>	0.08 <u>0.11</u>	3,400 <u>4,522</u>
Batch Plant	219	0.01	0.01	221
Turbine Installation	429	0.03	0.01	433
Restoration of Temp. Roads and Temp. Disturbance Areas	376	0.03	0.01	379
Water Use - Indirect Emissions	4 <u>18</u>	0.04 <u>0.03</u>	0.02 <u>0.08</u>	4 <u>18</u>
Off-site Vehicle Trips	2,264 <u>2,548</u>	0.04 <u>0.01</u>	0.02 <u>0.02</u>	2,266 <u>2,553</u>
Total	7,656 <u>9,365</u>	0.45 <u>0.61</u>	0.17 <u>0.27</u>	7,743 <u>9,435</u>
Amortized (per year for 30 Years) – Construction				257 <u>315</u>
Operation				
Circuit Breaker Leakage (per year)				23
Total Emissions – Operation (per year)				23
Total Construction and Operation Emissions				280 <u>338</u>
BAAQMD Significance Threshold				1,100
Significant Impact?				No

NOTES: Project construction exhaust emissions estimates were made using CARB's Offroad 2007 and EMFAC 2007 emission models. Equipment numbers and types are based on information provided by the Applicant and experience of the consultant. Water usage (indirect) is based on CEC, 2005; CCAR, 2009; and CCAR, 2009. See Appendix C for details. Emissions presented in the table for operations do not include those associated with maintenance of the Project. Project-related maintenance emissions would be similar to baseline-related maintenance emissions, and thus the potential increase or decrease in emissions associated with maintenance activities would be negligible.

As shown in Revised Table 4.8-2, GHG emissions would continue to be less than significant. The first paragraph on DEIR page 4.8-10 is revised as follows to reflect the revised emission estimates that include consideration of the new water usage assumptions.

With respect to emissions from maintenance activities, the baseline includes maintenance activities, including maintenance vehicle trips, at the existing wind energy facility; daily emissions associated with maintenance of the Project would be similar, and thus the

potential increase or decrease in maintenance-related emissions would be negligible. As shown in Table 4.8-2, total GHG construction emissions in the form of CO₂e would be approximately ~~7,713~~ 9,435 metric tons. These emissions amortized over a 30-year period equal approximately ~~257~~ 315 metric tons per year. Adding to that the operation emissions of 23 metric tons CO₂e per year, total Project GHG emissions would be approximately ~~280~~ 338 metric tons CO₂e per year, which would be substantially less than the BAAQMD's significance threshold of 1,100 metric tons CO₂e per year for non-stationary sources.

In response to a County staff-initiated text change, Mitigation Measure 4.8-2, set forth in DEIR Section 4.8.6, Discussion of Impacts and Mitigation Measures, on page 4.8-11, is revised as follows to clarify the timing of compliance:

Mitigation Measure 4.8-2: Low SF6 Leak Rate Circuit Breakers and Monitoring. ~~Prior to issuance of building permits for the substation, the~~ The Applicant shall ensure that the new circuit breaker installed at the proposed new substation has a guaranteed SF6 leak rate of 0.5 percent by volume or less. The Applicant shall provide Contra Costa County with documentation of compliance, such as specification sheets, ~~prior to installation of the circuit breaker.~~ In addition, the Applicant shall monitor the SF6-containing circuit breaker at the substation consistent with Scoping Plan Measure H-6 for the detection and repair of leaks.

4.9 Hazards and Hazardous Materials

No change.

4.10 Hydrology and Water Quality

In response to information provided by the Applicant after the DEIR was issued about a change in the source of construction water to serve the Project (CH2M HILL, 2011), DEIR Section 4.10, Hydrology and Water Quality (p. 4.10-17) is revised as follows:

The ~~Contra Costa Water~~ Byron Bethany Irrigation District would provide water necessary for Project construction ~~(Pappalardo, 2010).~~

In response to a County staff-initiated text change, Mitigation Measure 4.10-3b, set forth in DEIR Section 4.10.6 on pages 4.10-20 and 4.10-21, is revised as follows:

Mitigation Measure 4.10-3b: Prior to issuance of grading or building permits and initiation of construction activities for the Project, the Applicant shall ~~prepare complete~~ a Drainage Management Plan. The plan shall be submitted to the Contra Costa County Flood Control and Water Conservation District for review and approval as part of the Flood Control District's issuance of a Drainage Permit, as required by the County's 1010 Drainage Ordinance. ~~The and the Applicant shall be required to implement and adhere to the plan approved by the reviewing agency plan.~~ The plan shall include measures necessary to ensure that stormwater drainage from the proposed roadways, new substation, and other facilities is channeled into appropriately-sized drainage ditches, channels, culverts, stormwater retention ponds, and/or stormwater infiltration facilities. The plan shall require that all new or modified facilities are designed so as to ensure no net increase in stormwater

discharge rates, flow velocities, or sediment transport would result from Project implementation, and that discharges from these facilities are designed so as to avoid concentrating of flow and subsequent downstream scouring or sedimentation. Proposed roadways shall be designed so as to ensure that potential for slope failure and erosion is minimized. The Drainage Management Plan shall be incorporated into all design drawings and specifications as appropriate.

4.11 Land Use and Planning

No change.

4.12 Mineral Resources

No change.

4.13 Noise

In response to information provided by the Applicant after the DEIR was issued about a change in amount and source of construction water (CH2M HILL, 2011), the noise analysis in the DEIR is revised. It is assumed that operation of one 71 hp pump would be required at the canal extraction site just north of Camino Diablo Road, on the west side of the canal. The closest residence to this location is located on the south side of the road, at a distance of approximately 100 feet. It is assumed that water extraction activities would occur during daytime hours for a period of approximately 8 months.

To disclose the location of the nearest residences to the proposed water extraction site, the following revisions have been made to paragraph 3 of the sensitive receptor discussion on DEIR page 4.13-7.

The next closest offsite sensitive receptors to a location of a proposed permanent feature of the Project are residences off Vasco Road, approximately 0.8 mile (approximately 4,300 feet) south-southeast of the nearest proposed turbine location and approximately 0.8 mile (approximately 4,200 feet) south-southwest of the nearest turbine to be removed. Other residences are off Dagnino Road, approximately 1.0 mile south-southwest of the nearest proposed turbine location, and off Morgan Territory Road, approximately 1.5 miles to the southwest of the nearest proposed turbine location (see Figure 4.13-2). The closest sensitive receptor to the proposed construction water extraction point off Camino Diablo Road is located on the south side of the road, at a distance of approximately 100 feet.

The following revisions have been made to paragraph 2 of the discussion of Impact 4.13-2 (DEIR, p. 4.13-16) to acknowledge the short-term impacts that would result in the vicinity of the water extraction site.

In addition, during the peak period of construction, it is anticipated that approximately 100 daily round trips related to material hauling and commuting workers would raise ambient noise levels along Vasco Road. Up to 65 daily round trips related to water hauling also would

raise ambient noise levels along Camino Diablo Road and Vasco Road. These Project-related trips would represent a less-than-one-percent increase to the existing average daily traffic volume on Vasco Road and would likely result in a short-term L_{dn} increase along the road of less than one dBA. Daily existing traffic data are not available for Camino Diablo Road; however, it is anticipated that proposed trips associated with water tanker trucks would be substantially less than existing traffic levels. Table 4.13-2 provides typical noise levels produced by various types of construction equipment and vehicles that would be required to construct the Project.

The following paragraph has been added before the last paragraph on DEIR page 4.13-17 to acknowledge the short-term impacts that would result in the vicinity of the water extraction site.

With regard to noise that would occur at the construction water extraction site, the water pump and passing water tanker trucks would generate noise levels up to 70 dBA and 82 dBA at 100 feet, respectively. These noise sources would likely increase ambient daytime noise level conditions in the area and would represent a potential nuisance to nearby residences. However, implementation of Mitigation Measure 4.13-2 would ensure that short-term pump and truck noise impacts in the vicinity of the water extraction site would be reduced to a less-than-significant level.

The first full paragraph under DEIR Noise Table 4.13-2, Typical Noise Levels from On-site Construction Equipment and Vehicles, states that “it is reasonable to assume that nighttime on-site truck deliveries could occur within 4,000 feet of existing residences, potentially exposing residents to exterior nighttime construction-related noise levels in excess of 40 dBA as a result of delivery truck engine sounds, brakes and back-up alarms” and concludes that this “would be a significant impact.” Accordingly, DEIR Mitigation Measure 4.13-2 would require: “The Applicant construction contractor(s) shall prohibit all nighttime deliveries on any portion of on-site access roads within 4,000 feet of residences” and do other things to address the impact. However, in the context of Transportation/Traffic Impact 4.17-1, page 4.17-11 of the DEIR states, “It is probable that Contra Costa County Public Works Department... would require that delivery of large turbine components occur during nighttime hours (due to the need for temporary closure of Vasco Road during those deliveries, and the impact on traffic flow conditions if the road were closed during daytime hours).” To rectify this conflict, County staff initiated the revision set forth below to Noise Mitigation Measure 4.13-2, found on DEIR, page 4.13-18. This mitigation measure also is revised to address potential noise impacts related to water extraction from BBID Canal 45 (CH2M HILL, 2011):

Mitigation Measure 4.13-2: The Applicant ~~construction contractor(s)~~ shall schedule prohibit all nighttime deliveries at Gate 5 to ensure a free flow of truck traffic. Trucks making nighttime deliveries at Gate 5 shall proceed directly into the Project site without stopping, idling, or queuing on any portion of onsite access roads within 4,000 feet of residences. Use of compression release engine brakes (also known as “Jake brakes”) shall be prohibited within 4,000 feet of any residence. In addition, all on-site nighttime delivery routes shall be planned in a fashion that ~~would~~ eliminates the need for delivery trucks to drive in reverse, ~~thereby in order to~~ eliminating after hours back-up alarm soundings. For example, the

nighttime delivery drop-off staging area shall include an access road loop and all drivers shall be instructed to use the loop as opposed to ~~to not driving~~ in reverse at the staging area.

The Applicant shall install a noise shield that would block the line of sight between the water extraction pump at Camino Diablo Road and the nearest residences, all water extraction activities shall be limited to approved daytime hours, and water tanker trucks shall not idle at the water extraction and delivery sites.

4.14 Population and Housing

No change.

4.15 Public Services

No change.

4.16 Recreation

No change.

4.17 Transportation/Traffic

In response to information provided by the Applicant after the DEIR was issued about a change in amount and source of construction water (CH2M HILL, 2011), the transportation/traffic analysis in the DEIR is revised. It is assumed that water tanker trucks would haul the water from the canal to a water storage pond or tanks at the Project site where on-site water trucks would access the water for distribution throughout the site. It was previously assumed that the water trucks would be filled at the reservoir. Up to 65 water tanker truck round trips per day would occur during the peak of construction and it is assumed that a total of approximately 5,850 water tanker truck roundtrips would be required throughout the duration of construction. The increased trips that would be associated with the water extraction activities would represent less-than-significant short-term construction-related congestion and traffic hazards impacts with implementation of Mitigation Measure 4.17-1 and Mitigation Measures 4.17-2a through 4.17-2c.

To reflect the trips that would be associated with the water tanker trucks, the following revisions have been made to DEIR pages 4.17-8 and 4.17-9.

Activity associated with decommissioning of existing wind energy facility components and delivery of construction materials and equipment would require a total of about ~~16,964~~ 22,814 fully loaded one-way truck trips (see Table 4.17-3), for a total of about ~~33,928~~ 45,628 one-way truck trips (half loaded and half empty) over the 10-month construction period (two months for decommissioning and eight months for construction).

Construction of Project roads, facilities, communication lines, and electrical infrastructure would occur at about the same time, using individual vehicles for multiple tasks. Assuming (conservatively) that construction material deliveries from external sources would occur over

TABLE 4.17-3 REVISED
ESTIMATED TOTAL TRUCK TRIPS FOR PROJECT CONSTRUCTION

Purpose for Truck Load	Truck Loads
Remove Decommissioned WTG Components (Assumes 438 WTGs)	876
Deliver WTG Components (Assumes 50 WTGs)	850
Road and WTG Foundation Construction and other Construction Related Materials	5,203
Crane Delivery and Removal	15
Deliver Substation and Interconnection Components	20
Deliver Aggregate for road construction, WTG foundations, and the Jackson Substation	10,000
<u>Water Extraction along Camino Diablo Road</u>	<u>5,850</u>
Total Large Truck Loads	16,964 <u>22,814</u>
Total One-Way Truck Trips (one inbound and one outbound, to and from the site)	33,928 <u>45,628</u>

SOURCE: Vasco Winds, LLC, 2010, Table 3-8

the 8-month construction period at 20 workdays per month, an average of about ~~206~~ 285 one-way truck trips per day (i.e., ~~403~~ 143 trucks generating one trip to the Project site and one trip away from the Project site) would be added to background traffic volumes on area roadways. For purposes of this conservative analysis, it is assumed that the peak number of daily truck trips could be twice the average number (i.e., up to about ~~412~~ 530 one-way truck trips per day). (Using the same 20 workdays per month assumption, during the 2-month decommissioning period, an average of about 44 one-way truck trips (i.e., 22 trucks making one inbound and one outbound trip) would be added to area roadways per day.)

In addition, the following revisions have been made to the first sentence on DEIR page 4.17-11 to reflect the proposed increased truck trip amount.

As described in the impact methodology section above for activity during the construction period, on average, daily truck trips would total approximately ~~403~~ 143 round trips (~~206~~ 285 one-way trips), with peak generation of about ~~412~~ 530 one-way trips. Under this assumption, truck trips scheduled throughout the day to deliver and remove materials from the Project site would average approximately ~~26~~ 33 one-way trips per hour.

The following revisions have been made to the last paragraph on DEIR page 4.17-11 (which continues onto page 4.17-12) to reflect the proposed increased truck trip amount.

The existing volume of traffic on I-580 is shown on Table 4.17-1. In the stretch of highway on either side of the Vasco Road exit, the average daily traffic volume is about 162,500 vehicles to the west and 138,000 vehicles to the east. Even if all of the up to (peak) 504 daily Project construction trips (excluding the water tanker truck trips that would definitely not use I-580) were to use I-580, this level of short-term traffic increase would

represent less than one percent of the existing traffic volume; as such this would not be a substantial traffic increase on I-580.

The following revisions have been made to the sentences 2 and 3 of paragraph 2 on DEIR page 4.17-12 to reflect the proposed increased truck trip amount.

Compared to the existing average daily traffic of about 19,300 vehicles on Vasco Road (see page 4.17-3), the peak level of Project-generated traffic would represent no more than a three to four percent increase in daily traffic. On an hourly basis, this would represent up to an additional 38 trips per hour (by commuting construction workers), and about ~~26~~ 33 trips per hour by large trucks (if they were to happen during an eight-hour, day-time period); see above for a discussion of anticipated nighttime deliveries).

In response to a County staff-initiated text change, the first sentence of Mitigation Measure 4.17-1, set forth in Section 4.17.6 of the DEIR on page 4.17-13, is revised as follows:

Mitigation Measure 4.17-1: Prior to ~~the~~ starting of construction-related activities, the Applicant shall prepare and implement a Traffic Management and Safety Plan that will reduce or eliminate impacts associated with the Project. The plan shall adhere to Contra Costa County and Caltrans requirements, and must be submitted for the review and approval of the Contra Costa County Public Works Department prior to implementation. In preparing this plan, the Applicant shall take into account the cumulative traffic impacts of the overlapping construction schedules of the Contra Costa County's Vasco Road Safety Improvements Project, the Tres Vaqueros Windfarm Project, and any other projects in the area that could combine with the Project to create cumulative traffic impacts. The traffic management plan shall include, at a minimum, the following elements:

Part A - Scheduling and Delivery Requirements. To the maximum extent feasible, schedule Project-related construction truck trips on Vasco Road, State Route 4, and State Route 4 Bypass outside the peak morning and evening commute hours. Restrict slow-moving trucks to nighttime deliveries if required by the Contra Costa County Public Works Department or other agency, such as Caltrans, the California Highway Patrol, the State Route 4 Bypass Authority or the Alameda County Public Works Department, that has jurisdiction over a portion of the haul route. Implement road closures during delivery of oversized loads as directed by any agency with jurisdiction over the haul route.

Part B - Permits. Comply with transportation permit requirements of the Contra Costa County Public Works Department, Caltrans, the California Highway Patrol, the State Route 4 Bypass Authority, and the Alameda County Public Works Department for Project-related construction truck trips carrying oversized loads. Implement a road closure in Contra Costa County by submitting a road closure approval request to the Contra Costa County Public Works Department at least two months prior to the planned closure. Contact the other agencies listed above regarding authorization for road closures within their jurisdictions and submit copies of road closure requests within those jurisdictions to the Contra Costa County Public Works Department.

Part C - Coordination with County Projects. Coordinate Project-related construction activities with activities related to Contra Costa County projects on Vasco Road.

Contra Costa County projects, such as the Vasco Road Safety Improvements Project, shall have priority access at all times, and the delivery of oversized equipment and other heavy equipment shall be scheduled around Contra Costa County projects, which might limit the delivery hours.

Part D - Emergency Services Notification. Provide a minimum of five days advance notification to local police, fire, and emergency service providers of the timing, location, and duration of construction activities that could affect the movement of emergency vehicles on area roadways. The names and 24-hour contact numbers of the Project superintendent and foreman shall be included as part of the advance notification. The County Public Works Department's resident engineer(s) for Vasco Road projects shall also be provided with the advance notification.

Part E - Signage. Place signs along appropriate roads throughout the duration of the construction period to notify drivers of the presence of construction traffic. At a minimum, signs shall be placed along Vasco Road, SR 4, SR 4 Bypass, and Camino Diablo.

In response to a County staff-initiated text change, Mitigation Measure 4.17-2b and -2c, set forth in Section 4.17.6 of the DEIR on page 4.17-15, are revised as follows to clarify the agency with approval authority in the instances noted:

Mitigation Measure 4.17-2b: The Applicant shall be responsible for repairing all damage to Contra Costa County and Alameda County roads resulting from construction activities. Prior to issuance of grading, building, or encroachment permits, the Applicant shall prepare a plan for mitigating construction-related road damage within both counties. The plan shall be submitted for the review and approval of the Contra Costa County Public Works Department ~~Zoning Administrator~~ and shall include, at minimum, the following elements:

Part A - Haul Routes. Indicate roads to be used as haul routes. An exhibit shall be provided that shows haul routes and county lines.

Part B - Road Survey and Monitoring. Perform pre- and post-construction surveys of the approved haul routes in order to document their condition before and after Project construction. Monitor roads during Project construction to identify any damage that requires immediate repair.

Part C - Financial Security. Provide a security, such as a bond or other acceptable instrument, to ensure that funding is available to undertake any necessary road repairs. The Applicant shall calculate the amount of the required security and submit the calculation to the Contra Costa County Public Works Department ~~Zoning Administrator~~ for review and approval.

Mitigation Measure 4.17-2c: If any severe road damage results from construction activities, especially damage that would make the impacted road unsafe to the public, then the Applicant shall complete necessary repairs immediately, per the direction of either the Contra Costa County or Alameda County Public Works Department ~~or Alameda County~~, depending on the agency having who has jurisdiction over the damaged road segment. Emergency road repairs shall be completed at the Applicant's expense. Any potentially hazardous road segment must be flagged until the road is repaired.

4.18 Utilities and Service Systems

In response to information provided by the Applicant after the DEIR was issued about a change in amount and source of construction water (CH2M HILL, 2011), the utilities and service systems analysis in the DEIR is revised. The Project revisions are associated with an increase in total construction-related water use from approximately 10 million gallons to 50 million gallons and a change in the water source from CCWD to BBID. The BBID issued a permit to the Applicant on March 17, 2011, for this purpose. Accordingly, sentence 4 of the discussion of criterion d) (DEIR, p. 4.18-5) is revised to reflect the proposed changes. These changes would result in no impact relative to criterion d) because sufficient water supplies are available to serve the Project and no new or expanded entitlements are required.

Up to 540,000 gallons of water would be used for facility-related concrete. Approximately ~~10~~ 50 million gallons (~~30.7~~ 146 acre-feet) of water would be applied by tanker trucks to roads and construction areas during the construction process for road compaction and to reduce dust from trucks and other construction activities. The Byron Bethany Irrigation District ~~Contra Costa Water District~~ would provide water necessary for Project construction (~~Pappalardo, 2010~~).

3.3.6 Chapter 5, Other CEQA Considerations

In response to CCWD comment 1-14, the discussion of Impact 5-1 in DEIR Section 5.4.3.1, Aesthetics, page 5-12, paragraph 2, last sentence is revised as follows:

~~Impacts to views from the Vista Grande Trail, and the Morgan Territory Regional Preserve, and the Los Vaqueros Marina would remain significant and unavoidable would be reduced to less than significant with implementation of Mitigation Measure 4.1-2, while impacts to the marina would remain significant and unavoidable.~~

3.3.7 Chapter 6, Alternatives Analysis

DEIR Section 6.5.4, Alternative 3: Revised Siemens Alternative, and DEIR Figure 6-3, Alternative 3 – Siemens Layout, are inconsistent: Although Figure 6-3 shows optional WTG locations on the two CCWD conservation easement parcels, the text on page 6-26 states, “The new Siemens WTGs would be installed within the same footprint as the Project, except that no new turbines would be installed on the CCWD lands identified in Table 6.5-2 [i.e., APNs 005-050-002 and 005-060-002, which constitute the conservation easement lands] and on-site roads would be realigned to reduce impacts of the Project by avoiding landslide-prone areas, special-status species habitat and jurisdictional waters of the United States.” The figure correctly depicted Alternative 3. The following clarification has been made to the text on page 6-26:

The new Siemens WTGs would be installed within the same footprint as the Project, except that ~~no new turbines would be installed on the CCWD lands identified in Table 6.5-2 and~~ on-site roads would be realigned to reduce impacts of the Project by avoiding landslide-prone areas, special status species habitat and jurisdictional waters of the United States.

3.3.8 Chapter 7, Report Preparation

No change.

3.3.9 Chapter 8, Glossary and Acronyms

No change.

3.3.10 Chapter 9, References

The following reference has been added to the Final EIR to reflect changes to the Section 4.3, Air Quality.

California Air Resources Board (CARB), 2008. *Frequently Asked Questions – Airborne Toxic Control Measure for Stationary Compression Ignition Engines, Requirements for Stationary Engines Used in Non-Agricultural Applications*, December 2008.

